13 References

ABRAMOWITZ, M. & STEGUN, I. (1972): Handbook of Mathematical Functions, Dover Publications, New York.

ADAMS, J.M. & PIOVESAN, G. (2005): Long series relationships between global inter-annual CO_2 increment and climate: evidence for stability and change in role of the tropical and boreal-temperate zones. – In: Chemosphere, 59, pp. 1595-1612.

ADAMS, W.M.; GOUDE, A.S.; ORME, A.R. (1996): The Physical Geography of Africa. – Oxford University Press, New York.

AHNERT, F. (1988): Modelling landform changes – In: ANDERSON, M.G. (ed.): Modelling geomorphic systems, pp. 375-400. Chichester.

AHNERT, F. (1996): Einführung in die Geomorphologie. Stuttgart.

ALLBROOK, R.F. (1985): TheEffect of Allophane on Soil Properties. – In: Applied Clay Science, 1, pp. 65-69.

ANDERSON, J.R., HARDY, E.E., ROACH, J.T. AND WITMER, R.E. (1976): A Land Use and Land Cover Classification System for Use with Remote Sensor Data. U.S. Geological Survey Professional Paper 964.

ANDREASSIAN, V., PERRIN, C. and MICHEL, C. (2004): Impact of imperfect potential evapotranspiration knowledge on the efficiency and parameters of watershed models. – In: Journal of Hydrology, 286, pp. 19-35.

AUERSWALD, K. (1987): Sensitivität erosionsbestimmender Faktoren – In: Wasser und Boden, 1, pp. 34-38.

AUERSWALD, K. (1991): Onsite- und Offsite-Schäden durch Bodenerosion. – In: Bodennutzung und Bodenfruchtbarkeit, 3, pp. 75-82.

AUERSWALD, K. (1993): Relief, Böden, Paläoklima – Bodeneigenschaften und Bodenerosion. Stuttgart.

AUERSWALD, K., MUTCHLER, C.K. and MCGREGOR, K.C. (1994): The influence of tillage-induced differences in surface moisture content on soil erosion. – In: Soil & Tillage Research, 32, pp. 41-50.

AYENEW, T. (2003): Evapotranspiration estimation using thematic mapper spectral satellite data in the Ethiopian rift and adjacent highlands. – In: Journal of Hydrology, 279, pp. 83-93.

BÄRRING, L. & HULME, M. (1991): Filters and Approximate Confidence Intervals for Interpreting Rainfall Anomaly Indices. – In: Journal of Climate, vol. 4, no. 8, pp. 837-847.

BAKER, B.H., MOHR, P.A., WILLIAMS, L.A.J. (1972): Geology of the Eastern Rift System of Africa. – In: The Geological Socienty of America, Special Paper 136, Boulder.

BARTHES, B. & ROOSE, E. (2002): Aggregate stability as an indicator of soil susceptibility to runoff and erosion; validation at several levels. – In: Catena, 47, pp. 133-149.

BECK, M.B. (1987): Water Quality Modelling: A Review of Uncertainty. – In: Water Resources Res., 23 (8), pp. 1393-1442.

BECK, J., BUSCH, K., ECKHARDT, E., FRAYER, J., HAHL, R., HUNDHAUSEN, C., REICHE, S., SCHWERTFECHTER, C., STUMPTNER, A., ABEBE, T., AMARE, G., AYALEW, N., BANTIE, W., BERHE, T., KIROS, N., LEGESSE, G., MULUNEH, Z., SIYNUM, B., TAFERE, M. and WALELIGN, Z. (2004): Soil Erosion Risk and Water Balance of the Gina River Catchment – In: SCHÜTT (ed.): Watershed Management in the Abaya-Chamo Basin, South Ethiopia. Occasional Paper Geographie, 20, pp. 15-73. Berlin.

BEKELE, A., BOCCALETTI, M., ET. AL. (1992): Fracture Pattern of the Main Ethiopian Rift Area, Map from the Ministerio Degli Esteri, Firenze.

BEKELE, S. (2001): Investigation of Water Resources Aimed at Multi-Objective Development with Respect to Limited Datat Situation: The Case of Abaya-Chamo Basin, Ethiopia. Ph.D. Thesis. Selbstverlag der Technischen Universität Dresden.

BESHAH, T. (2003): Understanding Farmers: explaining soil and water conservation in Konso, Wolaita and Wello, Ethiopia. Ph.D. Thesis, Wageningen University.

BEWKET, W. & STERK, G. (2003): Assessment of soil erosion in cultivated fields using a survey methodology for rills in the Chemoga watershed, Ethiopia. – In: Agriculture, Ecosystems and Environment, 97, pp. 81-93.

BILLI, P. & DRAMIS, F. (2003): Geomorphological investigation on gully erosion in the Rift Valley and the northern highlands of Ethiopia. – In: Catena, 50, pp. 353-368.

BLUMBERG, S. (2004): Das Raummuster der Sedimente und die daraus abgeleiteten Strömungsverhältnisse im zentralen Lake Abaya (Südäthiopien). Master Thesis (Diplomarbeit), Freie University Berlin.

BOARDMAN, J., PARSONS, A.J., HOLLAND, R., HOLMES, P.J. and WASHINGTON, R. (2003): Development of badlands and gullies in the Sneeuberg, Great Karoo, South Africa. – In: Catena, vol. 50, 2, pp. 165-184.

BOCCALETTI, M., BONINI, M., MAZZUOLI, R., ABEBE, B., PICCARDI, L., TORTORICI, L. (1998): Quaternary oblique extensional tectonics in the Ethiopian Rift (Horn of Africa). – In: Tectonophysics, 287, pp. 97-116.

BOGALE, A., HAGEDORN, K. and KORF, B. (2002): Why Does Poverty Persist in Rural Ethiopia? – In: Proceedings, 25th International Conference of Agricultural Economists, Durban.

