M.Sc. “Integrated Natural Resource Management” (INRM)

An Introduction

Klaus Eisenack

Humboldt University Berlin
Resource Economics Group

www.resource-economics.hu-berlin.de, Phone: + 49-30-2093 46360

Please subscribe to the mailing list:
Empty mail with subject ‘subscribe inrm-imrd.thaer’ to ‘sympa@lists.hu-berlin.de’

Please direct general inquiries on INRM to:
inrm-master@hu-berlin.de
Challenges for sustainable development

• Loss of biodiversity, climate change, conversion of land use, ...
• Local, regional and global pollution
• Overexploitation and degradation of living and fossil resources
• Hunger, poverty and social exclusion
• UN Sustainable Development Goals (SDGs)
• These challenges...
  - ...are, in principle, well-known, ...
  - ...we know some fixes since decades, ...
  - ...but the goals are not achieved yet.
“The philosophers have only interpreted the world, in various ways; the point is to change it.” (Marx, 1988, Theses on Feuerbach)
Challenges for you

- Becoming up-to-date experts on these topics in the next two years
- Becoming more smart than analysts and decision-makers in the last decades
- Converting difficulties from working in an interdisciplinary and international group into an asset
- How mixed is your background?
  - Continent: (1) Americas, (2) Asia, (3) Africa, (4) Australia & Oceania, (5) Europe
  - Previous training: (1) natural sciences, (2) social sciences, (3) engineering, (4) humanities, (5) other?

Ø You will be studying in one of the most outstanding sustainability science clusters in Germany, probably in Europe
General notes: studying in Germany

- Compared to other countries:
  - Much freedom
  - Little guidance by professors

- Take your opportunities: you are mature students!
  - Study regulations (Studienordnung) give you many options/modules to choose from
  - Many modules let you enough time to choose your own emphasis in learning and personal development

- Deal with the limitations (66 stud. per prof., German avg.)
  - Prepare and rework lectures (not everything trained in presence time)
  - Prepare substantive questions to ask teachers during presence time
  - Self-organize and collaborate with other students
  - In the beginning of the semester, ask teachers about their expectations (tasks, examination)
Structure of INRM

1. Compulsory Modules ("Pflichtmodule", \(\approx 4\) courses / 24 ECTS)
2. Elective Compulsory Modules ("Wahlpflichtmodule", \(\approx 9\) courses / 54 ECTS), that need to cover
   - At least 3 out of 4 knowledge areas ("Wissensgebiete") of INRM
   - Two priority areas out of 6 ("Studienschwerpunkte", each \(\approx 3\) courses / 18 ECTS)
   - Optional student project (12 ECTS) can replace two Elective Compulsory Modules in the knowledge areas
3. Elective Compulsory Modules outside INRM ("Überfachlicher Wahlpflichtbereich", \(\approx 2\) courses / 12 ECTS)
4. Master Thesis (30 ECTS)

Plan your ECMs, but admit flexibility.
Compulsory Modules

Winter term, 1\textsuperscript{st} semester
- Institutional Economics and Political Economy

Summer term, 2\textsuperscript{nd} semester
- Ecosystems of Agricultural Landscapes and Sustainable Natural Resource Use / “Introduction to sustainable agricultural production 1”
- Environmental and Resource Economics

Winter term, 3\textsuperscript{rd} semester
- Soil and Water Protection / “Introduction to sustainable agricultural production 2”
Elective Compulsory Modules within the – 4 Knowledge Areas (KA)

- Natural Sciences Applied to the Use and Protection of Natural Resource Systems
- Social Sciences Applied to the Use and Protection of Natural Resource Systems
- Advanced Methodologies for Empirical Analysis of the Interaction of Social, Natural and Technical Systems
- Management of Environmental and Natural Resource Systems

Cover at least 3 KA, each with at least one module (= not more than 1 KA shall be completely unstudied in the end] usually easy to achieve
List of Priority Areas

I. Methodology and Modeling of Sustainability
II. Sustainable Production Processes
III. Sustainability Institutions and Policies
IV. Land and Water
V. Biodiversity and Nature Conservation
VI. Climate Change and Renewable Energy

Cover two of them

Need to be announced at Prüfungsamt at end of second semester
Composition of Priority Areas

- Two Priority Areas must be selected
- Decision about PA needs to be made not after 2\textsuperscript{nd} semester, but...
- This leaves 2-3 modules from the program for free choice

Each priority areas offers 4-5 modules
You need to chose at least three of them
(18 ECTS)
Priority Area 1: Methodology & Modeling of Sustainability

