

Professor:

Japhet J. Kashaigili



PERSONAL INFORMATION

Sex: Male
Date of birth: 28/10/1968
Marital Status: Married

CONTACT ADDRESSES

Department of Forest Resources Assessment and Management,
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ACADEMIC QUALIFICATIONS

PhD, 2006, Sokoine University of Agriculture, Tanzania.
MSc. (WRE) Water Resources Engineering, University of Dar Es Salaam, Tanzania -2000.
B.Sc. Civil Engineering, (Hons), University of Dar Es Salaam, Tanzania – 1997.
DIPLOMA in Hydraulics of River Basins, Delta Barrage, Cairo, Egypt – 2001.

AREA OF SPECIALIZATION

Teaches and conduct researches and consultancy in the fields of hydrology, hydrological modelling, water resources, environment flows, eco-hydrology, integrated land and water resources management, groundwater, wetland ecosystems and management, hydraulics, ecosystems services modelling, water quality, rainwater harvesting, irrigation water management, integrated watershed management, survey and mapping, climate change, mitigation and adaptation; ecosystem-based adaptation, Applied Remote Sensing and Geographic Information System.

WORK EXPERIENCE

Period	Post
01 July 2020 to date	Professor, Department of Forest Resources Assessment and Management (DFRAM)
01 July 2020 to date	Coordinator - Research and Publications, Directorate

	of Postgraduate Studies, Research, Technology Transfer and Consultancy
01 July 2017 – 30 June 2020	Head of Department , DFRAM
01 July 2013 – 30 June 2020	Associate Professor , DFRAM
01 July 2010 to 30 June 2013	Senior Lecturer , DFRAM
December 2006 – 30 June 2013	Lecturer , DFRAM
2007 - 2010	Guest Lecturer , The National University of Rwanda.
August 2006 - December 2006	Assistant Lecturer , DFRAM
2005 – July, 2006	Part-Time Lecturer, Department of Agricultural Engineering and Land Planning
2002 – 2004	Part-Time Tutor , Ministry of Agriculture Training Institute (MATI) - Igurusi
2000 – 2001	Part-Time Lecturer , Department of Environmental Engineering; and Department of Urban and Regional Planning of the Ardhi University
April 2002 – June 2006	Research Associate , Soil-Water Management Research Programme of SUA
2000 – 2001	Research Assistant , Water Resources Engineering Programme, University of Dar es Salaam
July 1997 - October 1998	Site Engineer , ESTIM Construction Company Limited and GWEMAH Contractors
July 1996 – Sept. 1996	Engineer Trainee , Burrow Binnie and MAK Consult

PUBLICATIONS

Chapters in Books

1. **Kashaigili J.J.** (2020) Smallholder Farming in Mara and Iringa Regions, Tanzania: Current Practices, Constraints and Opportunities. In: Singh B., Safalaoh A., Amuri N., Eik L., Sitaula B., Lal R. (eds) *Climate Impacts on Agricultural and Natural Resource Sustainability in Africa*. Springer, Cham. pp. 527-547. DOI https://doi.org/10.1007/978-3-030-37537-9_30, Print ISBN 978-3-030-37536-2; Online ISBN 978-3-030-37537-9.
2. Ruth E.P., **Kashaigili J.J.**, Majule A.E. (2020) Availability, Access and Use of Weather and Climate Information by Smallholder Farmers in the Kilombero River Catchment, Tanzania. In: Singh B., Safalaoh A., Amuri N., Eik L., Sitaula B., Lal R. (eds) *Climate Impacts on Agricultural and Natural Resource Sustainability in Africa*. Springer, Cham. pp 489-506. DOI https://doi.org/10.1007/978-3-030-37537-9_28, Print ISBN 978-3-030-37536-2, Online ISBN 978-3-030-37537-9.
3. **Japhet J. Kashaigili** (2012). Tanzania. In: P. Pavelic, M. Giordano, B. Keraita, T. Rao, and V. Ramesh (Eds.), *Groundwater availability and use in Sub-Saharan Africa: A review of 15 countries*, Ch. 13, pp. 195-216. Colombo, Sri Lanka: International Water Management Institute (IWMI), doi: 10.5337/2012.213. ISBN No 978-92-9090-758-9.

