

Focal Module Biodiversity and Conservation Management

Winter term 2014/15

Hours per week in class: 4 SWS, 6 Credits

Time (weekly): Mondays, 20 October 2014 – 14 February 2015, 14:15 - 15:45

Place (weekly): Lecture hall 4, Main Building of the Faculty of Life Sciences, Invalidenstr. 42, Berlin-Mitte

Please note: In addition to the weekly lecture, this course includes a one-weekend block seminar, a one-day excursion to a protected area, and an extended role game session, all with different times

Time (block): Saturday/ Sunday, 13-14 December 2014, 9:00 – 16:00

Place (block): Lecture hall 4, Main Building of the Faculty of Life Sciences, Invalidenstr. 42, Berlin-Mitte

Time (excursion): Monday, 10 November 2014, ca. 9:00 – 17:00 (t.b.c.)

Places (excursion): Lower Oder valley National Park (Nationalpark Unteres Odertal), Criewen and other places

About this course:

This course covers two closely intertwined topics, biodiversity and conservation management, and consists of several organisational parts:

In the main part of the course, organised in a **weekly seminar structure**, issues of governance and management of protected areas (PA) in developed and developing countries will be discussed. Students will become familiar with different regional, national, and international strategies of PA establishment, the underlying (conservation) principles, the various types and categories of PAs, as well as prominent forms of PA governance, policies, and management approaches. This will be accomplished by introducing selected planning, policy, and management issues for protected areas and illustrated by practical examples, from Germany and other European countries, from the United States of America, and from developing countries. Guest speakers from nature protection NGOs and organisations (e.g., Europarc) will be invited. Further, there will be a one-day excursion to the Lower Oder valley National Park (Nationalpark Unteres Odertal). Finally, in one extended session students will engage in a role game, assuming roles of regional stakeholders in a PA, identifying and agreeing on measures to overcome a local natural resource use conflicts.

Another part of the course is organised as a **block seminar**. It gives a comprehensive overview of different aspects of biodiversity and nature conservation governance and management in developing countries with a focus on sub-Saharan Africa. Biodiversity and ecosystems in developed and developing countries are perceived, valued, and managed differently, and hence demand for different conservation concepts. The influence of interrelated socio-economic, institutional, historic, and political contexts and dynamics on biodiversity and conservation management and governance in developing countries is illustrated in case studies, for example, two UNESCO Biosphere Reserves in Ethiopia. The development of a protected area and its mode of governance for a specific landscape and its biodiversity is always based on choices made by a large number of more or less informed and conscious actors with different needs and interests based on institutional frames. The block seminar will be a combination of lecture, decision-making experiments, active participation of students, group work, and presentations by the students.

The course is **designed more like a workshop** in which the students actively participate and contribute by exchanging opinions, discussing alternative viewpoints and case studies.

Learning objectives:

- Get knowledge of categories, types and socio-political developments of protected areas
- Learn about relevant international agreements and organisations at various levels
- Get an overview of policy instruments and governance approaches in protected areas
- Get insights into typical cases of protected area management worldwide
- Clarify the need and relevance of biodiversity economics: biodiversity loss; climate change; population growth
- Learn about the institutional drivers and values behind the shift towards an economics of biodiversity
- Develop an awareness and understanding of how economics of biodiversity can influence policies and actions
- Familiarize with historical and new currents in economic in order to better understand the historical context and challenges biodiversity conservation and management
- Acquire knowledge about different and partly conflicting perspectives in the economics of biodiversity
- Get to know creative, innovative, and collective responses to trade-off problems in biodiversity management and conservation
- Be introduced to a toolkit of value articulating institutions (methods) for decision-making in managing biodiversity.

Key qualifications:

- Integrating interdisciplinary knowledge on protected area management
- Transfer of abstract principles into practicable “real world concepts”
- Ability to cooperate and work in teams
- Creative, interdisciplinary and systemic thinking applied to conservation issues
- Scientific writing at high level

Preconditions for participation: Registering in Moodle is compulsory since all information is distributed by using this platform. The key word for this course will be provided in the first class on 20 October 2014.

