

Dr. Joshua Wanyama is a Lecturer in the Department of Agricultural and Biosystems Engineering (ABE). He has been a faculty member since 2003. Dr. Wanyama teaches a number of undergraduate and graduate courses and is heavily involved in research. His primary research interest areas are Irrigation & drainage engineering; Soil & water resources engineering; Renewable energy; Waste management; and Farm engineering. In addition, Dr. Wanyama has extensive consulting experience, and has worked with a number of entities and projects in various consulting roles.

Dr. Wanyama received his Ph.D. in Soil and Water Resources Engineering, from Katholieke Universiteit Leuven, Belgium in 2012. Prior to pursuing his doctorate, he earned a M.Sc. in Water Science and Engineering from UNESCO- IHE Institute for Water Education Delft, the Netherlands in 2007 and a B.Sc. in Agricultural Engineering from Makerere University in 2002.

List of Selected Publications

1. Lugali Y., Zziwa A., Wanyama J., Banadda N., Kigozi J. B., Kyazze F., Kabenge I., Kambugu R., Tumutegyereize P. (2016). Contextual Investigation of Factors Affecting Sludge Accumulation Rates in Lined Pit Latrines within Kampala Slum Areas. *Water SA Journal*. Accepted.
2. Zziwa A., Kabenge I., Kayondo H., Lugali Y., Kambugu R., and Wanyama J. (2016). Fractional Content of Non-Faecal Matter and its Contribution to Filling Rates of Pit Latrines in Kampala Slums. *Global Journal of Engineering Science and Research Management*, 3(2), 36-45.
3. Kimuli D., Zziwa A., Banadda N., Kabenge I., Kiggundu N., Wanyama J., Kambugu R., Tumutegyereize P., Kigozi J. B. (2016). Quantification and Modeling of nutrients in faecal sludge from lined and unlined pit latrines in slum areas of Kampala City, Uganda. *International Journal of Research in Engineering and Technology*, 3(6), 129 - 141.
4. Obura J. M.; Banadda, N., Wanyama, J. and Kiggundu. N. (2015). A critical review of selected appropriate traditional evaporative cooling as postharvest technologies in Eastern Africa. *Agric Eng Int: CIGR Journal*, 17(4), 345-354.

5. Ryken, N., Vanmaercke, M., Wanyama, J., Deckers, J., Isabiryte, M., & Poesen, J. (2015). Impact of papyrus wetland encroachment on spatial and temporal variabilities of stream flow and sediment export from wet tropical catchments. *Science of The Total Environment*. Vol. (511) 756–766.
6. Mugonola, B., Mathijs, E., Poesen, J., Deckers, J., Wanyama, J., Isabiryte, M. (2015), Soil and Water Conservation Technologies in the Upper Rwizi Micro catchment of Southwestern Uganda. In: Nicol, A., Langan, S., Victor, M., Gonsalves, J. (Eds.) 2015. *Water-smart agriculture in East Africa*. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE); Kampala, Uganda: Global Water Initiative East Africa (GWI EA). 352p. 194-198. doi:10.5337/2015.203.
7. Kabirizi J. M, Mugerwa S., Ndikumana J., Njarui D. M. G., Kaganda S., Mwilawa J., Minani E., Nijimbere A., Wanyama J., Zziwa E. , Nanyeenya W., Itabari J. (2014). Climate Change Technologies for Improved Livelihoods of Smallholder Crop-Livestock Farmers in Eastern and Central Africa. *Resources and Environment Journal*, 4(1): 54-57.
8. Wanyama J., Herremans K., Isabiryte M., Kahimba F., Maetens W., Kimaro, D., Poesen J. & Deckers J. (2012). Effectiveness of tropical grass species as sediment filters in the riparian zone of Lake Victoria. *Journal of Soil Use and Management*, 28, 409–418.
9. Wanyama J. (2012). Effect of Land-use/ cover Changes on Land Degradation in the Lake Victoria Basin: Case of upper Rwizi Catchment in Southwestern Uganda. Katholieke Universiteit (KU) Leuven, Belgium. ISBN 978-90-8826-259-3. 242p.
10. Nanyeenya W. N., Mutumba C., Wanyama J., Mutyaba C. & Tengei, M. (2010). Enhancing crop and livestock productivity: Learning and planning with local agro-pastoral communities in Nakapiripirit Karamoja Region of Uganda. In: Mwangi, M. (Editor). *Contributions of agricultural sciences towards achieving the Millennium Development Goals*. FaCT Publishing, Nairobi, Kenya. ISBN: 978 9966 7415 2, 6. 23–35.

11. Mugonola B., Kimaro D., Isabirye M., Deckers J., Poesen, J., Wanyama J., Mathijs E., (2013). Economics of grass strips used as sediment filters in the riparian zones of Lake Victoria Uganda. *Agroecology and Sustainable Food Systems*, 37 (9): 1040-1062

Selected Accomplishments

1. May - August 2015: Co-Investigator, Desk Review Data Collection and Study Design for Livestock Production and Management Study: GCP/UGA/041/EC “Global Climate Change Alliance: Agriculture Adaptation to Climate Change (GCCA), Uganda” under the College of Agriculture & Environmental Sciences, Makerere University. Client: Food and Agriculture Organization of the United Nations (FAO).
2. May - August 2015: Senior Irrigation & Water Management Engineer, Technical Inspection and Verification of Agricultural Equipment and Machinery under the Department of Agricultural & Bio- systems Engineering, Makerere University. Client: World Vision Uganda.
3. May - August 2015: Senior Irrigation Engineer, Assessment and Design of Small-Scale irrigation systems in the Cattle Corridor of Uganda: GCP/UGA/041/EC “Global Climate Change Alliance: Agriculture Adaptation to Climate Change (GCCA), Uganda” under BLOWI Engineering (U) LTD. Client: FAO.
4. March - June 2015. Subject Matter Specialist Water for Agricultural Production, Review of Agriculture Sector Development Strategy and Investment Plan (2010/11 - 2014/15) and Formulation of Water for Agricultural Production Framework Implementation Plan as part of the Agricultural Strategic Sector Plan (2015/16 - 2020/21). Client: Ministry of Agriculture, Animal Industry and Fisheries, Uganda (MAAIF).
5. June - September 2014. National Consultant Water Resources Management in Uganda - Water Use Efficiency under GCP/INT/166/SWI. “Strengthening Agricultural Water Use Efficiency and Productivity on the African and Global Level” Project and the Partnership for Agricultural Water for Africa (AgWA).