

PROF. DR. BIRGIT MÜLLER

Head of Working Group POLISES
Deputy Department Head
Helmholtz Centre for Environmental Research – UFZ Leipzig
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Professorship for Modelling of Human-Environment Systems,
Brandenburg University of Technology Cottbus-Senftenberg, Germany

Place of birth Halle/Saale
Family status Two children (14 and 17 years old)

FIELDS OF EXPERTISE

Analysis and modelling of socio-environmental systems, social-ecological interactions in agricultural systems, food security, agent-based modelling, analysis and management of climate risks to natural resources, modelling of human decisions, common property systems, spatial upscaling in socio-environmental systems, side effects of institutional and technological change, educational environmental games.

EDUCATIONAL DEGREES

PhD (Dr.rer.nat.) in Applied Systems Science, 2006, Faculty of Mathematics and Computer Science, University of Osnabrück, Title: "Sustainable grazing management in semi-arid rangelands. An ecological-economic modelling approach", Final grade: summa cum laude.

Diploma in Economic Mathematics (Dipl. Wirtsch. Math.), 2000, University of Leipzig, Diploma thesis: "Multi-criteria approaches for an optimization problem in the socio-cultural sector", Final grade: 1.9.

EDUCATION AND WORK EXPERIENCE

Since 04/2022 Professorship “Modelling of Human-Environment Systems”, joint appointment of Brandenburg University of Technology Cottbus-Senftenberg and UFZ

Since 2017 Deputy Department Head

Since 11/2016 Senior researcher at Helmholtz Centre for Environmental Research – UFZ, Department of Ecological Modelling (Deputy Department Head) and head of Working group POLISES (**POL**icy Instruments and **Socio-Environmental Systems** under global change).

- 09/2016 Offer of a joint W2 Professorship (tenure track) at Universities of Kassel and Göttingen on “Social-ecological interactions in agricultural systems” (declined).
- 08/2014-10/2019 Head of Junior Research Group POLISES “Global food security policies and their social-ecological side effects in regions prone to global change” funded by the BMBF, Call: Global Change 4+1 (www.polises.de).
- 2008-2014 PostDoc at Helmholtz Centre for Environmental Research – UFZ, Department of Ecological Modelling, and at Collaborative Research Centre SFB 586 "Difference and Integration" of the Universities of Leipzig and Halle funded by DFG.
- 03/2009-03/2010 Maternity leave.
- 2004-2007 Researcher in the interdisciplinary Junior Research Group "Ecological Economics: Modelling and conceptual foundation, with an example of grazing in semi-arid regions" funded by Volkswagen Foundation, program: interdisciplinary environmental research, joint project of UFZ and University of Heidelberg.
- 08/2006-09/2007 Maternity leave.
- 2002-2006 PhD student at Helmholtz Centre for Environmental Research – UFZ, Department of Ecological Modelling and at Institute of Environmental Systems Research at the University of Osnabrück.
- 2001-2002 “Year of Qualification for the Environment” including internship at Helmholtz Centre for Environmental Research – UFZ, Department of Ecological Modelling, Duration 8 months.
- 1996-1997 Studies of Mathematics at the University of Rennes I (France), ERASMUS Program.
- 1993-2000 Studies of Economic Mathematics (Wirtschaftsmathematik) at the University of Leipzig, Specialization: Optimization; Environmental Management.

RESEARCH GRANTS AND AWARDS (SELECTION)

INSURANCEGRASS -Assessment of formal, natural and social insurances: how to cope best with impacts of extreme events on grasslands for sustainable farming systems? (D-A-CH Program, April 2022 – March 2025, Role PI, 190.000€, jointly with Robert Finger (ETH), Nina Buchmann (ETH), Martin Quaas (iDiv)).

NamTip - Understanding and Managing Desertification Tipping Points in Dryland Social-Ecological Systems – A Namibian Perspective (BMBF programme "BioTip", March 2019 - February 2023, Role: PI of subproject, Subproject 207.000€, PI: Anja Linstädter, University of Cologne).

EU Project BESTMAP - Behavioural, Ecological and Socio-economic Tools for Modelling Agricultural Policy (Horizon 2020, September 2019 – Februar 2024, Role: PI of subproject, Subproject 195.000€, PI: Guy Ziv, University of Leeds, UK).

