MoMo
Integrated Water Resources Management Mongolia

Integrated Water Resources Management
– Model Region Mongolia –

Publications

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1 Papers

1.1 Journals with Impact Factor (n=48)

Aus der Beek, T.; Voss, F. & Flörke, M. (2011): ***Modelling the impact of global change on the hydrological system of the Aral Sea basin.*** Physics and Chemistry of the Earth 36(13): 684-694.

Avlyush, S.; Schäffer, M. & Borchardt, D. (2013): ***Life cycles and habitat selection of two sympatric mayflies under extreme continental climate (River Kharaa, Mongolia)***. International Review of Hydrobiology 98(3):141-154.

Batbayar, G.; Pfeiffer, M.; Kappas, M. & Karthe, D. (2018): ***Development and application of GIS-based assessment of land-use impacts on water quality: A case study of the Kharaa River Basin***. Ambio. doi:10.1007/s13280-018-1123-y

Batbayar, G.; Pfeiffer, M.; von Tümpling, W.; Kappas, M. & Karthe, D. (2017): ***Chemical water quality gradients of the sub catchments of the Mongolian Selenga River basin***. Environmental Monitoring and Assessment 189:420. doi:10.1007/s10661-017-6123-z

Chalov, S.; Thorslund, J.; Kasimov, N.S.; Nittrouer, J.; Iliyecheva, E.; Pietron, J.; Shinkareva, G.; Lychagin, M.; Aybullatov D.; Kositky A.; Tarasov, M.; Akhtman, Y.; Garmaev, E.; Karthe D. & Jarsjö, J. (2016): ***The Selenga River delta: a geochemical barrier protecting Lake Baikal waters.*** Regional Environmental Change. doi: 10.1007/s10113-016-0996-1

Dombrowsky, I.; Hagemann, N. & Houdret, A. (2014): ***The river basin as a new scale for water governance in transition countries? A comparative study of Mongolia and Ukraine.*** Environmental Earth Sciences 72(12):4705-4726. doi:10.1007/s12665-014-3308-4

Gawel, E., Sigel, K. & Bretschneider, W. (2013): ***Affordability of Water Supply in Mongolia –Empirical Lessons for Measuring Affordability***. Water Policy 15(2013):19-42.

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Hofmann, J.; Hürdler, J.; Ibisch, R; Schaeffer, M. Borchardt, D. (2011): ***Analysis of Recent Nutrient Emission Pathways, Resulting Surface Water Quality and Ecological Impacts under Extreme Continental Climate: The Kharaa River Basin (Mongolia).*** International Review of Hydrobiology 96(5):484-519. 10.1002/iroh.201111294

Hofmann, J.; Karthe, D.; Ibisch, R.; Schäffer, M.; Kaus, A.; Avlyush, S. & Heldt, S. (2015): ***Initial Characterization and Water Quality Assessment of Stream Landscapes in Northern Mongolia and its Integration into a River Basin Management Plan***. Water 7(7):3166-3205. doi:10.3390/w7073166.

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Hofmann, J.; Watson, V. & Scharaw, B. (2015): ***Groundwater quality under stress: contaminants in the Kharaa River basin (Mongolia)***. Environmental Earth Sciences 73(2), 629-648. doi: 10.1007/s12665-014-3148-2

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Hülsmann, L.; Geyer, T.; Schweitzer, C.; Priess, J. & Karthe, D. (2015): ***The Effect of Subarctic Conditions on Water Resources: Initial Results and Limitations of the SWAT Model applied to the Kharaa River Catchment in Northern Mongolia.*** Environmental Earth Sciences 73(2):581-592. doi:10.1007/s12665-014-3173-1

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Karthe, D.; Heldt, S.; Houdret, A. & Borchardt, D. (2015): ***IWRM in a country under rapid transition: lessons learnt from the Kharaa River Basin, Mongolia.*** Environmental Earth Sciences 73(2):681-695. doi:10.1007/s12665-014-3435-y

Karthe, D.; Hofmann, J.; Ibisch, R.; Heldt , S.; Westphal, K.; Menzel, L.; Avlyush, S. & Malsy, M. (2015): ***Science-Based IWRM Implementation in a Data-Scarce Central Asian Region: Experiences from a Research and Development Project in the Kharaa River Basin, Mongolia***. Water 7(7): 3486-3514. doi:10.3390/w7073486

Karthe, D.; Reeh, T.; Niemann, S.; Siegmund, A. & Walther, M. (2016): ***Empirical assessment of environmental education in the context of an IWRM concept for Northern Mongolia***. Environmental Earth Sciences 75:1286. doi: 10.1007/s12665-016-6036-0

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Kopp, B.; Lange, J. & Menzel, L. (2016): ***Effects of wildfire on runoff generating processes in northern Mongolia***. Regional Environmental Change. doi:10.1007/s10113-016-0962-y

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Minderlein, S. & Menzel, L. (2015): ***Evapotranspiration and energy balance dynamics of a semi arid mountainous steppe and shrubland site in northern Mongolia***. Environmental Earth Sciences 73(2):593-609. doi: 10.1007/s12665-014-3335-1.

