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

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.

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. 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.

Hartwig, M. & Borchardt, D. (2014): ***Alteration of key hyporheic functions through biological and physical clogging along a nutrient and fine-sediment gradient.*** Ecohydrology, DOI: 10.1002/eco.1571

Hartwig, M.; Theuring, P.; Rode, M. & Borchardt, D. (2012): ***Suspended sediments in the Kharaa River catchment (Mongolia) and its impact on hyporheic zone functions.*** Environmental Earth Sciences 65(5):1535-1546 doi:10.1007/s12665-011-1198-2.

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.

Hofmann, J.; Venohr, M.; Behrendt, H. & Opitz, D. (2010): ***Integrated Water Resources Management in Central Asia: Nutrient and heavy metal emissions and their relevance for the Kharaa River Basin, Mongolia***.

Water Science and Technology 62(2):353-363.

Hofmann, J.; Watson, V. & Scharaw, B. (2014): ***Groundwater quality under stress: contaminants in the Kharaa River basin (Mongolia)***. Environmental Earth Sciences. doi: 10.1007/s12665-014-3148-2

Horlemann, L. & Dombrowsky, I. (2012): ***Institutionalising IWRM in developing and transition countries: the case of Mongolia***. Environmental Earth Sciences 65(5):1547-1559. doi:10.1007/s12665-011-1213-7.

Houdret, A.; Dombrowsky, I. & Horlemann, L. (2013) ***The institutionalization of river basin management as politics of scale - insights from Mongolia***. Journal of Hydrology. doi:10.1016/j.jhydrol.2013.11.037

Hülsmann, L.; Geyer, T.; Schweitzer, C.; Priess, J. & Karthe, D. (2014): ***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. doi:10.1007/s12665-014-3173-1

Karthe, D.; Heldt, S.; Houdret, A. & Borchardt, D. (2014): ***IWRM in a country under rapid transition: lessons learnt from the Kharaa River Basin, Mongolia.*** Environmental Earth Sciences. doi:10.1007/s12665-014-3435-y

Karthe, D.; Chalov, S. & Borchardt, D. (2014): ***Water Resources and Their Management in Central Asia in the Early 21st Century: Status, Challenges and Future Prospects***. Environmental Earth Sciences. DOI : 10.1007/s12665-014-3789-1

Kopp, B.J.; Minderlein, S. & Menzel, L. (2014): ***Soil moisture dynamics in a mountainous headwater area in the discontinuous permafrost zone of northern Mongolia***. Arctic, Antarctic and Alpine Research 46(2):459-470.

Lange, J.; Kopp, B.J.; Bents, M. & Menzel, L. (2014): ***Tracing variability of runoff generation in mountainous permafrost of semi-arid northeastern Mongolia.*** Hydrological Processes. DOI: 10.1002/hyp.10218

Malsy, M.; aus der Beek, T.; Flörke, M. (2014): ***Evaluation of large-scale precipitation data sets for water resources modelling in Central Asia***. Environmental Earth Sciences. doi 10.1007/s12665-014-3107-y

Menzel, L.; Hofmann, J. & Ibisch, R. (2011): ***Untersuchung von Wasser- und Stoffflüssen als Grundlage für ein Integriertes Wasserressourcen – Management im Kharaa-Einzugsgebiet (Mongolei)***. Hydrologie und

Wasserbewirtschaftung 55(2):88-103.

Minderlein, S. & Menzel, L. (2014): ***Evapotranspiration and energy balance dynamics of a semi arid mountainous steppe and shrubland site in northern Mongolia***. Environmental Earth Sciences. doi: 10.1007/s12665-014-3335-1.

Pfeiffer, M.; Batbayar, G.; Hofmann, J.; Siegfried, K.; Karthe, D. & Hahn-Tomer, S. (2014): ***Investigating arsenic (As) occurrence and sources in ground, surface, waste and drinking water in northern Mongolia***. Environmental Earth Sciences. doi: 10.1007/s12665-013-3029-0.

