

Further reading

The chapters within this book are based on the research outcomes of the SASSCAL research portfolio 1.0. They provide a representative overview of the research and capacity development activities within SASSCAL during its first years since its implementation. However, a one-volume book cannot cover the whole range of research results that emerged from a diverse and rich initiative such as SASSCAL. By the time this book has been printed, the research output in terms of peer-reviewed publications summed up to over 100 articles or book chapters. Also, numerous Bachelors, Honours, Masters, and PhD projects have been conducted by students in the context of SASSCAL. The majority of the theses were funded by SASSCAL. Some theses were funded through other sources but were associated to SASSCAL research topics or tasks. These student projects of different thematic areas (i.e., climate, water, forestry, agriculture and biodiversity) dealt with research questions from both, social and natural science perspectives. They produced a rich body of knowledge on the studied social or natural systems and their interactions. Several of the theses also resulted in peer-reviewed articles that were published in national or international journals in order to make the results known to the broader scientific community.

The electronic copies of many of the articles or book chapters and even some of the students' theses listed below are freely available in the internet or can be obtained on request from the authors. The contact details of the authors can be found on the SASSCAL Website (www.sasscal.org). Authors usually welcome interest in their research work expressed by the interested public, practitioners or academic colleagues and freely share electronic copies of their publications.

The lists below provide an overview of the broad range of work done and publications and theses that emerged from the activities during the SASSCAL research portfolio 1.0 and invite the reader to follow up on topics of his or her interest by further reading. The publications are sorted according to thematic areas (often they correspond to multiple thematic areas but here they are only assigned to one) and the countries where the studies took place are given (A = Angola, B = Botswana, N = Namibia, S = South Africa, and Z = Zambia).

Journal and book publications of the SASSCAL research portfolio 1.0

Archer, E.R.M., Landman, W.A., Tadross, M.A., Malherbe, J., Weepener, H., Maluleke, P. & Marumbwa, F.M. (2017) Understanding the evolution of the 2014–2016 summer rainfall seasons in southern Africa: Key lessons. <i>Climate Risk Management</i> , 16 , 22-28.	S	Climate
Davis, C.L. & Vincent, K. (2017) Climate risk and vulnerability: a handbook for Southern Africa (2nd Edition), CSIR, Pretoria, South Africa.	S	Climate
Eiselt, K.U., Kaspar, F., Mölg, T., Krähenmann, S., Posada, R. & Riede, J.O. (2017) Evaluation of gridding procedures for air temperature over Southern Africa. <i>Advances in Science and Research</i> , 14 , 163.	A, B, N, S, Z	Climate
Frantz, D., Röder, A., Udelhoven, T. & Schmidt, M. (2015) Enhancing the detectability of clouds and their shadows in multitemporal dryland Landsat imagery: extending Fmask. <i>IEEE Geoscience and Remote Sensing Letters</i> , 12 , 1242-1246.	A, B, N, S, Z	Climate
Haberzettl, T., Baade, J., Compton, J. et al. (2014) Paleoenvironmental investigations using a combination of terrestrial and marine sediments from South Africa-The RAIN (Regional Archives for Integrated Investigations) approach. <i>Zentralblatt für Geologie und Paläontologie, Teil I</i> , 55-73.	S	Climate
Helmschrot, J., Wehberg, J. & Kempf, J. (2014) Aktuelle Beiträge zur deutschen Geoforschung in Afrika. Treffen der Afrikagruppe deutscher Geowissenschaftler (AdG) in Würzburg 2011, Hamburg 2012 und Jena 2013. <i>Zentralblatt für Geologie und Paläontologie, Teil I, Heft 1</i> (ed. by Nägele, Obermiller), Schweizerbart'sche Verlagsbuchhandlung, Stuttgart.	A, B, N, S, Z	Climate
Helmschrot, J., Mucbe, G., Hillmann, T., Kanyanga, J., Butale, M., Nascimento, D.S., Kruger, S., Strohbach, B., Seely, M., Ribeiro, C., De Clercq, W., Kenbatho, P., Josenhans, K. & Jürgens, N. (2015) SASSCAL WeatherNet to support regional weather monitoring and climate-related research in Southern Africa. <i>Hydrological Sciences and Water Security: Past, Present and Future</i> , 366 , 170-171.	A, B, N, S, Z	Climate
Johnson, R.M., Ramond, J.B., Gunnigle, E., Seely, M. & Cowan, D.A. (2017) Namib Desert edaphic bacterial, fungal and archaeal communities assemble through deterministic processes but are influenced by different abiotic parameters. <i>Extremophiles</i> , 21 , 381-392.	N	Climate, Agriculture, Biodiversity