Papers in journals

1. Moirana E.L. and **Kashaigili, J.J.** (2020), Use of Weather and Climate Information in Decisions on Conservation of Water Resources in Kilombero River Catchment, Tanzania. *Journal of Environment and Earth Science*, 10 (4):37-45. Doi:10.7176/JEES/10-4-06.
2. Chilagane, N.A., **Kashaigili, J.J.**, and Mutayoba, E. (2020), Historical and Future Spatial and Temporal Changes in Land Use and Land Cover in the Little Ruaha River Catchment, Tanzania. *Journal of Geoscience and Environment Protection*, 8:76-96. <https://doi.org/10.4236/gep.2020.82006>.
3. Mark O. Cuthbert, Richard G. Taylor, Guillaume Favreau, Martin C. Todd, Mohammad Shamsudduha, Karen G. Villholth, Alan M. MacDonald, Bridget R. Scanlon, D. O. Valerie Kotchoni, Jean-Michel Vouillamoz, Fabrice M.A. Lawson, Philippe Armand Adjomayi, **Japhet Kashaigili**, David Seddon, James P. R. Sorensen, Girma Yimer Ebrahim, Michael Owor, Philip M. Nyenje, Yahaya Nazoumou, Ibrahim Goni, Boukari Issoufou Ousmane, Tenant Sibanda, Matthew J. Ascott, David M. J. Macdonald, William Agyekum, Youssouf Koussoubé, Heike Wanke, Hyungjun Kim, Yoshihide Wada, Min-Hui Lo, Taikan Oki and Neno Kukuric (2019). Observed controls on resilience of groundwater to climate variability in sub-Saharan Africa, *Nature*, 572: 230–234. Doi: 10.1038/s41586-019-1441-7.
4. Kolusu, S. R., Shamsudduha, M., Todd, M. C., Taylor, R. G., Seddon, D., **Kashaigili, J. J.**, Ebrahim, G. Y., Cuthbert, M. O., Sorensen, J. P. R., Villholth, K. G., MacDonald, A. M., and MacLeod, D. A.: The El Niño event of 2015–16: Climate anomalies and their impact on groundwater resources in East and Southern Africa, *Hydrol. Earth Syst. Sci. Discuss.*, <https://doi.org/10.5194/hess-2018-516>,
5. Christian Siderius, Hester Biemans, **Japhet J. Kashaigili**, Declan Conway (2018) Going local: Evaluating and regionalizing a global hydrological model’s simulation of river flows in a medium-sized East African basin. *Journal of Hydrology: Regional Studies*. <https://doi.org/10.1016/j.ejrh.2018.10.007>
6. Mutayoba, E., **Kashaigili, J.J.**, Kahimba, F.C., Mbungu, W. and Chilagane, N.A. (2018). Assessing the Impacts of Land Use and Land Cover Changes on Hydrology of the Mbarali River Sub-Catchment. The Case of Upper Great Ruaha Sub-Basin, Tanzania. *Engineering*, 2018, 10, 616-635. <https://doi.org/10.4236/eng.2018.109045>
7. Mutayoba, E., **Kashaigili, J.J.**, Kahimba, F.C., Mbungu, W. and Chilagane, N.A. (2018). Assessment of the Impacts of Climate Change on Hydrological Characteristics of the Mbarali River Sub Catchment Using High Resolution Climate Simulations from CORDEX Regional Climate Models, *Applied Physics Research*; vol 10,5: 61-73. URL: <https://doi.org/10.5539/apr.v10n5p61>
8. J. L. Gudaga, S. J. Kabote, A. K. P. R. Tarimo, D. B. Moshia and **J. J. Kashaigili** (2018). Effectiveness of groundwater governance structures and institutions in Tanzania. *Applied Water Science* (2018) 8:77, <https://doi.org/10.1007/s13201-018-0721-y>
9. Johnson L. Gudaga, Samwel J. Kabote , Andrew K.P.R Tarimo, Devotha B. Moshia and **Japhet J. Kashaigili** (2018) Groundwater users’ awareness of water institutions in Tanzania: A case study of Mbarali District, Mbeya Region. *Journal of African Studies and Development*, Vol. 10(3), pp. 29-42, DOI: 10.5897/JASD2017.0485"

10. Joanna Pardoe, Declan Conway, Emilinah Namaganda, Katharine Vincent, Andrew J. Dougill and **Japhet J. Kashaigili** (2017): Climate change and the water–energy–food nexus: insights from policy and practice in Tanzania, *Climate Policy*, DOI:10.1080/14693062.2017.1386082"
11. Siwa Ernest, Martin Hagai, **Japhet Joel Kashaigili** (2018). Land Cover Change Impacts on Beef Cattle Productivity under Changing Climate: Case of Ilemela and Magu Districts, Tanzania. *East African Agricultural and Forestry Journal*, 1-14. <https://doi.org/10.1080/00128325.2017.1405470>
12. Francis Mwakapuja, Evaristo Liwa, and Japhet J. Kashaigili (2017). Impact of Biofuel Production on Land-Use Change: Case of Jatropha Farming, Kisarawe District, Tanzania. *Modern Environmental Science and Engineering*, Vol. 3 (4):263-271. Doi: 10.15341/mese(2333-2581)/04.03.2017/006
13. Sikira, A.N. and **J. J. Kashaigili** (2017). Gendered Access and Control over Land and Water Resources in the Southern Agricultural Growth Corridor of Tanzania. *Journal of Natural Resources and Development*, 06: 108 – 117, DOI number: 10.5027/jnrd.v6i0.12
14. Mbungu, W.B. and **Kashaigili, J.J.** (2017). Assessing the Hydrology of a Data-Scarce Tropical Watershed Using the Soil and Water Assessment Tool: Case of the Little Ruaha River Watershed in Iringa, Tanzania. *Open Journal of Modern Hydrology*, 2017, 7, 65-89. <https://doi.org/10.4236/ojmh.2017.72004>
15. Edmund Mutayoba and **Japhet J. Kashaigili** (2017). Evaluation for the Performance of the CORDEX Regional Climate Models in Simulating Rainfall Characteristics over Mbarali River Catchment in the Rufiji Basin, Tanzania, *Journal of Geoscience and Environment Protection*, 5, 139-151.
16. Sithembile Ndema Mwamakamba, Lindiwe Majele Sibanda, Jamie Pittock, Richard Stirzaker, Henning Bjornlund, Andre van Rooyen, Paiva Munguambe, Makarius Victor Mdemu and **Japhet J. Kashaigili** (2017). Irrigating Africa: policy barriers and opportunities for enhanced productivity of smallholder farmers. *International Journal of Water Resources Development*, 33:5, 824-838. DOI: 10.1080/07900627.2017.1321531
17. Siwa Ernest, Augustino R. Nduganda, **Japhet J. Kashaigili** (2017). Urban Climate Analysis with Remote Sensing and Climate Observations: A Case of Morogoro Municipality in Tanzania. *Advances in Remote Sensing*, 6: 120-131
18. Kadigi, R. M. J., **Kashaigili, J.J.**, Sirima, A., Kamau, F., Sikira, A. and Mbungu, W. (2017) Land fragmentation, agricultural productivity and implications for agricultural investments in the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) region, Tanzania. *Journal of Development and Agricultural Economics*, Vol. 9(2), pp. 26-36. DOI: 10.5897/JDAE2016.0797
19. Makero, J.S. and **Kashaigili, J.J.** (2016). Analysis of Land-Cover Changes and Anthropogenic Activities in Itigi Thicket, Tanzania. *Advances in Remote Sensing*, 5, 269-283. <http://dx.doi.org/10.4236/ars.2016.54021>
20. Makarius V. Mdemu, Nuru Mziray, Henning Bjornlund and **Japhet J. Kashaigili** (2016): Barriers to and opportunities for improving productivity and profitability of the Kiwere and

Magozi irrigation schemes in Tanzania, *International Journal of Water Resources*, 1-15. <http://www.tandfonline.com/doi/full/10.1080/07900627.2016.1188267>.

