A REGIONAL CENTER OF EXPERTISE IN THE RHINE-MEUSE –REGION

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A Regional Center of Expertise in the Rhine-Meuse –Region
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Abstract
Sustainable development makes clear the tension between ecological sustainability and socio-economic development. Culture, an other important dimension of sustainable development, tends to get less attention than economy and ecology but is very important as well. What sustainable development should look like and what has to be learned is determined by national or regional ecological, socio-economic, political and cultural conditions.
Sustainable development is a social learning process leading to paradigm shifts in many fields, among which science, policy and management, and education. Within the educational system sustainable development may be a driver for the innovation of learning environments and learning processes and in that context the innovative use of ICT instruments deserves to be explored. In this paper the RCE Rhine-Meuse initiative is presented as an example of a new approach to education for sustainable development.

Introduction: Sustainable development and globalisation
Historically sustainable development appeared on the agenda as the result of a political compromise between the so-called developed part of the world concerned about the consequences of patterns of production and consumption for the world ecosystems and the so-called developing part of the world concerned about economic development. The report ‘Our common future’ by the World Commission on Environment and Development (WCED 1987), a result of that compromise, makes clear that in relation to human activities it means dealing with the tension between ecological sustainability and socio-economic development. Culture, an other important dimension of sustainable development, tends to get less attention than economy and ecology but is very important as well. Culture could be described as a historically and geographically determined way of living together. Culture contributes to the identity and self-esteem of communities and individuals and to empowering them. A culture is always in interaction with other cultures and is continuously developing (UNESCO and UNU 2005). It will be evident that the cultural dimension of
sustainable development will be rather important at the regional/local level. This has implications for the appropriateness of development models and for the effectiveness of strategies for education for sustainable development. What sustainable development should look like and what has to be learned is determined by national or regional ecological, socio-economic, political and cultural conditions. In other words: sustainable development has many faces.

**Changing paradigms and working methodology**
Societal developments increasingly call into question the indisputable meaning of scientific knowledge and the usefulness of established practices in policy, administration and management, and education. One could speak of a joint process of search for new systems of checks and balances between the public domain, the private domain and civil society. In that environment of continuous change sustainable development should have an important place. There is not a single recipe for sustainable development, however. As was argued above, sustainable development is a multidimensional process with many different faces.

*Science*

In scientific approaches to sustainable development inter- and transdisciplinarity are most important. Scientists can’t operate only in their disciplinary domain but have to be part of more heterogeneous networks in which their scientific professionalism is part of a broader process of knowledge production (Gibbons 1994, Martens and van Dam forthcoming). For solving complex societal problems not only sound scientific knowledge is needed but societal knowledge and experience as well. During such a transdisciplinary type of knowledge generation different perspectives on a problem come together in a joint learning process during which new knowledge is shared and challenged in an interactive way. Key words in this respect are integration, participation, innovation and long term objectives.

*Policy and management*
Sustainable development also has consequences for working methodology in policy making, administration and management (Funtowicz and Ravetz 1993, Driessen and Glasbergen 2002, Kooiman 2003). In the old science/policy relation responsibility for knowledge of good scientific quality was largely with scientists while responsibility for solving societal problems was largely with governments and industry. The process of knowledge generation and problem solving were institutionally and methodologically separated. Scientific knowledge had an instrumental role: for solving societal problems and stimulating the economy objective, context-independent knowledge had to be translated into societal practice; social sciences were considered important in that respect. In sustainable development that separation disappears and the process by which diverse interest are weighed against one another during a joint learning process is a central issue. Implicit knowledge is made explicit, new knowledge is generated, shared and challenged, and new forms of governance emerge during in interactive process in which a broad range of actors is involved. Solving societal problems becomes a joint responsibility of scientists and societal stakeholders.

Education

Of course the social learning process called sustainable development must affect the way future professionals are educated and trained in higher education and the way life long learning is organised. Learners need to develop attitudes, knowledge and skills the traditional system of higher education often doesn’t provide. Professionals should possess integrative competences rather than disciplinary and rapidly outdated knowledge. Therefore in education competence development, a problem-oriented approach, authentic contexts and active, often collaborative, knowledge construction become more and more important. Learning for sustainable development asks for inter- and transdisciplinary approaches and the ability to work together in teams with persons from different disciplinary, social and cultural backgrounds. Learning environments in traditional – by which are meant disciplinary oriented – curricula have shortcomings in that respect. A key competence for individuals to successfully contribute to sustainable development will be in their ability to
think, communicate, learn and collaborate across the boundaries that divide the different perspectives. Learning environments in ESD should enable people to obtain such competencies (Kreijns 2004, de Kraker et al forthcoming).