Priess, J.; Schweitzer, C.; Batkhihig, O.; KoschitzkI, T. & Wurbs, D. (2014): ***Impacts of land-use dynamics on erosion risks and water management in Northern Mongolia.*** Environmental Earth Sciences. doi: 10.1007/s12665-014-3380-9.

Priess, J.; Schweitzer, C.; Wimmer, F. et al. (2011): ***The consequences of land-use change and water demands in Central Mongolia***. Land Use Policy 28(1):4-10.

Rost, G.; Londong, J.; Dietze, S. & Osor, G. (2014): ***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 DOI: 10.1007/s12665-014-3701-z.

Scharaw, B.; Röll, S.; Westerhoff, T. et al. (2009): ***Simulation und Optimierung eines Trinkwasserversorgungssystems im Rahmen eines IWRM***. at - Automatisierungstechnik 57(12):601-612.

Schweitzer, C.; Das, S. & Priess, J.A. (2011): ***SITE – a generic land-use modelling framework. Design, features and a case study application***. Environmental Modelling & Software 26(8):1052-1055.

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.

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Sigel, K.; Stäudel, J. & Londong, J. (2014): ***Experiences with stakeholder involvement in strategic sanitation planning: a case study of the city of Darkhan, Mongolia***. Water Science & Technology: Water Supply 14(3):504-512. doi: 10.2166/ws.2014.001

Surenkhorloo, P. (2009): ***Updated species list of stoneflies (Plecoptera) of Mongolia***. Aquatic Insects 31(1):707-720.

Theuring, P.; Rode, M.; Behrens, S.; Kirchner, G. & Jha, A. (2013): ***Identification of fluvial sediment sources in a meso-scale catchment, Northern Mongolia***. Hydrological Processes 27(6):845-856, doi: 10.1002/hyp.9684.

1.2 Other Peer-Reviewed Journals

Chalov, S.; Kasimov, N.; Lychagin, M.; Belozerova, E.; Shinkareva, G.; Theuring, P.; Romanchenko, A.; Alexeevsky, N. & Garmaev, E. (2013): ***Water resources assessment of the Selenga – Baikal river system***. GeoÖko 34(1-2):77-102.

Cyffka,B. & Karthe, D. (2013): ***Water resources and riverine ecosystems in Eastern Central Asia: Management perspectives in the context of multiple stressors.*** GeoÖko 34(1-2):3-4.

Karthe, D.; Kasimov, N.; Chalov, S.; Shinkareva, G.; Malsy, M.; Menzel, L.; Theuring, P.; Hartwig, M.; Schweitzer, C.; Hofmann, J.; Priess, J. & Lychagin, M. (2014): ***Integrating Multi-Scale Data for the Assessment of Water Availability and Quality in the Kharaa - Orkhon - Selenga River System.*** Geography, Environment, Sustainability 3(7):65-86.

Karthe, D.; Londong, J.; Reeh, T. & Hufert, F. (2013): ***Wassermanagement in mongolischen Tourist Ger Camps: Status Quo und Herausforderungen***. tw – Zeitschrift für Tourismuswissenschaft 5(2):215-221.

Karthe, D.; Malsy, M.; Kopp, B.; Minderlein, S. & Hülsmann, L. (2013): ***Assessing water availability and its drivers in the context of an integrated water resources management (IWRM): a case study from the Kharaa River Basin, Mongolia.*** GeoÖko 34(1-2):5-26.

Krätz, D.A.; Ibisch, R.B.; Saulyegu, A.; Ganganmurun, E.; Soninkhishig, N. & Borchardt, D. (2010): ***Impacts of Open Placer Gold Mining on Aquatic Communities in Rivers of the Khentii Mountains, North-East Mongolia.*** Mongolian Journal of Biological Sciences 8(1):41-50.

Malsy, M.; Aus der Beek, T.; Eisner, S. & Flörke, M. (2012): ***Climate change impacts on Central Asian water resources***. Advances in Geosciences 32:77-83.