Kaspar, F., Helmschrot, J., Mhanda, A. et al. (2015) The SASSCAL contribution to climate observation, climate data management and data rescue in Southern Africa. <i>Advances in science and research</i> , 12 , 171-177.	A, B, N, S, Z	Climate
Kaspar, F., Tinz, B., Mächel, H. & Gates, L. (2015) Data rescue of national and international meteorological observations at Deutscher Wetterdienst. <i>Advances in Science and Research</i> , 12 , 57-61.	A, B, N, S, Z	Climate
Landman, W.A., Engelbrecht, F., Hewitson, B., Malherbe, J. & van der Merwe, J. (2017) Towards bridging the gap between climate change projections and maize producers in South Africa. <i>Theoretical and Applied Climatology</i> , 1-11.	A, B, N, S, Z	Climate, Agriculture
Li, B., Wang, L., Kaseke, K.F., Li, L. & Seely, M.K. (2016) The impact of rainfall on soil moisture dynamics in a foggy desert. <i>PLoS one</i> , 11 , e0164982.	N	Climate
Marufu, V.J., Hitila, M., Donner, M. et al. (2017) Rapid soil respiration responses to simulated rainfall along the Namib Desert climate gradient. <i>Journal of the Namibia Scientific Society</i> , 64 , 103.		Climate
Posada, R., Nascimento, D., Neto, F.O.S., Riede, J. & Kaspar, F. (2016) Improving the climate data management in the meteorological service of Angola: experience from SASSCAL. <i>Advances in Science and Research</i> , 13 , 97-105.	A, B, N, S, Z	Climate
Weber, T., Helmschrot, J., Berndt, R. & Jacob, D. (2014) Assessment of climate dynamics in the Okavango region using high-resolution ERA-40 reanalysis data. <i>Zentralblatt für Geologie und Paläontologie, Teil I</i> , 171-187.	A, N	Climate
Baumberg, V., Helmschrot, J., Göhmann, H., Steudel, T., Fischer, C. & Flügel, W.A. (2014) Vergleichende hydrologische Modellierung und Bewertung der Abflussdynamik zweier Zuflüsse des Okavango-Flusses. <i>Zentralblatt für Geologie und Paläontologie, Teil I</i> , 189-210.	A	Water
Beyer, M., Koeniger, P., Gaj, M., Hamutoko, J.T., Wanke, H. & Himmelsbach, T. (2016) A deuterium-based labeling technique for the investigation of rooting depths, water uptake dynamics and unsaturated zone water transport in semiarid environments. <i>Journal of Hydrology</i> , 533 , 627-643.	N	Water
Beyer, M., Gaj, M., Königer, P., Hamutoko, J.T., Wanke, H., Wallner, M. & Himmelsbach, T. (2017) Isotopenhydrologische Methoden (2H, 18O) zur Bestimmung der Grundwasserneubildung in Trockengebieten: Potenzial und Grenzen Isotope. <i>Grundwasser</i> , 1-18.	N	Water
Gaj, M., Beyer, M., Koeniger, P., Wanke, H., Hamutoko, J. & Himmelsbach, T. (2016) In situ unsaturated zone water stable isotope (2 H and 18 O) measurements in semi-arid environments: a soil water balance. <i>Hydrology and Earth System Sciences</i> , 20 , 715.	A, N	Water
Gaj, M., Kaufhold, S., Koeniger, P., Beyer, M., Weiler, M. & Himmelsbach, T. (2017) Mineral mediated isotope fractionation of soil water. <i>Rapid Communications in Mass Spectrometry</i> , 31 , 269-280.	N	Water
Hamutoko, J.T., Wanke, H. & Voigt, H.J. (2016) Estimation of groundwater vulnerability to pollution based on DRASTIC in the Niipele sub-basin of the Cuvelai Etosha Basin, Namibia. <i>Physics and Chemistry of the Earth, Parts A/B/C</i> , 93 , 46-54.	N	Water
Hamutoko, J.T., Wanke, H., Koeniger, P., Beyer, M. & Gaj, M. (2017) Hydrogeochemical and isotope study of perched aquifers in the Cuvelai-Etosha Basin, Namibia. <i>Isotopes in environmental and health studies</i> , 53 , 382-399.	N	Water
Helmschrot, J., Kralisch, S. Quintino, M., Vushe, A., Massamba, W., Mosymanyana, E., Steudel, T., Göhmann, H. & Flügel, W.-A. (2014) Environmental information management and hydrological system modelling for the assessment of hydrological ecosystem functions and services (ESF/ESS) in the Okavango River Basin. <i>Zentralblatt für Geologie und Paläontologie; Teil I, Heft 1</i> , 305-337.	N	Water
Helmschrot, J. & Jürgens, N. (2015) Integrated SASSCAL research to assess and secure current and future water resources in Southern Africa. <i>Hydrological Sciences and Water Security: Past, Present and Future</i> , 366 , 168.	A, B, N, S, Z	Water
Himmelsbach, T. (2017) Tiefe, semi-fossile Grundwasserleiter im südlichen Afrika. <i>Geowissenschaftliche Mitteilungen</i> , 67 , 6-18.	N	Water
Kenabatho, P.K. & Parida, B.P. (2017) Challenges for sustainable water resources management in Botswana: The case of data and associated uncertainty. <i>Handbook of Research on Geospatial Science and Technologies</i> , Chapter 7, 115-127.	B	Water
Kenabatho, P.K., Parida, B.P. & Moalafhi, D.B. (2017) Evaluation of satellite and simulated rainfall products for hydrological applications in the Notwane catchment, Botswana. <i>Physics and Chemistry of the Earth, Parts A/B/C</i> , 100 , 19-30.	B	Water, Climate

