

## DAFTAR PUSTAKA

- Ahr S.W., L.C. Nordt, & S.G. Driese. 2012. Assessing lithologic discontinuities and parent material uniformity within the Texas sandy mantle and implications for archaeological burial and preservation potential in upland settings. *Quaternary research* 78: 60-71. Doi: 10.1016/j.yqres.2012.03.013
- Aini, L.N., B.H. Sunarminto, E. Hanudin, & J. Sartohadi. 2018. Soil morphogenesis diversity at the southern flank of Merapi Volcano, Indonesia five years post-eruption. *Indian Journal Agricultural Research* 52(5); 472-480. doi: 10.18805/IJARE.A-325
- Allen, B.L. & B.F. Hajek. 1989. Mineral occurrence in soil environments. In: Dixon, J.B. & S.B. Weed (eds.) *Minerals in Soil Environments*, 2nd edn. Madison. Soil Science Society of America: 331–378.
- Alliaume, F., M. Garcia, W. Rossing, K. Giller, V. Mancasola, & S. Dogliotti. 2010. Quantification of some soil properties as affected by land use and its implication for vegetable farm systems. 19th World Congress of Soil Science, Brisbane, Australia: 186–189
- Altmeyer. T. 1956. Discussion on engineering properties of expansive soils. *Transactions of ASCE* 121: 666-669.
- Andrade F.A, H.A. Al-Qureshi, & D. Hotza. 2011. Measuring the plasticity of clays: a review. *Applied Clay Science* 51:1-7. <https://doi.org/10.1016/j.clay.2010.10.028>
- Armandita, C., M.M. Mukti, & A.H. Setyana. 2009. IntraArc Transtention Duplex of Majalengka to Banyumas Area: Prolific Petroleum Seep and Opportunities in West–Central Java Border. *Proceedings the 33rd Annual Convention of the Indonesian Petroleum Association*.
- Arriaga F.J., J. Guzman, & B. Lowery. 2017. Conventional agricultural production systems and soil functions. In: Mahdi M, Al-Kaisi, Lowery B. 2017. *Soil health and intensification of agroecosystems*. Academic Press Elsevier: 109-125 <https://doi.org/10.1016/B978-0-12-805317-1.00005-1>
- Asdak, C. 2007. *Hidrologi dan Pengelolaan Daerah Aliran Sungai*. Yogyakarta: Gajah Mada University Press.
- Assia, B., A.B. Nabil, & T. Said. 2013. Potential Collapse for a Clay Soil. *International Journal of Emerging Technology and Advanced Engineering* 3 (10): 43-47.
- Asuri, S. & P. Keshavamurthy. 2016. Expansive soil characterization: an appraisal. *INAEL* 1: 29. <https://doi.org/10.1007/s41403-016-0001-9>
- Atterberg, A. 1911. Die plastizitat der tone. *Internationale mitteilungen fur bodenkunde* 1: 10 – 43.
- Bailey, S.W. 1980. Structures of layer silicates. In: Brindley, G.W. & G. Brown (eds.) *Crystal Structures of Clay Minerals and their X-Ray Identification*. Monograph no. 5. London. Mineralogical Society: 1–123.
- Bain, D.C., A. Mellor, M.S.E. Robertson-Rintoul, & S.T. Buckland. 1993. Variations in weathering processes and rates with time in a chronosequence of soils from Glen Feshie, Scotland. *Geoderma* 57: 275–293. [https://doi.org/10.1016/0016-7061\(93\)90010-I](https://doi.org/10.1016/0016-7061(93)90010-I)

- Bakker, L., D.J. Lowe, & A.G. Jongmans. 1996. A micromorphological study of pedogenic processes in an evolutionary soil sequence formed on Late Quaternary rhyolitic tephra deposits, North Island, New Zealand. *Quat. Intl* 34--36: 249–261.
- Ball, B.C., T. Batey, L.J. Munkholm, R.M.L. Guimares, H. Biozard, D.C. McKenzie, J. Peigne, C.A. Tormena, & P. Hargreaves. 2015. The numeric visual evaluation of subsoil structure (SubVESS) under agricultural production. *Soil and Tillage Research* 148: 85-96.
