

Stanley Mubako, Ph.D., GISP

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Professional Goal/Objective

Research and provision of local and global water resources management and environmental science and policy services, including geospatial expertise in contribution to the improvement of environmental health for human well-being.

Education

Ph.D. – Environmental Resources and Policy, <i>Southern Illinois University Carbondale (Carbondale, Illinois)</i>	2005-2011
MSc. – Water Resources and Environmental Management, <i>UNESCO-IHE Institute for Water Education (Delft, The Netherlands)</i>	2000-2002
Postgraduate International Diploma (PGID) – Exploration, Exploitation and Management of Groundwater Resources, <i>Hebrew University of Jerusalem (Rehovot, Israel)</i>	1999-1999
BSc. Honors – Agriculture (Soil Science), <i>University of Zimbabwe (Harare, Zimbabwe)</i>	1991-1993

Positions

Research Assistant Professor, University of Texas at El Paso <i>Center for Environmental Resource Management (CERM) and Department of Geological Sciences, El Paso, Texas</i>	August 2012– Present
Postdoctoral Research Fellow, Arizona State University <i>Department of Engineering, College of Technology and Innovation, Mesa, Arizona</i>	June 2011–July 2012
Visiting Scientist, United Nations <i>United Nations Environment Programme (UNEP), US Geological Survey (USGS) Earth Resources Observation and Science (EROS) Center, Sioux Falls, South Dakota</i>	January 2010 – October 2010
Graduate Research Assistant, Southern Illinois University Carbondale <i>Department of Geography and Environmental Resources and Universities Council on Water Resources (UCOWR), Carbondale, Illinois</i>	August 2005 – May 2011
Communicating the Environment Program Coordinator, SARDC <i>Southern African Research and Documentation Centre (SARDC) Musokotwane Environment Resource Center for Southern Africa (IMERCSA), Harare, Zimbabwe</i>	January 2004 – August 2005
Projects Manager (GIS and Indicators Projects), SARDC <i>SARDC IMERCSA, Harare, Zimbabwe</i>	November 2002 – December 2003
Irrigation Design Specialist <i>Irrigation Development Division, Harare, Zimbabwe</i>	January 1995 – October 2002

Teaching Experience

Undergraduate Level Teaching Responsibilities

1. Developed and instructed the following undergraduate courses at UTEP: Introduction to Geographic Information Systems (GIS) (GEOL 4385), Spring 2016; Fall 2015; Introduction to GIS for the Social Sciences (SOCI/ANTH 3332), Spring 2015; Spring 2014
1. Developed and instructed a one week undergraduate module “Geography of water resources” as Visiting Instructor at LaSalle Beauvais Polytechnic Institute, Beauvais, France, Spring 2016
2. Teaching Assistant for the following courses at Southern Illinois University Carbondale: Introduction to environmental management (GEOG 320); Sustainable development (GEOG 424); Earth's biophysical environments (GEOG 303i); and Field methods (GEOG 433), 2005-2006
3. Adjunct Instructor for the course Irrigation and hydraulic structures at the University of Zimbabwe, 2003-2005

Graduate Level Teaching and Responsibilities

1. Developed and instructed the following graduate courses: Introduction to Geographic Information Science and Technology (GIST) (GEOL 5321), Spring 2016; Selected Topics in Geological Sciences (GEOL 5315), Fall 2015

Student Advising

1. Academic advising to 2 graduate students for the Environmental Science and Engineering program at UTEP, 2015-2016
2. Research advising and supervision of 2 masters level student research assistants at UTEP, 2014-2015
3. Dissertation committee member for Civil Engineering masters student at UTEP, Fall 2015
4. Co-advisor to 2 doctoral at Arizona State University, 2011-2012

Research Experience and Professional Activities

University of Texas at El Paso

1. Participated in the development various interdisciplinary and collaborative project proposals and concept papers, *2012-present*
2. Processed GIS data and remote sensing imagery as part of urbanization study in the Rio Grande basin, *2016*
3. Conducted focus group interviews to get stakeholder perceptions on climate change and water resource issues along the water-scarce USA-Mexico border region, *2015-16*
4. Collected and analyzed water use data for the development of a bucket model for the US-Mexico border region, *2015-16*

