

# Human Geography & Sustainability

## Monitoring, Modelling & Management





Welcome!



**Prof. Dr. Gordon Winder**

Economic Geography and  
Sustainability Research,  
Historical Geography



**Prof. Dr. Matthias  
Garschagen**

Urban Geography, disaster risk  
and climate change adaptation



**Prof. Dr.  
Henrike Rau**

Social Geography and  
Sustainability Research

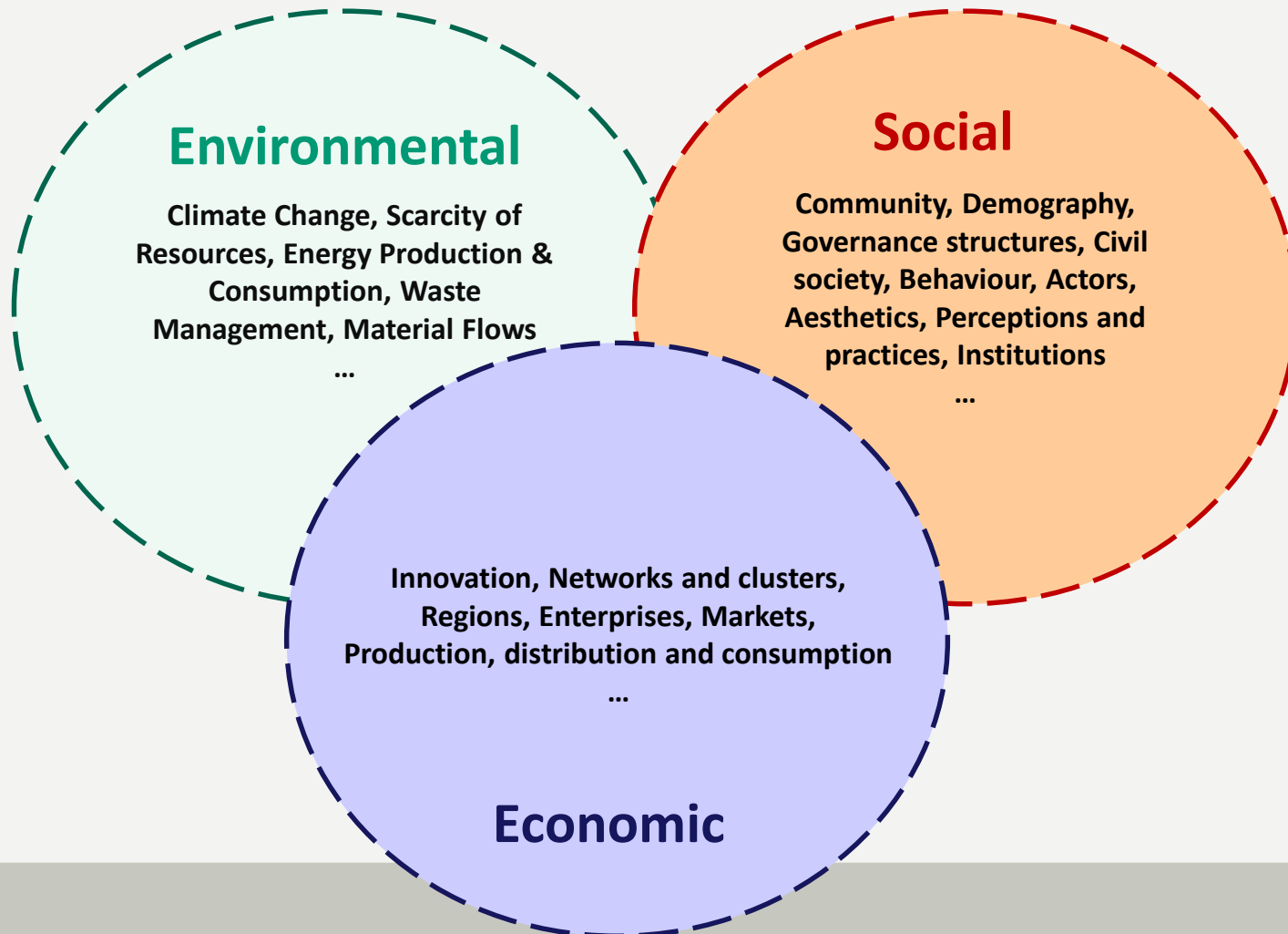
**Prof. Dr.**

**Johannes Glückler**

Economic Geographies of the Future, Institutions,  
Networks & Governance  
of innovation and economic change



## Three Dimensions of Sustainability



## Goals

The Masters programme confronts global, national, regional and local sustainability challenges regarding:

- Resource extraction and management
- Rural and urban development
- Consumption and value chains
- Tourism and mobility
- Climate change mitigation and adaptation
- Disaster risk reduction



Firewood, Berchtesgadenerland (Winder 2012)



Lignite mine, Greissen, Lausitz (East Germany)  
[http://scenariojournal.com/wp-content/uploads/2015/09/JHF\\_3402-139.jpg](http://scenariojournal.com/wp-content/uploads/2015/09/JHF_3402-139.jpg)