- Barnhisel, R.I. & P.M. Bertsch. 1989. Chlorites and hydroxy-interlayered vermiculite and smectite. In J. B. Dixon and S. B. Weed (eds.) *Minerals in Soil Environments*, 2nd edn. Madison. Soil Science Society of America: 729–788.
- Bergaya, F., B.K.G. Theng, & G. Lagaly. 2006. *Handbook of Clay Science*. Elsevier, Amsterdam: 141–246.
- Blake, G.R., G.C. Steinhardt, X.P. Pombal, J.C.N. Muñoz, A.M. Cortizas, R.W. Arnold, & R.J. Schaetzl. 2008. Pedoturbation. In: Chesworth W (ed.) *Encyclopedia of Soil Science*, pp 516–522. Dordrecht: Springer Netherlands. doi.org: 10.1007/978-1-4020-3995-9\_417
- Bockheim, J.G. & A.N. Gennadiyev. 2000. The role of soil-forming processes in the definition of taxa in Soil Taxonomy and the World Soil Reference Base. *Geoderma* 95: 53–72
- Bockheim, J.G. 2014. *Soil Geography of the USA: A Diagnostic-Horizon Approach*. Springer Cham Heidelberg New York Dordrecht London. DOI 10.1007/978-3-319-06668-4
- Borchardt, G. 1989. Smectites. In: Dixon, J.B. & S.B. Weed (eds.) *Minerals in Soil Environments*, 2nd edn. Madison. Soil Science Society of America: 675–727.
- Budianto, Y. 2016. Keterdapatan sensitive clay pada lokasi longsorklahan di DAS Bompon, Kabupaten Magelang, Jawa Tengah. Skripsi. Jurusan Geografi Lingkungan, Fakultas Geografi, Universitas Gadjah Mada. Yogyakarta.
- Buol, S.W., & F.D. Hole. 1961. Clay skin genesis in Wisconsin soils. *Soil science society America* 25: 377-379. doi: 10.2136/sssaj1961.03615995002500050021x
- Chae B.G., J.H. Lee, H.J. Park, & J. Choi. 2015. A method for predicting the factor of safety of an infinite slope based on the depth ratio of the wetting front induced by rainfall infiltration. *Natural Hazards and Earth System Sciences* 15: 1835–1849. doi: 10.5194/nhess-15-1835-2015
- Chen, P.Y. 1977. *Table of Key Lines in Z-Ray Powder Diffraction Patterns of Minerals in Clays and Associated Rocks*. Department of Natural Resources. Geological Survey Occasional. Printed by Authority of The State of Indiana Bloomington, Indiana.
- Cheng, C.H., S.C. Hsiao, Y.S. Huang, C.Y. Hung, C.W. Pai, C.P. Chen, & O.V. Menyailo. 2016. Landslide-Induced changes of soil physicochemical properties in Xitou, Central Taiwan. *Geoderma* 265: 187 – 195. doi: 10.1016/j.geoderma.2015.11.028
- Chittleborough, D.J. 1992. Formation and pedology of duplex soils. *Austral. J. Exp. Agric.* 32: 815–825.

- Churchman, G.J., & B. Velde. 2019. *Soil Clays: Linking Geology, Biology, Agriculture, and the Environment*. CRC Press. Taylor & Francis Group. ISBN: 978-1-4987-7005-7
- Clements, B. & R. Hall. 2007. Cretaceous to Late Miocene Stratigraphic and Tectonic Evolution of West Java. *Proceedings the 31st Annual Convention of the Indonesian Petroleum Association*.
- Cruden, D.M., & D.J. Varnes. 1996. Landslide types and processes. In: *Landslide: Investigation and mitigation*. 1996. Edited by Turner, A.K., & R.L. Schuster. Washington, D.C.
- Dahlgren, R.A. & F.C. Ugolini. 1991. Distribution and characterization of short-range-order minerals in Spodosols from the Washington Cascades. *Geoderma* 48: 391–413.