Pfeiffer, M.; Batbayar, G.; Hofmann, J.; Siegfried, K.; Karthe, D. & Hahn-Tomer, S. (2015): ***Investigating arsenic (As) occurrence and sources in ground, surface, waste and drinking water in northern Mongolia***. Environmental Earth Sciences 73(2):649-662. doi: 10.1007/s12665-013-3029-0.

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Rost, G.; Londong, J.; Dietze, S. & Osor, G. (2015): ***Integrated urban water management - an adapted management approach for planning and implementing urban water mangemament measures – Case study area Darkhan, Kharaa catchment, Mongolia.*** Environmental Earth Sciences 73(2):709-718. DOI: 10.1007/s12665-014-3701-z.

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Sigel, K.; Altantuul, K. & Basandorj, D. (2012): ***Household needs and demand for improved water supply and sanitation in peri-urban ger areas: The case of Darkhan, Mongolia.*** Environmental Earth Sciences 65(5):1561-1566.

Sigel, K.; Hagemann, N.; Leidel, M.; Niemann, S. & Weigelt, C. (2014): ***Insights regarding transdisciplinarity and knowledge transfer gained from two case studies on integrated water resources management in Ukraine and Mongolia.*** Interdisciplinary Science Review. DOI: 10.1179/0308018814Z.00000000096

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Schäffer, M. (2011): ***Illustrated description of a simple methodology for quantifying fine sediment input into river bed substrate***. In: Dashzeveg, Ts. (2011) (Ed.): ***Geoecological Issues in Mongolia. Journal of the Geoecological Institute of the Mongolian Academy of Science***, pp. 36-40.

Wimmer, F.; Schlaffer S.; Aus der Beek, T. & Menzel L. (2009): ***Distributed modelling of climate change impacts on snow sublimation in northern Mongolia.*** Advances in Geosciences 21:117-124.

1.3 Papers in Conference Proceedings (n=26)

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München: Fraunhofer Verlag.

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Watson, V. & Scharaw, B. (2012): ***Groundwater Monitoring and Modelling in the Frame Work of the Project Integrated Water Resources Management in Central Asia, Model Region Mongolia***. In: Tserashchuk, M. (Ed.) (2012): ***Proceedings of the IWA Young and Senior Water Professionals Conference St Petersburg 2012 Part I***, pp. 30-137.

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1.4 Other Papers

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Borchardt, D. & Ibisch, R. (2009): ***Integriertes Wasserressourcen-Management in Zentralasien: Modellregion Mongolei (MoMo)***. In: Ibisch, R. & Borchardt, D. (Ed.) (2011): ***Integriertes Wasserressourcen-Management: Von der Forschung zur Umsetzung***, pp. 18f. 1st Edition. Leipzig & Magdeburg: Helmholtz-Zentrum für Umweltforschung.

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Borchardt, D. & Karthe, D. (2011): ***Integrated Water Resources Management in Central Asia: Model Region Mongolia (MoMo)***. In: Ibisch, R.; Kirschke, S.; Stärz, C. & Borchardt, D. (Ed.) (2011): ***Integrated Water Resources Management: From Research to Implementation***, pp. 24f. 2nd Edition. Leipzig & Magdeburg: Helmholtz-Zentrum für Umweltforschung.

Borchardt, D. & Karthe, D. (2013): ***Integriertes Wasserressourcen-Management in Zentralasien: Modellregion Mongolei (MoMo)***. In: Ibisch, R.; Kirschke, S.; Stärz, C. & Borchardt, D. (Ed.) (2013): ***Integriertes Wasserressourcen-Management: Von der Forschung zur Umsetzung***, pp. 36-38. 4th Edition. Leipzig & Magdeburg: Helmholtz-Zentrum für Umweltforschung.

Dombrowsky, I.; Lkhagvadorj, A.; Schoderer, M. (2018): ***River Basin Management and Fiscal Decentralisation: Mutually Supportive or Counterproductive? A Case Study of Mongolia***. Bonn, Germany: DIE Discussion Paper 10/2018.