21. Burgess, N.D., Malugu, I., Sumbi, P. Kashindye, A., Kijazi, A., Tabor, K., Mbilinyi, B., **Kashaigili, J.**, Wright, T.M., Gerreau, R.E., Coad, L., and Knights, K. (2016). Two decades of change in state, pressure and conservation responses in the coastal forest biodiversity hotspot of Tanzania, *Oryx, Flora and Fauna International*, 1-10. <http://dx.doi.org/10.1017/S003060531500099X>.
22. **Kashaigili, J. J.**, Zziwa E, Ernest, S., Laswai, E, Segatagara, B.M., Mpairwe, D., Kadigi, R.M.J., Ebong, C., Mugasi, S.K., Laswai, G.H., Mupenzi, M., Ngowi, P.J. and Kadigi, I.L. (2015). Implications of Land Use Land Cover Change and Climate Variability on Future Prospects of Beef Cattle Production in the Lake Victoria Basin *American Journal of Climate Change*, 4, 461-473. <http://dx.doi.org/10.4236/ajcc.2015.45037>
23. Kilima F. T. M., Kadigi R.M.J., **Kashaigili, J. J.**, Abdallah, J., Steven, C. and Shimbe, S. (2015). Knowledge and Perception of Users on Ecosystem Services in Mount Kilimanjaro, Tanzania and Taita Hills, Kenya, *Journal of Continuing Education and Extension*, 5, 2: 738-759.
24. **Kashaigili, J. J.**, Levira, P. Liwenga, E. and M. V. Mdemu (2014) Analysis of Climate Variability, Perceptions and Coping Strategies of Tanzanian Coastal Forest Dependent Communities, *American Journal of Climate Change*, 3: 212-222. <http://dx.doi.org/10.4236/ajcc.2014.32020>
25. Chitata, T., Mugabe, F.T. and **Kashaigili, J.J.** (2014). Estimation of Small Reservoir Sedimentation in Semi-Arid Southern Zimbabwe. *Journal of Water Resource and Protection*, 6, 1017-1028. <http://dx.doi.org/10.4236/jwarp.2014.611096>
26. Mongo, C., T Eid, T., **Kashaigili, J.J.**, Malimbwi, R.E., Kajembe, G.C. and Katani, J. (2014). Forest Cover Changes, Stocking and Removals under Different Decentralised Forest Management Regimes in Tanzania, *Journal of Tropical Forest Science* 26(4): 484-494.
27. Reuben M. J. Kadigi, Ken Mwathe, Adam Dutton, **Japhet Kashaigili**, Freddy Kilima (2014) Soda Ash Mining in Lake Natron: A Reap or Ruin for Tanzania? *Journal of Environmental Conservation Research*, 2(2):37-49. DOI: 10.12966/jecr.05.01.2014
28. Wilbard A. Ntongani, Pantaleo K. T. Munishi, Stein R. More, **Japhet J. Kashaigili**, (2014) Local Knowledge on the Influence of Land Use/Cover Changes and Conservation Threats on Avian Community in the Kilombero Wetlands, Tanzania, *Journal of Ecology*, 4: 723-731. <http://dx.doi.org/10.4236/oje.2014.412062>
29. Jilala, Z.J. and **Kashaigili, J.J.** (2014) Impacts of Elephants Disturbances on Local Community: A Case Study of Sitalike Village Near Katavi National Park, *Journal of Environment and Earth Science*, 4 (15): -117-135.
30. Kadigi R.M.J, I.L Kadigi, G.H. Laswai, **J.J Kashaigili** (2013). Value chain of indigenous cattle and beef products in Mwanza region, Tanzania: Market access, linkages and opportunities for upgrading. *Academia Journal of Agricultural Research*, 1 (8): 145-155.