- Dai, F.C., C.F. Lee, J. Li, & Z.W. Xu. 2001. Assessment of landslide susceptibility on the natural terrain of Lantau Island, Hong Kong. *Environ. Geol.* 43(3): 381 – 391. doi: 10.1007/s002540000163
- Dixon, J.B. & S.B. Weed. 1989. *Minerals in Soil Environments*. 2nd edn. Madison, WI, Soil Science Society of America.
- Evans, A.M. 1993. *Ore geology and industrial minerals an introduction*. Third Edition. Oxford Blackwell Scientific Publication.
- Eynde, E.V., S. Dondeyne, M. Isabirye, J. Deckers, & J. Poesen. 2017. Impact of landslide on soil characteristics: implications for estimating their age. *Catena* 157: 173 – 179. doi: 10.1016/j.catena.2017.05.003
- Eze P.N., T.K. Udeigwe, & M.E. Meadows. 2014. Plinthite and its associated evolutionary forms in soils and landscapes: A review. *Pedosphere* 24(2): 153-166. [https://doi.org/10.1016/S1002-0160\(14\)60002-3](https://doi.org/10.1016/S1002-0160(14)60002-3)
- Frolova J., V. Ladygin, S. Rychagov, & D. Zukhubaya. 2014. Effects of hydrothermal alterations on physical and mechanical properties of rocks in the Kuril–Kamchatka island arc. *Engineering Geology* 183: 80–95.
- Furian, S., L. Barbiero, R. Boulet, P. Curmi, M. Grimaldi, & C. Grimaldi. 2002. Distribution and dynamics of gibbsite and kaolinite in an oxisol of Serra do Mar, southeastern Brazil. *Geoderma* 106: 83–100. [https://doi.org/10.1016/S0016-7061\(01\)00117-3](https://doi.org/10.1016/S0016-7061(01)00117-3)
- Furuhata, A., & S. Hayashi. 1980. Relation between soil structure and soil pore composition: case of volcanogenous soils in Tokachi district. *Res. Bull. Hokkaido Natl. Agric. Exp. Stn.* 126: 53-58.
- Gifkins, C., W. Herrmann, & R. Large. 2005. *Altered volcanic rocks: A guide to description and interpretation*. Centre for Ore Deposits Research. University of Tasmania. Australia.
- Glade, T. & M.J. Crozier. 2010. Landslide geomorphology in a changing environment. *Geomorphology* 120: 1 – 2. doi: 10.1016/j.geomorph.2009.09.018
- Glade, T., 2003. Landslide occurrence as a response to land use change: a review of evidence from New Zealand. *Catena* 51: 297–314. [https://doi.org/10.1016/S0341-8162\(02\)00170-4](https://doi.org/10.1016/S0341-8162(02)00170-4).

- Gregorich, E.G., L.W. Turchenek, M.R. Carter, & D.A. Angers. 2001. Soil Environmental and Science Dictionary. CRC Press. doi: 10.1016/S0376-7361(09)70204-3
- Griffiths, J.S. & M. Whitworth. 2012. Engineering Geomorphology of Landslides. In: *Landslide Types, Mechanism, and Modeling*. Edited by: Clague, J.J. & D. Stead. Cambridge University Press: 172-186.
- Günel-Türkmenoğlu, A., Ö. Bozkaya, M.C. Göncüoğlu, Ö. Ünlüce, İ.Ö. Yılmaz, & C. Okuyucu. 2015. Clay mineralogy, chemistry, and diagenesis of Late Devonian K-bentonite occurrences in northwestern Turkey. *Turkish journal of earth sciences* 24: 209 – 229. doi: 10.3906/yer-1501-14
- Hadini, L.O., J. Sartohadi, M.A. Setiawan, & D. Mardianto. 2019. Characteristic of sediment flow and soil loss of the volcanic Landscape watershed with Agroforestry Landuse. *Ecology, Environment, and Conservation* 25(3): 92-101.
- Hardiyatmo, H.C. 2012a. Mekanika tanah I. Edisi ke 6. Universitas Gadjah Mada Press. Yogyakarta.
