

Master of Ecology, Module 501 Sustainability Research SuRe

Introduction to Sustainability Research with Case studies

Lecturers: Prof. Dr. Hartmut Koehler, Prof. Dr. Albert Ngakou (guest from partner University of Ngaoundéré, Cameroon)

Office UFT 2140, Tel 218-63303, eMail a13r@uni-bremen.de

Teaching form: Lecture / Seminar

Workload / Credit points: 6 CP;

Presence at the course: Lecture 28 h, Seminar 28 h; Individual studying: 124 h

Venue: UFT 0010, TUE-FRI, 15.10.-01.11.2013

Sustainability

Sustainability, what is it? Is it only a modern buzz-word or has it some significance? Certainly it has something to do with the quality of life of present and future generations. Ecologists can and should contribute to assure the maintenance and persistence of our life support systems. What are the challenges?

Background

We live in a changing natural and societal environment. Global change may become a threat. As ecologists we have expertise and tools to contribute to concepts of risk assessment, mitigation and adaptation. In the course we will develop an ecological perspective on the challenges and approaches, but we will also consider the cross cutting inter- and transdisciplinary aspects of sustainability science.

Aims

Based on the understanding of the problems and challenges, we want to grasp the tools available and learn from case studies. In your final presentation you will address a target specified group of your choice (e.g., policy makers, stakeholders, environmentalists, scientifically interested parties, ...). The presentation meets scientific criteria but also reaches a non-scientific audience. The course contributes to the professional qualification in scientific ecological consulting in the context of administration, e.g., of NGO's or the environmental UN-conventions, and also to qualification in education and research.

Organisation of the Course

Problem oriented learning: I want you to identify problems challenging the life support systems of our planet and to search for sustainable solutions – little steps, concrete ideas rather than genialic vague concepts. The complexity of the theme may lead to getting lost and to develop such vague ideas – we should avoid that!

Also I want you to practice discussion, short presentation and daily formulation of take home messages.

As you see from the schedule, the course has three overriding topics: (1) The problem, history, ecology; (2) Reactions, solutions; (3) Case studies.

How to prepare?

You start with general introductions on global change and sustainability chapters of ecology textbooks (best you browse a couple of hours the SUUB). You find a general assessment of the world's situation under (1) <http://www.maweb.org>.

Then you make yourself acquainted with Agenda 21 and the UN environmental conventions (climate, desert-soil, biodiversity). Since the conventions are more than mere documents but rather a process which started in 1992 (UNCED, Rio Conference), you should visit the web. This certainly takes some days to get a first overview! Desert-soils: (2) <http://www.unccd.int>, climate (3) <http://unfccc.int>, biodiversity (4) <http://www.biodiv.org>, <http://www.bfn.de>, Ecosystem Approach of CBD (5) <http://www.biodiv.org>.

Also, I request you to get a first idea of a “sustainability project” at the UFT:

(6) <http://www.uft.uni-bremen.de/Revitalisierung/profil.html>.

I posted a list of selected readings which are essential for the course.

On the first day I want you to contribute individually to a discussion on the topics:

- The meaning of sustainability (history, definition)
- Why sustainability research?
- Which of the above mentioned 6 websites addresses sustainability and in which context?

Requirements

- Regular attendance
- Interest in the topic and readiness to discuss because you prepared yourself; presentation of a paper for group discussion.
- Presentation of a topic of your choice (groups of 2 are possible): 15 min per person, 10 min discussion, summarizing handout of ONE DIN A4 page, font 11, line distance not less than 1,2 lines.
Due FRI Nov. 01.

Possible Topics for final presentation, focus: case studies

- Sustainable Energy concepts (focus on developing countries): theoretic background and case studies.
- Sustainability concepts in the EU (search for sustainability reports, Nachhaltigkeitsbericht).
- Sustainable coffee production (www.utamtsi.com)
Morin Kamga offers to inform you on his project in case you choose this topic.
- Sustainability research in Cameroon
You should co-operate with guest Prof. Ngakou from our partner university in Ngaoundéré (Cameroon).
- Analysis of soil degradation using DPSIR
- Analysis of ReviTec using the sustainability triangle and SWOT
- Concepts for sustainability research
- Gender and sustainability

And of course topics of your own choice!!!

The topics must be defined by Oct. 22 latest, better at the end of the first week.