31. Ibrahim L. Kadigi, Lupyana Muhiche, Reuben M.J. Kadigi, Jeremiah Makindara, Germana Laswai, **Japhet J. Kashaigili** (2013). E-Ng'ombe: A Mobile Phone ICT to Tackle the Pitfall of Information Asymmetry in the Value Chain of Indigenous Beef Cattle in Mwanza Region, Tanzania, *Journal of Agriculture Economics and Rural Development* 1(1):1-7.
32. **Japhet J. Kashaigili**, Makarius V. Mdemu, Augustino R. Nduganda, Boniface P. Mbilinyi (2013). Integrated Assessment of Forest Cover Change and Above-Ground Carbon Stock in Pugu and Kazimzumbwi Forest Reserves, Tanzania, *Advances in Remote Sensing*, 2:1-9, doi:10.4236/ars.2013.21001
33. **J.J. Kashaigili** and A.M. Majaliwa (2013). Implications of Land Use and Land Cover Changes on Hydrological Regimes of the Malagarasi River, Tanzania, *Journal of Agricultural Science and Application*, Vol. 2, (1):45-50.
34. I. Nhapi, U.G. Wali, D. Usanzineza, N. Banadda, **J.J. Kashaigili**, R. Kimwaga W. Gumindoga and S. Sendagi (2012) Heavy Metals Inflow into Lake Muhazi, Rwanda. *The Open Environmental Engineering Journal*, 5:56-65.
35. Innocent Nhapi, Umaru Garba Wali, Denise Usanzineza, **Japhet J. Kashaigili**, Noble Banadda and Richard Kimwaga (2012) Distribution of Heavy Metals in Lake Muhazi, Rwanda. *The Open Environmental Engineering Journal*, 5: 96-102.
36. I. Nhapi, A. J. Nshimiyimana, U. G. Wali, F. O. K. Anyemedu and **J.J. Kashaigili** (2012). A comparative assessment of selected raw water intake systems in Rwanda. IWA Publishing 2012. *Water Practice & Technology Journal* Vol. 7 (2). doi:10.2166/wpt.2012.045
37. F.T. Mugabe, T. Chitata, **J. Kashaigili** and I. Chagonda (2011) Modelling the effect of rainfall variability, land use change and increased reservoir abstraction on surface water resources in semi-arid southern Zimbabwe, *Elsevier Journal, Physics and Chemistry of the Earth* 36:1025–1032.
38. Fabiano L. Godoy, Karyn Tabor , Neil D. Burgess, Boniface P. Mbilinyi, **Japhet J. Kashaigili** and Marc K. Steininger (2011) Deforestation and CO2 Emissions in Coastal Tanzania from 1990 to 2007. *Environmental Conservation*: 1-10. doi:10.1017/S037689291100035x
39. Usanzineza, D., Nhapi, I., Wali, U.G., **Kashaigili, J.J.** and Banadda, N. (2011). Nutrient Inflows and Levels in Lake: A Case Study of Lake Muhazi, Rwanda. *International Journal of Ecology & Development*, 19 (S11): 53-62
40. Tabor, K., Burgess, N.D., Mbilinyi, B.P., **Kashaigili, J.J.** and Steininger, M.K. (2010). Forest and Woodland Cover and Change in Coastal Tanzania and Kenya, 1990 to 2000. *Journal of East African Natural History* 99(1): 19–45 (2010)
41. **Kashaigili, J.J.** and Majaliwa, A. (2010). Integrated Assessment of Land Use and Cover Changes in the Malagarasi River Catchment in Tanzania. *Elsevier Journal of Physics and Chemistry of the Earth*. 35: 730–741.

42. Uwimana, A., Nhapi, I., Wali, U.G., Hoko, Z. and **Kashaigili J.J.** (2010). Sludge characterization at Kadahokwa water treatment plant, Rwanda. *Water Science & Technology: Water Supply*, 847-858.
43. Muhirwa, D., Nhapi, I., Wali, U.G., Banadda, N., Kashaigili, J.J. and Kimwaga R. (2010). Characterization of Wastewater from an Abattoir in Rwanda and the Impact on Downstream Water Quality. *International Journal of Ecology & Development*, 16 (S10): 30-46.
44. **Japhet J. Kashaigili** (2012). Tanzania. In: P. Pavelic, M. Giordano, B. Keraita, T. Rao, and V. Ramesh (Eds.), *Groundwater availability and use in Sub-Saharan Africa: A review of 15 countries*, Ch. 13, pp. 195-215. Colombo, Sri Lanka: International Water Management Institute (IWMI), doi: 10.5337/2012.213. ISBN No 978-92-9090-758-9
45. **Kashaigili, J.J.**, Rajabu, K. and Masolwa, P. (2009). Freshwater management and climate change adaptation: experiences from the Great Ruaha River catchment in Tanzania. *Climate and Development* 1(3): 220-228. doi:10.3763/cdev.2009.0025
46. **Kashaigili, J.J.** (2008). Impacts of land-use and land-cover changes on flow regimes of the Usangu wetland and the Great Ruaha River, Tanzania. *Elsevier Journal, Physics and Chemistry of the Earth* 33:640-647
47. McCartney M.P., **Kashaigili, J.J.**, Lankford, B.A. and Mahoo, H.F. (2008). Hydrological modelling to assist water management in the Usangu wetlands, Tanzania. *Journal of River Basin Management*, 6(1):51-61.
48. **Kashaigili, J.J.**, McCartney, M. and Mahoo, H. F. (2007). Estimation of environmental flows in the Great Ruaha River Catchment, Tanzania. *Journal Physics and Chemistry of the Earth* 32:1007–1014
49. **Kashaigili, J.J.**, Mbilinyi, B.P., McCartney, M. and Mwanuzi, F.L. (2006). Dynamics of Usangu Plains wetlands: use of Remote Sensing and GIS as management decision tools. *Journal of Physics and Chemistry of the Earth* 31: 967–975.
50. Mbilinyi, B.P. and **Kashaigili, J.J.** (2005). How much is there in the Eastern Arc Mountains? The Arc Journal Tanzania Forest Conservation Group, Biannual Newsletter Issue No. 19. Dec. 2005.
51. **Kashaigili, J.J.**, Kadigi R.M.J., Lankford, B.A., Mahoo H.F. and Mashauri, D.A. (2005). Environmental flows allocation in River Basins: Exploring Allocation Challenges and Options in the Great Ruaha Basin, Tanzania. *Elsevier Journal, Physics and Chemistry of the Earth*, vol.30, Issues 11-16: 689-697.
52. Kadigi R.M.J., **Kashaigili J.J.** and Mdoe, N.S. (2004). The economics of irrigated paddy in Usangu Basin in Tanzania: water utilization, productivity, income and livelihood implications. *Elsevier Journal, Physics and Chemistry of the Earth* 29/15-18:1091-1100.
53. **Kashaigili, J.J.**, Kadigi, R.M.J., Sokile C.S. and Mahoo, H.F. (2003). Constraints and Potential for Intersectoral Water Allocation in Tanzania. *Elsevier Journal, Physics and Chemistry of the Earth, Part A/B/C, Volume 28, Issues 20-27*, pp 839-851.