BORK, H.-R. (1988): Bodenerosion und Umwelt. Verlauf, Ursachen und Folgen der mittelalterlichen und neuzeitlichen Bodenerosion. Bodenerosionsprozesse, Modelle und Simulationen. – In: Landschaftsgenese und Landschaftsökologie, 13.

BORK, H.-R. (1991): Bodenerosionsmodelle – Forschungsstand und Forschungsbedarf. Zeitschrift für Agrarpolitik und Landwirtschaft, 205. Sonderheft: Bodennutzung und Bodenfruchtbarkeit, 3, pp. 51-67, Berlin.

BRYAN, R.B., GOVERS, G. and POESEN, J. (1989): The Concept of Soil Erodibility and Problems of Assessment and Application. – In: Catena, vol. 16, pp. 393-412.

BRIAN, R.B. (2000): Soil erodibility and processes of water erosion on hillslope. – In: Geomorphology, 32, pp. 385-415.

BULL, L.J. & KIRKBY, M.J. (1997): Gully processes and modelling. – In: Progress in Physical Geography, vol. 21, no. 3, pp. 354-374.

BURNASH, R.J.C. (1995): The NWS river forecast system and catchment modelling. – In: Singh, V.P. (Ed.), Computer Models of Watershed Hydrology. Water Resources Publications, Highlands Ranch, CO, pp. 311-366.

BRONGER, A. (2000): Over-estimation of efficiency of weathering in tropical 'Red Soils': its importance for geoecological problems. – In: Catena, vol. 41, pp. 181-197.

CDC [CLIMATE DIAGNOSTIC CENTRE] (2005): http://www.cdc.noaa.gov/ENSO/enso.current.html

CHAHINIAN, N., MOUSSA, R., ANDRIEUX, P. AND VOLTZ, M. (2005): Comparison of infiltration models to simulate flood events at the field scale. – In: Journal of Hydrology, vol. 306, issues 1-4, pp. 191-214.

CHENDO, M.A.C. & MADUEKWE, A.A.L. (1994): Hourly global and diffuse radiation of Lagos, Nigeria—Correlation with some atmospheric parameters. – In: Solar Energy, vol. 52, issue 3, pp. 247-251.

CIA, (2005): The World Factbook: Ethiopia. Internet: http://www.cia.gov/cia/publications/factbook/geos/et.html

COUPER, P. (2003): Effects of silt–clay content on the susceptibility of river banks to subaerial erosion. – In: Geomorphology, 56, pp. 95-108.

CROSETTO, M., TARANTOLA, S. & SALTELLI A. (2000): Sensitivity and uncertainty analysis in spatial modelling based on GIS. – In: Agriculture Ecosystems & Environment, 81, pp. 71-79.

DABA, S., RIEGER, W. and STRAUSS, P. (2001): Assessment of gully erosion in eastern Ethiopia using photogrammetric techniques. – In: Catena, 50, pp. 273-291.

D'ANDREA, A.C., LYONS, D.E., HAILE, M. and BUTLER, E.A. (1999): Ethnoarcheological approaches to the Study of Prehistoric Agriculture in the Ethiopian Highland. The Exploitation of Plant Resources in Ancient Africa. Plenum Publishers, New York.

DEARING, J. (1994): Environmental Magnetic Suszeptibility - Using the Bartington MS2 System, Bartington Instruments.

DELLIQUADRI, L.M. (1958): A contribution to the climate of Ethiopia (including the Somalilands). Ph.D. Thesis, Clark University.

DEJENE, A. (2003): Integrated Natural Resources Management to Enhance Food Security: The Case for Community-Based Approaches in Ethiopia. Environment and Natural Resources Service Sustainable Development Department, Working Paper 16, FAO, Rome.

DIKAU, R. (1986): Experimentelle Untersuchungen zu Oberflächenabfluß und Bodenabtrag von Meßparzellen und landwirtschaftlichen Nutzflächen. Heidelberger Geographische Arbeiten. Heft 81.

DUBREUL, P.L. (1985): Review of Field Observations of Runoff Generation in the tropics. – In: Journal of Hydrology, 80, pp.237-264.

DUIKER, S.W., FLANAGAN, D.C. AND LAL, R. (2001): Erodibility and infiltration characteristics of five major soils of southwest Spain. – In: Catena, 45, pp. 103-121.

DVWK (eds.) (1996): Ermittlung der Verdunstung von Land- und Wasserflächen. DVWK 238.

EBINGER, C.J., YEMANE, T., WOLDEGABRIEL, G., ARONSON, J.L. and WALTER, R.C. (1993): Late Eocene-Recent volcanism and faulting in the southern Main Ethiopian Rift. – In: J. Geol. Soc., 150, pp. 99-108.

ECE-UN (1989): Proposed ECE Standard International Classification of Land Use. Economic Commission for Europe of the United Nations, Geneva.

EDWARDS, L.M., BURNEY, J.R. and FRAME, P.A. (1995): Rill sediment transport on a Prince Edwards Island (Canada) fine sandy loam. – In: Soil Technology, 8, pp. 127-138.

EDWARDS, L.M., BURNEY, J.R., RICHTER, G. and MCRAE, A.H. (2000): Evaluation of compost and straw mulching on soil-loss characteristics in erosion plots of potatoes in Prince Edwards Island, Canada. – In: Agriculture Ecosystems & Environment, 81, pp. 217-222.

EKLUNDH, L. & PILESJÖ, P. (1990): Regionalization and spatial estimation of Ethiopian mean annual rainfall. – In: International Journal of Climatology, 10, pp. 473-494.

EL-SWAIFY, S.A. & DANGLER, E.W. (1976): Erodibilities of selected tropical soils in relation to structural and hydrologic parameters. – In: FOSTER, G.R. (ed.), Soil Erosion Prediction and Control. Soil and Water Conservation Society, Ankeny, pp. 105-114.