- Hardiyatmo, H.C. 2012b. Mekanika tanah II. Edisi ke 5. Universitas Gadjah Mada Press. Yogyakarta.
- Hardiyatmo, H.C. 2012c. Tanah longsor dan erosi: Kejadian dan penanganan. Universitas Gadjah Mada Press. Yogyakarta.
- Herrmann, H., & H. Bucksch. 2014. Dictionary Geotechnical Engineering. Springer Reference. doi: 10.1007/978-3-642-41714-6
- Holtz, W.D. & H.J. Gibbs. 1956. Engineering Properties of Expansive Clay Transactions. ASCE.
- Hong, H., Q. Fang, L. Zhao, S. Schoepfer, C. Wang, N. Gong, Z. Li, & Z. Chen. 2017. Weathering and alteration of volcanic ashes in various depositional settings during the Permian-Triassic transition in South China: Mineralogical, elemental and isotopic approaches. *Palaeogeography, Palaeoclimatology, Palaeoecology* 486: 46 – 57. doi: 10.1016/j.palaeo.2016.12.033
- Hopkins, D.G., & D.W. Franzen. 2003. Argillic horizons in stratified drift: Luverne end moraine, eastern North Dakota. *Soil science society of America journal* 67:1790–1796. <https://doi.org/10.2136/sssaj2003.1790>
- Hsu, P.H. 1989. Aluminum oxides and hydroxides. In: Dixon, J.B. & S.B. Weed (eds.) *Minerals in Soil Environments*, 2nd edn. Madison. Soil Science Society of America: 199–278.
- Huddart, D. & T. Stott. 2010. Earth environment: past, present, and future. John Wiley & sons, Ltd. The atrium, southern gate, chichester, west Sussex. UK.
- Huff, W.D. 2016. K-bentonites: A review. *American mineralogist* 101: 43 – 70.
- Johnson, D.L. & D. Watson-Stegner. 1987. Evolution model of pedogenesis. *Soil Sci.* 143: 349–366.
- Kaliakin, V.N. 2017. Soil mechanics: calculations, principles, and methods. University of Delaware, Newark, DE. ISBN: 978-0-12-804491-9
- Kaliakin, V.N. 2017. Soil Mechanics: Calculations, Principles, and Methods. Butterworth Heinemann. Elsevier. United Kingdom. ISBN: 978-0-12-804491-9

- Karnawati, D. 2005. Bencana alam gerakan massa tanah di Indonesia dan upaya penanggulangannya. Jurusan Teknik Geologi, Fakultas Teknik, Universitas Gadjah Mada. Yogyakarta.
- Kutílek M. 2004. Soil hydraulic properties as related to soil structure. *Soil and tillage research* 79: 175-184. doi: 10.1016/j.still.2004.07.006
- Kuzila, M.S. 1995. Identification of multiple loess units within modern soils of Clay County, Nebraska. *Geoderma* 65: 45–57.
- L’Heureux, J.S. A. Locat, S. Leroueil, D. Demers, & J. Locat. 2014. Landslide in sensitive clays. Vol 36. doi: 10.1007/978-94-007-7079-9
- Lagat, J. 2009. Hydrothermal alteration mineralogy in geothermal fields with case examples from olkaria domes geothermal field, Kenya: Presented at short course IV on exploration for geothermal resources, UNU-GTP, Ken-Gen, and GDC, Lake Naivasha, Kenya.
- Lal, R., & B. Stewart. 2005. *Climate Change and Global Food Security*. CRC Press, Boca Raton, Florida.
- Lambe, T.W. & R.V. Whitman. 1969. *Soil mechanics*. Wiley. New York.
- Liu, H.W., S. Feng, & C.W.W. Ng. 2016. Analytical analysis of hydraulic effect of vegetation on shallow slope stability with different root architectures. *Comput. Geotech.* 80, 115–120. <https://doi.org/10.1016/j.compgeo.2016.06.006>
- Liu, J., G.C. Daily, P.R. Ehrich, & G.W. Luck. 2003. Effects of household dynamics on resource consumption and biodiversity. *Nature* 421, 530–533.