5. Prepared instruction material and conducted Internet GIS training for technical staff and teachers from the El Paso Independent school District as part of a program to better prepare K-12 students for college and careers in the geospatial sciences, 2016
6. Reviewed and provided expert contribution for the sixth *Global Environment Outlook* assessment report being produced by the United Nations Environment Program, 2015-16
7. Participated in monthly meetings for the Community and Academic Partnership for Health Sciences Research (CAPHSR), College of Health Sciences, 2014-present
8. Prepared training material and conducted a training session on Internet GIS for the CAPHSR partnership, 2016
9. Accomplished a project on adaptive management of Great Lakes watersheds, focusing on the assessment of the value of water and ecosystem impacts of freshwater withdrawals, 2012-15
10. Modelled the economic impacts of freshwater use in the Great Lakes region of the US, applying the IMPLAN model, 2015
11. Developed an integrated environmental-economic accounting framework for water use as part of a study to improve the understanding of water resources sustainability in the El Paso border region, 2013-14

Arizona State University

12. Analyzed water use data and modelled freshwater withdrawals in the Kalamazoo watershed using a GIS-based water withdrawal assessment modelling tool, 2011-12
13. Organized a 2-day research project Technical Advisory Committee conference and compiled official workshop proceedings report, 2012

Southern Illinois University Carbondale

14. Evaluated and quantified virtual water volumes and water footprints associated with the trade in agricultural commodities in the United States (US) economy, 2008-11
15. Modelled crop water and irrigation requirements of major crops in the US using the CROPWAT model, 2008-11
16. Edited manuscripts for the *Journal of Contemporary Water Research and Education* (JCWRE) issues 135, 136, 137, 138, 139, 140, 141, 142, 145, and 146, 2006-2010
17. Typeset articles and designed print layout for 10 JCWRE journal issues and designed conference programs, brochures, and other materials using various graphic software, 2006-2010
18. Handled technical issues from printers related to all Universities Council on Water Resources (UCOWR) publications, 2006-2010
19. Maintained, monitored and updated UCOWR's website, and trained and supervised new Graduate Assistants in website maintenance and graphic software design, 2006-2010

20. Conducted research and compiled completion report on a project titled “Development of Water Use Benchmarks for Thermoelectric Power Generation in the United States”, 2006
21. Reviewed manuscripts for the journal *Water International*, 2006

United States Geological Survey Earth Resources Observation and Science Center

22. Researched, collected data and authored chapters for the Africa Water Atlas, focusing on multidimensional challenges and opportunities in Africa’s water resources under a changing climate, 2010
23. Conceptualized and generated visual illustrations for the Africa Water Atlas using GIS, remote sensing and various graphics software, 2010

Southern African Research and Documentation Center

24. Accomplished a project to design a data and indicator information system for the Africa Environment Information Network, 2003-2005
25. Contributed to regional water policy and strategy development for southern Africa, 2003-05
26. Coordinated production of the second integrated state of environment and assessment report for Southern Africa, 2003-05
27. Developed and evaluated indicators for integrated state of environment and assessment processes for the Africa region, 2002-05
28. Coordinated the development of a socio-economic GIS database for supporting environmental assessment processes in southern African countries, 2002-05
29. Represented SARDC at various international meetings and maintained a network of more than 20 international collaborating institutions, 2002-05
30. Prepared contracts and terms of reference for chapter writers and consultants, 2002-05
31. Reviewed materials submitted by authors for publication, 2002-05
32. Drafted project proposals for funding, 2002-05
33. Advised project managers on technical issues related to water and environment projects, 2002-05
34. Researched, wrote, reviewed and edited materials for SARDC publications, 2002-05
35. Compiled progress and annual reports for funding institutions, 2002-05
36. Performed evaluation appraisals for supervised staff members, 2002-05
37. Prepared and delivered more than 10 conference presentations and participated in Institutional strategic meetings, 2002-05