1. Human-Environmental Systems Interaction – KA III
4. Economics of Human Development – KA II
Priority Area 2: Sustainable Production Processes

1. Environmental Management and Information Systems – KA IV
3. Cooperation and Cooperative Organizations – KA II
4. Public Policy Analysis: Agriculture and Food Policy – KA III
Priority Area 3: Sustainability Institutions and Policies

1. Environmental Sociology and Environmental Policy – KA II
2. Advanced Environmental and Resource Economics / ERE III – KA II
3. Cooperation and Cooperative Organizations – KA II
4. Human-Environmental Systems Interaction – KA III
Priority Area 4: Land and Water

1. Irrigation and Drainage Systems – KA I
2. Land and Water Management – KA IV
4. Advanced Environmental and Resource Economics – KA II
Priority Area 5: Biodiversity and Nature Conservation

1. Biodiversity: Assessment, Function and Evolution – KA I
2. Biodiversity and Conservation Management – KA IV
4. Integrative Fisheries Management (every even year) – KA IV
5. Advanced Environmental and Resource Economics – KA II
Priority Area 6: Climate Change & Renewable Energy

1. Agricultural Climatology and Ecophysiology – KA I
2. Climate and Energy Management – KA IV
3. Human-Environmental Systems Interaction – KA III
4. International Forest Use and Management – KA IV
5. Advanced Environmental and Resource Economics / ERE III – KA II
Further interesting offers
(winter or summer term, not ECM)

• WINS Seminar (www.wins.hu-berlin.de)
  – Frequently Mon 16-18, consult program
  – Brings together outstanding scholars in the study of sustainable resource management from an institutionalist viewpoint

• Institutional Analysis of Social-Ecological-Technical Systems

• From related programs at Thaer Institute or IRI THSys (www.iri-thesys.org)
  – MSc Global Change Geography
    • Ecosystem Dynamics and Global Change
    • Climate and Earth System Dynamics
    • Earth Observation
  – MA Philosophie
    • Climate Ethics
Further offers, ctd.

- MSc Agricultural Economics
  - Qualitative Research Methods
  - Intermediate Computable General Equilibrium Modelling
  - Futures of Agriculture and Food
  - European and International Agricultural Policy
  - Qualitative Research Methods
  - Multifunctional land-use

- Other universities
  - Economics of Climate Change (TU, Edenhofer)
  - Sustainable Development (FU, Lepenies)
  - Carbon Sequestration and Accounting (HNE Eberswalde)
Be careful about changing module titles

### MSc. Integrated Natural Resource Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Old &amp; official</th>
<th>New &amp; frequently used</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM2</td>
<td>Environmental and Resource Economics II: Strategies and Policies</td>
<td>Environmental and Resource Economics</td>
</tr>
<tr>
<td>FM7</td>
<td>Environmental and Resource Economics III: Environmental Institutions and Governance</td>
<td>Advanced Environmental and Resource Economics</td>
</tr>
<tr>
<td>FM9</td>
<td>Economics of Human Development</td>
<td>Economics of Agricultural and Rural Development</td>
</tr>
<tr>
<td>FM14</td>
<td>Market and Policy Analysis</td>
<td>Public Policy Analysis: Agriculture and Food Policy</td>
</tr>
<tr>
<td>CM1</td>
<td>Agroecosystems, Environment and Sustainable Natural Resource Use</td>
<td>Introduction to sustainable agricultural production 1</td>
</tr>
<tr>
<td>CM3</td>
<td>Soil and Water Protection</td>
<td>Introduction to sustainable agricultural production 2</td>
</tr>
</tbody>
</table>
# First semester, compulsory

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-20</td>
<td>18:00-20:00 Institutional Economics and Political Economy Eisenack, H 12, HS 3</td>
<td>14:00-16:00 Institutional Economics and Political Economy Eisenack, H 4, HS 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