Grant for BMBF Junior Research Group "POLISES: Global food security policies and their social-ecological side effects in regions prone to global change" of the German Federal Ministry of Education and Research (BMBF-01LN1315A), 1.7 Mio€ (Role: PI), 2014 – 2019, <http://www.polises.de>.

DFG-Project "Effects of microinsurance on informal safety nets and on strategies for natural resource use – a model-based analysis" (Role: PI), 204.000€, 2017-2020.

BMBF Programme BIOTIP "Understanding and Managing Desertification Tipping Points in Dryland Social-Ecological Systems – A Namibian Perspective (NamTip)", Pre-Phase, (Role: Project partner, PI: Anja Linstädter, University of Cologne), 2017.

BMBF: German-Moroccan Scientific and Technological Cooperation (PMARSIII) "MULTIPP- Detecting and understanding hydro-climatic, ecological and socio-ecological tipping points: A multi-scale study at the Moroccan desert margin", (Role: project partner, PI: Christoph Zielhofer University Leipzig, Physical Geography, Jan-Dec 2017).

Active participation in successful proposal completion for Collaborative Research Centre 586 "Difference and Integration" University Leipzig and Halle, Role: Postdoc, Subproject: 462.000 €, 2008.

PhD grant of German Academic Exchange Service (DAAD) for short-term research stay in Namibia, 2.000€, 2003.

HONORS AND MEMBERSHIPS

Member of the Scientific and Policy Advisory Board of Horizon 2020 Project "Brightspace – towards a safe and just operating space for EU agriculture" (since 2023)

Member of external advisory board of the National Socio-Environmental Synthesis Centre (SESYNC) Annapolis, US (2018-2020).

Member of Editorial Board of open-access journal SESMO – Socio-Environmental Systems Modelling (since 2019).

Member of Steering Committee of Global Land Program Working Group: "Large-scale Behavioural Models of Land Use Change" (lead by Calum Brown, KIT).

Member in the Network for Computational Modeling in Social and Ecological Sciences (COMSES-Net).

INTERNATIONAL AND NATIONAL COOPERATIONS (SELECTION)

Member of the Future Earth Core Project PECS's (Program on Ecosystem Change and Society) Working Group "Incorporating institutional dynamics in social-ecological systems research (PI: Graeme Cumming, James Cook University & Graham Epstein, University of Waterloo), 2022-ongoing.

Socio-Environmental Synthesis Centre Maryland (SESYNC) funded international Project Group: "Testing and extending Ostrom's frameworks: quantitative synthesis and modeling of social-ecological dynamics" (PI: Graeme Cumming, James Cook University & Graham Epstein, University of Waterloo), 2018-2020.

Socio-Environmental Synthesis Centre Maryland (SESYNC)-UFZ-IDiv funded international Project Group: “Synthesis of micro-scale human decision making to mitigate risks to ecosystem services” (PI: Maja Schlüter, Stockholm Resilience Centre & Marco Janssen, Arizona State University), 2014-2017.

NSF funded Research Coordination Network: “Bridging Communities and Scales Through a Global Transdisciplinary Mountain Sustainability Network” (PI: Julia Klein, Colorado State University, Co-PIs: Anne Nolin, Oregon State University, Catherine Tucker, Indiana University), 2014 –2019.

MtnPATHS - Pathways for global change adaptation of mountain socio-ecological systems (PI: Adrienne Grêt-Regamey ETH Zurich, Sandra Lavorel, LECA Grenoble, France), 2017-2019.

CGIAR Institute ILRI Nairobi, Kenya (International Livestock Research Institute, Munenobu Ikegami, Andrew Mude, Lance Robinson).

UC Davis (Mark Lubell, Department Environmental Science and Policy).

Arizona State University (Michael Barton, Center for Social Dynamics and Complexity, Marco Janssen (Center for Behavior, Institutions, and the Environment).

University of Oregon (Leigh Johnson, Department of Geography).

East Carolina University (Kimberly Rogers, Department of Coastal Studies).

ETH Zurich (Robert Finger, Agricultural Economics and Policy).

PLANNING & ORGANISATION OF INTERNATIONAL CONFERENCES/WORKSHOPS/ SUMMERSCHOOLS

Landscape 2021 Conference “Diversity for Sustainable and Resilient Agriculture” (online), co-organisation of session: “Farmer typologies for agri-environmental policy analysis and design: Methods, uses and insights”, September 20-22 2021.