54. **Kashaigili J.J.**, Mashauri A. D. and Abdo G. (2003). Groundwater Management by Using Mathematical Modeling: Case of the Makutupora Groundwater Basin in Dodoma, Tanzania. Botswana Journal of Technology, Volume 12, no.1, pp 19-24.
55. Sokile, C.S., **Kashaigili, J.J.** and Kadigi, R.M.J. (2003). Towards An Integrated Water Resource Management in Tanzania: The Role of Appropriate Institutional Framework in Rufiji Basin. Elsevier Journal, Physics and Chemistry of the Earth, Part A/B/C, vol. 28, Issues 20-27, pp1015-1023.

Proceedings

1. **Kashaigili, J.J.**, Seddon, D., Taylor, R., Cuthbert, M., and MacDonald, A. (2020), Groundwater recharge from extreme rainfall: sustaining intensive abstraction in Dodoma, Tanzania. In proceeding of the 20th International Congress of the African Water Association, 21st to 28th of February 2020, Serena Hotel, Kampala Uganda
2. **Kashaigili, J.J.** and Taylor, R. (2020), Water for Dodoma: risks and opportunities for the water supply of Tanzania's rapidly growing capital. In proceeding of the 20th International Congress of the African Water Association, 21st to 28th of February 2020, Serena Hotel, Kampala Uganda
3. **Kashaigili, J.J.** and Maganga, C.J. (2019), Influence of rainfall variability on wetlands cover change: a case of Lake Victoria shoreline wetlands in Misungwi District, Tanzania. In proceeding of the African Climate Risks Conference 2019, Dismantling barriers to urgent climate adaptation actions 7-9 October 2019, Addis Ababa, Ethiopia
4. **Kashaigili, J.J.** and Mkhandi, M.J. (2019), Impacts of Climate Change on Hydrological Extremes and Urban Infrastructures: A Case of Ifakara Township in Kilombero District Tanzania In proceeding of the African Climate Risks Conference 2019, Dismantling barriers to urgent climate adaptation actions 7-9 October 2019, Addis Ababa, Ethiopia.
5. **Kashaigili, J.J.** (2019), Groundwater recharge and the sustainability of the Makutupora Wellfield: new evidence from monitoring and modelling. Paper presented at the Experts and Stakeholders' Workshop on the AMCOW Pan-African Groundwater Program (APAGroP) October 1st – 2nd, 2019, Nairobi, Kenya.
6. Gama, D.G., **Kashaigili, J.J.** and Kessy, J.F. (2019) Cost-Benefit Analysis of Groundwater Use for irrigation by Smallholder Farmers in the Usangu Plains, Tanzania. In Proceedings of Scientific Conference on Transforming Agriculture and Natural Resources for Sustainable Development to attain Industrial Economy in Tanzania, 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania.
7. **Kashaigili, J.J.** (2019) Guidelines on EFlows for the Western Indian Ocean region, presented at the Project Steering Committee (PSC) Meetings for the WIOSAP and SAPPHIRE Projects, 25th -27th June 2019 in Durban, South Africa
8. **Kashaigili, J.J.** (2019) Sustainable Water Resources Management in Tanzania. A Key note paper presented at the SUA Scientific Conference on Transforming Agriculture and Natural Resources for Sustainable Development to Attain Industrial Economy in Tanzania, 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania.
9. **Kashaigili, J.J.** (2019) Adopting EFlows as a tool in Integrated Water Resource Management (IWRM). Paper presented at the Western Indian Ocean Regional Science to Policy Workshop 27th - 29th May 2019, Port Louis, Mauritius.
10. Lyamuya, I., Nobert, J. and **Kashaigili, J.J.** (2019) Evaluating Irrigation Water Requirements using different Scenarios of Future Climate Change in Mbarali River Catchment. A paper

- presented at the SUA Scientific Conference in Agriculture and Agribusiness "Transforming Agriculture and Natural Resources for Sustainable Development to Attain Industrial Economy in Tanzania", 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania
11. Kambulaje, D.R. and **Kashaigili, J.J.** (2019) Influence of Wood Resources Revenue Collection on Forest Degradation in Geita Forest Reserve Tanzania. A paper presented at the SUA Scientific Conference in Agriculture and Agribusiness "Transforming Agriculture and Natural Resources for Sustainable Development to Attain Industrial Economy in Tanzania", 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania
 12. Moirana, E.L. and **Kashaigili, J.J.** (2019) Use of Weather and Climate Information in Decisions on Conservation of Water Resources in Kilombero River Catchment, Tanzania. A paper presented at the SUA Scientific Conference in Agriculture and Agribusiness "Transforming Agriculture and Natural Resources for Sustainable Development to Attain Industrial Economy in Tanzania", 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania
 13. **Kashaigili, J.J.** and Kamau F.K. (2019) Planning for Sustainable Natural Resource Management: Experiences from Ihemi Agricultural Development Cluster, SAGCOT, Tanzania. A paper presented at the SUA Scientific Conference in Agriculture and Agribusiness "Transforming Agriculture and Natural Resources for Sustainable Development to Attain Industrial Economy in Tanzania", 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania
 14. Gama, D.G., **Kashaigili, J.J.** and Kessy, J.F. (2019) Cost-Benefit Analysis of Groundwater Use for irrigation by Smallholder Farmers in the Usangu Plains, Tanzania, Paper presented at the SUA Scientific Conference on Transforming Agriculture and Natural Resources for Sustainable Development to Attain Industrial Economy in Tanzania, 10th - 11th April 2019, Sokoine University of Agriculture, Morogoro, Tanzania.
 15. **Kashaigili, J.J.** (2018). Smallholder Irrigation in Tanzania: Current practices, Constraints and Opportunities. Paper presented at the International Conference on Sustainable Agricultural and Natural Resource Management under Changing Climate in Sub-Saharan Africa, 16-18th October 2018, Bingu International Conference Centre, Lilongwe, Malawi.
 16. Seddon, D., Taylor, R., **Kashaigili, J.J.**, Martin Todd and Mark Cuthbert (2016). Episodic groundwater recharge in a semi-arid environment: assessing the impact of the 2015/16 El Niño in central Tanzania, IAH Conference, Italy
 17. Mdemu, M., **Kashaigili, J.J.**, Lupala, J., **Levira, P.**, Liwenga, E., Nduganda, A. and Mwakapuja, F. (2012). Dynamics of Land use and Land cover changes in the Pugu and Kazimzumbwi Forest Reserves. *In proceeding of the first Climate Change Impacts, Mitigation and Adaptation Programme Scientific Conference, Blue Pearl Hotel, Dar es Salaam, Tanzania*, 2-3 January 2012. pp 54-77
 18. **Kashaigili, J.J.**, Levira, P., Liwenga, E. and Mdemu, M.V. (2013) Perceptions and coping strategies of Tanzanian coastal forest dependent communities to Climate variability and Change. A paper presented at the 1st Writers Workshop of the CCIAM Programme, held on 28th - 30th January 2013 at Palm Tree Village Resort, Bagamoyo, Tanzania.
 19. Majaliwa A.M. and **Kashaigili, J.J.** (2009). Hydrological Impacts of Land-Use and Land-Cover Changes on Flow Regimes of the Malagarasi River in Tanzania: *In proceeding of the Fourth Annual PANTIL Scientific Conference on Research Initiatives for Improvement of Livelihoods: Contribution of SUA and her Partners*, held in Morogoro, 19-21 October, 2009. pp 214-224.