H – House, HS-Hörsaal (Lecture hall)
<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Weekend blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10:00-14:00</strong></td>
<td><strong>08:00-12:00</strong></td>
<td><strong>9:00-13:00</strong></td>
<td>[<strong>08:00-12:00</strong> Compulsory]</td>
<td><strong>08:00-12:00</strong></td>
<td>Biodiversity and Conservation Management (PA 5) Schleyer, Stellmacher Saturday/Sunday: <strong>02.-03.11.2019</strong>, 9:00–16:00 <strong>30.11.-01.12.2019</strong>, 9:00–16:00 <strong>07.-08.12.2019</strong>, 9:00–16:00 <strong>11.-12.01.2020</strong>, 9:00–16:00 Inv. 42, H 4</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td><strong>Agricultural</strong></td>
<td><strong>Risk and Uncertainty in</strong></td>
<td><strong>Environmental</strong></td>
<td><strong>08:00-12:00</strong></td>
<td></td>
</tr>
<tr>
<td>Sociology and Environmental Policy (PA 3)</td>
<td>Climatology and Ecophysiology</td>
<td>Science and Policy (PA 1)</td>
<td>Management and Information Systems (PA 2)</td>
<td><strong>08:00-12:00</strong></td>
<td></td>
</tr>
<tr>
<td>Sieber, Reusswig</td>
<td>(PA 6)</td>
<td>Krüger</td>
<td>Mithöfer</td>
<td><strong>08:00-12:00</strong></td>
<td></td>
</tr>
<tr>
<td>HN27-H12, R 2.01</td>
<td>Chmielewsky, Ulrichs; ATW5-HS47</td>
<td></td>
<td>Henzel</td>
<td><strong>08:00-12:00</strong></td>
<td></td>
</tr>
<tr>
<td>1st Lect.: 21.10.</td>
<td></td>
<td></td>
<td></td>
<td><strong>08:00-12:00</strong></td>
<td></td>
</tr>
<tr>
<td><strong>13:00-15:00</strong></td>
<td><strong>12:00-14:00</strong></td>
<td><strong>12:00-14:00</strong></td>
<td><strong>12:00-14:00</strong></td>
<td><strong>14:00-18:00</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Only: 8.01.20</strong></td>
<td><strong>Public Policy Analysis: Agriculture and</strong></td>
<td><strong>Public Policy Analysis: Agriculture and</strong></td>
<td><strong>Climate and Energy Management (PA 6)</strong></td>
<td><strong>17:00-19:00</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Plant Diseases in the</strong></td>
<td><strong>Food Policy (PA 2)</strong></td>
<td><strong>Food Policy (PA 2)</strong></td>
<td>Otto, Grundmann, Klingenfeld; HN27-H12, R 2.01</td>
<td><strong>Public Policy Analysis: Agriculture</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td><strong>Feindt, Daedlow HN27-H12, R. 2.01</strong></td>
<td><strong>Feindt, Daedlow HN27-H12, R. 2.01</strong></td>
<td><strong>Klingenfeld; HN27-H12, R 2.01</strong></td>
<td><strong>Analysis: Agriculture and Food Policy</strong></td>
<td></td>
</tr>
<tr>
<td>Management (PA 2)</td>
<td></td>
<td></td>
<td></td>
<td>Feindt, Daedlow HN27-H12, R. 2.01</td>
<td></td>
</tr>
<tr>
<td>Büttner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lentzeallee 55/57 (LE55-H04)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Block</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.-08.03.2020, 9:00-18:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Typical electives in summer semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM1</td>
<td>Biodiversity: Assessment, Function and Evolution</td>
</tr>
<tr>
<td>FM8</td>
<td>Participatory Rural Innovation and Knowledge Systems</td>
</tr>
<tr>
<td>FM9</td>
<td>Economics of Agricultural and Rural Development</td>
</tr>
<tr>
<td>FM10</td>
<td>Co-operation and Co-operative Organizations</td>
</tr>
<tr>
<td>FM12</td>
<td>Advanced Empirical Methodology for Socio-Ecological Systems Analysis</td>
</tr>
<tr>
<td>FM17</td>
<td>Land and Water Management</td>
</tr>
<tr>
<td>FM21</td>
<td>International Forest Use and Management</td>
</tr>
<tr>
<td>FM22</td>
<td>The Role of Gender for Sustainable Resource Management</td>
</tr>
<tr>
<td>FM23</td>
<td>Project Management – Applied to Natural Resource-based Sectors and Development Programs</td>
</tr>
<tr>
<td></td>
<td><strong>Institutional Analysis of Social-Ecological-Technical Systems</strong></td>
</tr>
</tbody>
</table>
Information for the next days

- Participate in the online survey (deadline today)
- Plan your course schedule for the winter semester & enroll courses on Moodle/Agnes
- Attend first courses
- Mailinglist for INRM and IMRD Students; to subscribe send an Email to: "sympa@lists.hu-berlin.de"; as subject: "subscribe inrm-imrd.thaer"
- Questions?
- Please direct electronic inquiries on INRM to: inrm-master@hu-berlin.de
Enjoy Studying in Berlin!

- Introduction of the INRM student speakers team