ENDLICHER, W. (Ed.) (2000): Regionale Klimatologie, Teil 2: Die alte Welt Europa, Afrika, Asien. Stuttgart.

ESCADAFAL, R., GIRARD, M.-C. and COURAULT, D. (1989): Munsell soil colour and soil reflectance in the visible spectral bands of Landsat MSS and TM data. – In: Remote Sensing of Environment. vol. 27, pp. 37-46.

EMA [ETHIOPIAN MAPPING AUTHORITY9(1988): National Atlas of Ethiopia, Addis Ababa.

FAO (1998): The Soil and Terrain Database for northeastern Africa, CD from Sales and Marketing Group FAO, Italy.

FEOLI, E., VUERICH L.G. and ZERIHUN, W. (2002): Evaluation of environmental degradation in northern Ethiopia using GIS to integrate vegetation, geomorphological, erosion and socio-economic factors. In: Agriculture, Ecosystems & Environment, vol. 91, pp. 313-325.

FERNANDEZ-ILLESCAS, C.P. and RODRIGUEZ-ITURBE, I. (2004): The impact of interannual rainfall variability on the spatial and temporal patterns of vegetation in a water-limited ecosystem. – In: Advances in Water Resources, 27, pp. 83-95.

FIEDLER, H. & BELAY, G. (1988): Forests and their Importance for Soil Conservation in Ethiopia. – In: Archiv für Naturschutz und Landschaftsforschung, 28, 3, pp.161-176.

FINLAYSON, D.P. & MONTGOMERY, D.R. (2003): Modeling large-scale fluvial erosion in geographic information systems. – In: Geomorphology, 53, pp. 147-164.

FINNERN, H., GROTTENTHALER, W., KÜHN, D., PÄLCHEN, W., SCHRAPS, W.-G. and SPONAGEL, H. (Eds.) (1996): Bodenkundliche Kartieranleitung. Hannover.

FÖRCH, G. (1989): Wasserwirtschaftliche Probleme im äthiopischen Hochland. – Report in: Wasserwirtschaft, 79, pp.243-244.

FRANKE, W. (1992): Nutzpflanzenkunde. Nutzbare Gewächse der Gemäßigten Breiten, Subtropen und Tropen. Thieme Verlag, Stuttgart.

FREEBAIRN, D.M., WOCKNER, G.H. and SILBURN, D.M. (1986): Effects of Catchment Management on Runoff, Water Quality and Yield Potential from Vertisols. In: Agricultural Water Management, 12, pp.1-19.

FULLER, R.M., SMITH, G.M. and DEVEREUX, B.J. (2003): The characterisation and measurement of land cover change through remote sensing: problems in operational applications? – In: Intern. Journal of Applied Earth Observation and Geoinformation, 4, pp. 243-253.

GASSE, F. (2000): Hydrological changes in the African tropics since the Last Glacial Maximum. – In: Quaternary Science Review, 19, pp. 189-211.

GEBREGZIABHER, S., MOUAZEN, A.M., VAN BRUSSEL, H., RAMON, H., NYSSEN, J., VERPLANCKE, H., BEHAILU, M., DECKERS, J. and DE BAERDEMAEKER, J. (2005): Animal drawn tillage, the Ethiopian ard plough, maresha: A review. – In: Soil & Tillage Research, In Press.

GIANNINI, A. SARAVANAN, R. and CHANG, P. (2003): Oceanic Forcing of Sahel Rainfall on Interannual to Interdecadal Time Scales. – In: SCIENCE, vol. 302, pp. 1027-1030.

GOBIN, A.M. CAMPLING, P. DECKERS, J.A., POESEN, J. and FEYEN, J. (1998): Soil Erosion Assessment at the Udi-Nsukka Cuesta (Southeastern Nigeria). – In: Land Degradation and Development, 10, pp. 141-160.

GOEBEL, W. & ODENYO, V. (1984): Ethiopia. Agroclimatic resources inventory for land-use planning. Ministry of Agriculture, Land Use Planning and Regulatory Department, UNDP, FAO. Technical Report DP/ETH/78/003, vol.1, p. 208ff, vol.2, p. 95ff.

GOOVAERTS, P. (1999): Geostatistics in soil science: state-of-the-art and perspectives. – In: Geoderma, 89, pp. 1-45.

GOOVAERTS, P. (2000): Geostatistical approaches for incorporating elevation into the spatial interpolation of rainfall. – In: Journal of Hydrology, 228, pp. 113-129.

GOOVAERTS, P. (2001): Geostatistical modelling of uncertainty in soil science. – In: Geoderma, 103, pp. 3-26.

GREGOR, M. (2002): Raum-zeitliche Variabilität von Landnutzung und Landbedeckung im Abaya-Chamo-Becken, Süd-Äthiopien, seit 1981 – eine fernerkundlich basierte Analyse. Master Thesis (Diplomarbeit), University of Trier.

GREGOR, M., SCHÜTT, B. AND FÖRCH, G. (2004): Land use/land cover changes in the Lakes Abaya-Chamo-Basin, South Ethiopia since 1981 – a remote sensed based analysis. – In: Weiterbindung in Siegen (WIS), 14, pp. 1-18.

GREPPERUD, S. (1996): Population Pressure and Land Degradation: The Case of Ethiopia. – In: Journal of Environmental Economics and Management, 30, pp. 18-33.

GROSH, J.L. & JARRETT, A.R. (1994): Interrill erosion and runoff on very steep slopes. – In: Transactions of the ASAE, 37(4), pp. 1127-1133.

GROVE, A.T. (1986): Geomorphology of the African Rift System. – In: FROSTICK, L.E., RENAUT, R.W., REID, I. and TIERCELIN, J-J. (Eds.): Sedimentation in the African Rifts. Blackwell Scientific Publications. Oxford.

GUTIÉRREZ, M., JOHNSON, E. and MICKUS, K. (2004): Watershed assessment along a segment of the Rio Conchos in Northern Mexico using satellite images. – In: Journal of Arid Environments, 56, pp. 395-412.