20. **Kashaigili, J.J.** and Lévíte, H. (2009). The adoption and impact of concrete Swiss Pedal Pump in Tanzania. *In proceeding of the Fourth Annual PANTIL Scientific Conference on Research Initiatives for Improvement of Livelihoods: Contribution of SUA and her Partners*, held in **Morogoro**, 19-21 October, 2009. pp 201-213.
21. **Kashaigili J.J.**, Rajabu, K and Masolwa, P. 2009. Freshwater management and climate change adaptation -experiences from the Great Ruaha River catchment in Tanzania. A paper presented at a Climate Change: Global Risks, Challenges and Decisions Conference, 10th-12th March, 2009. University of Copenhagen, Copenhagen, Denmark
22. **Kashaigili, J.J.** and Siwa, H. (2008). Information and Communication Technology for Sustainable Forest Management in Tanzania: Challenges and Opportunities. A paper presented during a Global Dialogue on Emerging Science and Technology (GDEST) 2008 conference on Geospatial Sciences for Sustainable Development in Africa. *“Harnessing the flow of geospatial information in addressing the challenges of sustainable development in Africa”*. 17th - 19th March, 2008. Cape Town, South Africa.
23. **Kashaigili, J.J.**, (2007). Effects of land use and land cover changes on flow regime of the Usangu wetland and the Great Ruaha River in Tanzania. A paper presented to Edinburgh University, Scotland, UK.
24. Usanzineza, D., Nhapi, I., Gashagaza, J.B. and **Kashaigili, J.J.** (2007). Heavy metal pollution and nutrient levels in Lake Muhazi. A paper presented during the 7th WATERNET/WARFSA/GWP-SA Conference held at LILONGWE, MALAWI, 1-3 November 2007.
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26. **Kashaigili, J.J.**, McCartney, M. and Mahoo, H.F. (2006). Assessment of Water Management in the Usangu wetlands. In Proceeding of conference on Ecosystem changes and Implications on Livelihoods of Rural Communities in Africa, 18th – 20th October 2006, Kunduchi Beach Hotel, Dar es Salaam, Tanzania
27. **Kashaigili, J.J.**, Mbilinyi, B.P., McCartney, M. and Mwanuzi, F.L. (2004). Dynamics of Usangu Plains Wetlands: use of Remote Sensing and GIS as management decision tools. In proceeding of conference on IWRM and the Millennium Development Goals: Managing Water for Piece and Prosperity, 5th WATERnet/WARFSA/GWP SA, 2nd - 4th November 2004, Windhoek, Namibia.
28. **Kashaigili, J.J.** and Mbilinyi, B.P. (2004). Effects and Consequences of Human Developmental Activities on Usangu Wetlands Ecosystem: the use of Remote Sensing and GIS. Paper presented at the SSSEA Conference, 29th Nov. – 3rd Dec. 2004, Arusha, Tanzania.
29. **Kashaigili, J.J.**, Mahoo, H. F., McCartney, M., Lankford, B.A., Mbilinyi, B.P. and Mwanuzi, F.L. (2005). Integrated hydrological modeling of wetlands for environmental management: The case of the Usangu wetlands in the Great Ruaha Catchment. A paper presented during the East Africa River Basin Management Conference, held at ICE, Sokoine University of Agriculture, Morogoro, Tanzania - 7th – 9th March 2005.
30. **Kashaigili, J.J.** (2005). Restoring environmental flows for the Great Ruaha River: Issues and Options. A paper presented during the World Bank Workshop on Environmental and Social Safeguards, held at ICE, Sokoine University of Agriculture, Morogoro, Tanzania -10th March 2005.

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32. **Kashaigili, J.J.**, Mbilinyi, B.P. and Tumbo, S.D. (2005). The Influence of Land use/ cover changes on hydrological regime of Great Ruaha River downstream of Usangu Plains wetlands in Rufiji Basin, Tanzania. Paper presented at the Tanzania Society of Agricultural Engineers (TSAE), the 2005 Annual Scientific Conference, 21st -23rd November 2005, The Muslim University of Morogoro, Morogoro, Tanzania.
33. Yawson, D.K., **Kashaigili, J.J.**, Mtalo, F.W. and Kachroo, R.K. (2003). Modelling the Mtera-Kidatu reservoir system to improve integrated water resources management. In: Hydro Africa 2003, CD Proceedings, 17th-19th November, Arusha, Tanzania, 16p.
34. Yawson, D.K., Kachroo, R.K. and **Kashaigili J.J.**, (2003). Failure of the Mtera – Kidatu Reservoir System in the Early 1990s. Paper presented at the Ruaha +10 Seminar (1993-2003: Ten Years of the Drying up of the Great Ruaha River), 11-12 Dec. 2003. ICE, SUA, Morogoro, Tanzania.
35. Mdemu M. V., Lankford B., Kadigi R.M.J., Cour J.G. and **Kashaigili J.J.** (2003). Water Productivity Indicators in Great Ruaha River Basin: Analysis and Implications for Decision-Making and Allocating Water. Paper presented at the Ruaha +10 Seminar (1993-2003: Ten Years of the Drying up of the Great Ruaha River), 11-12 Dec. 2003. ICE, SUA, Morogoro, Tanzania.