Kenabatho, P.K., Parida, B.P. Matlhodi, B. & Moalafhi, D.B. (2018) Linking scientific research to development agenda: the case of a hydrometeorological project in the Notwane Catchment, Botswana. <i>Handbook of Research on Geospatial Science and Technologies</i> , Chapter 23, 374-391.	B	Water
Koeniger, P., Gaj, M., Beyer, M. & Himmelsbach, T. (2016) Review on soil water isotope-based groundwater recharge estimations. <i>Hydrological Processes</i> , 30 , 2817-2834.	B, N	Water
Luetkemeier, R. & Liehr, S. (2015) Impact of drought on the inhabitants of the Cuvelai watershed: A qualitative exploration. <i>Drought: Research and Science-Policy Interfacing</i> (ed. by Andreu et al.), 41-48. Taylor & Francis Group, London.	A, N	Water
Luetkemeier, R., Stein, L., Drees, L. & Liehr, S. (2017) Blended Drought Index: Integrated drought hazard assessment in the Cuvelai-Basin. <i>Climate</i> , 5 , 51.	A, N	Water
Mogobe, O., Masamba, W.R.L., Mosimanyana, E., Mosepele, K. (2016) Occurrence of Aluminium and Beryllium in the Okavango Delta, Botswana: Human health risks. <i>Water Resources and Wetlands</i> (ed. by P.Gastescu & P.Bretcan), 270 – 277. Transversal Publishing House, Romania.	B	Water
Muchanga, M. (2017) Understanding sedimentation process in the Makoye Reservoir of Southern Zambia. <i>Journal of Geography</i> , 5 , 77-96.	Z	Water
Pereira Teixeira-Pires, G.J., Fernández-Núñez, H.M. & Sacasas León, C. (2016) Modelación de la aptitud ingeniero-geológica de los suelos de la ciudad de Luanda. <i>Minería y Geología</i> , 32 , 17-34.	A	Water
Schnegg, M. & Bollig, M. (2016) Institutions put to the test: Community-based water management in Namibia during a drought. <i>Journal of Arid Environments</i> , 124 , 62-71.	N	Water
Schnegg, M., Bollig, M. & Linke, T. (2016) Moral equality and success of common-pool water governance in Namibia. <i>Ambio</i> , 45 , 581-590.	N	Water
Studel, T., Bugan, R., Kipka, H., Pfennig, B., Finckh, M., de Clercq, W., Flügel, W.A. & Helmschrot, J. (2015) Implementing contour bank farming practices into the J2000 model to improve hydrological and erosion modelling in semi-arid Western Cape Province of South Africa. <i>Hydrology Research</i> , 46 , 192-211.	S	Water
Twele, A., Martinis, S., Cao, W. & Plank, S. (2015) Inundation mapping using C-and X-band SAR data: From algorithms to fully-automated flood services. <i>Mapping Water Bodies from Space-MWBS 2015</i> , 46-47.	A, B, N, S, Z	Water
Wallner, M., Houben, G., Lohe, C., Quinger, M. & Himmelsbach, T. (2017) Inverse modeling and uncertainty analysis of potential groundwater recharge to the confined semi-fossil Ohangwena II Aquifer, Namibia. <i>Hydrogeology Journal</i> , 25 , 2303-2321.	N	Water
Wanke, H., Nakwafila, A., Hamutoko, J.T., Lohe, C., Neumbo, F., Petrus, I., David, A., Beukes, H., Masule, N. & Quinger, M. (2014) Hand dug wells in Namibia: An underestimated water source or a threat to human health? <i>Physics and Chemistry of the Earth, Parts A/B/C</i> , 76 , 104-113.	N	Water
Andrews, P., Pringle, H. & Zimmermann, I. (2017) Could critical Australian insights illuminate rangeland management in Namibia? <i>Namibian Journal Of Environment</i> , 1 , Section B, 1-6.	N	Agriculture
Bernard, N., Losologolo, M., Batlang, U., Ngwako, S., Mashungwa, G.N., Tselaelese, N.M. & Pule-Meulenberg, F. (2017) Symbiotic performance of grain and wild herbaceous legumes in the Okavango Delta and Tswapong region of Botswana. <i>Symbiosis</i> , 1-10.	B	Agriculture
Bond, W. (2016) Encroaching bush, grass threaten SA farming: by invitation. <i>Farmer's Weekly</i> , 2016 , 6-7.	S	Agriculture, Biodiversity
Chimwamuombe, P.M., Grönemeyer, J.L. & Reinhold-Hurek, B. (2016) Isolation and characterization of culturable seed-associated bacterial endophytes from gnotobiotically grown Marama bean seedlings. <i>FEMS microbiology ecology</i> , 92 .	B, S, N	Agriculture
Cho, M.A., Ramoelo, A. & Dziba, L. (2017) Response of land surface phenology to variation in tree cover during green-up and senescence periods in the semi-arid savanna of Southern Africa. <i>Remote Sensing</i> , 9 , 689.	S	Agriculture, Forestry, Biodiversity
Frantz, D., Stellmes, M., Röder, A., Udelhoven, T., Mader, S. & Hill, J. (2016) Improving the spatial resolution of land surface phenology by fusing medium-and coarse-resolution inputs. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 54 , 4153-4164.	A, B, N, Z	Biodiversity, Forestry
Grönemeyer, J.L., Kulkarni, A., Berkelmann, D., Hurek, T. & Reinhold-Hurek, B. (2014) Rhizobia indigenous to the Okavango region in Sub-Saharan Africa: diversity, adaptations, and host specificity. <i>Applied and environmental microbiology</i> , 80 , 7244-7257.	N	Agriculture

