Brief for GSDR 2015

Transforming Higher Education for Sustainable Development

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Related Sustainable Development Goals	
Goal 04	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
Goal 09	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 12	Ensure sustainable consumption and production systems
Goal 16	Promote peaceful and inclusive societies for sustainable development provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development

Introduction

At the Rio+20 conference the cooperation between science and policy was highlighted. A full list of recommendations was given in the "The Future We Want" outcome document, expressing the need for strengthening the collaboration between science and policy as well as the necessity of fostering international research collaboration so as to support sustainable development of society in the near future (paras. 48, 85(k), 88(d), United Nations General Assembly, 2012). Serving the same purpose, yet via different means the call for education for sustainable development was highlighted. Capacity building and development of sustainability competences are crucial for the present and future generations in terms of their acting and interacting in a sustainable manner (paras. 62, 229-235, United Nations General Assembly, 2012).

Through their education, research, and operations roles, higher education institutions (HEIs) create a societal impact that shows a strong potential to act as leverage point for sustainable development locally and globally (Sedlacek, 2011). They can be

seen as essential drivers of education for sustainable development (ESD) and constitute fundamental vehicles to explore, test, develop and communicate conditions for transformative change (Rammel et al. 2015). Yet, in order to be truly transformative, higher education needs to transform itself (Fadeeva et al., 2014a; Rio+20 Treaty on Higher Education, 2015). Therefore, international as well as institutional stakeholders are demanded to rethink HEI and support policies that foster a substantial change in higher education for sustainable development.

Transformative Higher Education

For more than twenty years, HEIs from around the world have been elaborating and implementing different methods to integrate sustainability into their education, research operations, and in- and outreach activities. Beginning with the Talloires Declaration in 1990 (Lozano et al., 2014; Talloires Declaration, 1990), in addition to other recent declarations like the Rio+20 Higher Education Treaty as well as the Nagoya Declaration on Higher Education for Sustainable Development from November 2014, all call for a transformation of higher education in order to better foster sustainable development through an institution-wide approach that reflects all of the different roles and dimensions of HEIs. Today the UN Sustainable Development Goals as well as the UN Global Action

Programme on Education for Sustainable Development (Aichi-Nagoya Declaration, 2015) are adding to the call for engagement of HEIs.

Yet even though the call is clear, holistic actions are still lagging behind (Lozano et al., 2014). HEIs have just started to implement sustainability into their education, research and operations programs. Additionally, many of these activities are limited to "greening campus" initiatives, or the integration of sustainability related topics into existing curricula or research. But transforming HEI and society requires a whole institution approach that brings sustainable development into the mainstream of education, research and operations. This mainstreaming is only achieved, when the idea of sustainability is accepted and integrated into a university's culture and its day-to-day operations (Lozano, 2006).

Knowledge from various disciplines needs to be reflected in sustainability science (Barth, Michelsen, 2013), and through transdisciplinary approaches HEIs take up social challenges for research and education and collaborate with society in capacity building to enable transformations (Pohl, 2008; Schneidewind, 2014).

Transformations at the interface of Education, Research, Policy and Practice - Evidence from a global study on Higher Education for Sustainable Development
In a global study on Higher Education for Sustainable Development (Mader, Rammel, 2014), 425 higher education stakeholders from 101 countries responded and reported about their achievements and challenges. The study, carried out in collaboration with the International Association of Universities and financed by the Austrian Federal Ministry of Science, Research and Economy[1], was presented in September 2014 at the international Conference on Higher Education for Sustainable Development in Nagoya, Japan. It revealed that 42%

of respondents said that institutional and educational quality management is most influential in striving for institutional transformation towards sustainable development. A study respondent brought it to the point noting that as long as *"sustainability is not something that is assessed by the financer, higher education institutions would not move enough"* to mainstream sustainability into their education, research and operations programs. As a consequence, higher education policy is requested to adapt quality management and higher education assessment systems according to sustainability principles. Policy frameworks that reflect sustainability principles are crucial for implementing sustainability into the national, regional and global higher education system. Globally 45% of respondents say that they are inspired by policies to integrate sustainability into their institution. This aspect can be considered in combination with 41% of study respondents who say that regional challenges inspire the sustainability profile and activities of their institutions. This is also a sign for the importance of collaboration of HEIs with their regional communities and practice.