- Lung, T., & G. Schaab. 2010. A comparative assessment of land cover dynamics of three protected forest areas in tropical East Africa. *Environmental Monitoring and Assessment* 161: 531–548.
- Marfai, M.A., L. King, L.P. Singh, D. Mardiatno, J. Sartohadi, D.S. Hadmoko, & A. Dewi. 2008. Natural hazards in Central Java Province, Indonesia: an overview. *Environ Geol* 56: 335-351. doi: 10.1007/s00254-007-1169-9
- Martini, J.A. 1970. Allocation of cation exchange capacity to soil fractions in seven surface soils from Panama and the application of a cation exchange factor as a weathering index. *Soil Sci.* 109: 324–331.
- Meiarti, R. 2017. Penentuan zonasi detail bahaya longsor menggunakan data UAV di Sub DAS Bompon Kabupaten Magelang Provinsi Jawa Tengah. Tesis. Universitas Gadjah Mada. Yogyakarta
- Mitchell J.K, & K. Soga. 2005. *Fundamentals of soil behavior*, 3rd edn. Wiley, New York.
- Mitchell, J.K. 1976. *Fundamentals of Soil Behaviour*. John Wiley & Sons, Inc.
- Mitchell, J.K. 1993. *Fundamentals of soil behavior*. 2<sup>nd</sup> Edition. Wiley. New York.
- Nakamura, H., & T.F. Fathani. 2002. Hazard area prediction for landslide debris. *Proceeding of the Tenth International Conference and Fieldtrip on Landslide*. Poland.
- Nanzyo, M., S. Shoji, & R. Dahlgren. 1993. Physical characteristics of volcanic ash soils: 189-207. In: Sasa, S., M. Nanzyo, & R. Dahlgren (Eds.). *Volcanic Ash Soil*

– genesis, properties, and utilization. *Developments in Soil Science* 21, Elsevier. Amsterdam.

- Nimmo, J.R. 2004. Porosity and Pore Size Distribution. In Hillel, D., ed. *Encyclopedia of Soils in the Environment*: London, Elsevier: 295-303
- Noviyanto, A., Purwanto, S. Minardi, & Supriyadi. 2017. The assessment of soil quality of various age of land reclamation after coal mining: a chronosequence study. *Journal of Degraded and Mining Lands Management* 5(1): 1009-1018. doi: 10.15243/jdmlm.2017.051.1009
- O'Geen, A.T. 2013. Soil Water Dynamics. *Nature Education Knowledge* 4(5):9. <https://www.nature.com/scitable/knowledge/library/soil-water-dynamics-103089121/>
- Ogg, C.M. & J.C. Baker. 1999. Pedogenesis and origin of deeply weathered soils formed in alluvial fans of the Virginia Blue Ridge. *Soil Science Society of America Journal* 63: 601–606.
- Osman, KT. 2013. *Soils: Principles, Properties and Management*. Springer Dordrecht Heidelberg New York London. DOI 10.1007/978-94-007-5663-2
- Pioquinto W.P.C., J.A. Caranto, & L.F. Bayrante. 2010. Mitigating a deep-seated landslide hazard. The case of 105 Mahaio Slide area, Leyte geothermal production field, Philippines. *Proceeding world geothermal congress 2010*. <https://www.geothermal-energy.org/pdf/IGAstandard/WGC/2010/0218.pdf>.