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Heppeler, J. (2014): ***Pilotanlage in Darkhan übergeben***. Wassespiegel 2-3:16.

Hofmann, J. (2010): ***Flusssysteme Chinas und der Mongolei im Wandel.*** In: Neumann, N. & Bauchrowitz, M. (Ed.) (2010): ***Jahresforschungsbericht des IGB 2010,*** pp. 14-15. Berlin: Leibniz-Institut für Gewässerökologie und Binnenfischerei.

Hofmann, J.; Scharaw, B. & Watson, V. (2015): ***Sicherstellung der Trinkwasserversorgung der Stadt Darkhan im Kharaa-Flussgebiet in der Nordmongolei***. Mongolische Notizen 23:26-35.

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Menzel, L. (2014): ***Eco-hydrological investigations in the Khentii Mountains, Northern Mongolia***. Mountain Meridian 8(2013-14):14-15.

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Paulsen, H. (2012): ***Wasser für die Mongolei***. GIS.business 8/2012, pp. 16-19.

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Sigel, K. (2012): ***Urban water supply and sanitation in Mongolia: A description of the political, legal, and institutional framework***. Leipzig: UFZ Discussion Paper.

Withanachchi, S.S.; Houdret, A.; Nergui, S.; Gonzalez, E.E.; Tsogtbayar A. & Ploeger, A. (2014): ***(Re)configuration of Water Resources Management in Mongolia: A Critical Geopolitical Analysis***. ICDD Working Paper No. 13. Kassel: kassel university press.

2 Books

2.1 Books with ISBN (n=5)

Avlyush, S. (2011): ***Effects of surface gold mining on macroinvertebrate communities. A case study in river systems in the North-East of Mongolia.*** Saarbrücken, Germany: Lambert Academic Publishing.

Bruski, C. (2015): ***Gemeinsame Faulung von Klärschlamm und Fäzes unter extremen klimatischen Bedingungen - Beispiel Mongolei.*** Berlin, Germany: Rhombos-Verlag.

Hofmann, J. & Battogtokh, D. (eds., 2018): ***Хараа - Ерөө голын сав газрын атлас (Kharaa-Yeröö river basin atlas).***- 2nd Edition, Ulaanbaatar, Berlin.
Download: https://nimbus.igb-berlin.de/index.php/s/3wgXyFSXOzqw6G9

Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (Eds.) (2015): ***Water and Environment in the Selenga-Baikal Basin: International Research Cooperation for an Ecoregion of Global Relevance***. Stuttgart, Germany: ibidem.

Khurelbaatar, G. (2016): ***Development of Soil-Willow-System for wastewater treatment and wood production under the extreme climate conditions of Mongolia***. Berlin, Germany: Rhombos-Verlag.

2.2 Reports

Avlyush, S.; Pfeiffer, M. Karthe, D. & Borchardt, D. (2018): ***Integrated Water Resources Management, Model Region Mongolia - Project Profile***. Magdeburg: Helmholtz Centre for Environmental Research.

Bock, F. (2014): ***Water Supply, Sanitation and Hygiene in Mongolia - an Institutional Analysis.*** Ulaanbaatar: ACF Mongolia.

Ibisch, R., Hofmann, J.; Scharaw, B.; Karthe, D.; Borchardt, D. & Avlyush, S. (2016): ***Synthesis Report on Water Quality***. Ulaanbaatar: MoMo Consortium. 74 pages.

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MoMo Consortium (2009): ***MoMo - IWRM in Central Asia – Model Region Mongolia (MoMo): Case Study in the Kharaa River Basin. Final Project Report***. Magdeburg: Helmholtz Centre for Environmental Research.
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2.3 Book Chapters (n=15)

Batbayar, G.; Karthe, D.; Pfeiffer, M.; von Tümpling, W. & Kappas, M. (2015): ***Influence of urban settlement and mining activities on surface water quality in northern Mongolia.*** In: Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (Eds.) (2015): ***Water and Environment in the Selenga-Baikal Basin: International Research Cooperation for an Ecoregion of Global Relevance,*** pp. 73-86**.** Stuttgart: ibidem.

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Heldt, S.; Karthe, D. & Feld, C. (2015): ***The EU-WFD as an Implementation Tool for IWRM in non-European countries – Case Study: Mongolia.*** In: Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (Eds.) (2015): ***Water and Environment in the Selenga-Baikal Basin: International Research Cooperation for an Ecoregion of Global Relevance,*** pp. 281-299**.** Stuttgart: ibidem.