In the course of a factor analysis that investigated the source of engagement for sustainability at HEIs, community and students represent an essential group of enthusiasts that needs to
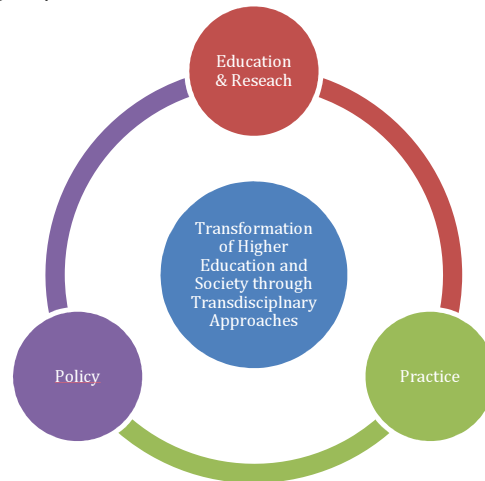

Figure 1: System transformation for sustainable development at education, research, policy and practice interface

be heard and empowered to take action for sustainability in higher education. Those facts also demonstrate the relevance of transdisciplinary education and research approaches at HEIs where (traditional) knowledge from practice finds its

influence in higher education and capacity building for sustainable development can take place between science, policy and practice. (Walter et al., 2007). As illustrated in figure 1, such transdisciplinary approaches build bridges of learning and transformation between research, education, policy and practice.

Good practices of such transformative collaboration at local and global level can be found among the United Nations University initiative of Regional Centres of Expertise on Education for Sustainable Development. During the past 10 years of the UN Decade on Education for Sustainable Development (2005-2014), more than 130 local networks of higher education institutions, schools, public and private institutions have been established to tackle local sustainability challenges through transdisciplinary approaches of learning and capacity building for sustainable development (Fadeeva et al. 2014b).

Enabling leadership for sustainability

Thus, it is among higher education's responsibility to build competences for sustainable development among students (Wiek et al., 2011) as well as among university educators to empower them to become leaders for sustainable development (Mader, Scott, Razak, 2013).

This empowerment has been demonstrated through capacity building, and professional development training programs that focus on inter- and transdisciplinary approaches of sustainable development education and research. Yet the European Commission funded project "University Educators for Sustainable Development" (UE4SD) revealed that among 33 European countries there is a big lack of professional training programs in education for sustainable development. An investigation among 33 countries showed that even though 16 countries report about national strategies or action plans on sustainable development or ESD, only 9 strategies call for professional development and only seven countries report about national or regional initiatives for professional ESD training (UE4SD, 2014). Consequently there is a big gap between what is told in national or regional strategies and what is done to empower people to act accordingly.

Policy conclusions:

In conclusion, to achieve related goals of drafted UN SDGs (see box at page 1), HEIs, and higher education policy needs to take action to change not only single curricula, research programs or waste systems within institutions but enable a whole of institution and system-wide transformation in collaboration with practice. This transformation would be enhanced by the following actions:

- Establishing transdisciplinary settings for research and education
- Aiming at capacity building and training to enable individual and collective leadership for sustainability in higher education
- Initiating the assessment of global, regional and local challenges so to link global challenges to regional context
- Establishing sustainability as base line for higher education policies at national, regional and global level.
- Applying an whole institution approach that reflects people's needs and competences
- Inspiring transformations at the interface of education, research, policy and practice.
- Supporting a stronger focus on transformative education and new ways of teaching and learning

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