Grönemeyer, J.L., Hurek, T., Bünger, W. & Reinhold-Hurek, B. (2016) <i>Bradyrhizobium vignae</i> sp. nov., a nitrogen-fixing symbiont isolated from effective nodules of <i>Vigna</i> and <i>Arachis</i> . <i>International journal of systematic and evolutionary microbiology</i> , 66 , 62-69.	N	Agriculture
Grönemeyer, J.L., Bünger, W. & Reinhold-Hurek, B. (2017) <i>Bradyrhizobium namibiense</i> sp. nov., a symbiotic nitrogen-fixing bacterium from root nodules of <i>Lablab purpureus</i> , hyacinth bean, in Namibia. <i>International journal of systematic and evolutionary microbiology</i> , 67 , 4884-4891.	N	Agriculture
Gronau, S., Winter, E. & Grote, U. (2017) Modelling nature-based tourism impacts on rural development and conservation in Sikunga Conservancy, Namibia. <i>Development Southern Africa</i> , 34 , 276-294.	N	Agriculture, Biodiversity
Kamwi, J.M., Chirwa, P.W., Manda, S.O., Graz, P.F. & Kätsch, C. (2015) Livelihoods, land use and land cover change in the Zambezi Region, Namibia. <i>Population and Environment</i> , 37 , 207-230.	N	Agriculture, Forestry
Kamwi, J.M., Kaetsch, C., Graz, F.P., Chirwa, P. & Manda, S. (2017) Trends in land use and land cover change in the protected and communal areas of the Zambezi Region, Namibia. <i>Environmental Monitoring and Assessment</i> , 189 , 242.	N	Agriculture
Kesch, K., Stolter, C. & J.U. Ganzhorn (<i>in press</i>) Changes in forage biomass and quality after exclusion of livestock in the southern Kalahari. <i>Ecotropica</i> .	B	Agriculture
Marques, M.J., Schwilch, G., Lauterburg, N. et al. (2016) Multifaceted impacts of sustainable land management in drylands: A review. <i>Sustainability</i> , 8 , 177.	S, Z?	Agriculture, Forestry
Morton, H., Winter, E. & Grote, U. (2016) Assessing natural resource management through integrated environmental and social-economic accounting: The case of a Namibian conservancy. <i>The Journal of Environment & Development</i> , 25 , 396-425.	N	Agriculture
Noga, S.R., Kolawole, O.D., Thakadu, O.T. & Masunga, G.S. (2017) Claims and counterclaims: institutional arrangements and farmers' response to the delivery and adoption of innovations in the Okavango Delta, Botswana. <i>The Journal of Agricultural Education and Extension</i> , 23 , 121-139.	B	Agriculture
Nyirenda, V.R., Kaoma, C., Nyirongo, S., Lwali, C.A. & Chomba, C. (2017) Social exchange and structuralist-constructivism approaches for enhanced ecotourism and food security in wildlife-agrarian mosaic landscapes: insights from eastern Zambia. <i>International Journal of Tourism Policy</i> , 7 , 93-109.	Z	Agriculture, Biodiversity
Mudenda, E.M., Phiri, E., Chabala, L.M. & Sichingabula, H.M. (2016) Water use efficiency of maize varieties under rain-fed conditions in Zambia. <i>Sustainable Agriculture Research</i> , 6 , 1.	Z	Agriculture
Pires, G.J.P.T. & Nuñez H.M.F (2017) Geological-Geotechnical Characterization of the elements, of Luanda Soils, Angola, for Geotechnical Cartography through Analysis of Variability Space of N (Spt) results. <i>The International Journal of Engineering and Science</i> , 6 , 7-14.	A	Agriculture, Water
Schmiedel, U., Kruspe, M., Kayser, L., & Oettlé, N. (2016) The ecological and financial impact of soil erosion and its control—a case study from the semiarid Northern Cape Province, South Africa. <i>Land Degradation & Development</i> , 28 , 74-82.	S	Agriculture
Schneibel, A., Stellmes, M., Röder, A., Finckh, M., Revermann, R., Frantz, D. & Hill, J. (2016) Evaluating the trade-off between food and timber resulting from the conversion of Miombo forests to agricultural land in Angola using multi-temporal Landsat data. <i>Science of the total environment</i> , 548 , 390-401.	A	Agriculture, Forestry
Vorlaufer, T., Falk, T., Dufhues, T. & Kirk, M. (2017) Payments for ecosystem services and agricultural intensification: Evidence from a choice experiment on deforestation in Zambia. <i>Ecological Economics</i> , 141 , 95-105.	Z	Agriculture, Forestry
Baptista, J.A. (2016) Individualization and the ethopolitics of conflict in rural Angola. <i>African Identities</i> , 14 , 161-176.	A	Forestry
Baptista, J.A. (2016) The road of progress: Individualisation and interaction agency in Southeast Angola. <i>Ethnos</i> , 1-22.	A	Forestry
De Cauwer, V., Geldenhuys, C.J., Aerts, R., Kabajani, M. & Muys, B. (2016) Patterns of forest composition and their long term environmental drivers in the tropical dry forest transition zone of southern Africa. <i>Forest Ecosystems</i> , 3 , 23.	A, N	Forestry, Biodiversity
De Cauwer, V., Fichtler, E., Beeckman, H., Graz, F.P., Mertens, J., Van Holsbeeck, S. & Muys, B. (2017) Predicting site productivity of the timber tree <i>Pterocarpus angolensis</i> . <i>Southern Forests: a Journal of Forest Science</i> , 79 , 259-268.	A, N	Forestry

Frantz, D., Röder, A., Stellmes, M. & Hill, J. (2016) An operational radiometric landsat preprocessing framework for large-area time series applications. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 54 , 3928-3943.	A, B, N, Z	Forestry, Biodiversity
Frantz, D., Stellmes, M., Röder, A. & Hill, J. (2017) Fire spread from MODIS burned area data: obtaining fire dynamics information for every single fire. <i>International Journal of Wildland Fire</i> , 25 , 1228-1237.	A, B, N, S, Z	Forestry, Agriculture
Garekae, H., Thakadu, O.T. & Lepetu, J. (2016) Attitudes of local communities towards forest conservation in Botswana: a case study of Chobe forest reserve. <i>International Forestry Review</i> , 18 , 180-191.	B	Forestry
Lacerda Quartin, V. et al. (2016) Spatial dynamic and quantification of deforestation and degradation in Miombo forest of Huambo Province (2002-2015). Faculdade de Ciências Agrárias, Universidade José Eduardo dos Santos, Angola.	A	Forestry
Main, R., Mathieu, R., Kleynhans, W., Wessels, K., Naidoo, L. & Asner, G.P. (2016) Hyper-temporal C-band SAR for baseline woody structural assessments in deciduous savannas. <i>Remote Sensing</i> , 8 , 661.	S	Forestry
Röttgers, D. (2016) Conditional cooperation, context and why strong rules work — A Namibian common-pool resource experiment. <i>Ecological Economics</i> , 129, 21-31.	N	Forestry
Van Holsbeeck, S., De Cauwer, V., De Ridder, M., Fichtler, E., Beeckman, H. & Mertens, J. (2016) Annual diameter growth of <i>Pterocarpus angolensis</i> (Kiaat) and other woodland species in Namibia. <i>Forest Ecology and Management</i> , 373 , 1-8.	N	Forestry, Biodiversity
Chidumayo, E.N. (2017) Biotic interactions, climate and disturbance underlie the distribution of two <i>Julbernardia</i> tree species in miombo woodlands of Africa. <i>Journal of Tropical Ecology</i> , 33 , 1-11.	A, Z	Biodiversity
Frantz, D., Röder, A., Stellmes, M. & Hill, J. (2017) Phenology-adaptive pixel-based compositing using optical earth observation imagery. <i>Remote sensing of environment</i> , 190 , 331-347.	Z	Biodiversity, Forestry
Hudson, L.N., Newbold, T., Contu, S. et al. (2017) The database of the PREDICTS (Projecting responses of ecological diversity in changing terrestrial systems) project. <i>Ecology and Evolution</i> , 7 , 145-188.	S, N	Biodiversity
Mbaiwa, J.E. & Stronza, A.L. (2010) The effects of tourism development on rural livelihoods in the Okavango Delta, Botswana. <i>Journal of Sustainable Tourism</i> , 18 , 635-656.	B	Biodiversity
Meißner, N. & Winter, E. (2017) Design principles for protected area certificates: a case study on strategic investor groups. <i>Environment, Development and Sustainability</i> , 1-27.		Biodiversity
Namukonde, N., Kuebler, D. & Ganzhorn, J.U. (2017) Differential effects of fire on small mammal communities in the Busanga Flood Plain, Zambia. <i>Tropical Conservation Science</i> , 10 , 1940082917725439.	Z	Biodiversity
Namukonde, N., Muleya, Z. & Ganzhorn, J.U. (2017) Small mammals in Kafue National Park, Zambia. <i>Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg</i> , 50 , 87-106.	Z	Biodiversity
Namukonde, N., Simukonda, C. & Ganzhorn, J.U. (2018) Dietary niche separation of rodents and shrews in an African savanna. <i>Biotropica</i> .	Z	Biodiversity
Oldeland, J., Große-Stoltenberg, A., Naftal, L. & Strohbach, B.J. (2017) The Potential of UAV Derived Image Features for Discriminating Savannah Tree Species. <i>The Roles of Remote Sensing in Nature Conservation</i> , 183-201. Springer, Cham.	N	Biodiversity
Peel, R.A., Tweddle, D., Simasiku, E.K., Martin, G.D., Lubanda, J., Hay, C. J. & Weyl, O.L.F. (2015) Ecology, fish and fishery of Lake Liambezi, a recently refilled floodplain lake in the Zambezi Region, Namibia. <i>African Journal of Aquatic Science</i> , 40 , 417-424.	N	Biodiversity
Rutina, L.P., Mogwera, K.M., Seonyatseng, E., Mpofu, C. & Ntloyathuto, D. (2017) Herders' ecological knowledge and carnivore predation on livestock investigations in Makgadikgadi and Nxai National Parks, Botswana. <i>Koedoe: African Protected Area Conservation and Science</i> , 59 , 1-9.	B	Biodiversity, Agriculture
Schmeller, D.S. et al. (2017) Case studies of capacity building for biodiversity monitoring. <i>The GEO Handbook on Biodiversity Observation Networks</i> (ed. by Walters, M., Scholes, R.), 309-326. Springer, Cham.	S	Biodiversity
Schmeller, D.S., Böhm, M., Arvanitidis, C. et al. (2017) Building capacity in biodiversity monitoring at the global scale. <i>Biodiversity and Conservation</i> , 26 , 2765-2790.	S	Biodiversity
Schmiedel, U., Kühne, N., Twerski, A. & Oldeland, J. (2015) Small-scale soil patterns drive sharp boundaries between succulent "dwarf" biomes (or habitats) in the arid Succulent Karoo, South Africa. <i>South African Journal of Botany</i> , 101 , 129-138.	S	Biodiversity
Schmiedel, U., Röwer, I.U., Luther-Mosebach, J., Dengler, J., Oldeland, J. & Gröngröft, A. (2016) Effect of grazing on vegetation and soil of the Heuweltjieveld in the Succulent Karoo, South Africa. <i>Acta Oecologica</i> , 77 , 27-36.	S	Biodiversity, Agriculture