Co-lead of international Workshop: “Exploring the effects of microinsurance – synergies of different methodological approaches”, UFZ, Leipzig, 13 international participants, February 04-06, 2020.

International Summer School “Modelling Food Security”, September 8 – 14, 2019, UFZ, Leipzig, (Conceptual preparation jointly with PIK (Christoph Müller and Benjamin Bodirsky and CGIAR Institute ILRI (Mark van Wijk), local organisation and teaching).

4th Open Science Meeting Global Land Program Bern, Switzerland, co-organisation of session: “Modelling human-environment interactions in land systems: Current status, challenges and ways forward”, April 24-26, 2019.

Lead of international POLISES Colloquium “Pastoralism in Transition”, UFZ, Leipzig, 13 international participants, June 27-28, 2019.

4th Open Science Meeting Global Land Program Bern, Switzerland, co-organisation of session: “Modelling human-environment interactions in land systems: Current status, challenges and ways forward”, April 24-26, 2019.

Leader of local and scientific organisation team for the international workshop “Modelling approaches to enhance food security: Synergies from bridging the gap between the micro and the macro scale”, UFZ, Leipzig, 15 international participants, March 10-12, 2018.

Member of organising team for the conference session “Bringing human adaptive behavior into SES analysis from local to global scales” at the Resilience 2017 Frontiers for Global Sustainability Stockholm, Sweden, August 20-23, 2017.

International Summer School „How to model human decision making in social-ecological agent-based models“, a SESYNC-UFZ-sDiv Initiative, Kohren-Sahlis, July 5–10, 2015 (Conceptual preparation, coordination and teaching).

Member of organising team for the conference session and workshop: “Human decisions in agent-based models for natural resource use” at the International Congress on Environmental Modelling and Software iEMSs, Leipzig, July 1-5, 2012.

Member of local and scientific organisation team of the 7th conference of the European Society for Ecological Economics at the Helmholtz Centre for Environmental Research – UFZ, Leipzig, 370 international participants, June 5 – 8, 2007.

INVITED ORAL PRESENTATIONS / INVITED PARTICIPATION AT INTERNATIONAL WORKSHOPS OR CONFERENCES (SELECTION)

10th Forum Klimaökonomie „Versicherung von Klimarisiken – zwischen privater Vorsorge und staatlicher Intervention“, invited talk on: „Was sind die Kosten und Nutzen von indexbasierter Versicherung? Index-basierte Versicherungen im sozial-ökologischen Kontext“, Berlin, November 22 2021.

International Conference “At what point managed retreat? Resilience, relocation and climate justice”, Columbia Climate School The Earth Institute (Virtual Conference), Invited panel discussant at session on “Climate Insurance: (Mal)adaptation, delaying inevitable retreat or migration, or building resilience?” June 22-25, 2021.

International Lorentz-Center Workshop: “Participatory and Cross-Scale Modelling of Social-Ecological Systems“ planned in Leiden, Netherlands (finally online), October 12 – 16 2020.

Open Modeling Foundation strategic planning workshop 3 (organised by Michael Barton, Arizona University, online), October 05 – 07 2020.

International Workshop: “Large-scale behavioural models virtual meeting“ (organised by Marc Rounsevell and Calum Brown, KIT), May 26-28 2020.

International Workshop: “The Open Modeling Foundation Initiative: a Scientific Community for Common Standards and Best Practices for Integrative Modeling of the Earth System“, Institute for Advanced Sustainability Studies, Potsdam, Germany, May 6-7 2019.

iDiv Conference Invited Talk in Future Session: “Risk to ecosystems and the services they provide: A multidisciplinary perspective“, Leipzig, December 11-12, 2018.

International Workshop: “From cases to general principles – Theory development through agent-based modelling“, Hannover, July 4-6, 2018.

International Workshop: “Global land use ABM meeting“, Karlsruhe Institute of Technology, Garmisch-Partenkirchen, January 15-17, 2018.

International Workshop: “Participatory Modeling of Mountain Social-Ecological Systems“ of the NSF funded Mountain Sentinels Network, Bend, Oregon, April 23-27, 2017.