GYAU-BOAKYE, P. & SCHULTZ, G.A. (1994): Filling gaps in runoff time series in West Africa. – In: Hydrological Sciences Journal, vol. 39, no. 6, pp. 621-636.

HABIB-UR-REHMAN, M., HERATH, S. and MUSIAKE, K. (2003): A process based approach to model soil erosion and sediment transport at regional scale: model structure, modeling strategies and valitation. – In: Geoinformatics, vol. 14, no. 1, pp. 29-36.

HAUDE, W. (1955): Zur Bestimmung der Verdunstung auf möglichst einfache Weise. – In: Mitteilungen des Deutschen Wetterdienstes, 2 (11), Bad Kissingen.

HENNINGS, V. (1994): Methodendokumentation Bodenkunde. Auswertungsmethoden zur Beurteilung der Empfindlichkeit und Belastbarkeit von Böden. Geologisches. Jahrbuch, F 31: pp. 5-242, Hannover.

HEVESI, J.A., FLINT, A.L. and ISTOK, J.D. (1992a): Precipitation estimation in mountainous terrain using multivariate geostatistics, Part I. – In: Journal of Applied Meteorology, vol. 31, 7, pp. 661-676.

HEVESI, J.A., FLINT, A.L. and ISTOK, J.D. (1992b): Precipitation estimation in mountainous terrain using multivariate geostatistics, Part I. – In: Journal of Applied Meteorology, vol. 31, 7, pp. 677-688.

HIGGINS, C.G., HILL, B.R. and LEHRE, A.K. (1990): Gully Development. – In: Groundwater Geomorphology: The Role of Subsurface Water in Earth-Surface Processes and Landforms, pp. 139-155, Boulder.

Hill, J. & Schütt, B. (2000): Mapping Complex Patterns of Erosion and Stability in Dry Mediterranean Ecosystems. – In: Remote Sensing of Environment, 74, pp. 557-569.

HOGG, S.E. (1982): Sheetfloods, Sheetwash, Sheetflow, or…? – In: Earth-Science Reviews, 18, pp. 59-76.

HOWES, D.A. & ABRAHAMS, A.D. (2003): Modeling runoff and runon in a desert shrubland ecosystem, jordana Basin, New Mexico. – In: Geomorphology, 53, pp. 45-73.

HUDSON, N. (1995): Soil Conservation. London.

HULME, M. (2001): Climatic perspectives on Sahelian desiccation: 1973-998. – In: Global Environmental Change, 11, pp. 19-29.

HURNI, H. (1982): Klima und Dynamik der Höhenstufung von der letzten Kaltzeit bis zur Gegenwart. – Heft 7, Geographica Bernensia.

HURNI, H. (1986): Soil Conservation in Ethiopia. Guidelines for Development Agents. – Community Forests and Soil Conservation Development Department, Ministry of Agriculture, Ethiopia.

HURNI, H. (1999): Methods and Materials in Soil Conservation. A Manual. – FAO, Rom.

HWANG, D., KARIMI, H.A. and BYUN, D.W. (1998): Uncertainty analysis of environmental models within GIS environments. – In: Computers & Geosciences, vol. 24, 2, pp. 119-130.

ILRI (2005): http://www.ilri.cgiar.org/InfoServ/Webpub/Fulldocs/WP39/3Evolutiona.htm#P60_16425

JANSEN, L.J.M. & DI GREGORIO, A. (2003): Land-use data collection using the "land cover classification system": results from a case study in Kenya. – In: Land Use Policy, 20, pp. 131-148.

JETTEN, V., GOVERS, G. & HESSEL, R. (2003): Erosion Models: Quality op spatial predictions. – In: Hydrological Processes, 17, pp. 887-900.

JHORAR, R.K., VAN DAM, J.C., BASTIAANSSEN, W.G.M. and FEDDES, R.A. (2003): Calibration of effective soil hydraulic parameters of heterogeneous soil profiles. – In: Journal of Hydrology, 285, pp. 233-247.

KABORÉ & REIJ (2003): The Emergence and Spread of an Improved Traditional Soil and Water Conservation Practice in Burkina Faso**,** Paper presented at the InWEnt, IFPRI, NEPAD, CTA conference "Successes in African Agriculture" Pretoria.

KALIN, L., GOVINDARAJU, R.S. & HANTUSH, M.M. (2003): Effect of geomorphologic resolution on modelling of runoff hydrograph and sedimentograph over small watersheds. – In: Journal of Hydrology, 276, pp. 89-111.

KÖPPEN, W. (1931): Klimakarte der Erde, Grundriss der Klimakunde, 2nd edition, Berlin and Leipzig.

KULS, W. (1958): Beiträge zur Kulturgeographie der südäthiopischen Seenregion. Frankfurter Geographische Hefte, 37/1, Frankfurt am Main.

KRAIJ, T. & MILTON, S.J. (2006): Vegetation changes (1995 - 2004) in semi-arid Karoo shrubland, South Africa: Effects of rainfall, wild herbivores and change in land use. – In: Journal of Arid Environments, 64, pp. 174-192.

KRAUER, J. (1988): Rainfall, erosivity and isoerodent map of Ethiopia. – Soil Conservation Research Project, Report 15, United University Press.

KRAUSE, J., SCHÜTT, B. & THIEMANN, S. (2004): Hare river catchment – landscape character of a drainage basin in the southern Ethiopian Rift Valley. – In: Wenclawiak, B. & Wilnewski, S. (eds): Sedimentary Studies in Tropics and Subtropics. -Weiterbildung in Siegen (WIS), 14, pp. 16-40.

LAL, R. (1990): Soil Erosion in the Tropics. (McGraw-Hill) New York.

LAL, R. (1998): Drop Size distribution and energy load of rain storms at Ibadan, western Nigeria. – In: Soil and Tillage Research, 48, pp. 103-114.