Schmiedel, U., Araya, Y., Bortolotto, M.I., Boeckenhoff, L., Hallwachs, W., Janzen, D., Kolipaka, S.S., Novotny, V., Palm, M., Parfondry, M., Smanis, A. & Toko, P. (2016) Contributions of paraecologists and parataxonomists to research, conservation, and social development. <i>Conservation Biology</i> , 30 , 506-519.	A, B, N, S, Z	Biodiversity
Schwarz, K., Finckh, M. & Stolter, C. (2017) Influence of differently managed bush-encroached sites on the large herbivore distribution in the Namibian Savannah. <i>African Journal of Ecology</i> 2017, 1-11.	N	Biodiversity
Shoko, C. & Mutanga, O. (2017) Examining the strength of the newly-launched Sentinel 2 MSI sensor in detecting and discriminating subtle differences between C3 and C4 grass species. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 129 , 32-40.	S	Biodiversity
Sianga, K. & Fynn, R. (2017) The vegetation and wildlife habitats of the Savuti-Mababe-Linyanti Ecosystem, Northern Botswana. <i>Koedoe: African Protected Area Conservation and Science</i> , 59 , 1-16.	B	Biodiversity
Sianga, K., van Telgen, M., Vrooman, J., Fynn, R.W. & van Langevelde, F. (2017) Spatial refuges buffer landscapes against homogenisation and degradation by large herbivore populations and facilitate vegetation heterogeneity. <i>Koedoe: African Protected Area Conservation and Science</i> , 59 , 1-13.	B	Biodiversity
Strohbach, B.J. (2014) Vegetation of the eastern communal conservancies in Namibia: I. Phytosociological descriptions. <i>Koedoe: African Protected Area Conservation and Science</i> , 56 , 1-18.	N	Biodiversity
Strohbach, B.J. & Kutuahuripa, J.T. (2014) Vegetation of the eastern communal conservancies in Namibia: II. Environmental drivers. <i>Koedoe: African Protected Area Conservation and Science</i> , 56 , 1-12.	N	Biodiversity
Strohbach, B.J. (2018) Making more of vegetation classification results: A livestock farming suitability index as tool for land-use planning in Namibia. Accepted for publication in <i>Phytocoenologica</i> , 48 , 7-22.	N	Biodiversity, Agriculture
Taylor, G.C., Peel, R.A., Hay, C.J. & Weyl, O.L.F. (2016) Validation of the periodicity of growth zone formation in the otoliths of four fish species from the Upper Zambezi Ecoregion, Southern Africa. <i>African zoology</i> , 51 , 153-159.	S	Biodiversity
Taylor, G.C., Hill, J.M., Jackson, M.C., Peel, R.A. & Weyl, O.L. (2017) Estimating $\delta^{15}\text{N}$ fractionation and adjusting the lipid correction equation using Southern African freshwater fishes. <i>PLoS One</i> , 12 , e0178047.	A, B, N, Z	Biodiversity
Tweddle, D., Cowx, I.G., Peel, R.A. & Weyl, O.L.F. (2015) Challenges in fisheries management in the Zambezi, one of the great rivers of Africa. <i>Fisheries Management and Ecology</i> , 22 , 99-111.	A, B, N, Z	Biodiversity
Yeboah, E.M.O., Kobue-Lekalake, R.I., Jackson, J.C., Muriithi, E.N., Matenanga, O. & Yeboah, S.O. (2017) Application of high resolution NMR, FTIR, and GC-MS to a comparative study of some indigenous seed oils from Botswana. <i>Innovative Food Science & Emerging Technologies</i> , 44 , 181-190.	B	Biodiversity, Agriculture
Zablocki, O., Adriaenssens, E.M., Frossard, A., Seely, M., Ramond, J.B. & Cowan, D. (2017) Metaviromes of extracellular soil viruses along a Namib Desert aridity gradient. <i>Genome announcements</i> , 5 , e01470-16.	N	Biodiversity