Other Professional Experience

Department of Irrigation, Harare, Zimbabwe

1. Supervised the planning, design, tendering and implementation of irrigation projects and sanitation facilities, 1995-2002
2. Advised stakeholders on national water policy issues, 1995-2002
3. Trained and advised extension officers and farmers on water conservation, salinity, and drainage issues, 1995-2002
4. Prepared monthly, quarterly, and annual reports for the department, and for funding agencies, 1995-2002
5. Controlled budget allocations for the development of more than 1,000 hectares of irrigation projects, 1995-2002
6. Supervised and coordinated more than 200 technical staff and contractors on irrigation construction sites, 1995-2002
7. Networked and maintained relations with various stakeholders on water resource development projects, 1995-2002

Service and Community Responsibilities

Journal Reviewer: Manuscripts for Publication

1. *Natural Resources Forum*, (ISSN: 1477-8947), 2014-present
2. *Journal of Water Resources Planning and Management* (ISSN: 0733-9496) 2013-present
3. *Water* (ISSN: 2073-4441) 2011-present
4. *Environmental Science and Technology* (ISSN: 0013-936X) 2010-present

Proposal and Research Paper Reviewer

5. University of Texas at El Paso Graduate Student Research Expo, 2014-present
6. U.S. National Science Foundation, 2013
7. Illinois Junior Science and Humanities Symposium student research paper competition 2007
8. Institute of Water and Sanitation Development student research paper competition for the Water, Sanitation and Hygiene Fair, Harare, Zimbabwe, 2005

Conference Committees and Board Memberships

9. Director, Water Resources Specialty Group, Association of American Geographers, 2014
10. Member, Great Lakes Project Technical Advisory Committee, Racine, Wisconsin, 2011

11. Committee member, Universities Council on Water Resources/National Institutes for Water Resources Annual Conference in Seattle, Washington, 2010
12. Committee member, Universities Council on Water Resources/National Institutes for Water Resources Annual Conference in Chicago, Illinois, 2009
13. Management Board Member, Institute of Water and Sanitation Development (Zimbabwe), 2005
14. Steering Committee Member, Zimbabwe National Spatial Data Infrastructure Initiative, 2005

Volunteer Activities

15. Spring Commencement Volunteer, University of Texas at El Paso, 2014
16. Southern Illinois University Carbondale International Programs and Services Week of Welcome for New International Students, 2010
17. Presenter, Southern Illinois University International Programs and Services International Network for Global Educational Activities in Rural Schools Program (IN GEAR) 2006-07

Funded Grants

Current awards

1. Sustainable water resources for irrigated agriculture in a desert river basin facing climate change and competing demands: From characterization to solutions (Co-Investigator). The goal of this project is to improve the characterization of a complex water resource system in order to improve water supplies; optimize allocation of water to competing demands; and improve water use efficiency, conservation, and environmental impacts in the transboundary and semi-arid Rio Grande River Basin – U.S. Department of Agriculture, 2015-2019: (\$5 million).
2. A collaborative approach to integrating Geographic Information Systems (GIS) training in El Paso Independent School District (PI). The goal of this pilot project is to contribute to better preparation of El Paso region K-12 students for college and careers in the geospatial sciences – El Paso Community Foundation, 2015-2016: (\$6,000).
3. A globalized and food insecure world: To what extent can bio-fortified and synthetic food help solve food insecurity in developing countries? (Co-PI). The goal of this seed-funding project is to produce an edited volume assessing the multidimensional impacts of modern bio-fortified and synthetic food production and consumption –Brown University and Santander Universities, 2015-2016: (US \$8,000).

Past awards

4. Developing an environmental-economic accounting framework for water use in the United States (PI). The goal of this project was to improve the understanding of water resources sustainability in the context of integrated environmental and economic accounting of water – UTEP Interdisciplinary Research Enhancement Program, 2013-2014: (\$20,000).
5. Piloting a New Paradigm for the Adaptive Management of Great Lakes Watersheds Focusing on the Value of Water and Ecosystem Impacts (PI). The goal of this project was to quantify virtual water flows in the Great Lakes Basin of the U.S. and assess ecosystem impacts of economic water uses – Great Lakes Protection Fund and Michigan Technological University, 2012-2013: (\$39,009).