- Pirajno, F. 2009. *Hydrothermal processes and mineral systems*. Springer science. ISBN: 978-1-4020-8612-0
- Pola, A., G. Crosta, N. Fusi., V. Barberini, & G. Norini. 2012. Influence of alteration on physical properties of volcanic rocks. *Tectonophysics* 566: 67 – 86. doi: 10.1016/j.tecto.2012.07.017
- Pratiwi E.S., J. Sartohadi, & Wahyudi. 2019. Geoelectrical prediction for sliding plane layers of rotational landslide at the volcanic transitional landscapes in Indonesia. *IOP Conference Series: Earth and Environmental Science* 286: 1-9. doi: 10.1088/1755-1315/286/1/012028
- Pulungan, N.A., & J. Sartohadi. 2018. Variability of soil development in hilly region, Bogowonto catchment, Java, Indonesia. *Int. J. Soil Sci* 13: 1 – 8. doi: 10.3923/ijss.2018.1.8
- Ray R.L., & F. De Smedt. 2009. Slope stability analysis on a regional scale using GIS: a case study from Dhading, Nepal. *Journal of Environmental Geology* 57: 1603-1611. doi: 10.1007/s00254-008-1435-5
- Rose, A.W., & D.M. Burt. 1979. Hydrothermal alteration. In: *Geochemistry of hydrothermal ore deposits*. 1997. Edited by Barnes, H.L. Third edition. John Willy and sons, Inc.
- Sadleir, S.B. & R.J. Gilkes. 1976. Development of bauxite in relation to parent material near Jarrahdale, Western Australia. *J. Geol. Soc. Austral.* 23: 333–334.
- Sambodo, A.P., M.A. Setiawan, & R.P. Rokhmaningtyas. 2018. The evaluation of modified productivity index method on the transitional volcanic-tropical landscape. *IOP Conf. Ser.: Earth Environ. Sci.* 200 (1): 1 – 9. doi: 10.1088/1755-1315/200/1/012011

- Santos H.G., P.K.T. Jacomine, L.H.C. Anjos, V.A. Oliveira, J.B. Oliveira, M.R. Coelho, J.F. Lumbreras, & T.J.F. Cunha. 2013. *Sistema brasileiro de classificação de solos*. 3. ed. rev. ampl. Rio de Janeiro: Embrapa Solos.
- Sartohadi, J., N.A.H.J. Pulungan, M. Nurudin, & W. Wahyudi. 2018. The ecological perspective of landslide at soils with high clay content in the middle Bogowonto Watershed, Central Java, Indonesia. *Applied Environ. Soil Sci* 2018: 1 – 9. doi: 10.1155/2018/2648185
- Sartohadi, J., Suratman, Jamulya, & N.I.S. Dewi. 2014. *Pengantar geografi tanah*. Yogyakarta: Pustaka pengajar.
- Sassa, K., & P. Canuti. 2009. *Landslide-Disaster risk reduction*. Springer-Verlag Berlin Heidelberg. ISBN: 978-3-540-69966-8
- Sassa, K., O. Nigai, R. Solidum, Y. Yamazaki, & H. Ohta. 2010. An integrated model simulating the initiation and motion of earthquake and rain induced rapid landslide and its application to the 2006 Leyte Landslide. *Landslide* 7(3): 219 – 236. doi: 10.1007/s10346-010-0230-z
- Schad P. 2017. World reference base for soil resources. Reference module in earth systems and environmental sciences. <https://doi.org/10.1016/B978-0-12-409548-9.10496-8>
- Schaetzl, R.J. & S. Anderson. 2005. *Soils genesis and geomorphology*. Cambridge University Press. New York. ISBN: 978-0-511-11104-4
- Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, & Soil Survey Staff. 2012. *Field book for describing and sampling soils*. Version 3.0. Natl. Soil Surv. Ctr. Lincoln, NE.
- Schowalter, T.D. 2006. *Insect ecology: An ecosystem approach*. Second edition. Academic press. Elsevier. <https://doi.org/10.1016/B978-0-12-088772-9.X5022-5>
- Schwertmann, U. & R.M. Taylor. 1989. Iron oxides. In: Dixon, J.B. & S.B. Weed (eds.) *Minerals in Soil Environments*, 2nd edn. Madison. Soil Science Society of America: 379–438.
- Shen, P., L.M. Zhang, & H. Zhu. 2016. Rainfall infiltration in a landslide soil deposit: Importance of inverse particle segregation. *Engineering Geology* 205: 116-132.
- Shoji, S. & T. Takahashi. 2002. Environmental and agricultural significance of volcanic ash soils, *Global Environ. Res.*, 2002, vol. 6, pp. 113–135.