Hofmann, J.; Oczipka, M.; Ruhtz, T. & Dämpfing, H. (2016): H***ow could unmanned aerial systems (UAS) be used for ecohydrological and ecosystem research? Experiences from first operations of UAS in river flood plains of Northern Mongolia***. In: Stubbe, A.; Kaczensky, P.; Wesche, K.; Samjaa, R.; Stubbe, M.; Reading, R.P. & Gardner, S.L. (Eds.) (2016): ***Erforschung biologischer Ressourcen der Mongolei***, Band 13, pp. 245-262. Halle/Saale, Germany: Selbstverlag der Martin-Luther-Universität Halle-Wittenberg.

Hofmann, J.; Tuul, D. & Enkhtuya, B. (2016): ***Agriculture in Mongolia Under Pressure of Agronomic Nutrient Imbalances and Food Security Demands: A Case Study of Stakeholder Participation for Future Nutrient and Water Resource Management.*** In: Borchardt, D.; Bogardi, J. & Ibisch, R. (2016): ***Integrated Water Resources Management: Concept, Research and Implementation***, pp. 471-514. Heidelberg, Germany & New York, USA: Springer.

Ibisch, R.; Bogardi, J. & Borchardt, D. (2016): ***Integrated Water Resources Management: Concept, Research and Implementation***. In: Borchardt, D.; Bogardi, J. & Ibisch, R. (2016): ***Integrated Water Resources Management: Concept, Research and Implementation***, pp. 3-34. Heidelberg, Germany & New York, USA: Springer.

Ibisch, R.; Leidel, M.; Niemann, S.; Hornidge, A.K. & Goedert, R. (2016): ***Capacity Development for Integrated Water Resources Management: Lessons Learned from Applied Research Projects***. In: Borchardt, D.; Bogardi, J. & Ibisch, R. (2016): ***Integrated Water Resources Management: Concept, Research and Implementation***, pp. 335-376. Heidelberg, Germany & New York, USA: Springer.

Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (2015): ***Water and Environment in the Selenga-Baikal***

Basin: International Research Cooperation for an Ecoregion of Global Relevance. Editorial. In: Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (Eds.) (2015): ***Water and Environment in the Selenga-Baikal Basin: International Research Cooperation for an Ecoregion of Global Relevance,*** pp. 1-13**.** Stuttgart: ibidem.

Karthe, D & Heldt, S. (2015): ***Challenges for Science-Based IWRM Implementation in Mongolia: Experiences from the Kharaa River Basin.*** In: Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (Eds.) (2015): ***Water and Environment in the Selenga-Baikal Basin: International Research Cooperation for an Ecoregion of Global Relevance,*** pp. 265-280**.** Stuttgart: ibidem.

Karthe, D.; Heldt, S.; Rost, G.; Londong, J.; Ilian, J.; Heppeler, J.; Khurelbaatar, G.; Sullivan, C.; van Afferden, M.; Stäudel, J.; Scharaw, B.; Westerhoff, T.; Dietze, S.; Sigel, K.; Hofmann, J.; Watson, V. & Borchardt, D. (2015): ***Modular Concept for Municipal Waste Water Management in the Kharaa River Basin, Mongolia***. In: Borchardt, D.; Bogardi, J. & Ibisch, R. (2016): ***Integrated Water Resources Management: Concept, Research and Implementation***, pp. 649-681. Heidelberg, Germany & New York, USA: Springer.

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Menzel, L. (2010): ***Wasser als limitierender Entwicklungsfaktor***. In: Strigel, G.; Ebner von Eschenbach, A.D. & Barjenbruch, U. (Eds.) (2010): ***Wasser – Grundlage des Lebens. Hydrologie für eine Welt im Wandel***, pp. 82-87. Stuttgart: Schweizerbart.

Rode, M.; Hartwig, M.; Wagenschein, D.; Kebede, T. & Borchardt, D. (2015): ***The importance of hyporheic zone processes on ecological functioning and solute transport of streams and rivers***. In: Chicharo, L.; Müller, F. & Fohrer, N. (2015) (Eds.): ***Ecosystem Services and River Basin Ecohydrology***, pp. 57-82. Dordrecht, The Netherlands: Springer Science + Business Media.

Törnros, T. & Menzel, L. (2010): ***Heading for knowledge in a data scarce river basin: Kharaa, Mongolia***. In: Herrmann, A. & Schumann, S. (Eds.) (2010): ***Status and Perspectives of Hydrology in Small Basins***, pp. 270–275. Wallingford: IAHS Publication 336.