LE BISSONNAIS, Y. (1996): Aggregate stability and assessment of soil crustability and erodibility. I. Theory and Methodology. European J. Soil Sic., 47, pp. 425-437.

LECOANET, H., LEVEQUE, F. AND SEGURA, S. (1999): Magnetic susceptibility in environmental applications: comparison of field probes. – In: Physics of the Earth and Planetary Interiors, vol. 115, no. 3, pp. 191-204.

LEGESSE, D., GASSE, F., RADAKOVITCH, O., VALLET-COULOMB, C., BONNE ALLE, R., VERSCHUREN, D., GIBERT, E. and BARKER, P. (2002): Environmental changes in a tropical lake (Lake Abiyata, Ethiopia) during recent centuries. – In: Palaeogeography, Palaeoclimatology, Palaeoecology, 187, pp. 233-258.

LEGESSE, D., VALLET-COULOMB, C. & GASSE, F. (2003): Hydrological response of a catchment to climate and land use changes in Tropical Africa: a case study South Central Ethiopia. – In: Journal of Hydrology, 275, pp. 67-85.

LEMENIH, M., OLSSON, M. and KARLTUN, E. (2004): Comparison of soil attributes under Cupressus lusitanica and Eucalyptus saligna established on abandoned farmlands with continuously cropped farmlands and natural forest in Ethiopia. – In: Forest Ecology and Management, 195, pp. 57-67.

MANNING, R. (1889): On the flow of water in open channels and pipes. – In: Transactions of the Institution of Civil Engineering of Ireland, 20, pp. 161-207.

MARTINEZ-CASASNOVAS, J.A., RAMOS, M.C. & POESEN, J. (2004): Assessment of sidewall erosion in large gullies using multi-temporal DEMs and logistic regression analysis. – In: Geomorphology, 58, pp. 305-321.

MAKSIMOVIC, C., BUZEK, L. and PETROVIC, J. (1991): Corrections of rainfall data obtained by tipping bucket rain gauge. – In: Atmospheric Research, 27, pp. 45-53.

MAYEWSKI, P.A., ROHLING, F.E., STAGER, J.C., KARLÉN, W., MAASCH, K.A., MEEKER, L.D., MEYERSON, A.E., GASSE, F., VAN KREVELD, S., HOLMGREN, K., LEE-THORP, J., ROSQVIST, G., FRANK RACK, F., STAUBWASSER, M., SCHNEIDER, R.R. and STEIG, G.J. (2004): Holocene climate variability. – In: Quaternary Research, 62, pp. 243-255.

MBAGWU, J.S.C. & BAZZOFFI, P. (1998): Soil characteristics related to resistance of breakdown of dry soil aggregates by water-drops. – In: Soil & Tillage Research, 45, pp. 133-145.

MCCONNELL, W.J. & MORAN, E.F. (Eds.) (2001): Meeting in the middle: the challenge of meso-level integration. An international workshop on the harmonization of land use and land cover classification. LUCC Report Series No. 5. Anthropological Centre for Training and Research on Global Environmental Change. Indiana University and LUCC International Project Office, Louvain-la-Neuve.

MCCOOL, D.K., BROWN, L.C., FOSTER, G.R., MUTCHLER, C.K. and MEYER, L.D. (1987): Revised slope steepness factor for the Universal Soil Loss Equation. – In: Trans. ASAE, 30, pp. 1387-1396.

MENDOZA, B. (2005): Total solar irradiance and climate. – In: Advances in Space Research, 35, pp. 882-890.

MEYER, R. (1987): Äthiopien – Eine geographische Einführung – In: MATTER, H.E., WESTPHAL, A. (Ed.): 20 Jahre Agrarforschung des Tropeninstitutes in Äthiopien. Gießener Beiträge zur Entwicklungsforschung, I, 14, pp. 29-39, Gießen.

MESFIN, W. M. (1972): An introductory geography of Ethiopia, Addis Ababa.

MERRITT, W.S., LETCHER, R.A. and JAKEMAN, A.J. (2003): A review of erosion and sediment transport models. – In: Environmental Modelling and Software, 18, pp. 761-799.

MISHRA, A., SHARMA, S.D. and KHAN, G.H. (2003): Improvement in physical and chemical properties of sodic soil by 3, 6 and 9 years old plantation of Eucalyptus tereticornis Biorejuvenation of sodic soil. – In: Forest Ecology and Management, 184, pp. 115-124.

MOGES, S. (2005): Towards measuring and monitoring of micro-watersheds. – Unpublished report - GTZ, IFSP Project, South Gondar, Ethiopia.

MOHR, E., VAN BAREN, F. and. VAN SCHUYLENBORGH, J. (1972): Tropical Soils. (Geuze) Dordrecht.

MOHR, P.A. (1962): The Geology of Ethiopia. – Univ. College Addis Ababa Press, Addis Ababa.

MOHR, P.A. (1971): Outline Tectonics of Ethiopia. – In: UNESCO (Ed.): Tectonics of Africa. Paris.

MOLINI, A., LANZA, L.G. and LA BARBERA, P. (2005): Improving the accuracy of tipping-bucket rain records using disaggregation techniques. – In: Atmospheric Research, 77, pp. 203-217.

MONTGOMERY, D.R. (2003): Predicting landscape-scale erosion rates using digital elevation models. – In: C. R. Geoscience, 335, pp. 1121-1130.

MORGAN, R.P.C. (1996): Soil erosion and conservation. Longman, London.

MORON, V. (1998): Trend, decadal and inter-annual variability in annual rainfall of subequatorial and tropical North Africa (1900-1994). – In: International Journal of Climatology, vol. 17, issue 8, pp. 785-805.

MORON, V., VAUTARD, R. and GHIL, M. (1998): Trends, inter-decal and inter-annual oscillations in global sea-surface temperatures. – In: Climate Dynamics, 14, pp. 545-569.