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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

Aus der Beek, T.; Wimmer, F.; Törnros, T. & Menzel, L. (2009): ***Hydrologische Aspekte des Projektes "Integriertes Wasserressourcen-Management in Zentralasien: Modellregion Mongolei (MoMo)***. In: Fohrer, N.; Schmalz, B.; Hörmann, G. & Bieger, K. (Hrsg.) (2009): ***Hydrologische Systeme im Wandel - Beiträge zum Tag der Hydrologie 2009***, S. 101-107. Hennef: Forum für Hydrologie und Wasserbewirtschaftung.

Hofmann, J.; Rode, M. & Theuring, P. (2013): ***Recent developments in river water quality in a typical Mongolian river basin, the Kharaa case study***. Proceedings of IAHS-IAPSO-IASPEI Assembly, Gothenburg, Sweden, July 2013. IAHS Publication 361, pp. 123-131.

Houdret, A.; Schweitzer, C. & Priess, J. (2012): ***IWRM in Mongolia: caught between national aspirations and local realities***. In: Streusloff, H. (Ed.) (2012): ***IWRM Karlsruhe 2012 Conference Proceedings: Interactions of Water with Energy and Materials in Urban Areas and Agriculture***, pp. 72-79. München: Fraunhofer Verlag.

Karthe, D. (2014): ***Wasser, Landschaft und Mensch in der Mongolei: Entwicklung und Umsetzung eines Integrierten Wasserressourcen-Managements im Kharaa-Einzugsgebiet.*** In: Cyffka, B. (2014): ***Wasser – Landschaft – Mensch in Vergangenheit, Gegenwart und Zukunft. Beiträge zum Tag der Hydrologie am 20./21. März 2014 an der***

Katholischen Universität Eichstätt-Ingolstadt, pp. 71-78. Forum für Hydrologie und Wasserbewirtschaftung, Heft 34.14. Hennef: Fachgemeinschaft Hydrologische Wissenschaften in der DWA.

KARTHE, D.; BORCHARDT, D. & KAUS, A. (2011): ***Towards an Integrated Water Resources Management for the Kharaa Catchment, Mongolia***. In: ГУРИНОВИЧ, А.Д. (Hrsg.) (2011): ***Proceedings of the IWA 1st Central Asian Regional Young and Senior Water Professionals Conference, Almaty/Kazakhstan***, S. 79-93.

KARTHE, D.; BORCHARDT, D. & KAUS, A. (2011): ***Towards an Integrated Water Resources Management for the Kharaa Catchment, Mongolia***. In: DARKHAN AGRICULTURAL UNIVERSITY (2011): ***Climate Change and Water Management***. International Conference, Darkhan, S. 85-98.

KARTHE, D.; BORCHARDT, D. & HUFERT, F. (2012): ***Implementing IWRM: Experiences from a Central Asian Model Region.*** In: PANDYA, A.B. (Hrsg.) (2012): ***India Water Week 2012. Water, Energy and Food Security: Call for Solutions***, Part A3, pp. 1-15. Delhi: Ministry of Water Resources, Government of India.

KARTHE, D.; CHALOV, S.; THEURING, P. & BELOZAROVA, E. (2012): ***Integration meso- und makroskaliger Ansätze zum Wasserressourcen-Monitoring und Management im Baikal-Selenga-Einzugsgebiet***. In: CHIFFLARD, P.; CYFFKA, B.; KARTHE, D. & WETZEL, K.-F. (Ed.)(2012): ***Beiträge zum 44. Jahrestreffen des Arbeitskreises Hydrologie 2012, WasserCluster Lunz am See***, pp. 95-99.

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KARTHE, D.; THEURING, P.; BORCHARDT, D. & HUFERT, F. (2012): ***An Integrated Water Monitoring Concept Designed for a Multi-Stressor Environment: Experiences from the Kharaa River Basin, Mongolia.*** In: TSERASHCHUK, M. (Ed.) (2012): ***Proceedings of the IWA Young and Senior Water Professionals Conference St Petersburg 2012 Part I***, pp. 40-48.