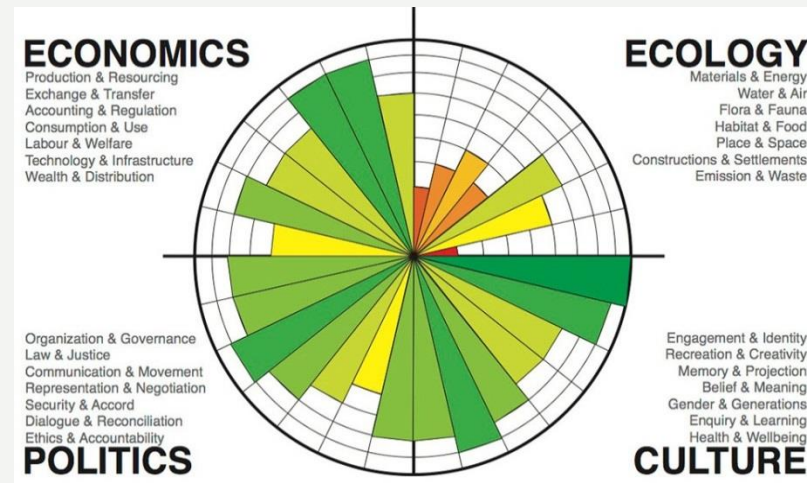
It equips students with the necessary skills to:

- Understand transitions towards sustainability
- Successfully apply different **geographical and inter- and transdisciplinary methods** for investigating past, present and future sustainability issues
- Effectively use both **established and emerging assessment and visualisation tools** to capture, analyse and display pressing sustainability problems



\*Biocapacity, Ecological Footprint, and land area are usually measured in gha (global hectares)

<http://www.zujiwangluo.org/wp/wp-content/uploads/2015/10/EF-English.png>



<http://blogs.rochester.edu/thegreendandelion/wp-content/uploads/2014/04/sustainable-measures1-980x600.jpg>

## SUBJECT -SPECIFIC SKILLS

### Knowledge of different theories and concepts concerning:

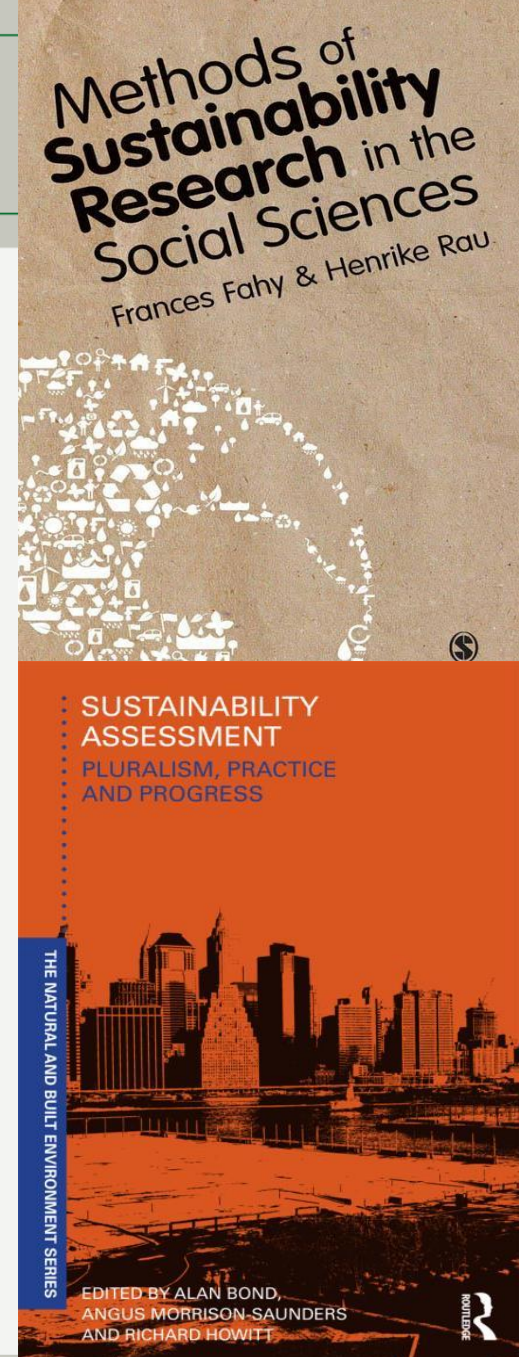
- Sustainability/sustainable development
- Sustainability transitions - people, processes & politics
- Sustainable use of land and natural resources
- Social & economic geographies of (un)sustainability
- Vulnerability, resilience and transformation