Westphal, K.; Sullivan, C.; Gregersen, P.; Karthe, D. (2015): ***Potential and feasibility of willow vegetation filters in Mongolia.*** In: Karthe, D.; Chalov, S.; Kasimov, N. & Kappas, M. (Eds.) (2015): ***Water and Environment in the Selenga-Baikal Basin: International Research Cooperation for an Ecoregion of Global Relevance,*** pp. 301-320**.** Stuttgart: ibidem.

3 Theses

3.1 Bachelor Theses (n=16)

Brück, O. (2013): ***Hydrologische Modellierung mit HBV-D auf der Grundlage großskaliger Klimamodelldaten des Water and Global Change Project (WATCH) im Einzugsgebiet des Kharaa Gol, Mongolei.*** {B.Sc. Thesis; Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Drees, L. (2011): ***Abschätzung der durchschnittlichen Erosion im Einzugsgebiet des Kharaa, Mongolei – Einfluss der Auflösung des digitalen Geländemodells.*** {B.Sc. Thesis, Institute for Landscape Ecology, WWU Münster; project supervisors: Dr. Jörg Priess und Dr. Christian Schweitzer}

Evers, L. (2012): ***Die Algorithmen von Entscheidungsprozessen und die Anwendung des Analytisch Hierarchischen Prozesses (AHP) am Beispiel siedlungswasserwirtschaftlicher Maßnahmen***. {B.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

Gröning, J. (2016): ***Untersuchung der Vegetation und Ufererosion in der Flussaue des Kharaa Gol (Mongolei) mittels aktueller hochauflösender Luftbilder von Kleindrohnen als konzeptioneller Beitrag für ein ökologisches Auenmonitoring***. {B.Sc. Thesis, Department of Geography, FU Berlin; project supervisor: PD Dr. Jürgen Hofmann}

Heldt, E. (2012): ***UN Menschenrecht auf sauberes Trinkwasser und Sanitärversorgung – Eine Herausforderung für die Siedlungswasserwirtschaft.*** {B.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

Jossa, P. (2011): ***Aufbau und Betrieb einer häuslichen Toilettenanlage mit Stoffstromtrennung als zentraler Bestandteil eines integrativen Sanitärsystems für Jurten-Siedlungen in der Stadt Darkhan, nördliche Mongolei.*** {B.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

Mewes, B. (2012): ***Simulation der Schneebedeckung im Kharaa-Einzugsgebiet (Mongolei) mit Hilfe des hydrologisch-klimatologischen TRAIN-Modells***. {B.Sc. Thesis, Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Ochirbold, B. (2018): ***Hygienic assessment of surface, ground and drinking water in the Kharaa River Basin***. {B.Sc. Thesis, Environmental Engineering Section, German-Mongolian Institute for Resources and Technology, Nalaikh, Mongolia; project supervisor: Daniel Karthe}

Pamler, A. (2016): ***Evaluierung und exemplarische Auswertung der bisher verfügbaren***

Fernerkundungsdaten in der Google Earth Engine oder anderer Quellen für Monitoringaufgaben in der Mongolei. {B.Eng. Thesis, Faculty of Spatial Information, HTW Dresden; project supervisor: Prof. Dr. Martin Oczipka}

Platz, C. (2017): ***Kombinierte Prozessierung von Luftbilddaten und terrestrischen Bilddaten zu Orthobildmosaiken und 3D-Modellen zur Visualisierung im Internet und für die GIS Auswertung***. {Bachelor thesis, Faculty of Spatial Information, HTW Dresden; project supervisors: Prof. Dr. Martin Oczipka, Prof. Dr. Volker Gerbeth}

Riechmann, M. (2013). ***Identifikation und Beschreibung der Kernelemente eines funktionalen Designs eines leitungsungebundenen, stoffstrombasierten Sanitärsystems anhand der iPiT®.*** {B.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

Schwemmle, R. (2015): ***Abflussentwicklung im oberen Einzugsgebiet des Tuul (Mongolei)***. {B.Sc. Thesis, Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Stöckigt, B. (2017): ***Vergleichende Untersuchung von UAV-Befliegungen in Flußauen in der Mongolei für das Umweltmonitoring unter besondeer Berücksichtigung von 3D-Modellen***. {Bachelor thesis, Faculty of Spatial Information, HTW Dresden; project supervisors: Prof. Dr. Martin Oczipka, Prof. Dr. Ulrich Walz}