MoW [Ministry of Water Resources] Addis Ababa.

MUSGRAVE G.W. (1947): The quantitative evaluation of factors in water erosion - a first approximation. – In: Journal of Soil and Water Conservation, 2, pp.133-138.

NALLURI, C., & ALVAREZ, E.M. (1992): The Influence of Cohesion on Sediment Behaviour. – In: Water Science and Technology WSTED4, vol. 25, no. 8, pp. 151-164.

NEARING, M.A., LANE, L.J. and LOPES, V.L. (1994): Modelling Soil Erosion. – In: LAL, R. (Ed.) Soil Erosion Research Methods, pp. 127-156.

NESBITT, S.W. & ZIPSER, E.J. (2002): The Diurnal Cycle of Rainfall and Convective Intensity according to Three Years of TRMM Measurements. – In: Journal of Climate, vol. 16, pp. 1456-1475.

NGIGI, S.N. (2003): What is the limit of up-scaling rainwater harvesting in a river basin? – In: Physics and Chemistry of the Earth, 28, pp. 943-956.

NICHOLSON, S.E. (1994): Recent Rainfall fluctuations in Africa and their relationship to past conditions over the continent. – In: Holocene, 4, pp. 121-131.

NICHOLSON, S.E., KIM, J. and BA, M.B. (1997): The Mean Surface Water Balance over Africa and Its Interannual Variability. – In: Journal of Climate, vol. 10, no. 12, pp. 2981-3002.

NMA: National Meteorological Agency, Addis Ababa.

NYSSEN, J., VANDENREYKEN, H., POESEN, J., MOEYERSONS, J., DECKERS, J., HAILE, M., SALLES, C. and GOVERS, G. (2005): Rainfall erosivity and variability in the Northern Ethiopian Highlands. – In: Journal of Hydrology, 311, pp. 172-187.

OSMAN, M. (2001): Rainfall and its Erosivity in Ethiopia with special consideration of the central highlands. – In: Bonner Bodenkundliche Abhandlung, 37.

PALMER, A. C. & RICE, J. R. (1973): The Growth of Slip Surfaces in the Progressive Failure of Over-Consolidated Clay. – In*:* Proceedings of the Royal Society of London. Series A, Mathematical and Physical Sciences, vol. 332, no. 1591 (Apr. 3, 1973), pp. 527-548.

PARK, S.J. & VAN DE GIESEN, N. (2004): Soil–landscape delineation to define spatial sampling domains for hillslope hydrology. – In: Journal of Hydrology, 295, pp 28-46.

PENMAN, H.L. (1956): Estimating evaporation. – In: Trans. Amer. Geophys. Union, 37, pp. 43-46.

PETTERS, S.W. (1991): Regional Geology of Africa. Berlin.

PHILLIPS, D. L. & MARKS, D.G. (1996): Spatial uncertainty analysis: propagation of interpolation errors in spatially distributed models. – In: Ecological Modelling, 91, pp. 213-229

POESEN, J. (1987): The role of slope angle in surface seal formation, pp. 437-448 in V. GARDINER (Ed.) International Geomorphology. Part II. Wiley, Chichester.

PRUDHOMME, C. (1999): Mapping a Statistic Extreme Rainfall in a Mountain Region. – In: Phys. Chem. Earth (B), vol. 24, no. 1-2, pp. 79-84.

REFSGAARD, J. C. & HENRIKSEN, H. J. (2004): Modelling guidelines – terminology and guiding principles. – In: Advanced in Water Ressources, 27, pp.71-82.

RENARD, K.G., FOSTER, G.R., WEESIES, G.A., MCCOOL, D.K., YODER, D.C. (1997): Predicting soil erosion by water—a guide to conservation planning with the Revised Universal Soil Loss Equation (RUSLE). United States Department of Agriculture, Agricultural Research Service (USDA-ARS) Handbook No. 703. United States Government Printing Office, Washington, DC.

RENSCHLER, C. S. & HARBOR, J. (2002): Soil erosion assessment tools from point to regional scales – the role of geomorphologists in land management research and implementation. – In: Geomorphology, 47, pp.189-209.

REUSING, M. (2000): Analyse des Infrastrukturbedarfs ländlicher Gebiete mit Hilfe von GIS am Beispiel Äthiopien. – unpublished report, GTZ.

RICHTER, G. (Hrsg.) (1998): Bodenerosion. Analyse und Bilanz eines Umweltproblems. Darmstadt.

RUY, S., PIETRO, L.D. & CABIDOCHE, Y.M. (1999): Numerical modelling of water infiltration into the three components of porosity of a vertisol from Guadeloupe. – In: Journal of Hydrology, 221, pp. 1-19.

ROCKSTROM, J., JANSSONB P-E., and BARRON, J. (1998): Seasonal rainfall partitioning under runon and runoff conditions on sandy soil in Niger. On-farm measurements and water balance modelling. –In: Journal of Hydrology, 210, pp.68-92.

ROOSE, E.J. & SARRAILH, J.M. (1989): Erodibility of some tropical soils - twenty years of records in some erosion plots under natural rainfall. – In: Soils Fert., 25, pp. 7-30.

PRESS, F. & SIEVER, R. (1994): Understanding Earth, New York.

SCHICHO, W. (2005): Handbuch Afrika, Band 3. Frankfurt / Wien.

SCHMIDT, J. (1991): The Impact of Rainfall on Sediment Transport by Sheetflow. – In: BORK, H.-R. , PLOEY, J., SCHICK, A. P. (1991): Erosion, Transport and Deposition Processes – Theories and Models. Braunschweig.

SCHOLTEN, T. (1997): Hydrology and erodibility of the soils and saprolite cover of the Swaziland Middleveld. – In: Soil Technology, ll, pp. 247-262.

SCHULTZ, J. (2000): Handbuch der Ökozonen. Stuttgart.