This requires **critical engagement with a wide range of relevant literature.**



## METHODOLOGICAL SKILLS

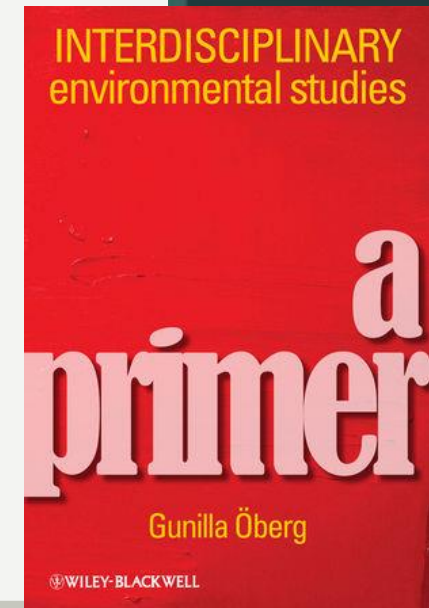
- **Investigation and visualisation** of social-environmental processes
- **Qualitative & quantitative methods** of data collection and analysis
- Statistical analysis of large data sets
- Sustainability assessment & trade-off analysis
- Scenario analysis and scenario planning
- Knowledge of **inter- and transdisciplinary research**
- Ability to apply methods to diverse fields of sustainability research





## SOFT SKILLS

- Competence in a range of methods & presentation skills
- Self-learning
- Time management
- Team work
- Moderation of discussions
- Interaction with non-academic partners during transdisciplinary projects



## Employment opportunities

- You will gain **in-depth knowledge of sustainability theory & analysis**, with a focus on perspectives from human & integrative geography
- Transdisciplinary project seminars in Year 1 and 2 will facilitate **contacts with practitioners & potential future employers**
- You will **gain experience researching real-world problems**
- Knowledge and understanding of social & economic aspects of sustainability are the basis for employment in science and practice
- Possible areas of employment include: ministries, agencies & planning offices; administration; research institutions; private companies; NGOs



*Wind farm, Schleswig-Holstein (Winder 2011)*



## Study Program Human Geography and Sustainability - Monitoring, Modeling and Management (M.Sc.)

	Subject	Methods	Training & Field	ECTS						
4. Semester	<p>P 14</p> <p>Finale Module - Master Thesis + Disputation (27 + 3 ECTS)</p>			30						
3. Semester	<p>P 12</p> <p>Land Use Systems and Land Use Conflicts [Landnutzungssysteme und Landnutzungskonflikte]</p> <p>L + S (3+3 ECTS)</p>	<p>WP 1-4</p> <table border="1"> <tr> <td>Applied Statistics</td> <td>Applied Qualitative Methods</td> </tr> <tr> <td>Applied Simulation Modeling</td> <td>Applied Sustainability Assessment</td> </tr> <tr> <td colspan="2">select 3 out of 4 S (each 3 ECTS)</td> </tr> </table>	Applied Statistics	Applied Qualitative Methods	Applied Simulation Modeling	Applied Sustainability Assessment	select 3 out of 4 S (each 3 ECTS)		<p>P 13</p> <p>Transdisciplinarity - Transdisciplinary Methods and Transdisciplinary Project</p> <p>S+S (3+12 ECTS)</p>	30
Applied Statistics	Applied Qualitative Methods									
Applied Simulation Modeling	Applied Sustainability Assessment									
select 3 out of 4 S (each 3 ECTS)										
2. Semester	<p>P 10</p> <p>Sustainability and Resources</p> <p>L + E (3+3 ECTS)</p>	<p>P 8</p> <p>Special Aspects of Geography and Sustainability - Trade-offs in Sustainability</p> <p>S (3 ECTS)</p>	<p>P 7.2</p> <p>Scientific Tools I - Sustainability Assessment</p> <p>S (3 ECTS)</p>	<p>P 11</p> <p>Simulation Modeling</p> <p>L + E (3+3 ECTS)</p>	<p>P 9</p> <p>Scientific Tools II - Proposal Writing and Project Seminar in Sustainability</p> <p>S + PS (3+6 ECTS)</p>	<p>P 6</p> <p>Field Trip in Sustainability</p>	30			
1. Semester	<p>P 1</p> <p>Concepts of Sustainability</p> <p>L + E (3+3 ECTS)</p>	<p>P 2</p> <p>Special Aspects of Geography and Sustainability - Concepts and Definitions</p> <p>S (3 ECTS)</p>	<p>P 3</p> <p>Special Aspects of Geography and Sustainability - Transition and Resilience</p> <p>S (3 ECTS)</p>	<p>P 7.1</p> <p>Scientific Tools I - Scientific Methods</p> <p>L (3 ECTS)</p>	<p>P 4</p> <p>Quantitative Methods</p> <p>L + E (3+3 ECTS)</p>	<p>P 5</p> <p>Qualitative Methods</p> <p>L+E (3+3 ECTS)</p>	<p>S + EX (3+3 ECTS)</p>	30		
ECTS	27		39		24	120				

- **Projektseminare** im 2. und 3. Semester
- **Kollaborationen mit Praxispartnern** (u.a. Unternehmen, MVG, Stadt München, Münchener Initiative Nachhaltigkeit – MIN)
- Intensive **Gruppenarbeit** und **Feldforschung**



## WEITERE INFORMATIONEN AUF UNSERER WEBSITE

[https://www.geographie.uni-muenchen.de/departement/fiona/studium/studiengaenge/master-human/flyer\\_humangeographie\\_msc.pdf](https://www.geographie.uni-muenchen.de/departement/fiona/studium/studiengaenge/master-human/flyer_humangeographie_msc.pdf)

**Bewerbungsfrist: 15. Juli 2024**