Extension materials

1. Conway, D., Geressu, R., Harou, J., **Kashaigili, J.J.**, Pettinotti, L. and Siderius, C. (2019) Designing a process for assessing climate resilience in Tanzania's Rufiji River basin, FCFA Brief, Cape Town: CDKN. Accessible: <https://futureclimateafrica.org/resource/briefdesigning-a-process-for-assessing-climateresilience-in-tanzanias-rufiji-river-basin/>
2. Conway D., Mkwambisi, D. and **Kashaigili, J.J.** (2019), The current and future climate of central and southern Africa: What we have learnt and what it means for decision-making in Malawi and Tanzania.
3. **J.J. Kashaigili**, Mdemu M., Burra, M., P. Levira, and Lupala, J. (2012) GPS as a tool for forest management and land use planning: A hand-held GPS manual for community level use. Produced under Climate Change Impacts, Adaptation and Mitigation (CCIAM) Programme in Tanzania

Other Publications

1. **Kashaigili, J.J.** (2006) Land cover dynamics and Hydrological Functioning of Wetlands in the Usangu Plains in Tanzania, PhD Thesis, Sokoine University of Agriculture.
2. **Kashaigili, J.J.** (2000). Groundwater Management by Using Mathematical Modeling: Case of the Makutupora Groundwater Basin in Dodoma, Tanzania. University of Dar es Salaam.
3. Zahabu, E., Eid, T., Kajembe, G.C., Mbwambo, L., Mongo, C., Sangeda, A.Z., Malimbwi, R.E., Katani, J.Z., **Kashaigili, J.J.** and Luoga, E.J. (2009). Forest tenure systems in Tanzania: an overview of policy changes in relation to forest management. INA fagrapport 14, ISSN 1891-2281. 24p.

RESEARCH PROJECTS

1. Development of a Computerized Flood Warning Model and Study of Hydrological Characteristics of the Lower Rufiji Floodplain and Delta, implemented by Water Resources Engineering Programme (WREP) of the University of Dar Es Salaam. (2000 – 2001). **Researcher**
2. Raising Irrigation Productivity And Releasing Water for Intersectoral Needs (RIPARWIN). Funded by DFID – Knowledge and Research (KAR), Co-managed by Sokoine University of Agriculture (Tanzania); The University of East Anglia (UK) and The International Water Management Institute (South Africa). (2002-2005). **Researcher**
3. Freshwater conservation and climate change adaptation case study for people in the Great Ruaha River catchment area – Iringa and Mbeya Regions. Funded by WWF, 2008. **Researcher**
4. Impact and Efficacy of Traditional Beekeeping Practices in Forest Resources Management: A Case of Singida and Tabora Regions, Tanzania. Funded through NFBKP of MNRT, 2009. **Researcher**
5. Assessing the Impact of Forestland Tenure Changes on Forest Resources and Rural Livelihoods in Tanzania. Funded by Tanzania – Norway NUFU Programme, 2007 – 2011. **Researcher**
6. Effect of poverty on equity in community based forest management in Mufindi district, Tanzania” funded by Research on Poverty Alleviation (based in Tanzania) -2010-2011. **Researcher**
7. Climate Change Impact Assessment and Adaptation options in vulnerable agro-landscapes in East-Africa. Financed by the GTZ/BMZ Research Programme: “Adaptation of African Agriculture to Climate Change” (2008-2011). **Researcher**
8. Analysis of the impacts of urban land use and climate change on coastal forest ecosystem and management. Funded by CCIAM Programme. 2010-2013. **Researcher**
9. Institutional evolutions at macro and micro-levels in the management of water catchments and their influences on local community livelihoods under a climate change scenario in Tanzania. Funded by EPINAV Research Programme. 2011-2014. **Researcher**
10. Enhancing the measuring, reporting and verification (MRV) of forests in Tanzania through the application of advanced remote sensing techniques (May 2011-May 2015) – **Team member**
11. Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa (CHIESA), Increasing Knowledge, Building Capacity and Developing Adaptation Strategies. ICIPE. 2011-2015. **Researcher**
12. Improving Beef Cattle Productivity for Enhanced Food Security and Efficient Utilization of Natural Resources in the Lake Victoria Basin. Funded under VicRes Programme. 2012-2014. **Researcher**
13. Increasing irrigation water productivity in Mozambique, Tanzania and Zimbabwe through on-farm monitoring, adaptive management and Agricultural Innovation Platforms. Funded by ACIAR. 2013-2017. **Researcher**
14. GroFutures: Groundwater Futures in Sub-Saharan Africa. Funded by the Natural Environment Research Council (NERC), UK. 2013-2014. **Principal Investigator**
15. LiFELand: Laying the foundations for effective landscape-level planning for sustainable development in the SAGCOT corridor: Ihemi agricultural development cluster. Funded by CGIAR-WLE, 2015-2019. **Principal Investigator**