Wenzel, F. (2014): ***Temperaturentwicklung in Zentralasien. Analyse ausgewählter Meßstationen von 1950 bis 2010.*** {B.Sc. Thesis; Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Ziergöbel, R. (2012): ***Analyse und Vergleich von Klimadaten verschiedener meteorologischer Stationen aus dem Flusseinzugsgebiet des Kharaa (Mongolei)***. {B.Sc. Thesis, Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Zipfel, M. (2012): ***Bedeutung von Salz für die Bodennutzung und Urindüngung***. {B.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

3.2 Master Theses (n=29)

Batbayar, G. (2012): ***Arsenic Content in Water Samples of Mongolia: Using an Arsolux Test Kit Based on Bioreporter.*** {M.Sc. Thesis, Institute of Geography, National University of Mongolia; project advisors: Martin Pfeiffer, Konrad Siegfried, Daniel Karthe}.

Behrens, S. (2011): ***Modellierung des Schwebstoffaustrags in einem mesoskaligen Einzugsgebiet in der Mongolei***. {Diploma Thesis; Institute Geosciences and Geography, Halle University; project supervisor: Dr. Michael Rode}

Berner, S. (2007): ***Hydromorphologische Untersuchungen an einem Fließgewässer im Norden der Mongolei (Kharaa-Einzugsgebiet): Grundlagenerarbeitung für die Interpretation biologischer Daten***. {Diploma Thesis; Center for Environmental Systems Research, Kassel University; project supervisor: Dr. Michael Rode}

Bock, F. (2015): ***Analysing Institutions for Water Supply and Sanitation Services in Ulan Bator, Mongolia - A New Institutional Economics Perspective.*** {Master Thesis; Institute of Infrastructure and Resources Management, Leipzig University; project supervisor: Dr. Katja Sigel}

Enders, M. (2016): ***Google Earth Engine – ein Cloud basiertes Werkzeug für die Fernerkundung : Prüfung und Test hinsichtlich der Eignung für Umweltanalysen***. {M.Eng. Thesis, Faculty of Spatial Information, HTW Dresden; project supervisors: Prof. Dr. Martin Oczipka, PD Dr. Jürgen Hofmann}

Flörl, M. (2017): ***Verbreitung der Auengehölze am Fluss Kharaa: Eine Fernerkundungsstudie mit Sentinel-2 Daten***. {Master Thesis; Department of Geography, Göttingen University; project supervisor: Dr. Daniel Karthe}

Grau, M. (2011): ***Co-Vergärung von Klärschlamm und Fäzes aus Trockentrenntoiletten***. {M.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

Heinen, M. (2012): ***Modellierung der Auswirkungen von Landnutzungsänderungen auf die Wasserressourcen der Mongolei im Zeitraum 1971-2100, mit Hilfe WaterGAP3***. {Diploma Thesis, University of Bonn; project supervisors: Dr. Tim aus der Beek and Marcus Malsy}

Heldt, S. (2014): ***The EU-WFD as an Implementation Tool for IWRM in non-European Countries. Case Study: Drafting a River Basin Management Plan for the Kharaa River in Northern Mongolia.*** {Master Thesis, University of Duisburg-Essen and University Nijmegen; project supervisor: Daniel Karthe}

Heppeler, J. (2012): ***Optimization of the operation of a Sequencing Batch Reactor on the example of the pilot wastewater treatment plant in Darkhan, Mongolia.*** {Master Thesis, Stuttgart University; project supervisor: Dr.-Ing. Buren Scharaw}

Hoser, S. (2016): ***Landnutzungsklassifizierung in Flussauen des Kharaa-River-Basins, Mongolei mit dem Schwerpunkt Daten und Software der ESA Copernicus Mission***. {M.Eng. Thesis, Faculty of Spatial Information, HTW Dresden; project supervisors: Prof. Dr. Martin Oczipka, PD Dr. Jürgen Hofmann}

Hülsmann, L. (2012): ***Process-based Hydrological Modeling using SWAT: The Effect of Subarctic Conditions on Water Resources in the Large-Scale River Catchment Kharaa, Mongolia.*** {M.Sc. Thesis, Institute of Geology, Göttingen University; project supervisors: Dr. Daniel Karthe, Dr. Jörg Priess and Dr. Christian Schweitzer}

Körner, A. (2011): ***Schneehydrologische Prozesse in der Mongolei. Eine explorative Studie zur***