6. Piloting a New Paradigm for the Adaptive Management of Great Lakes Watersheds Focusing on the Value of Water and Ecosystem Impacts (PI). The goal of this project was to quantify virtual water flows in the Great Lakes Basin of the U.S. and assess ecosystem impacts of economic water uses – Great Lakes Protection Fund and Arizona State University, 2012-2013: (\$26,062).
7. Development of an indicator strategy for state of environment assessment and reporting in Southern Africa (Co-Investigator). The goal of this project was to develop environmental indicators for state of environment and assessment – Department of Environmental Affairs and Tourism (South Africa), Norwegian Agency for Development Cooperation – Norad, 2002-2005: (\$100,000).
8. GIS project for Southern Africa (Co-Investigator). The goal of this project was to develop a socio-economic GIS database for environmental assessment processes in southern African countries – Human Sciences Research Council (South Africa), 2003-2005: (\$100,000).

Honors and Awards

1. First place recipient: National Ph.D. Dissertation Award in Water Policy and Socio-Economics, Universities Council on Water Resources (UCOWR) (\$750), 2012
 2. Brown University and Santander Universities tuition and travel award to attend Brown International Advanced Research Institutes in climate change and its impacts on water resources, (\$5,000), 2010
 3. Doctoral Dissertation Research Award, Graduate School, Southern Illinois University Carbondale, (\$25,000) 2009-10
 4. Joint Japan World Bank Graduate Scholarship (\$40,000), 2000-02
 5. Israel Agency for International Development Cooperation (Mashav) Scholarship (\$10,000), 1999
 6. Teachers Teaching Teachers GIS Institute, Environmental Systems Research Institute (ESRI) and UTEP, Redlands, California (\$2,500), 2015
 7. Advanced Placement (AP) Reader- Human Geography, College Board and Educational Testing Service Advanced Placement Program 2012-Present
 8. Best Dissertation Award Nomination, Environmental Resources and Policy Program 2011 nomination, Southern Illinois University Carbondale, 2012
 9. Gamma Theta Upsilon International Geographical Honor Society, Department of Geography and Environmental Resources, Southern Illinois University Carbondale, 2006
 10. Graduate Research Assistantship, Southern Illinois University Carbondale, 2005-11
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Research Publications

Journal articles

1. Mayer, A., **S. Mubako**, and B. Ruddell. 2016. Developing the greatest blue economy: Water productivity, fresh water depletion, and virtual water trade in the Great Lakes Basin. *Earth's Future* (In review).
2. Pullanikkatil, D., **S. Mubako**, and M. Munthali. 2014. Advancing green economy through technology transfer: Experiences from Malawi. *Southern African Journal of Environmental Education* 30, 2014: 66–78.
3. Pullanikkatil, D., **S. Mubako**, W. Phalira, S. Chiotha, and M. Luhanga. 2013. Schistosomiasis prevalence in Zomba, Southern Malawi. *African Geographical Review* 33(1): 36–51.
4. **Mubako, S.**, S. Lahiri, and C. Lant. 2013. Input-output analysis of virtual water transfers: Case study of California and Illinois. *Ecological Economics* 93: 230–238.
5. **Mubako, S.**, B. Ruddell and A. Mayer. 2013. The relationship between water withdrawals and freshwater ecosystem water scarcity quantified at multiple scales for a Great Lakes watershed. *Journal of Water Resources Planning and Management* 139(6): 1–11.
6. **Mubako, S.**, and C. Lant. 2013. Agricultural Virtual Water Trade and Water Footprint of U.S. States. *Annals of the Association of American Geographers* 103(2): 385–396.
7. **Mubako, S.**, and C. Lant. 2008. Water resource requirements of corn-based ethanol. *Water Resources Research* 44(7): 1–5.