Theses completed during the SASSCAL research portfolio 1.0

Loureiro, N. (2016) The creation of a database and error flagging system for climate data of Angola (Period of 1961 to 1974). MSc Thesis, University College Dublin, Ireland.	A	Climate
Beyer, M. (2016) Quantitative studies along the soil – vegetation – atmosphere interface of water – limited environments: practice-oriented approaches based on stable water isotopes, modeling and multivariate analysis. PhD Thesis, <i>Mitteilungen des Instituts für Wasserwirtschaft, Hydrologie und landwirtschaftlichen Wasserbau</i> , No. 102, ISSN 0343-8090, Leibniz University Hannover, Germany. Accessible via http://www.iww.uni-hannover.de/_files/Mitteilungen/Mitt-102-Matthias%20Beyer.pdf	A, N	Water
Gaj, M. (2016) Recharge estimation in a (semi-) arid environment using soil water balance, stable isotopes and modeling approaches. PhD Thesis, Freiburg University, Germany.		Water
Holtorf, K. (2016) Dry season evaporation and transpiration measurements on Namibian savanna sites. MSc Thesis, University of Hamburg, Germany.	N	Water
Lungas da Costa Arsénio, E. (2016) Application of Geographic information Systems in the production of cartography of risk of ravine in Luena (East of Angola). MSc Thesis, University of Algarve, Portugal.	A	Water
Malan, G. (2016) Investigating the suitability of land type information for hydrological modelling in the mountain regions of Hessequa, South Africa. MSc Thesis, University of Stellenbosch, Cape Town, South Africa.	S	Water
Masiye, N. (2015) Isotopic Composition of surface water in the Cuvelai Etosha Basin. University of Namibia, Windhoek, Namibia.	A, N	Water
Meinhardt, M. (2017) Effects of climate change on the hydrology in the upper Zambezi: A process-based spatially distributed modelling approach to quantify hydrological changes in consideration of annual inundation. PhD thesis, University of Jena, Germany.	A, Z	Water, Climate
Seith, A.-L. (2016) Evaluierung des Einflusses verschiedener Landbedeckungsdatensätze auf die Wasserhaushaltskomponenten im Kleinberg Einzugsgebiet (Südafrika) unter Verwendung des hydrologischen Modellsystems JAMS/J2000. BSc Thesis, Friedrich Schiller University, Jena, Germany.	S	Water
Treumer, L. (2016) Application of MODIS Global Terrestrial Evapotranspiration Data for hydrological modelling in the Western Cape Region, South Africa. BSc Thesis, Friedrich Schiller University, Jena, Germany.	S	Water
Zimba, H. (2016) Earth Observation-based assessment of spatial-temporal variability of inundation extent in the annually flooded Barotse Wetland, Western Zambia. MSc Thesis, University of Zambia, Lusaka, Zambia.	Z	Water
Asarehat (2017) Linear programming (LP) integrating <i>Faidherbia albida</i> in Sikunga Conservancy Farming Systems. MSc Thesis, University of Hannover, Germany.	N	Agriculture
Baumann, S. (2016) Influence of dryland agriculture on soil properties (NE Namibia and SW Zambia). MSc Thesis, University of Hamburg, Germany.	N, Z	Agriculture
Bernard, N. (2017) An assessment of biological nitrogen fixation on legumes growing on farmers' fields and in natural systems and authentication of associated root nodule bacteria. MSc Thesis, Botswana College of Agriculture, Gaborone, Botswana.		Agriculture, Biodiversity
Cardoso, H.E. (2017) Modelos matematicos para estimar o crescimento das mangueiras (<i>Mangifera indica</i> L.) na epoca seca e chuvosa na Fazenda Experimental da Faculdade de Ciências Agrárias. BSc Thesis, University of José Eduardo dos Santos, Huambo, Angola.		Agriculture
Chisanga, B.C. (2016): Evaluation of the ceres-maize model in simulating maize (<i>Zea mays</i> L.) growth, development and yield at different planting dates and nitrogen rates in a subtropical environment of Zambia. MSc Thesis, University of Zambia, Lusaka, Zambia.	Z	Agriculture
Delfin, J.J. (2015) Incubation of a yellow Ferralitic soil of the Chianga region with increasing lime dose. University of José Eduardo dos Santos, Huambo, Angola.	A	Agriculture
Gontse, K. (2016) Wildlife crop raiding and its implications on livelihoods of arable farmers in Khumaga, Boteti sub-district, Botswana. MPhil Thesis, University Of Botswana, Gaborone, Botswana.	B	Agriculture
Heislitz, C. (2017) Analyse des Landnutzungswandels in Sambia unter Verwendung von Landsat-Kompositen und der CAT-Transformation. BSc Thesis, University of Trier, Germany.	Z	Agriculture, Forestry