Anwendbarkeit des Simulationsmodells TRAIN. {Diploma Thesis; Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Köser-Unruh, O. (2014): ***Fernerkundliches Monitoring von Flussauen in der Mongolei auf Basis von Landsat-, ASTER- und RapidEye-Daten***. {Diploma Thesis, Faculty of Spatial Information, HTW Dresden; project supervisor: Prof. Dr. Martin Oczipka}

Küstner, G. (2018): ***The influence of forest cover and land use on water quality and macroinvertebrate communities in Tunkhel River catchment in northern Mongolia*** . {M.Sc. Thesis, Master program Global Change Ecology, University Bayreuth; Project supervisors: PD Dr. Dr. h.c. Martin Pfeiffer; PD Dr. Jürgen Hofmann}

Lohmeyer, T. (2017): ***Kartierung der Landbedeckung im Selenga-Baikal Einzugsgebiet auf Basis multitemporaler Proba-V Aufnahmen***. {Master Thesis; Department of Geography, Göttingen University; project supervisor: Dr. Daniel Karthe}

Müller-Meissner, M. (2011): ***Veränderung des Wasserhaushaltes nach Brand in der Taiga im Westkhentej, Nordmongolei: Charakterisierung hydroklimatischer Standortparameter sowie Analyse des Blattflächenindexes durch Fernerkundung (MODIS)***. {Diploma Thesis; Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Munkhtsetseg, Z. (2008): ***Hydrological modelling in the Kharaa basin, north-eastern Mongolia***. {M.Sc. Thesis; National University of Mongolia / Center for Environmental Systems Research, Kassel University; project supervisor: Prof. Lucas Menzel}

Okurdil, J. (2011): ***Untersuchung des Forstbestandes in der Mongolei. Exkurs: Brandbekämpfung mithilfe von MODIS als Modell der Fernerkundung***. {Thesis for the First State Examination, Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Pailliart, B. (2011): ***Räumliche und zeitliche Variabilität der Schneebedeckung im Einzugsgebiet des Kharaa (Mongolei). Eine Untersuchung der Winter 2000/2001 bis 2009/2010 mit MODIS-Schneeprodukten***. {Diploma Thesis, Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Postelt, T. (2013): ***Förderung der Umweltbildung mongolischer Jugendlicher – Bewertung der Bildungsmaßnahme im Rahmen des Projektes Integrated Water Resources Management Model Region Mongolia (MoMo)***. {M.Ed. Thesis; University of Education, Heidelberg; project supervisor: Prof. Dr. Dr. h.c. Michael Walther}.

Röhlig, H. (2017): ***Zusammenhänge zwischen Landnutzung und Wasserqualität von Fließgewässern: Eine GIS-gestützte Analyse am Beispiel der Kharaa- und Eroo-Einzugsgebiete im Norden der Mongolei***. {M.Sc. Thesis, Department of Geography, Göttingen University; project supervisor: Prof. Dr. Daniel Karthe}

Schlüter, J. (2013): ***Qualitative Evaluation des Umweltbildungsprojektes „Schulnetzwerk Kharaa:***

Schulen für einen lebendigen Fluss". Ein Vergleich von Schülervorstellungen und wissenschaftlichen Konzepten des Integrierten Wasserressourcen-Managements (IWRM) zur didaktischen Rekonstruktion der Wasserproblematik in der Mongolei. {Master Thesis, Department of Geography, Göttingen University; project supervisors: Prof. Dr. Michael Walther and Dr. Steffen Niemann}

Schuster, C. (2012): ***Technische Entwicklung und ökonomischer Vergleich angepasster, leitungsungebundener Sanitärsysteme mit integrierter Abfallentsorgung für Jurten-Siedlungen in der Stadt Darkhan, Mongolei.*** {M.Eng. Thesis, Department Urban Water Management, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jörg Londong}

Smith, N. (2017): ***GIS-basierte Untersuchung des Einflusses der Landnutzung auf die Wasserqualität in Fließgewässern im Einzugsgebiet des Orkhon, Mongolei.*** {M.Sc. Thesis, Department of Geography, Göttingen University; project supervisor: Prof. Dr. Daniel Karthe}

Sunjidmaa, N. (2018): ***Turbidity dynamics during storm events in a Mongolian River with a high environmental gradient (A case study of Kharaa River Basin, Mongolia)***. {M.Sc. Thesis, Institute of Hydrobiology, Technical Universiy Dresden; Project supervisors: Prof. Dr. Dietrich Borchardt; Dr. Dr.h.c. Martin Pfeiffer; Project advisor: Katja Westphal}

