OER-Based Capacity-Building in the Field of Climate Change and Energy

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Brief Bio
Franziska Wolf (B.A. int, BBA, MIBA), deputy head of the Research & Transfer Centre FTZ-ALS at the Hamburg University of Applied Sciences, coordinates and manages international climate change adaptation, sustainable energy and technology transfer projects in Europe, the ACP region and Asia. Research interests include climate change, adaptation and adaptive capacity, particularly in SIDS and LDCs, and education for sustainable development. Further interests include ICT4Development, i.e. the development of online learning courses and online conferences.

Abstract
Embracing ICT solutions can be a valuable crosscutting measure to raise awareness of climate change and address the lack of human capacity that constrains e.g. a quicker uptake of sustainable energy, especially in Small Island Developing States (SIDS).

This session highlights the need and addresses the opportunities for integrating climate change and energy access/energy security/energy efficiency into lifelong learning initiatives, e.g. by utilizing open educational resources (OER). OER offer free access to knowledge, enable self-determined learning and interaction and facilitate the international transfer of knowledge and skills. Thus, they can play an important role in strengthening and building human capacities in less developed regions of the world, e.g. where awareness of and knowledge about sustainable energy technologies and climate change are lacking.

In particular, the session seeks to present inspiring approaches and examples that involve the use of open educational resources but also further ICT technologies that enable wider dissemination, embrace new learning approaches and foster learning in a development context. Selected strategies, MOOCs and project examples demonstrate how these challenges are addressed and which solutions and sustainable approaches have been developed that may, in the long run, benefit the sustainable socio-economic development of highly vulnerable countries such as SIDS.

Description
Despite the need to reduce the heavy reliance on fossil fuels and the worldwide promotion of renewables and energy efficiency during the UN Decade of Sustainable Energy for All (2014-2020), the adoption of sustainable technologies appears to progress slowly across sectors and governance levels, in particular in the Global South. The reasons for the slow pace relate to the many barriers that hamper development and implementation, e.g. technical constraints, lack of finance and investment, limited knowledge and technology transfer etc. Human resources resemble a crucial bottleneck as a lack of qualified human resources hinders the introduction of renewable and energy efficient technologies as well as the wider application of appropriate technology and, even more importantly, maintenance of those technologies.
[EV04-CCI] OER-Based Capacity-Building in the Field of Climate Change and Energy

Description (Cont.)

Concerning capacity-building, e.g. in the field of sustainable energy, recommendations include lifelong learning measures such as dedicated capacity-building programs or the extension of curricula to better prepare learners for employment in green economic sectors. These short- and longer-term measures should focus on building interdisciplinary, multidisciplinary skills and knowledge as required in sustainability-related jobs. Interactive online learning, can offer great opportunities, especially for countries that can utilize ICT to cross-existing barriers to gain access to sources of further education.

Objectives

Justification and expected impact during and after the conference

It is hoped that the set of compact presentations of current and on-going initiatives trigger a lively discussion about the opportunities, but also constraints of using ICT-based lifelong learning solutions. Strengths and weaknesses of the showcased solutions will be discussed and their replication potential and/or utilization in other learning environments and for further target groups evaluated. Consistent with the need for more cross-sectoral interactions among the various stakeholders working at the interface of sustainable energy and sustainable education, the objectives of this session are as follows:

- to provide the proposed initiatives and projects (plus selected further speakers) with an opportunity to display and present their works in the field of climate change adaptation;
- to foster the exchange of information, ideas and experiences acquired in the execution of energy education projects, especially successful initiatives and good practice;
- to discuss methodological approaches and experiences deriving from case studies of initiatives and projects, which aim to show how OER may be implemented in practice;
- to network the participants and provide a platform so they can explore possibilities for cooperation.

Target Audience

Higher education institutions, NGOs, government representatives and further stakeholders engaged in education for sustainability and sustainable technology transfer

Proposed Program

To be finalized in January 2016.