International Workshop “Linking earth-system and socio-economic models to predict and manage changes in land use and biodiversity“, 4th Workshop on Modelling Challenges for Sustainability at Institute for Advanced Sustainability Studies (IASS), Potsdam, Germany, Convener: Sander van der Leeuw (Arizona State University and IASS) as part of a Future Earth Initiative, March 13-15, 2017.

International Workshop “Theoretical foundations and empirical specification of decision rules in agricultural agent-based modelling approaches: Current state and future prospects” organised by Agricultural Economics and Policy Group of ETH Zurich, January 26-27, 2017.

Keynote Speaker at Seminar “Insurance, finance and the biosphere” in the Programme “Global Economic Dynamics and the Biosphere” of the Royal Swedish Academy of Sciences, April 6, 2016.

Policy and Academic Workshop: Mobile Pastoralism, Index Insurance, Computational Sustainability and Policy Innovations for the Arid and Semi-arid Lands of East Africa, International Livestock Research Institute (ILRI), Nairobi, Kenya, June 08-10, 2015.

MRI Synthesis Workshop: “Building Resilience of Mountain Social-Ecological Systems to Global Change”, Fort Collins, Colorado (US), May 21-25, 2012.

International Workshop: “Modelling Social-ecological Systems”, Leibniz Institute of Freshwater Ecology and Inland Fisheries Berlin, December 15-16, 2010.

INVITED PRESENTATIONS AT UNIVERSITIES / RESEARCH INSTITUTIONS (SELECTION)

University of Edinburgh and the Heriot Watt University UK, PhD programme in Mathematical Modelling, Analysis and Computation (online), June 18 2021.

Brandenburg University of Technology Cottbus January 15, 2019.

Potsdam Institute for Climate Impact Research at Land Use Modelling Group, December 4, 2018.

Oregon University, Geography Department, April 28, 2017.

University of Leipzig, Institute of Biology, February 7, 2017.

Arizona State University, Tempe, US, January 9, 2017

University of Leipzig, Institute of Geography, December 14, 2016.

University of Potsdam, Plant Ecology and Nature Conservation, December 12, 2016.

Stockholm Resilience Centre, Sweden, April 6, 2016.

TU Munich, Agricultural Production and Resource Economics, Socio-economic Colloquium, January 12, 2016.

International Food Policy Research Institute, Washington, US, October 28, 2014.

International Research Institute for Climate and Society (IRI), Columbia University, New York, US, October 27, 2014.

Institut Agronomique et Vétérinaire Hassan II, Rabat, Morocco, November 9, 2008.

University of Osnabrück, Research Seminar Systems Science, June 1, 2005.

University of Halle, Research Colloquium of the Institute for Mathematics, May 13, 2003.

National Botanical Research Institute Windhoek und Etosha Ecological Institute, Okaukejo, March 2003.

University of Heidelberg, Interdisciplinary Institute for Environmental Economics, Research Colloquium, January 31, 2003.

University of Cologne, Colloquium of the Collaborative Research Centre 389 ACACIA “Arid Climate, Adaptation and Cultural Innovation in Africa”, February 12, 2002.

ORAL PRESENTATIONS AT INTERNATIONAL CONFERENCES AND WORKSHOPS (SELECTION)

Global Land Programme Webinar: Modelling Telecoupling Land Use Changes (online), September 2020.

Global Land Programme Conference Bern, Switzerland, April 2019.

Landscape 2018 – Frontiers of agricultural landscape research organised by ZALF, Berlin, Germany, 2018.

Resilience 2017 Frontiers for Global Sustainability Stockholm, Sweden, 2017.

International Workshop “Agent-based modeling in Ecological Economics – A useful tool or just a fancy gadget” Berlin, Germany, 2016.

Tropentag 2015: International Research on Food Security, Natural Resource Management and Rural Development, Berlin, Germany, 2015.

Global Land Project Open Science Meeting “Land transformations: between global challenges and local realities”, Berlin, Germany, 2014.

Tropentag 2013: International Research on Food Security, Natural Resource Management and Rural Development, Hohenheim, Germany, 2013.

The 2012 Research Conference on Microinsurance, University of Twente, Netherlands, 2012.

Tropentag 2011: International Research on Food Security, Natural Resource Management and Rural Development, Bonn, Germany, 2011.

European Society for Ecological Economics, Istanbul, Turkey, 2011.