Chapter contributions to peer-reviewed books

8. **Mubako, S.** and N. Mintz-Habib. 2014. Climate change adaptation and water in semi-arid regions: A case study of the Limpopo River Basin. In: Stucker, D. and E. Lopez-Gunn (Eds.). *Adaptation to Climate Change through Water Resources Management: Capacity, Equity, and Sustainability*. Earthscan: UK, 197–219.
9. **Mubako, S.** et al. Freshwater and Sanitation. In: UNEP 2013. *Africa Environment Outlook 3*. United Nations Environment Program (UNEP), Nairobi, Kenya, 126–140.
10. **Mubako, S.** 2008. Chapter 4: Freshwater Resources. In: SADC, SARDC, IUCN & UNEP. 2008. *Southern Africa Environment Outlook*. Gaborone/Harare/Nairobi, 57–84.
11. **Mubako, S.** 2008. Chapter 5: Marine and Coastal Resources. In: SADC, SARDC, IUCN & UNEP. 2008. *Southern Africa Environment Outlook*. Gaborone/Harare/Nairobi, 85–100.
12. Mafuta, C. and **S. Mubako**. 2008. Chapter 9: Outlook. In: SADC, SARDC, IUCN & UNEP. 2008. *Southern Africa Environment Outlook*. Gaborone/Harare/Nairobi, 155–169.

Contributions to other research reports and edited publications

13. Mayer, A., B. Ruddell and **S. Mubako**. 2015. *Introducing virtual water accounting to the Great Lakes*. Great Lakes Commission, Ann Arbor, MI.
14. UNEP. 2010. Africa Water Atlas. Division of Early Warning and Assessment (DEWA). United Nations Environment Program (UNEP). Nairobi, Kenya. Lead Author and Chapter Reviewer. <http://na.unep.net/atlas/africaWater/book.php>.

15. Dziegielewski, B., T. Bik, U. Alqalawi, S. Mubako, N. Eidem, and S. Bloom. 2006. *Water Use Benchmarks for Thermoelectric Power Generation*. Project Completion Report, Department of Geography and Environmental Resources, Southern Illinois University Carbondale. <http://www.geography.siu.edu/pdfFiles/Research/ThermoReport.pdf>.
16. UNEP. 2006. *Africa Environment Outlook 2: Our environment, our wealth*. United Nations Environment Program (UNEP), Nairobi, Kenya. Member of the Data Working Group.

Book and Chapter reviews

17. Stucker, D. and E. Lopez-Gunn (Eds.). *Adaptation to Climate Change through Water Resources Management: Capacity, Equity, and Sustainability*. Earthscan: UK.
18. M. Solem, M. K. Foote, and J. Monk. (Eds.). 2009. *Aspiring Academics: A resource book for graduate students and early career faculty*. New Jersey: Pearson Education.

Short articles and newsletter items

19. **Mubako, S.** 2004. SADC Water Division calls for impact through partnerships. *Southern African News Features (SANF)* 04: 81, July 2004.
20. **Mubako, S.** 2003. SADC challenges Country Water Partnerships to make impact. *The Zambezi* 6(1).
21. **Mubako, S.** 2003. National Spatial Data Infrastructure initiative under way for Zimbabwe. *SDI-Africa Newsletter* 2(7), 20 June 2003.
22. **Mubako, S.** 2003. Water for Food in Zimbabwe. *Water Dialogue*. Pretoria, South Africa: Global Water Partnership Southern Africa.

Research Presentations and Conference Proceedings

23. **Mubako, S.** Understanding urbanization in the Lower Rio Grande Basin: A Remote Sensing Approach. Research presentation at the US Department of Agriculture supported 2016 Annual Meeting of the Rio Grande River Basin project, El Paso, Texas.
24. Ruddell, B., **S. Mubako**, and A. Mayer. Virtual water flows and water balance impacts of the U.S. Great Lakes Basin. 2014 American Geophysical Union Annual Conference, San Francisco, CA. Poster presentation.
25. **Mubako, S.**, T. Fullerton, A. Walke, T. Collins, G. Mubako, and S. Walker. Developing a methodological framework for estimating water productivity indicators in water scarce regions. 2014 UTEP Interdisciplinary Research Symposium, 2014 American Geophysical Union Annual Conference, Poster presentation.
26. **Mubako, S.**, B. Ruddell and A. Mayer. Linking economic water use, freshwater ecosystem impacts, and virtual water trade in a Great Lakes watershed. 2014 Annual Meeting of the Association of American Geographers, Tampa, FL and 2013 American Geophysical Union Conference, San Francisco, CA. Poster presentation.
27. **Mubako, S.**, B. Ruddell and A. Mayer. Virtual Water Accounting: A New Framework for Managing Great Lakes Water Resources, Webinars hosted by the Illinois Section American Water Works Association (2014) and the Great Lakes Protection Fund (2013).