- Shu, H., M. Hürlihan, R. Molowny-Horas, M. González, J. Pinyol, C. Abanco, & J. Ma. 2019. Relation between land cover and landslide susceptibility in Val d’Aran, Pyrenees (Spain): Historical aspects, present situation and forward prediction. *Science of the total environment* 693: 133557
- Sieffermann, G. 1973. *Les Sols de Quelques Regions Volcaniques do Cameroun*. ORSTOM. Paris. 183 p.s.
- Simonson. 1959. Outline of a generalized theory of soil genesis. *Soil science society of America journal*. 23: 152–156.
- Skempton, A.W. 1953. The colloidal activity of clays. *Proceedings of Third International Conference on Soil Mechanics and Foundation Engineering* 1: 57 – 61.

- Smeck, N.E., A. Ritchie, L.P. Wilding, & L.R. Drees. 1981. Clay accumulation in sola of poorly drained soils of western Ohio. *Soil science society of America journal* 45: 95–102. doi:10.2136/sssaj1981.03615995004500010021x
- Smith, G.D. 1986. *The Guy Smith Interviews: Rationale for Concepts in Soil Taxonomy*, Soil Management Support Services Technical Monograph no. 11. Ithaca, NY, Cornell University.
- Soil Science Division Staff. 2017. *Soil survey manual*. Agriculture handbook No. 18. Natural Resources Conservation Service Soils. United States Department of Agriculture.
- Soil Survey Staff. 1999. *Soil Taxonomy*, US Department of Agriculture Handbook no. 436. Washington, D.C.
- Soil Survey Staff. 2014. *Keys to Soil Taxonomy*. 12th ed. USDA-Natural Resources Conservation Service, Washington, D.C.
- Sparling, G., D. Ross, N. Trustrum, G. Arnold, A. West, T. Speir, & L. Schipper. 2003. Recovery of topsoil characteristics after landslip erosion in dry hill country of New Zealand, and a test of the space-for-time hypothesis. *Soil Bio. & Biochem.* 35: 1575 – 1586. doi: 10.1016/j.soilbio.2003.08.002
- Sunarminto, B.H., M. Nurudin, Sulakhudin, & C. Wulandari. 2014. *Peran geologi dan mineralogy tanah untuk mendukung teknologi tepat guna dalam pengelolaan tanah tropika*. Gadjah Mada University Press. Yogyakarta
- Swarowsky, A., R.A. Dahlgren, K.W. Tate, J.W. Hopmans, & A.T. O'Geen. 2011. Catchment-scale soil water dynamics in a Mediterranean-type oak woodland. *Vadose Zone Journal* 10: 800-815.
- Tamura E., & S. Hasegawa. 2015. Verification of swelling and landslide of smectite bearing ground due to Hydrothermal Alteration in non-Volcanic region, proceeding of 10<sup>th</sup> Asian conference of IAEG. [http://www.jseg.or.jp/2015ARC/data/TP3/TP3-P21\\_1059091\\_1520834.pdf](http://www.jseg.or.jp/2015ARC/data/TP3/TP3-P21_1059091_1520834.pdf)
- Terzaghi, K. 1925. *Erdbaumechanik auf Boden-physicalischen Grundlagen*, Deuticke, Vienna.
- Thakur, V. 2016. *Landslide Hazards in Sensitive Clays: Recent Advances in Assessment and Mitigation Strategies*. In the 17th Nordic Geotechnical Meeting (1141–1152). Norwegia: NGM 2016 Reykjavik.
- Thakur, V., S. Nordal, & G. Grimstad. 2006. Phenomenological issues related to strain localization in sensitive clays. *Geotechnical and Geological Engineering* 24(6): 1729–1747. doi: 10.1007/s10706-005-5818-z
- Thomas, P.J., J.C. Baker, & L.W. Zelazny. 2000. An expansive soil index for predicting shrink-swell potential. *Soil Science Society American Journal* 64: 268-274.