KAUS, A.; KARTHE, D. & BORCHARDT, D. (2011): ***Incorporating fish ecology into water resources management: Current research in Northern Mongolia***. In: ГУРИНОВИЧ, А.Д. (Hrsg.) (2011): ***Proceedings of the IWA 1st Central Asian Regional Young and Senior Water Professionals Conference,***

Almaty/Kazakhstan, S. 94-102.

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Priess, J.; Schwarz, N. & Lautenbach, S. (2010): ***Feedbacks in socio-environmental land systems***. In: Swayne, D.A.; Wanhong, Y; Voinov, A. et al. (2010): ***Proceedings of the International Environmental Modelling and Software Society (iEMSs) 2010 International Congress on Environmental Modelling and Software Modelling for Environment's Sake.*** Online: http://www.iemss.org/iemss2010/proceedings.html

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1.4 Other Papers

Aus der Beek, T. & Malsy, M. (2011): ***MoMo: Integriertes Wasserressourcen-Management in Zentralasien - Modell-Region Mongolei***. Hydrobrief 52:3-5.

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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Gawel, E.; Sigel, K. & Bretschneider, W. (2011): ***Affordability of Water Supply in Mongolia. Empirical Lessons for Measuring Affordability***.

Leipzig: UFZ Discussion Paper.

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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.

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Karthe, D.; Sigel, K.; Scharaw, B.; Stäudel, J.; Hufert, F. & Borchardt, D. (2012): ***Towards an integrated concept for monitoring and improvements in water supply, sanitation and hygiene (WASH) in urban Mongolia***. Water & Risk 20:1-5.

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

Paulsen, H. (2010): ***MoMo: Water Resources Management in Mongolia***. Geoconnexion International 10(1), pp. 23f.

Paulsen, H. (2011): ***Sensors in Action in Mongolia***. Geoconnexion International 10(4), pp. 21-23.

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

Schweitzer, C. & Priess, J. (2009): ***Modelling land-use and land-cover change and the impact on water resources in northern Mongolia***. GLP Newsletter 5:9-12.

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

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

2.2 Reports

Karthe, D. & Borchardt, D. (2012): ***Project Profile - Integrated Water Resources Management, Model Region Mongolia***. Magdeburg.

MoMo-Konsortium (2009): ***MoMo - IWRM in Central Asia – Model Region Mongolia (MoMo): Case Study in the Kharaa River Basin. Final Project Report***.

2.3 Book Chapters

Dombrowsky, I.; Houdret, A.; Horlemann, L. (2014): ***Evolving river basin management in Mongolia?*** In: Huitema, D. & Meijerink, S. (Eds): ***The politics of river basin organisations,*** pp. 265-297. Cheltenham: Edward Elgar.

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.

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.

3 Theses

3.1 Bachelor Theses

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}

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}

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}

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

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}

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}

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}

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}.

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}

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

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}

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}

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}

4 Forthcoming Publications

This section includes manuscripts that have been submitted and are under review or in press. Papers that are still in preparation are not included.

4.1 Peer-Reviewed Journals (with IF and others)

4.2 Book Chapters

KARTHE, D.; HELDT, S.; ROST, G.; ILIAN, J.; HEPPELER, J.; SULLIVAN, C.; STÄUDEL, J.; SCHARAW, B.; WESTERHOFF, T.; SIGEL, K.; WATSON, V. & BORCHARDT, D. (2014): ***Modular Concept for Municipal Waste Water Management in the Kharaa River Basin, Mongolia***. In: BORCHARDT, D. & IBISCH, R. (2014): ***Integrated Water Resources Management: Concept, Research and Implementation.*** [In Review]

RODE, M.; HARTWIG, M.; WAGENSCHEIN, D.; KEBEDE, T.; BORCHARDT, D. (2014): ***The importance of hyporheic zone processes on ecological functioning and solute transport of streams and rivers***. In: CHÍCHARO, L.; MULLER, F.; FOHRER, N.; WOLANSKI, E. (2014) (Eds.): ***Ecosystem Services and River Basin Ecohydrology***. Springer [in press]