Unger, J. (2013): ***Institutional Analysis of the Urban Drinking Water Supply and Sanitation Services in Ukraine and Mongolia – a cooperative study***. {Master thesis, Humboldt-Universität zu Berlin, Faculty of Agriculture and Horticulture; project supervisor: Dr. Katja Sigel}

Westphal, K. (2013): ***Scenario development of a large-scale willow based wastewater treatment for the village of Khongor in Mongolia with special focus on design and dimensioning.*** {M.Sc. Thesis, Brandenburg University of Technology Cottbus, Faculty of Environmental Sciences and Process Engineering; project supervisors: Chris Sullivan, Dr. Manfred van Afferden}

Withanachchi, S.S. (2013): ***An analysis of politics of scale in water governance and management in Mongolia***. {M.A. Thesis, Kassel University; project supervisor: Dr. Annabelle Houdret}

3.3 Doctoral Theses (n=13)

aus der Beek, T. (2011): ***Large scale modelling of irrigation water use and its impact on water resources***. {Dissertation, Department of Geography, Heidelberg University; project supervisors: Prof. Dr. Lucas Menzel and Prof. Dr. Dietrich Borchardt}

Avlyush, S. (2013): ***Life cycle and secondary production of Ephemeroptera, Plecoptera and Trichoptera (Insecta) under an extreme continental climate (River Kharaa, Mongolia).*** {Dissertation, Department for Hydrosciences, Technical University Dresden; project supervisor: Prof. Dr. Dietrich Borchardt}

Batbayar, G. (2018): ***Chemical water quality in Selenge River Basin in Mongolia: spatial-temporal patterns and land use influence***. {Dissertation, Department of Geography, Göttingen University; project supervisors: Dr. Dr. h.c. Martin Pfeiffer and Prof. Dr. Daniel Karthe}

Bruski, C. (2015): ***Gemeinsame Faulung von Klärschlamm und Fäzes unter extremen klimatischen Bedingungen - Beispiel Mongolei.*** {Dissertation, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jög Londong}

Hartwig, M. (2016): ***Impact of fine sediment and nutrient input on the hyproheic functionality: A case study in Northern Mongolia.*** {Dissertation, Department for Hydrosciences, Technical University Dresden; project supervisor: Prof. Dr. Dietrich Borchardt}

Kaus, A. (2018): ***Ecological assessment of salmonid populations in a country undergoing rapid environmental and socioeconomic transitions (Mongolia).*** {Dissertation, Department for Hydrosciences, Technical University Dresden; project supervisor: Prof. Dr. Dietrich Borchardt}

Khurelbaatar, G. (2016): ***Development of Soil-Willow-System for wastewater treatment and wood production under the extreme climate conditions of Mongolia***. {Dissertation, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jög Londong}

Kopp, B. (2016): ***Runoff generating processes in a mountainous headwater in the transition zone between steppe and taiga in northern Mongolia.*** {Department of Geography, Heidelberg University; project supervisor: Prof. Dr. Lucas Menzel}

Kraetz, D. (2009): ***Ökologie der Fischbestände in Fließgewässern des Khentii-Gebirges (Mongolei): Bestandsaufbau, Dynamik und Gefährdung durch den Gold-Tagebau.*** {Dissertation, Faculty of Forest, Geo and Hydrosciences, TU Dresden; project supervisor: Prof. Dr. Dietrich Borchardt}

Malsy, M. (2016): ***Assessing the impacts of global change on water quantity and quality: Large-scale modelling studies for Central Asia***. {Dissertation, Department for Hydrosciences, Technical University Dresden; project supervisor: Prof. Dr. Dietrich Borchardt}

Schweitzer, C. (2012): ***Modelling land-use and land-cover change and related environmental impact in Northern Mongolia***. {Dissertation, Martin-Luther-Universität Halle-Wittenberg; project supervisor: Dr. Jörg Priess}

Stäudel, J. (2017): ***Development, Implementation and Operation of Integrated Sanitation Systems Based on Material-Flows: Integrated Sanitation in the City of Darkhan, Mongolia - A Practicable Example.*** {Dissertation, Bauhaus-Universität Weimar; project supervisor: Prof. Dr. Jög Londong}

Theuring, P. (2018): ***Suspended Sediments in the Kharaa River: Sources and Impacts***. {Dissertation, Potsdam University; project supervisor: Prof. Dr. Michael Rode}

3.4 Habilitation Theses (n=1)

Karthe, D. (2017): ***Water in Central Asian Drylands: Major Challenges, Recent Developments and Management Options***. {Habilitation thesis, Institute of Geography, Göttingen University}.