SCHUMACHER, C. & HOUZE JR, R.A. (2003): Stratiform Rain in the Tropics as seen by the TRMM Precipitation Radar. – In: Journal of Climate: vol. 16, no. 11, pp. 1739-1756.

SCHÜTT, B. & BAUMHAUER, R. (2000): Subrezente Morphodynamik im Bereich der Cañada Hermosa, SE Spanien. – In: Trierer Geographische Studien, 23, pp. 99-112.

SCHÜTT, B. & THIEMANN, S. (2001): Assessment and Monitoring of Erosion and Sedimentation Problems in Ethiopia. - Unpublished report, EU-Projekt PN: OL 17451/96/02.

SCHÜTT, B., FÖRCH, G., BEKELE, S., THIEMANN, S. and WENCLAWIAK, B. (2002): Modern water level and sediment accumulation changes of Lake Abaya, southern Ethiopia – a case study from the northern lake area. – In: SCHMITZ, G.H. (ed.): Water Resources and Environment Research, vol. II, pp. 418-422. (=3rd International Conference on Water Resources and Environment Research). Dresden.

SCHÜTT, B. & THIEMANN, S. (2004): Water and sediment balance of the Gidabo River – a case study from the Abaya-Chamo Baisn, South Ethiopia. – In: WENCLAWIAK, B. & WILNEWSKI, S. (eds): Sedimentary Studies in Tropics and Subtropics. -Weiterbildung in Siegen (WIS), 14, pp. 41-59.

SCHÜTT, B. & THIEMANN, S. (2005): Modern Lake Level Rise and Accelerated Fluvio-lacustine Sedimentation of Lake Abaya, South Ethiopia – In: Sustainable Management of Headwater Resources, United Nation University Series on Water Resources Management and Policy, 17, pp. 320 f., Tokyo.

SCHÜTT, B., THIEMANN, S. and WENCLAWIAK, B. (2005): Deposition of modern fluvio-lacustrine sediments in Lake Abaya, South Ethiopia – A case study from the delta

areas of Bilate River and Gidabo River, northern basin – In: Annals of Geomorphology, 138, pp. 131-151, Stuttgart.

SEDOV, S.N., SOLLEIRO-REBOLLEDO, E. and GAMA-CASTRO, J. E. (2003): Andosol to Luvisol evolution in Central Mexico: timing, mechanisms and environmental setting. – In: Catena, 54, pp. 495-513.

SELESHI, Y. & DEMAREE, G. R. (1995): Rainfall Variability in the Ethiopian and Eritrean Highlands and its Links with the Southern Oscillation Index. – In: Journal of Biogeography, vol. 22, no. 4/5, pp. 945-952.

SENTIS PLA, I. (1997): A soil water balance model for monitoring soil erosion procecces and effects on steep lands in the tropics. – In: Soil technology, 11, pp. 17-30.

SHARY, P.A., SHARAYA, L.S. and MITUSOV, A.V. (2002): Fundamental quantitative methods of land surface analysis. – In: Geoderma, 107, pp. 1-32.

SHIFERAW, B. & HOLDEN, S. (1999): Soil Erosion and Small Holders Conservation Decisions in the Highlands of Ethiopia. – In World Development, 27 (4), pp. 739-752.

SOLOMON, T. & DESTA, Z. (1996): Composition, fractionation trend and zoning accretion of the columbite-tantalite group of minerals in the Kenticha rare-metal field (Adola, southern Ethiopia). Journal of African Earth Sciences, 23, pp. 411-431. Oxford.

STRAHLER, A.N. (1964): Quantitative geomorphology of drainage basins and channel networks. – In: VEN TE CHOW (Ed.): Handbook of Applied Hydrology: Compendium of Water Resources Technology. McGraw-Hill, New York, N.Y., pp.39-76.

STRAHLER, A.H. & STRAHLER, A.N. (1988): Modern Physical Geography. New York.

SUMMERFIELD, M. A. (1991): Global geomorphology. Edinburgh.

SUMMERFIELD, M. A. (1996): Tectonics, Geology and long-term Landscape Development. – In: ADAMS, W.M., GOUDIE, A.S., ORME, A.R. (Ed.): The Physical Geography of Africa, pp. 1-17. Oxford University Press, Oxford.

SUZUKI, H. (1967): Some aspects of Ethiopian climates. – In: Ethiopian Geographical Journal, 5 (2), pp. 19-22.

TEDLA, S. & LEMMA, K. (1998): Environmental Management in Ethiopia: Have the National Conservation Plans Worked? – In: Environmental Forum Publications Series No. 1, OSSREA, Addis Ababa.

THIEMANN, S. & FÖRCH, G. (2005): Water Resource Assessment in the Bilate River Catchment – Precipitation Variability. – In: Proceedings of Lake Abaya Research Symposium 2005, Addis Ababa.

THIEMANN, S., SCHÜTT, B. and FÖRCH, G. (2004): Development and application of a Soil erosion risk model, the case of the Bilate River catchment area, south Ethiopia. – In: FWU Water Resources Publications, 2, pp. 46-52.

THIEMANN, S., SCHÜTT, B. and FÖRCH, G. (2005): Assessment of Erosion and Soil Erosion Processes – a Case Study from the Northern Ethiopian Highland – In: FWU Water Resource Publications, 3, pp. 173-186.

THOMPSON, L.G. (2000): Ice core evidence for climate change in the Tropics: implications for our future. – In: Quaternary Science Reviews, 19, pp. 19-35.

THORNTHWAITE, C.W. & MATHER, J.R. (1957): Instructions and tables for computing potential evapotranspiration and the water balance. – In: Climatology, 10 (3), pp. 185-311.

TILAHUN, K. (2006): Analysis of rainfall climate and evapo-transpiration in arid and semi-arid regions of Ethiopia using data over the last half a century. – In: Journal of Arid Environments, 64, pp. 474-487.