28. **Mubako, S.**, K. Watson, A. Mayer, and B. Ruddell. Estimating multi-scalar ecosystem impacts of freshwater withdrawals: A case study of the Kalamazoo watershed. 2013 Annual Meeting of the Universities Council on Water Resources/National Institutes for Water Resources, Lake Tahoe, CA. Paper presentation.
29. **Mubako, S.** and C. Lant. 2013. Agricultural Virtual Water Trade and Water Footprint of U.S. States. Annual Meeting of the Association of American Geographers, Los Angeles, CA. Nystrom Award Competition, Paper presentation.
30. **Mubako, S.** 2012. Remote sensing and integrated environmental assessment: Case studies of Africa's water resources. 2012 Annual Meeting of the Southwest Division of the Association of American Geographers, Las Cruces, NM. Paper presentation.
31. **Mubako, S.** 2012. Virtual water and agricultural water footprints of U.S. states. 2012 Annual Meeting of the Universities Council on Water Resources/National Institutes for Water Resources, Santa Fe, NM. Paper presentation.
32. **Mubako, S.**, K. Watson, A. Mayer, and B. Ruddell. 2012. Estimating multi-scalar ecosystem impacts of freshwater withdrawals: A case study of the Kalamazoo watershed. Annual Meeting of the Association of American Geographers, New York, NY. Paper presentation.
33. **Mubako, S.** and Lant, C. 2011. Virtual water trade and water footprints of U.S. states. 2011 Annual Meeting of the Association of American Geographers, Seattle, WA; 2011 Universities Council on Water Resources/National Institutes for Water Resources Annual Conference, Boulder, CO. Paper presentation.
34. **Mubako, S.** and Lant, C. 2010. Water resource requirements of corn-based ethanol. 2010 Annual Meeting of the Association of American Geographers, Washington DC.; 2008 West Lakes Meeting of the Association of American Geographers at Indiana University, Bloomington, IN; 2007 West Lakes Meeting of the Association of American Geographers at the University of Illinois at Urbana Champaign, IL. Paper presentation.
35. **Mubako, S.** and Lant, C. 2010. Water resource requirements of corn-based ethanol. 2009 Universities Council on Water Resources/National Institutes for Water Resources Annual Conference, Chicago, Illinois. Paper presentation.
36. Schwabe, C., C. Mafuta, and **S. Mubako**. 2003. Experiences from the SADC Development GIS project in accessing information and its contribution to developing a spatial information system for NEPAD. Africa GIS 2003 Conference, Dakar, Senegal. Paper presentation.

Guest/Invited presentations

37. **Mubako S.** 2016. Sustainable water resources for irrigated agriculture in a desert river basin facing climate change and competing demands: From characterization to solutions, Research presentation made at LaSalle Beauvais Polytechnic Institute, Beauvais, France, January 2016, and Smithsonian Center, Virginia, USA, December 2015.
38. **Mubako S.** 2015. Introduction to GIS: University of Texas at El Paso Environmental Sciences TIERA Project Seminar Series.

39. **Mubako S.** 2014. Geospatial applications in integrated environmental assessment: Experiences from the Africa Water Atlas Project. University of Texas at El Paso, Geological Sciences Department, Seminar presentation.
40. **Mubako S.** 2014. Agricultural Virtual Water Trade and Water Footprint of U.S. States. 2014 Annual Conference of the Universities Council on Water Resources, Tufts University, MA, Paper presentation.
41. **Mubako S.** 2006. Water resources sustainability issues in the Zambezi River Basin. Southern Illinois University Carbondale, IL. Geography Department Guest presentation.