In the book ‘Social learning; towards a sustainable world’ by Wals (Wals 2007) many interesting examples of learning processes relevant to sustainable development can be found. In the contribution of Wildemeersch (Wildemeersch 2007) to this book a number of social learning experiences in Western and non-Western contexts are analyzed as to factors influencing success and failure. In both cultures power mechanisms seem to be intervening with participatory learning processes. The author argues that social learning takes place in groups that operate in new, unexpected, uncertain and unpredictable circumstances and therefore social learning is action learning.

Within the educational system education for sustainable development may be a driver for the innovation of learning environments and learning processes. In education for sustainable development the focus should rather be on identifying competencies and developing appropriate learning environments than on defining the exact type of knowledge learners should acquire. In the philosophy of competence-based learning, ‘learning-by-doing’ is central, and this means, for example, that learning environments in which students work on sustainability issues in multidisciplinary or multiculturally composed groups are needed. In traditional learning environments, group work on projects in cross-boundary contexts is difficult to realize. It requires bringing students from different disciplinary, national and cultural backgrounds repeatedly together at the same time at the same place. e-Learning environments provide an almost ideal solution to this problem, as the modern ICT-tools they exploit allow time- and place independent communication and co-operation. The need for individual variation in competence development among learners has also consequences for the professional practices of teachers. In education for sustainable development the role of the teacher is that of a facilitator of the development of personal
competences, values, goals and motivations, not that of a leader imposing pre-set normative standards (cf. Mulder, 2006).

In the following RCE Rhine-Meuse, an example of a new approach to education for sustainable development, will be described.

**RCE Rhine-Meuse**

RCE stands for Regional Centre of Expertise on Education for Sustainable Development. RCE’s are an initiative of United Nations University (UNU) in the context of the United Nations Decade Education for Sustainable Development (UN DESD). An RCE is active in a region the dimension of which is such that people can meet and be home again on the same day. In other words, it has the dimension of human daily life. RCE activities cover all age groups in formal education and are aimed at building bridges between formal education and societal stakeholders (van Ginkel 2004, Fadeeva et al. 2005, van Dam-Mieras and Rikers 2005). At the same time RCE’s are nodes in a global network of RCE’s. In June 2005 7 RCE’s were recognised, in December 2006 35, and the number is steadily growing. It is the intention that towards the end of UN DESD this network has developed into a global learning space for sustainable development. The network is co-ordinated by the UNU Institute for Advanced Studies in Yokohama (www.ias.unu.edu).

Starting from the basic idea for an RCE an RCE initiative was launched in the triangle formed by the cities of Eindhoven (The Netherlands), Cologne (Germany) and Leuven (Belgium). This region is a so called Euregion, the Euregion Rhine-Meuse, within the European Union. The Euregion Rhine-Meuse has 4 million inhabitants divided over three different countries (Germany, Belgium, The Netherlands). For the EU strategic period 2007 – 2013 the Euregion Rhine-Meuse has formulated as regional development priorities ‘Economy, technological development and employment’, ‘Sustainable development’ and ‘Social Cohesion’.

The Open Universiteit Nederland, a university for distance education, and Hogeschool Zuyd, a university for applied science, both based in the town of Heerlen, the Netherlands, launched an RCE initiative in this Euregion Rhine-Meuse. RCE Rhine-Meuse was amongst
the first 7 RCE’s that were recognised in 2005. The objective of RCE Rhine-Meuse is to act as a hub for learning and ‘knowledge interactions’ on sustainable development issues.

Activities may be focussed on the learning process of individuals, but also on ‘knowledge interactions’ among actors such as research institutes, government bodies, community-based organisations and private companies. Deliberately the somewhat vague term ‘knowledge interactions’ is used here, because the classical concept of ‘knowledge generation’ in universities and research centres and the subsequent dissemination of knowledge to society is too limited for the generation of knowledge that is relevant to sustainable development in our present society. All actors in society can – and may even have to – contribute to the participatory process of context-embedded knowledge generation for sustainable development. By describing the RCE’s activities in this way, it is not suggested that the generation of scientific knowledge in accordance with an agreed upon scientific methodology is not relevant to sustainable development. On the contrary, it remains very important and is part of the core business of some of the RCE’s partners. However, the focus of the RCE is on knowledge generation in a regional societal context.