Teaching format: Lectures, block seminar, group discussions, role game, and excursion

Target group: Students of the following Master courses: Integrated Natural Resource Management, Prozess- und Qualitätsmanagement, Rural Development, Horticultural Science, Fishery Science, Agrarökonomik, and Land- und Gartenbauwissenschaften

Examination:

- Joint homework paper (20 pages, Arial, font size 11, 1.5 spacing) as group work on case studies
- Oral presentation of results during 8th, 9th, 15th and 16th course unit

Teaching staff:

- Dr. Carsten Mann (Technische Universität Berlin, mann@ztg.tu-berlin.de) (coordinator)
- Dr. Christian Schleyer (Helmholtz Centre for Environmental Research (UFZ), Leipzig, christian.schleyer@ufz.de)
- Dr. Till Stellmacher (Center for Development Research (ZEF), University of Bonn, t.stellmacher@uni-bonn.de)
- Guest lecturers

Module plan:

Unit	Date	Topic
1	20.10.	Introduction to protected areas and the course / Governance and management of protected areas (C. Mann / C. Schleyer)
2	27.10.	Financing protected areas and valuing their economic benefits (C. Schleyer)
3	03.11.	Guest lecture on 'Protected area management in Germany' by Dr. Katja Arzt, Europarc – Umbrella organisation of large protected areas in Germany (C. Schleyer)
4	10.11. (9.00-17:00)	Excursion to Lower Oder valley National Park (Nationalpark Unteres Odertal) (C. Mann / C. Schleyer)
5	17.11.	Approaches to protected area planning / Designing networks (C. Mann)
6	24.11.	Conflicts around protected areas (C. Mann)
7	01.12.	Protected areas from an institutional economics perspective: Ecosystem services, property rights, and public / private transactions (C. Schleyer)
8/9 Block!	13.12.	Nature, biodiversity and ecosystems: what are we protecting and why? (T. Stellmacher)
	14.12.	The socio-cultural context for governing biodiversity and ecosystem services – a focus on developing countries (T. Stellmacher)
10	15.12.	Guest lecture on 'Economic valuation of biodiversity and Ecosystem services' by N.N. (C. Schleyer)
Christmas break		
11	05.01.	Guest lecture on "Insights into the Park management of Kruger National Park, South Africa" – (t.b.c.) (C. Mann)
12	12.01.	Guest lecture by Dr. Franz Gatzweiler (China) / Introduction to the role game (C. Schleyer)
13	19.01.	International agreements for protected areas (WHC, Ramsar Convention, CBD, EU Habitat Directive, etc.) (C. Schleyer)
14	26.01. (14.15-17:45)	Role game on natural resource use conflicts in a protected area (C. Schleyer / C. Mann)
15	02.02. (14.15-16:45)	Case study presentations (C. Mann)
16	09.02. (14.15-16:45)	Case study presentations (C. Schleyer)

Further reading:

Journals:

Conservation Biology
Conservation Letters
Ecology & Society
Environmental Conservation
Land Use Policy

Books and articles:

- Balmford A., Bruner, A., Cooper, P., Costanza, R., Farber, S., Green, R.E., Jenkins, M., Jefferiss, P., Jessamy, V., Madden, J., Munro, K., Myers, N., Naeem, S., Paavola, J., Rayment, M., Rosendo, S., Roughgarden, J., Trumper, K. & Turner, R.K. (2002). Economic reasons for conserving wild nature. *Science* 297 (5583): 950-953.
- Beltrán, J. & Phillips, A. (2000). *Indigenous and traditional peoples and protected areas: principles, guidelines and case studies*. Gland, IUCN. 133 p.
- Buck, L.E., Geisler, C.G., Schelhas, J. & Wollenberg, E. (2001). *Biological diversity: Balancing interests through adaptive collaborative management*. Boca Raton: CRC Press. 465 p.
- Caldecott, J. (1996). *Designing conservation projects*. Cambridge: Cambridge Univ. Press. 312 p.
- Costanza R., D'arce, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Naeem, S., Limburg, K., Paruelo, J., o'Neil, R.V., Raskin, R., Sutton, P. & van den Belt, M. (1997). The value of the world's ecosystem services and natural capital. *Nature* 387: 253-260.
- Costanza, R. (2006). Nature: ecosystems without commodifying them. *Nature* 443: 749.
- Daly, H.E. & Townsend, K.N. (1993). *Valuing the earth: economics, ecology, ethics*. MIT Press.
- Gatzweiler, F. (2004). *The Changing Nature of Economic Value: Indigenous Forest Garden Values in Kalimantan, Indonesia: v. 16* 1st ed. Shaker Verlag GmbH, Germany.
- Gatzweiler, F., Volkmann, J., Denich, M., Stellmacher, T., Gole, T., Senbeta, F. & Seyoum, A. (2008). Conservation of endangered *Coffea arabica*. Business 2010. Secretariat of the CBD, Quebec, Canada, Archive: www.cbd.int/business/newsletter.shtml.
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- Groom, M.J., Meffe, G.K. & Carroll, C.R. (2006). *Principles of conservation biology*. Sunderland: Sinauer Associates. 793 p.
- Groot, R.S. de. (1992). *Functions of nature: evaluation of nature in environmental planning, management and decision making*. Wolters-Noordhoff.
- Heal, G.M. (2000). *Nature and the marketplace: capturing the value of ecosystem services*. Island Press.
- Hein, L. & Gatzweiler, F. (2006). The economic value of coffee genetic resources. *Ecological Economics* 60: 167-185.