16. UMFULA: Uncertainty reduction in Models for Understanding development Applications. Funded by the Natural Environment Research Council (NERC), UK. 2015-2019. **Principal Investigator**
17. Woody Invasive Alien Species in East Africa: Assessing and Mitigating their Negative Impacts on Ecosystem Services and Rural Livelihoods. Funded by Swiss Agency for Development and Cooperation and Swiss National Science Foundation. September 2014 – August 2020. **Researcher**
18. Banking the Rain: Enhancing the resilience of water supplies in dryland Africa EPSRC Global Challenges Research Fund (2016-2017). **Principal Investigator**
19. CommClim: Communicating climate futures to end users in Malawi and Tanzania NERC International Development Innovation and Impact Awards (2016-2017). **Principal Investigator**
20. FCFA-Innovation: Future Climate for Africa Innovation fund. Funded by Price Waterhouse Coopers Research Grant - (2017-2019). **Principal Investigator**
21. The Development Corridors Partnership: Building Capacity for Sustainable Development Corridors. Funded by GCRF, Research Councils, UK (2017-2021). **Co-Principal Investigator**
22. Trade Hub project: UKRI GCRF TRADE, Development and the Environment Hub Creating a sustainable world for people and biodiversity (UKRI GCRF) (2019-2022). **Senior Researcher**
23. Sustainable Catchment Management through Enhanced Environmental Flow Assessment and Implementation for the protection of the Western Indian Ocean from land-based sources and activities in Tanzania (2020-2022). **Principal Investigator**

CONSULTANCIES

1. Assessment of operationalization of Ithemi and Mbarari cluster development framework. A consultancy commissioned to FORCONSULT by WWF-TCO (November-December 2020).
2. Ecological and Socio-economic Survey in Pugu, Vikindu and Kazimzumbwi Forest Reserves in Kisarawe and Mkuranga Districts Coast Region. A consultancy commissioned to FORCONSULT by WWF-TCO (October-December 2020).
3. Opportunities for enhancing the productivity of water in crop production in the Mkoji Sub-Catchment (MSC) for both rainfed and irrigated farming. A Project commissioned to Soil-Water Management Research Group (SWMRG) of the Sokoine University of Agriculture by the Food and Agriculture Organization of the United Nations (FAO) (2003-2004).
4. Assessment of the area of forest remaining on the Eastern Arc Mountains and the rates of forest change over the previous decade. Consultancy commissioned to FORCONSULT by UNDP (00015426-Eastern Arc Mountains Project) (2004-2005).
5. Preparation of the National/ Regional Management Framework: Institutional Component for the Lake Victoria Basin. A project commissioned to SMEC International Pty, Ltd by the Ministry of Water during preparation for Phase 2 of the Lake Victoria Environmental Management Project (LVEMP-2), (June – August 2006).
6. Assessment of the baseline status of current forest cover and forest change in the Coastal Forests of Kenya and Tanzania. Landsat TM (+), Quick bird images and digital aerial photographs were used to quantify forest and woodland degradation. GIS layer of Key Biodiversity Areas (KBA's) was overlaid to assess the status of critically endangered and endangered species. A consultancy commissioned by Applied Biodiversity Science,

- Conservation International (CABS/CI) (2005-2006). Funded by Critical Partnership Fund (CEPF).
7. Survey on Adoption and Technical Performance Evaluation of the Swiss Concrete Pedal Pump. Sponsored by IPTRID (2007).
 8. Consultancy for Assistance in the Development of a One UN Joint Programme (JP6) in North Western Tanzania - (Kagera and Kigoma Regions). A consultancy project commissioned to Business Care Services Limited by the United Nations Development Programme (UNDP) (2008).
 9. Conducted a study on the Impacts of Fish Farming on Water Resources Management in Mkoji Sub-Catchment of the Great Ruaha River Catchment in Mbeya Region. Funded by WWF-TPO (2009).
 10. Updating forest cover and forest change between 2000-2008 in the Eastern Arc Mountains and Coastal Forests of Kenya and Tanzania. Collaborating with Conservation International Foundation (USA), Funded by Critical Partnership Fund (CEPF) and MNRT (2009-2010).
 11. Development Master Register for Kagera Outgrowers in Misenyi District, Kagera Region in Tanzania. A consultancy commissioned to BACAS by Sugar Board of Tanzania. (2011-2012).
 12. Baseline Surveys in 8 Nature Reserves and 1 National Park in the Eastern Arc Mountains of Tanzania. A consultancy commissioned to FORCONSULT by Eastern Arc Mountain Conservation Endowment Fund (EAMCEF). (2012).
 13. Analysis of Land Cover and Change of the Ruvuma Landscape – Tanzania and Mozambique. A consultancy commissioned to FORCONSULT by WWF-TCO (2013-2014).
 14. Update the Forest Cover and Change Analysis of the Eastern Arc and Coastal Forests Region of East Africa. A consultancy commissioned to FORCONSULT by CI (2013-2014).
 15. Roadmap for the Development of a Reference Emission Level / Reference Level for REDD+ for the United Republic of Tanzania. A consultancy commissioned by UNREDD/FAO. (2013).
 16. Preparation of Integrated Water Resources Management and Development Plan (IWRMDP) for Lake Nyasa Basin. A consultancy commissioned to SMEC International (Pty) Ltd (2012-2013).
 17. Improving Access to and Utilisation of Water and Land. A work commissioned by OXFAM GB – TANZANIA (2014).
 18. Assessment of the situation in the community in relation with the water resources utilization (Demand and Problems) in 22 villages of Same District, Tanzania. A consultancy commissioned by Ingeniería Sin Fronteras (ISF), (2009-2010).
 19. The Strategic Environmental and Social Assessment (SESA) for the National Irrigation Sector, Tanzania. A consultancy commissioned to SMEC International Pty Ltd, funded by MoW (2010-2011).
 20. Development of a One UN Joint Programme in North Western Tanzania. A consultancy commissioned to Business Care Services, funded by UNDP (2007-2008).

SUPERVISION OF STUDENTS' RESEARCH PROJECTS

Degree Programme	Number of students supervised
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Undergraduate programmes	39
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Masters' programmes	35
PhD programme	11