Resilience 2011: Resilience Innovation and Sustainability: Navigating the Complexity of Global Change, Tempe, Arizona, USA, 2011.

ESF-Africa Frontier Research Conference: Dynamic interlinkages between social and ecosystem changes: Towards an Europe Africa Partnership, Hulshout, Netherlands, 2010.

EURECO (European Ecological Federation) - GFOE, Leipzig, Germany, 2008.

BIOECON Conference "Economics and Institutions for Biodiversity Conservation", Cambridge, GB, 2007.

European Society for Ecological Economics, Leipzig, Germany, 2007.

Economics of Poverty, Environment and Natural Resource Use, Wageningen, Netherlands, 2006.

European Society for Ecological Economics, Lisbon, Portugal, 2005.

Tropical Savannas & Seasonal Dry Forests, Edinburgh, GB, 2003.

Frontiers 2 – European Applications in Ecological Economics, Tenerife, Spain, 2003.

STUDIES/ RESEARCH STAYS AT INTERNATIONAL RESEARCH INSTITUTIONS AND FIELD TRIPS

Two-week research stay at Arizona State University, January 2017.

Two-week research stay at International Livestock Research Institute (ILRI), Nairobi, Kenya, June 2015.

Two-week research stay in China, joined field trip with Prof. Long Ruijun from the Lanzhou University, China, September 2010.

Two-week research stay in Morocco, incl. Institut Agronomique et Vétérinaire Hassan II, Rabat, Morocco, November 2008.

Two-week research stay in Namibia, incl. GOBABEB Training and Research Centre and Department of Agriculture at Polytechnic of Namibia, September 2004.

Two-month research stay in Namibia, funded by DAAD, incl. National Botanical Research Institute Windhoek und Etosha Ecological Institute, Okaukejo, March – April 2003.

One year studies of Mathematics at the University of Rennes I (France), ERASMUS Program, September 1996 – August 1997.

REVIEWER FOR INTERNATIONAL JOURNALS

Agricultural Economics, Agriculture Ecosystems & Environment, American Journal of Agricultural Economics, Conservation Biology, Earth System Dynamics, Ecological Complexity, Ecological Economics, Ecology & Society, Environmental Modelling and Software, Global Change Biology, Journal of Applied Ecology, Journal of Arid Environments, Journal of Biogeography, Journal of Environmental Management, Journal of Land Use Science, Landscape Ecology, People & Nature, SESMO - Socio-Environmental Systems Modelling, Social Science Computer Review, World Development.

REVIEWER FOR FUNDING AGENCIES, POLICY REPORTS AND PHD THESES

External advisor of PhD Thesis of Sophie Erfurth (University of Oxford), Topic “Governing Common Pool Resources in Fragile Political Systems: Modelling Behaviour, Institutions, and Social-Ecological Dynamics” (2023).

Member of PhD Committee at VU University Amsterdam of Candidate: Harun Kiruki, Topic “Charcoal making and woodland change. Human decision making processes and their implication on woodland ecology and livelihoods.” (2019).

Agence Nationale de Recherche (France) for Collaborative Research Projects involving Enterprises in Theme: “Ecosystem dynamics to improve their sustainable management” (2016).

IUCN “Technical Guide on Implementing the Voluntary Guidelines on responsible Governance of Tenure of Land, Fisheries and Forests in Pastoral Areas” (2015).

PhD-Proposal of Graduate School of Wageningen Institute for Environment and Climate Research (WIMEK) (2015).

FAO – HLPE e-consultation: Report on Sustainable Agricultural Development for Food Security and Nutrition, Including the Role of Livestock (2015).

External reviewer for PhD Thesis of Sebastian Rasch at Institute for Food and Resource Economics, Rheinische Friedrich-Wilhelms-Universität Bonn (2015).

TEACHING AND MENTORING EXPERIENCE

As head of BMBF funded Junior Research Group POLISES (2014-2019) qualification plans for all group members conceptualised and implemented, including mentoring of 1 postdoc, 2 PhD students, 4+1 International Research Fellows as part of International POLISES Short Term Fellowship Program, 6 Master/Bachelor Students, as well as 9 internship students and research assistants. Organisation of POLISES Group's work regarding educational activities and outreach (e.g. two international summer schools and the development and use of educational games) in Germany, US and Kenya (see below for more details).