Other Conferences and Professional Meetings Attended

1. Water Banking Workshop, New Mexico Water Resources Research Institute, Las Cruces, New Mexico (2015).
2. One week Faculty professional exchange visit to LaSalle Beauvais Polytechnic Institute, Beauvais, France (July 2015)
3. National Groundwater Association Conference on Hydrology and Water Scarcity in the Rio Grande Basin, Albuquerque, New Mexico (2014).
4. 2012 Binational Border Water Resources Summit, University of Texas at El Paso (2012).
5. 57th Annual New Mexico Water Conference, New Mexico State University, Las Cruces (2012).
6. Universities Council on Water Resources/National Institutes for Water Resources Annual Conference, Seattle, Washington (2010).
7. Second Africa Environment Outlook Data and Scenario working group meetings, United Nations Environment Programme
8. Zambezi Basin Wetlands regional consultative forum hosted by the World Conservation Union Regional Office for Southern Africa, Zambia
9. Southern Africa Regional Indicators development workshops in South Africa and Mozambique
10. Third, 4th and 5th Global Water Partnership Southern Africa Southern Africa Annual Consulting Partners meetings in Zambia, Swaziland and South Africa
11. Steering and Technical committee meetings for Southern African Development Community regional Indicators and GIS projects in South Africa and Zimbabwe
12. Southern Africa Environment Outlook report review workshop in South Africa
13. Southern Africa Development Community Geographic Information Systems development project workshops in South Africa and Zimbabwe
14. Sixth Water Information Summit in Delft, The Netherlands
15. Zimbabwe Country Water Partnership meetings

16. Global Water Partnership Southern Africa regional Framework for Action meetings in South Africa
17. Southern African Development Community Regional Water Policy and Strategy meetings in South Africa
18. Africa Environment Information Network conference in South Africa
19. Africa Environment Outlook meetings in Kenya and Egypt

Professional Membership and Affiliations

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| 1. GIS Certification Institute (GISP Certification Number 90899), | <i>2015-present</i> |
| 2. American Geophysical Union (AGU) | <i>2011-present</i> |
| 3. National Groundwater Association (NGA) | <i>2012-present</i> |
| 4. Association of American Geographers (AAG) | <i>2006-present</i> |
| 5. Universities Council on Water Resources (UCOWR) | <i>2006-present</i> |
| 6. International Association of Hydrological Sciences (IAHS) | <i>2011-present</i> |
| 7. Water Supply and Sanitation Collaborative Council (WSSCC) | <i>2010-present</i> |
| 8. Environmental Systems Research Institute (ESRI) T3G Institute | <i>2015-present</i> |
| 9. Gamma Theta Upsilon International Geographical Honor Society (GTU) | <i>2006-present</i> |
| 10. Faculty affiliate – Center for Interamerican and Border Studies (CIBS) | <i>2015-present</i> |

Research Methodology and other Professional Skills

1. Analytical and Statistical packages: ArcGIS Desktop, ArcGIS Online, ArcGIS Pro, ArcView, GeoDa, ERDAS Imagine, ENVI, SPSS, JUMP, Minitab
2. Modeling: SDSM 5.2 (Statistical downscaling of global climate models), CROPWAT (crop water requirement calculations and irrigation system design), ACRU (hydrological modeling), Landlev (land preparation), WAFLEX (water management/allocation), IMPLAN (impact analysis)
3. Design-graphic software: Adobe Creative Suite (Acrobat, Indesign, Photoshop, Image Ready, Illustrator), Freehand
4. Office applications: MS Word, Excel, Powerpoint, Visio, Publisher, Access
5. Reference management: Reference Manager, EndNote, RefWorks
6. Learning management systems: Blackboard, WebCT