Jibajiba, P. (2016) Socio-economic impacts of wildlife crop raiding in Ngamiland, Botswana. MPhil Thesis, University of Botswana, Gaborone, Botswana.	B	Agriculture
Justino, J.C. (2017) Assessment of the incidence of pests in different phenological stages of soybean (<i>Glycine max</i> L.) in climatic conditions Ngongoinga. BSc Thesis, University of José Eduardo dos Santos, Huambo, Angola.	A	Agriculture
Kenalekgosi, G. (2016) Agro-farming and wildlife conservation around Makgadikgadi National Park: A case study of Kumaga in Boteti. MPhil Thesis, University of Botswana, Gaborone, Botswana.	B	Agriculture
Kgosietsile, B. (2016) Assessing the potential for geotourism as a sustainable land management strategy - the case of BORAVAST communities in Kgalagadi South, Botswana. MSc Thesis, University of Botswana, Gaborone, Botswana.	B	Agriculture
Morton, H.R.K (2017) Economic development and natural resource consumption in sub-Saharan Africa. PhD Thesis, Leibniz University Hannover, Germany.	A, B, N, S, Z	Agriculture, Biodiversity, Forestry
Motsamai, M. (2016) Does root nodule bacteria isolated from in Tswapong area promote the growth of sorghum. BSc Thesis, Botswana College of Agriculture, Gaborone, Botswana.	B	Agriculture
Mudenda, E. (2016) Evaluation of growth, water balance and water use efficiency of selected maize varieties under rain-fed conditions in Zambia. MSc Thesis, University of Zambia, Lusaka, Zambia.	Z	Agriculture
Nghalipo, E.N. (2016) The effect of fire histories on soil nutrients, soil carbon and soil respiration on the Waterberg Plateau Park, central Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Agriculture, Biodiversity
Noga, S. (2016) Adoption of elephant crop-raiding deterrent innovations by farmers in the Okavango Delta, Botswana. MPhil Thesis, University of Botswana, Gaborone, Botswana.	B	Agriculture
Nott, A.J. (2017) Impact of a rainfall gradient on carbon storage in the dry woodland ecosystem of Kavango and Zambezi regions of Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Agriculture, Climate
Odirile, M.P. (2016) Biological fitness parameters of cowpea aphid (<i>Aphis craccivora</i> , Koch: Aphidae: Hemiptera) reveal resistance of two wild herbaceous legumes to the aphid under no-choice experiment. BSc Thesis, Botswana College of Agriculture, Gaborone, Botswana.	B	Agriculture
Schreiner, S. (2016) Laboratory-spectroscopic signals of southern African soil samples and their pedological properties - upscaling to HyMap-Data. MSc Thesis, University of Trier, Germany.		Agriculture, Forestry
Shifa, R. (2016) Assessment of carbon stock and selected soil fertility indicators in a bush encroached savanna at Erichsfelde farm, Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Agriculture
Tshipinare, B. (2016) Effect of bacteria isolated from various legumes sampled from Gantsi area on the growth of pearl millet. BSc Thesis, Botswana College of Agriculture, Gaborone, Botswana.	B	Agriculture
Tshipinare, B.P. (2017) Effect of rhizobacteria isolated from Bambara groundnut from Gantsi on pearl millet growth. BSc Thesis, Botswana College of Agriculture, Gaborone, Botswana.	B	Agriculture
Venâncio (2017) Avaliação de alguns parâmetros morfológicos e Productivos de três (3) variedades de feijão (<i>Phaseolus vulgaris</i> L.) nas condições climáticas da Fazenda Experimental de Ngongoinga. BSc Thesis, University of José Eduardo dos Santos, Huambo, Angola.	A	Agriculture
Zyweck, K. (2016) Konkurrenz und Stickstoff-Fixierungseffizienz verschiedener Bradyrhizobien mit <i>Arachis hypogaea</i> L., aus der namibischen Okavango-Region. BSc Thesis, University of Bremen, Germany.	N	Agriculture
De Cauwer, V. (2016) Autecological aspects of the African timber tree <i>Pterocarpus angolensis</i> in support of its sustainable management. PhD Thesis, KU Leuven, Leuven, Belgium & Windhoek, Namibia.	A, N	Forestry
Diehl, F. (2016) Landnutzungsklassifikation tropischer Wald-Savannen-Mosaik mittels saisonaler Varianten pixel-basierter Landsat Komposite. BSc Thesis, University of Trier, Germany.	A	Forestry, Agriculture
Dreyer, Z.J. (2017) Assessing patterns of urbanization in developing countries using Landsat Image Composites and Spectral Mixture Analysis: a case study from Menongue, Angola. MSc Thesis, University of Trier, Germany.	A	Forestry
Fischer, R. (2017) Satellitenbasierte Untersuchungen zum Einfluss von Verkehrsinfrastruktur auf Siedlungs- und Landwirtschaftsmuster im Okavango Panhandle. BSc Thesis, University of Trier, Germany.	B	Forestry