TOY, T.J., FOSTER, G.R. and RENARD, K.G. (2002): Soil Erosion: processes, prediction, measurement and control. New York.

UNEP (2005): Prpgramme of work on the biological diversity of dry and sub-humid lands: review of implementation. UNEP/CBD/SBSTTA/11/INF/7, Montreal.

UNDP, Ethiopia Homepage (June 2005): Internet: http://www.et.undp.org/ethiopia/intro.htm#Geography

U.S. CENSUS BUREAU (2005): Summary Demographic Data for Ethiopia. Internet: http://www.census.gov/cgi-bin/ipc/idbsum.pl?cty=ET

VALENTIN, C., POESEN, J. and LI, Y. (2005): Gully erosion: Impacts, factors and control. – In: Catena, vol. 63, issues 2-3, pp. 132-153.

VALMIS, S., DIMOYIANNIS, D. and DANALATOS N.G. (2005): Assessing interrill erosion rate from soil aggregate instability index, rainfall intensity and slope angle on cultivated soils in central Greece. – In: Soil & Tillage Research, 80, pp. 139-147.

VAN DIJK, A.I.J.M., BRUIJNZEEL, L.A. and ROSEWELL, C.J. (2002): Rainfall intensity – kinetic energy relationships: a critical literature appraisal. – In: Journal of Hydrology, 261, pp. 1-23.

VAN LIEW, M.W. & SAXTON, K.E. (1983): Slope steepness and incorporated residue effects on interrill erosion. – In: Transactions of the ASAE, 26(6), pp. 1738-1743.

VAN LYNDEN, G.W. & MANTEL, S. (2001): The role of GIS and remote sensing in land degradation assessment and conservation mapping: some user experiences and expectations. – In: JAG, vol. 3, issue 1, pp. 61-68.

VAN RANST, E., SHAMSHUDDIN, J., BAERT, G. and DZWOWA, P.K. (1998): Charge characteristics in relation to free iron and organic matter of soils from Bambouto Mountains, Western Cameroon. – In: European Journal of Soil Science, vol. 49, no. 2, pp. 243-252.

VAN ROOY, M.P. (1965): A rainfall anomaly index independent of time and space. - NOTOS. Weather Bureau of South Africa, 14, pp. 43–48.

VEIHE, A. (2002): The spatial variability of erodibility and its relation to soil types: a study from northern Ghana. – In: Geoderma, 106, pp. 101-120.

VIGIAK, O., BARRACK, O.O., STERK, G. and GROENENBERG, S. (2005): Modelling catchment-scale erosion patterns in the East African Highlands. – In: Earth Surface Processes and Landforms, 30, pp. 183-196.

VOIGT, B. (1992): Klima und Landschaft am Horn von Afrika im Quartär. Berliner geographische Studien, 36, Berlin.

WALKER, B.H. & LANDGRIDGE, J.L. (1996): Modelling plant and soil water dynamics in semi-arid ecosystems with limited site data. – In: Ecological Modelling, 87, pp. 153-167.

WANG, G., GERTNER, G., LIU, X. and ANDERSON, A. (2001): Uncertainty assessment of soil erodibility factor for revised universal soil loss equation. – In: Catena, 46, pp.1-14.

WHALLEY, N., IREDALE, R.S. and CLARE, A.F. (2001): Reliability and Uncertainty in Flow Measurement Techniques – Some Current Thinking. – In: Phys. Chem. Earth (C), vol. 26, no. 10-12, pp. 743-749.

WEDINEH, D. (1999): Rift Valley Lakes Basin (Inspection of the Watersheds). Unpublished report. Addis Ababa.

WEMMER, T. (2004): GIS-gestützte vergleichende Untersuchung der Teileinzugsgebiete des Abaya-Chamo-Beckens, SO Äthiopien. Master Thesis (Diplomarbeit), University of Trier.

WESTPHAL, E. (1975): Agricultural Systems in Ethiopia. – Agricultural Research Reports 826, Centre for Agricultural Publishing and Documentation, Wageningen.

WIJDENES, D.J.O., POESEN, J., VANDEKERCKHOVE, L., NACHTERGAELE, J. and DE BAERDEMAEKER, J. (1999): Gully-head morphology and implications for gully development on abandoned fields in a semi-arid environment, Sierra de Gata, southeast Spain. – In: Earth Surface Processes and Landforms, vol. 24, issue 7, pp. 585-603.

WISCHMEIER, W.H. & SMITH, D.D. (1978): Predicting Rainfall Erosion Losses. A Guide to Conservation Planning. – In: Agriculture Handbook, 537.

WOLDE-AREGAY, B. & HOLDINGE, C.A. (ed.). 1996. Twenty years of soil conservation in Ethiopia: a personal overview. Regional Soil Conservation Unit, Swedish International Development Cooperation, Kenya. 24pp.

YAIR, A. & RAZ-YASSIF, N. (2004): Hydrological processes in a small arid catchment: scale effects of rainfall and slope length. – In: Geomorphology, 61, pp. 155-169.

ZECH, W. & HINTERMAIER-ERHARD, G. (2002): Böden der Welt. Spektrum Akademischer Verlag. Heidelberg.

ZEHETNER, F. & MILLER, W.P. (2006): Erodibility and runoff -infiltration characteristics of volcanic ash soils along an altitudinal climosequence in the Ecuadorian Andes – In: Catena. Articel in Press.

ZELEKE, T.B., GREVERS, M.C.J., SI, B.C:, MERMUT, A.R. AND BEYENE, S. (2004): Effect of residue incorporation on physical properties of the surface soil in the South Central Rift Valley of Ethiopia. – In: Soil & Tillage Research, 77, pp. 35-46.

ZELEKE, G. & HURNI, H. (2001): Implication of Land Use und Land Cover Dynamics for Mountain Resource Degradation in the Northwestern Ethiopian Highlands. – In: Mountain Research Development, 21, 2, pp.184-191.