7. Website design: Adobe Dreamweaver, Fireworks
8. Teaching: GIS desktop, remote sensing, water resources management, physical and human geography, Internet/Web GIS, weather and climate
9. Experienced in training material development, proposal writing, negotiating skills, presentation at conferences and seminars, and conducting monitoring and evaluation of research results
10. Consulting and project management skills, including program design and implementation: data collection and analysis, and technical report writing
11. Experienced in integrated environmental assessment and reporting using various analytical frameworks, including policy and scenario analysis
12. International experience in Africa, Europe, North America, and the Middle East, and experienced in programs supported by multilateral donors and foundations
13. Strong leadership and networking skills, cultural awareness and sensitivity, and able to interact effectively with multiple levels of stakeholders
14. Language skills: English (fluent); Shona (fluent/Mother tongue); some basic Spanish

Professional Training Received

1. Statistical Downscaling of Global Climate Models Using SDSM 5.2, George Mason University Smithsonian-Mason School of Conservation (December 2015)
2. The Location Advantage, a Massive Open Online Course (MOOC) conducted by ESRI and UDEMY (December 2015)
3. Teachers Teaching Teachers GIS Institute, Environmental Systems Research Institute (ESRI), Redlands, California (June 2015)
4. Leadership Development Institute, University of Texas at El Paso (2014-2015)
5. Going Places with Spatial Analysis, MOOC conducted by ESRI and UDEMY (November 2014)
6. Economics of Climate-Resilient Development, e-Learning Course conducted by the World Bank Institute (September 2014)
7. Principal Investigator Post Award Training- Office of Research and Sponsored Projects, UTEP (August 2013)
8. UTEP Aware Program, Office of University Relations (2013–2014)
9. Responsible Conduct of Research- Office of Research and Sponsored Projects, UTEP (August 2013)

10. JumpStart Your Research Program- UTEP Office of Research and Sponsored Projects (December 2012)
11. Community-Based Adaptation in Semi-Arid and Arid Regions- Learning Alliance on Climate Change Adaptation (March 2012)
12. Responsible Conduct of Research- Office of Research Integrity and Assurance, Arizona State University Phoenix, Arizona (November 2011)
13. Recognizing, Reporting and Avoiding Research Misconduct- Office of Research Integrity and Assurance, Arizona State University, Phoenix, Arizona (October 2011)
14. Climate Change and its Impacts on Water Resources- Brown International Advanced Research Institutes - Brown University, Providence, Rhode Island (June 2010)
15. Training on Environmental Statistics and Environmental Indicators- United Nations Statistics Division and United Nations Environment Programme, Dakar, Senegal (2005)
16. Africa Sustainable Development Data and Indicator Information System - United Nations Environment Programme and Center for Environment and Development for the Arab Region and Europe, Cairo (2004)
17. Metadata Training Workshop- Southern African Development Community Regional Remote Sensing Unit and US Geological Survey, Harare, Zimbabwe (2003)
18. Low Cost Publishing-Southern African Research and Documentation Centre and International Union for the Conservation of Nature, Harare, Zimbabwe (2002)
19. Environmental Impact Assessment-Scientific Industrial Research and Development Center
20. Environment and Remote Sensing Institute, Harare, Zimbabwe (2002)
21. Management of Irrigation Projects- Mananga Management Center, Mbabane, Swaziland (1998)
22. Project Management - Zimbabwe Institution of Engineers, Harare, Zimbabwe (1996)
23. Construction Site Management- Zimbabwe Institution of Engineers, Harare, Zimbabwe (1996)
24. Concrete Materials- Cement and Concrete Institute, Harare, Zimbabwe (1996)
25. Concrete Practice- Cement and Concrete Institute, Harare, Zimbabwe (1996)
26. Soil and Water Conservation- Agricultural Technical and Extension Services, Harare, Zimbabwe (1995)
27. Air Photo Interpretation- Agricultural Technical and Extension Services, Harare, Zimbabwe (1995)
28. Extension Program Planning- Agricultural Technical and Extension Services, Harare, Zimbabwe (1995)

29. Land Use Planning- Agricultural Technical and Extension Services, Harare, Zimbabwe (1995)

References:

Available on request.

Certification: I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

Signature: 

Full Name: Stanley Tirivanhu Mubako

Date: 20/03/ 2016
Day/Month/Year