- Torrance, J.K. 2014. *Chemistry, sensitivity and quick-clay landslide amelioration*. Landslides in sensitive clay. ISSN 1878–9897
- van Bemmelen, R.W. 1949. *The geology of Indonesia*. Vol. I A. The Netherland Government Printing.
- Varnes, D.J. 1978. Slope movement types and process. In: *Landslide-analysis and control*. Edited by Schuster, R.L., & R.J. Krizek. National research council, Washington, D.C. 176: 11 – 13.

- Varnes, D.J. 1984. *Landslide hazard zonation: A review of principles and practice*. France, Darantiere, Quetigny.
- Vogel, H.J. 2000. A numerical experiment on pore size, pore connectivity, water retention, permeability, and solute transport using network models. *European Journal of Soil Science* 51: 99-105.
- Walker, L.R., & A.B. Shiels. 2013. *Landslide ecology*. Cambridge University Press. New York. ISBN: 978-0-521-19052-7
- Wijaya I.P.K., C. Zangel, W. Straka, & F. Ottner. 2017. Geological aspects of landslide in volcanic rocks in geothermal area (Kamojang Indonesia). In: Mikoš, M., V. Vilímek, Y. Yin, K. Sassa (eds) *Advancing Culture of Living with Landslides*. WLF 2017. Springer, Cham. doi: 10.1007/978-3-319-53483-1\_51
- Winarti, D. 2017. Pengaruh tipe dan intensitas alterasi hidrotermal terhadap karakteristik gerakan tanah pada lereng pegunungan selatan Pulau Lombok. Disertasi. Jurusan Teknik Geologi, Fakultas Teknik, Universitas Gadjah Mada. Yogyakarta.
- Winarti, D., D. Karnawati, H.C. Hardiyatmo, & Srijono. 2016. Mineralogical and geochemical control of altered andesitic tuff upon debris slide occurrences at Pelangan Area, Southern Mountain of Lombok Island, Indonesia. *Applied Geol.* 1(1): 19 – 28. doi: 10.22146/jag.26953
- Wulandari, D. 2018. Penilaian potensi runtuhnya tanah klei sensitif pada lokasi longsorlahan di DAS bompon, Kabupaten Magelang. Skripsi. Jurusan Geografi Lingkungan, Fakultas Geografi, Universitas Gadjah Mada. Yogyakarta.
- Xin, P., Z. Liu, S. Wu, C. Liang, & C. Lin. 2018. Rotational-translational landslide in the Neogene basins at the northeast margin of the Tibetan Plateau. *Engineering Geology* 244: 107 – 155. doi: 10.1016/j.enggeo.2018.07.024
- Yalcin, A. 2007. The effects of clay on landslides: A case study. *Applied clay sci.* 38: 77 – 85. doi: 10.1016/j.clay.2007.01.007
- Yalcin, A. 2011. A geotechnical study on the landslides in the Trabzon Province, NE, Turkey. *Applied clay sci.* 52: 11 – 19. doi: 10.1016/j.clay.2011.01.015
- Yemane, K., G. Kahr, & K. Kelts. 1996. Imprints of post-glacial climates and palaeogeography in the detrital clay mineral assemblages of an Upper Permian fluviolacustrine Gondwana deposit from northern Malawi. *Palaeogeog. Palaeoclimat. Palaeoecol.* 125: 27–49.
- Zehetner, F., W.P. Miller, & L.T. West. 2003. Pedogenesis of volcanic ash soils in Andean Ecuador. *Soil science society of America journal.* 67 (6): 1797-1809. doi:10.2136/sssaj2003.1797
- Zelazny, L.W. & G.N. White. 1989. The pyrophyllite-talc group. In: Dixon, J.B. & S.B. Weed (eds.) *Minerals in Soil Environments*, 2nd edn. Madison. Soil Science Society of America: 527–550.
- Zhang, Z., T. Wang, S. Wu, H. Tang, & C. Liang. 2018. Dynamics characteristic of red clay in a deep-seated landslide, Northwest China: An experiment study. *Eng. Geol.* 239: 254 – 268. doi: 10.1016/j.enggeo.2018.04.005