- Hunter, M. (2002). *Fundamentals of conservation biology*. Malden: Blackwell Science. 547 p.
- Kramer, R. (1997). *Last stand: protected areas and the defense of tropical biodiversity*. New York, Oxford: Oxford Univ. Press. 242 p.
- Kumar, P. (ed.) (2010). *The Economics of Ecosystems and Biodiversity. Ecological and Economic Foundations*. London, Washington: Earthscan.
- Lewis, C. (1996). *Managing conflicts in protected areas*. Gland: IUCN – The World Conservation Union. 100 p.
- Lockwood, M., Worboys, G. L. & Kothari, A. (2006). *Managing protected areas. A global guide*. London: Earthscan. 802 p.
- MacKinnon, J., MacKinnon, K., Child, G. & Thorsell, J. (1986). *Managing protected areas in the tropics*. Gland: International Union for Conservation of Nature and Natural Resources. 295 p.
- McCauley, D.J. (2006). Selling out on nature. *Nature* 443: 27-28.
- McNeely, J.A. (1995). *Expanding partnerships in conservation*. Washington, DC: Island Press. 302 p.
- O'Connor, M. & O'Connor, M. (2000). The VALSE project -- an introduction. Available at: http://econpapers.repec.org/article/eeeecolec/v_3a34_3ay_3a2000_3ai_3a2_3ap_3a165-174.htm.
- Pearce, D.W. & Turner, R.K. (1990). *Economics of natural resources and the environment*. Harvester Wheatsheaf.
- Primack, R.B. (2006). *Essentials of conservation biology*. Sunderland: Sinauer Associates. 585 p.
- Spash, C.L. & Hanley, N. (1995). Preferences, information and biodiversity preservation. *Ecological Economics* 12: 191-208.
- Spash, C. (2008). How Much is that Ecosystem in the Window? The One with the Bio-diverse Trail. *Environmental Values* 17(2): 259-284.
- Spash, C.L. (2010). Brave New World of Carbon Trading. *New Political Economy* 15(2): 169-195.
- Stolton, S. (1999). *Partnerships for protection: new strategies for planning and management for protected areas*. London: Earthscan. 283 p.
- Terborgh, J., van Schaik, C., Davenport, L. & Rao, M. (2002). *Making parks work. Strategies for preserving tropical nature*. Washington D.C.: Island Press. 520 p.
- Vatn, A. (2005). *Institutions and the Environment*. Cheltenham: Edward Elgar.
- West, P.C. & Brechin, S.R. (1991). *Resident peoples and National Parks. Social dilemmas and strategies in international conservation*. Tucson: The University of Arizona Press. 443 p.
- Western, D. & Pearl, M.C. (1989). *Conservation for the twenty-first century*. Oxford: Oxford University Press. 365 p.
- Wright, G. (1996). *National parks and protected areas: their role in environmental protection*. Cambridge: Blackwell Science. 470 p.

Useful addresses on the web:

Biodiversity Support Program: www.bsponline.org

Bundesamt für Naturschutz: www.bfn.de

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung: www.bmz.de

Convention on Biological Diversity: www.biodiv.org

Gesellschaft für technische Zusammenarbeit (GtZ): www.gtz.de

Global Environment Facility: www.gefweb.org

Man and biosphere program, UNESCO: <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-and-biosphere-programme/>

<http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=ETH+02&mode=all>

Society for Conservation Biology: www.conservationbiology.org

The Economics of Ecosystems and Biodiversity: <http://www.teebweb.org/>

The Nature Conservancy: www.tnc.org

The International Union for Conservation of Nature (IUCN): www.iucn.org

United Nations Environment Programme: www.unep.org

United States Agency for International Development: www.info.usaid.gov

US National Park Service: www.nps.gov

Worldbank: www.worldbank.org

Wildlife Conservation Society: www.wcs.org

World Conservation Monitoring Centre (WCMC) www.unep-wcmc.org

World Wildlife Fund: www.panda.org

Environmental valuation methods, alternatives:

http://www.unescap.org/drrpad/vc/orientation/M5_ink_9.htm

<https://www.msu.edu/user/schmid/mishra.htm>

<http://clivespash.org/eaev.pdf>

<http://www.ecosystemvaluation.org/1-02.htm>