TEACHING EXPERIENCE - INTERNATIONAL

CoMSES Net International Winter School "Agent-Based Modeling of Social-Ecological Systems". Organised by Arizona State University (virtual online course), Jan 4 -15 2020, (Lecture).

International Summer School "Modelling Food Security", September 8 – 14, 2019, UFZ, Leipzig, full time (Lecture and project supervision).

Lectures and game sessions with educational game NomadSed at UNEP/UNESCO/BMU International Course on Environmental Management for Developing and Emerging Countries from Centre for International Postgraduate Studies of Environmental Management (CIPSEM) from TU Dresden (June 23 2016, Mai 19 2017, Mai 25 2019), UFZ.

Winter School "How to Model Human Decision-Making in Social-Ecological Agent-Based Models". Arizona State University, Jan 2-7 2017, full time (Lecture und project supervision).

International Summer School „How to model human decision making in social-ecological agent-based models“, a SESYNC-UFZ-sDiv Initiative, Kohren-Sahlis, July 5–10, 2015, full time (Lecture and project supervision).

International course „Teaching Individual/Agent-based Modeling“ lead by Prof. Volker Grimm & Prof. Steve Railsback, Helmholtz Centre for Environmental Research – UFZ, Leipzig, September 15-19, 2014 (Lecture).

International GrassNet Summerschool „Modelling approaches to support grassland management“ at DITSL – German Institute for Tropical and Subtropical Agriculture supported by DAAD, Witzenhausen, September 18-29, 2012, one full day (Lecture).

Summer-School "Identification and modelling of controls in marine ecosystems", Dragerup field station, Denmark, June 18 – 28, 2006, three days (Lecture und project supervision in part "Individual-based modelling").

ALARM Graduate Training Course: "Models in Risk Assessment to Biodiversity", Helmholtz Centre for Environmental Research – UFZ, Leipzig, April 26 – May 5, 2004, full time (Lecture und project supervision).

TEACHING EXPERIENCE -NATIONAL

Module "Modelling of Human-Environment Systems" (in English) Lecture and Exercise (every winter semester since October 2022) at Brandenburg University of Technology Cottbus-Senftenberg, 4SWS.

Organisation of the cross-departmental Seminar Series/Journal Club for early career researchers at UFZ on "Upscaling in social-ecological systems" (monthly, 2018-2022).

Organisation of the cross-departmental Seminar Series/Journal Club at HIGRADE Graduate School at UFZ on “Human decisions in agent-based models of land use change” (biweekly, 2010-2018, 5 joined peer-reviewed publications).

Conceptualisation of a web-based educational game on food security, supervision of semester work of students in game development and communication design from Vitruvius University of Applied Sciences Leipzig and from Merseburg University of Applied Sciences for the development of first prototypes, WS2018/2019.

Lecture Master-Module “Sustainability” University Osnabrück (led by Prof. Pahl-Wostl, May 24, 2016).

Lecture at UFZ-Winter-School in Ecological Modelling, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Kohren-Sahlis, 10-Days-Course, February/March 2014 (one day).

Project supervision at UFZ-Winter-School in Ecological Modelling, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Kohren-Sahlis, 10-Days-Course, February/March 2005 (whole time).

Project supervision at UFZ-Winter-School in Ecological Modelling, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Kohren-Sahlis, 10-Days-Course, February/March 2004 (whole time).

Teaching (lecture und project supervision) in course „Modelle in der Ökologie: Neuere Ansätze zu Modellbildung und -analyse“, Part of Study Program "Computational Science - Informatik in den Naturwissenschaften", University of Osnabrück, September 29 – October 10, 2003 (whole time, led by Prof. Karin Frank).

MENTORING PHD STUDENTS

Kaja Jurak: “Model-based analysis of appropriate policy instruments to promote sustainable nitrogen management in German agriculture”. (start: February 2023).

Julia Kunkel: “Socio-ecological dynamics of grassland during compound extreme events: How can natural, social and formal insurance promote sustainable management?” (since 2022, ongoing).

Lea Kolb (IDiv Leipzig and UFZ): “How policy and market shape landscapes – modelling farmer’s decision” (since 2022, member of PhD Advisory Committee (PAC)).

Maria Gerullis (University of Bonn), as part of the mentoring and training programme MeTra for young female scientists (2020-2022).