Kabajani, M. (2016) An assessment of the natural regeneration of valuable woody species in the Kavango Regions of North Eastern Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Forestry, Biodiversity
Koch, C. (2017) Simulation of an investment in an agroforestry system with <i>Faidherbia albida</i> in the Zambezi Region of Namibia. BSc Thesis, Leibniz-University Hannover, Germany.	N	Forestry, Agriculture
Schelstraete, M. (2016) Assessment of fire damage on the forest population near Hamoye, Kavango. MSc Thesis, University of Gent, Belgium.	N	Forestry
Schneibel, A. (2017) Assessment of ecosystem service provision in a dry tropical forest environment. Using the full Landsat archive to determine trade-off processes in South-Central Angola. PhD Thesis, University of Trier, Germany.	A	Forestry, Biodiversity
Aindongo, H. (2016) The impacts of fire history on small mammal abundance, diversity and species composition in an arid woodland savannah in Waterberg Plateau Park, Namibia. BSc (Hons) Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Amadhila, T. (2017) Comparison of the proportion of alien invasive plants to indigenous plants in the riparian vegetation of the Arebbusch and Gammams river and its northern tributary upstream of the Goreangab dam. BSc (Hons) Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Amputu, V. (2016) Fire history and frost in a semiarid Savannah woodland: Understanding its impacts on vegetation structure and diversity at the Waterberg Plateau Park, Central Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Amutenya, K.K. (2016) Home range and thermal analysis of two sympatric tortoise species, <i>Stigmochelys pardalis</i> and <i>Psammobates oculifer</i> in the Thornbush Savanna of Central Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Bakane, M. (2017) The role of protected areas in the conservation and management of fisheries in the Chobe District of Botswana. MSc Thesis, Rhodes University, Grahamstown, South Africa.	B	Biodiversity
Bischoff, Gwendolyn (2014): Activity Patterns and Behaviour of Tetramorium ants in Fairy Circles. BSc Thesis, University of Hamburg, Germany.	N	Biodiversity
Bohn, Clärin (2014): Population genetics of the sand termite <i>Psammotermes allocerus</i> in Namib desert fairy circles. MSc Thesis, University of Hamburg, Germany.	N	Biodiversity
Chipo, N. (2016) Effects of soil water deficit on water use efficiency of cowpea (<i>Vigna Unguiculata</i>). MSc Thesis, Botswana College of Agriculture, Gaborone, Botswana.	B	Biodiversity
Frantz, D. (2017) Generation of higher level earth observation satellite products for regional environmental monitoring. PhD Thesis, University of Trier, Germany.	A, B, N, S, Z	Biodiversity
Gaodirelwe, I. (2016) Effect of wildlife commercialisation on subsistence poaching in the Okavango Delta, Botswana. MPhil Thesis, University of Botswana, Gaborone, Botswana.	B	Biodiversity
Grönemeyer, J.L. (2016) Bacteria associated with agricultural plants in the Okavango region: Diversity, ecology, and applicability in sustainable agriculture. PhD thesis, University of Bremen, Germany.	B, N	Biodiversity, Agriculture
Höeses, E.R. (2017) Ground truthing woody plant species to compare with aerial imagery in biodiversity observatories, Namibia. BSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Jacke, V. (2015) Vegetation patterns in space and time on long-term observation plots in the South African Kalahari. MSc Thesis, University of Hamburg, Germany.	S	Biodiversity
King Charles Jr. (2016) Screening of cowpea accessions for drought tolerance. MSc Thesis, University of Botswana, Gaborone, Botswana.	B	Biodiversity
Kruspe, M. (2016) Diversity and abundance of wild bees under the influence of different burning regimes on the Waterberg plateau, Namibia. MSc Thesis, University of Hamburg, Germany.	N	Biodiversity
Kühne, Nicole (2014): Vegetationsmuster in der Knersvlakte – Südafrika: Artenzusammensetzung und deren Steuerungsfaktoren an den Grenzen zwischen ausgewählten Quarzflächen. MSc Thesis, University of Hamburg, Germany.	S	Biodiversity
Lutibezi, S. (2017) The effect of fire history on the concentration of root carbohydrates of encroaching <i>Terminalia sericea</i> in a semi-arid savanna woodland in the Waterberg Plateau Park, Central Namibia. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity

Mogwera, K. (2016) Determining ecological and landscape factors influencing carnivore predation on livestock using predictive models: A case study of areas around Makgadikgadi and Nxai National Parks. MPhil Thesis, University of Botswana, Gaborone, Botswana.	B	Biodiversity, Agriculture
Nambahu, S.M. (2017) Ground-truthing of drone aerial imagery to determine the grass cover on different biodiversity observatories along a rainfall gradient in Namibia. BSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity, Climate
Namukonde, N. (2017) Communities of small mammals in Kafue National Park and their response to fire, vegetation and land use. PhD Thesis, Copperbelt University, Kitwe, Zambia.	Z	Biodiversity
Ndunge, C. (2015) Determining the vegetation composition and soil characteristics in Ohnagwena Region. University of Namibia, Windhoek, Namibia.	N	Biodiversity
Nowaseb, E.E. (2017) Improving water use estimates of alien invasive <i>Prosopis chilensis</i> trees by improved leaf area estimates along the Fish River in Namibia. BSc (Hons) Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity, Water
Nuule, W. (2015) Determining and comparison of vegetation and soil characteristics in the ephemeral river systems of the Eastern Cuvelai Etosha Basin. BSc (Hons) Thesis, University of Namibia, Windhoek, Namibia.	A, N	Biodiversity
Peel, R.A. (2017) Colonisation and succession of fishes in Lake Liambezi, a shallow ephemeral floodplain lake in southern Africa. PhD Thesis, Rhodes University, Grahamstown, South Africa.	N	Biodiversity
Salomo, J. (2016) Isolation and characterization of <i>Azospirillum</i> species from rhizosphere of legume plant <i>Bauhinia petersiana</i> from Kavango Region. BSc Thesis, University of Namibia, Windhoek, Namibia.	N	Biodiversity
Schwarz, Kathrin (2015): Bush encroachment in Namibia: Establishment of woody plants and impact of herbivores in the Thornbush Savanna of Namibia. MSc Thesis, University of Hamburg, Germany.	N	Biodiversity
Shidolo, E.K.L. (2017) Assessment of vegetation diversity, structure, cover and the influence of fire along the rainfall gradient in the Kalahari, Eastern Namibia, using Long-Term Data. MSc Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity, Climate
Taylor, G.C. (2016) Comparative fish ecology in three periodically connected rivers in the Upper Zambezi and Okavango ecoregions. PhD Thesis, Rhodes University, Grahamstown, South Africa.	A, Z	Biodiversity
Twerski, A (2014) Vegetation patterns in the Knersvlakte / RSA: species composition and its abiotic drivers at the boundary between quartz fields and heuweltjies or zonal soil types. BSc Thesis, University of Hamburg, Germany.	S	Biodiversity
Uunona, N. (2015) Impacts of grazers and browsers movements at Waterberg plateau park, central Namibia. BSc Thesis, Polytech Namibia, Windhoek, Namibia.	N	Biodiversity, Agriculture
Uunona, N. (2016) Effects of fire history on ground dwelling arthropods abundance, species richness, diversity and composition in an arid woodland savanna, Waterberg Plateau Park, Central Namibia. BSc (Hons) Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Walters, M.H. (2017) Determining the changes in vegetation structure in three semi-arid savanna environments in Namibia over the past 60 years. BSc (Hons) Thesis, Namibia University of Science and Technology, Windhoek, Namibia.	N	Biodiversity
Wendefeuer, Janika (2015): Bird diversity and composition in woodland ecosystems of south-east Angola. BSc Thesis, University of Hamburg, Germany.	A	Biodiversity
Willems, P. (2017) Estimating ecosystem services with InVEST using Open Access Data – carbon storage and sequestration in the Okavango Basin. MSc Thesis, University of Trier, Germany.	A, B, N	Biodiversity
Zielinski, J. (2017) Characterization of putative novel rhizobia species nodulating wild legumes in the Okavango region. MSc Thesis, University of Bremen, Germany.	B, N	Biodiversity