As to learning and education RCE Rhine-Meuse thinks in terms of processes at the individual and group/organisational level that take place in formal, non-formal and informal learning environments. Building bridges and initiating projects on sustainable development between regional actors are most important objectives of RCE Rhine-Meuse. RCE Rhine-Meuse will also contribute to awareness raising in civil society, because it wishes to convince all citizens that a more sustainable form of development than the present one begins with a sense of individual responsibility. To achieve its goals, the centre organises activities, projects, information channels and the like aimed at the range of target groups indicated above.

RCE Rhine-Meuse, like all RCE’s, is a node in a growing global RCE-network. This makes it possible to give learners the opportunity to cross not only different boundaries (disciplinary, cultural, national) within their own Rhine-Meuse region, but also boundaries to more remote places and cultures. Innovative use of ICT to facilitate human interactions is of course very important in the latter respect.
The nodal network

![Diagram of the nodal network with levels: Global Network, European Network, Regional Network.]

Figure 1: Interaction between different levels

The RCE Rhine-Meuse organisational structure

To help the RCE fulfil its ambitions, the Open Universiteit Nederland and Hogeschool Zuyd established a foundation with a small office to support the network. Other partners join the network to become active partners for either a short or a long period. Recently RCE Rhine-Meuse has merged with KidsLive! (www.kidslive.nl). For KidsLive! the creation of development chances for youngsters in formal and informal learning landscapes is core business. With the OPEDUCA-concept (creation of open education environments: www.opeduca.nl) KidsLive! works on joining forces between all actors in a socio-demographic region.

The organisational format for RCE Rhine-Meuse was developed starting from the assumption that an effective organisation is an ideal mix of individuals, capital and
processes for achieving certain preset objectives in a given societal context. What the ideal form for an organisation actually is depends on the objectives it intends to achieve and the societal context in which it operates. Given that continuous change is perhaps a most constant factor in today’s globalizing society, RCE Rhine-Meuse/KidsLive! believes that a flexible networking organisation managed from a small office is the ideal format. The main task of the co-ordinating office is to ensure smooth communication between partners and with the outside world. The projects, which form the real core of the RCE’s activities, are undertaken by the partners themselves. The effectiveness, the regional visibility of RCE Rhine-Meuse and its strength and outreach thus hinge on the activities performed by its partners. Such a format allows the organisation to operate at the lowest possible level of overhead costs. But only a co-ordinating office is not enough of course to develop the RCE Rhine-Meuse strategy and to create regional visibility. Therefore also a Board of Management and a Strategic Advisory Board are installed. The Board of Management forms the network’s legal and administrative core. The Strategic Advisory board can be seen as a ‘think tank’ that has the task to develop the RCE’s strategic and policy plans and ensures that these meet the needs of the region. Safeguards in relation to both academic quality and stakeholder participation are needed so as to guarantee a lasting commitment on the part of regional actors.

Some examples of RCE Rhine-Meuse initiated projects are:

- A feasibility study carried out by technology partners and the regional police force for the introduction of a mix of Hydrogen and Compressed Natural Gas (HCNG) as an alternative fuel for police cars
- A bundle of essays about entrepreneurship and sustainable development as a guiding principle for future corporate development
- A project on the introduction of biodegradable plastic as an economically sound and competitive alternative; co-operation between RCE Rhine-Meuse and RCE Penang, Malaysia, is part of this project
• Creation of a virtual regional learning space were formal, non-formal and informal learning can be connected

• Building futures for school drop-outs

The RCE Rhine-Meuse activities will almost certainly stimulate creative processes in relation to learning environments and learning processes in the higher education institutes involved. For a university specialised in distance education like the Open Universiteit Nederland the developments leading to joining forces in a global learning environment can be seen as a logical next step after developing time and place independent learning at a national level. Therefore distance education methodology and innovative use of ICT instruments to support human interaction and activities can be most promising in education for sustainable development.

The authors think that the RCE initiative of United Nations University can be seen as an urgently needed contribution to Education for Sustainable Development.

**Literature**


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