Meike Will, Title: „Effects of microinsurance on informal safety nets and on strategies for natural resource use – a model-based analysis” (finished 2021).

Khadijeh Rahimi Balkanlou (University of Kashan, Iran), Guest Scholar (October 2018 – June 2019) (one joined peer-reviewed paper published).

Organisation of the 3-months International Young Researcher program as part of POLISES project: mentoring of two PhD students (Tim Williams, US), (Melissa Chapman, US) and two postdocs (Lemlem Habtemariam, Ethiopia, Nick Roxburgh, UK), 2019 (two joined peer reviewed papers published/in press).

Felix John, Title: „Social-ecological impacts of financial risk-coping instruments for East African smallholders”, Institute of Environmental Systems Research at University of Osnabrück (2014-2017).

Gunnar Dressler, Title: „Analyzing resource use decisions under global change by agent-based modelling”, Institute of Environmental Systems Research, University of Osnabrück (finished 2017).

Romina Drees, Title: „The role of key resources to ensure livelihood security and ecological sustainability – a range management modeling study” at the University of Cologne, Botanical Institute (finished 2013).

MENTORING OF MASTER’S AND BACHELOR STUDENTS

Diploma and Master Theses: Nina Büttner (University of Halle, ongoing), Johanna Eichler (University of Osnabrück, co-supervisor, ongoing), Philip Grondciel (University of Halle, Institute of Physics, 2018, finished) Hendrik Gelsmann-Kaspers (University of Osnabrück, Institute for Environmental Systems Research, finished), Falk Hoffmann (University of Tübingen, Institute of Physics, 2014, finished); Jule Schulze (University of Greifswald, Department of Mathematics and Computer Science, 2012, finished);

Bachelor Thesis: Mads Hoffmann University of Leipzig, Institute for Geography (2014, finished).

TRANSDISCIPLINARITY - ACTIVITIES AT THE SCIENCE – PRACTISE INTERFACE (SELECTION)

Compiling of the policy brief “Risks of Maladaptation: Climate Insurance in Agriculture DIE (German Development Institute) Briefing Paper” (2017) and its presentation by the POLISES group e.g. at the panel discussion at “Entwicklungspolitischen Diskussionstagen” 2018 in Berlin, Friedrich Ebert Stiftung and at side-event “Insuresilience” at the United Nations Climate Change Conference COP 23 in Bonn 2017.

Part of core-developer team of the educational board game “NomadSed” on sustainable pastoral land use under global change as part of the collaborative research centre SFB 586, since 2011 used amongst others in exhibitions (ethnological museum Hamburg), (under)graduate students education in Global North and Global South, Long Night of Sciences and during stakeholder events in case study countries (ongoing, <http://nomadsed-game.de/index.php/en/>).

Active participation at Arbeitskreis Welternährung (AKWE) of the Federal Ministries for Economic Cooperation and Development (BMZ) and for Food and Agriculture (BMEL) organised by GIZ (from 2015-2017) in Bonn and Berlin.

Participation at Winter School “Science meets practice” organised by the Competence Centre Environment and Sustainability of the ETH Zurich, Switzerland, January 9 – 13 and February 6- 10, 2012.

Leader of the organisation team for the Seminar and Workshop: “Inter- and transdisciplinary research on sustainable resource use - Experiences, methods and instruments”, at the Helmholtz Centre for Environmental Research – UFZ, Leipzig, 45 international participants, January 30 – February 1, 2009.

SOFTWARE AND PROGRAMMING SKILLS

C++, Statistic Software R, Netlogo, Mathematica, Matlab, ArcGIS.

FOREIGN LANGUAGES

English fluent in speaking and writing.

French fluent in speaking and writing (Diplome d’études en langue française).

Russian basic level, Intensive Course in St. Petersburg, Certificate: „Russian Resound“

ENGAGEMENT IN UFZ COMMITTEES

Co-leader of Working Group “Behavior” of the UFZ-Research Unit Environment and Society (2019-2023).

Member of the Working Group “Postdocs” of the Scientific and Technical Council of the Helmholtz Centre for Environmental Research – UFZ, 2014-2017.

Representative of the doctoral students at the Helmholtz Centre for Environmental Research – UFZ, Organisation of two PhD seminars outside of Leipzig for several days, 50 participants, 2003 – 2004.

Leipzig, February, 2 2024