Curriculum Vitae

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POwell Mponela

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| Bio |  | Born on 1st August 1980, Married with 3 Children. Malawian. |
| Education |  | Center for Development Research, University of Bonn – Germany – pursuing PhD 2016 to present  **Grades**: term paper – 72.7%, Interdisciplinary written exam – 97%, Research - pending  **Courses:** Development theories, Climate change and farming systems, Economics for ecologists, Biodiversity invasion, Hydrology, Soil carbon and nitrogen cycles and management, Agent-based models, Agroforestry, GIS and Remote sensing  **Research**: Explorative, ex-ante assessment of options for Sustainable Agricultural Intensification in Maize Mixed Farming Systems using Multi-Agent System Simulation University of Malawi – Malawi – Master of science in social forestry 2007 - 2010  **Grades**: Coursework: 77.7%, Research: 74%.  **Courses**: Forest policy and law, Forest mensuration (biomass and carbon estimation), GIS & Remote Sensing, Forest economics, Soil fertility (carbon and nutrient stocks and flows).  **Research**: Land choice for biodiesel crop, *Jatropha carcus,* among smallholder farmers of Malawi and the indigenous plant diversity threatened. MZUZU UNiversity – Malawi – bachelor of science in forestry 2003 - 2007  **Grades**: Coursework: 72%, Research: 77%, Forest management plan: 66%.  **Courses**: Environmental management, Policy and law, GIS & Remote sensing, Forest economics, Forest mensuration (Biomass & carbon estimation), soil science (carbon & nutrient dynamics).  **Research**: Indigenous tree domestication (field analysis) and forest management. |
| publication |  | |  | | --- | | **Mponela P**., Villamor G. B., Snapp S., Tamene L. D., Lee Q. B., & Borgemeister C. (2020). The role of women empowerment and labour dependency on adoption of integrated soil fertility management in Malawi. *Soil Use and Management*,<https://doi.org/10.1111/sum.12627>  Mango N., Makate C., Tamene L., **Mponela P**., Ndengu G. (2020). Impact of the adoption of conservation practices on cereal consumption in a maize-based farming system in the Chinyanja Triangle, Southern Africa. *Sustainable futures (2)*. <https://doi.org/10.1016/j.sftr.2020.100014>  Tamene, L., Sileshi, G.W., Ndengu, G., **Mponela, P**., Kihara, J., Sila, A. & Tondoh, J. 2019. Soil structural degradation and nutrient limitations across land use categories and climatic zones in Southern Africa. *Land Degradation and Development 30(11)1288-1299*. <https://doi.org/10.1002/ldr.3302>  **Mponela P**., Girma T., Tamene L. (2018) Simultaneous adoption of integrated soil fertility management technologies in Chinyanja Triangle. *Natural Resources Forum*, 42(3)172-184. <https://doi.org/10.1111/1477-8947.12155>  Mango N. Makate C. Tamene L., **Mponela P**. Ndengu G. (2018). Adoption of small-scale irrigation farming as a climate-smart agriculture practice and its influence on household income in the Chinyanja Triangle, Southern Africa. *Land* 7(2). <https://doi.org/10.3390/land7020049>  Mango, N., Makate, C., Tamene, L., **Mponela, P**. and Ndengu, G. (2017). Awareness and adoption of land, soil and water conservation practices in the Chinyanja Triangle, Southern Africa. *International Soil and Water Conservation Research*, 2(5): 122-129. <https://doi.org/10.1016/j.iswcr.2017.04.003>  Desta L.T., **Mponela P**., Sileshi G.W., Chen J. and Tondoh J.E. (2016). Spatial variation in tree density and estimated aboveground carbon stocks in Southern Africa. *Forests* 7 (57), 1-19. <https://doi.org/10.3390/f7030057>  **Mponela P.**, Tamene L., Ndengu G. Magreta R., Kihara J. and Mango N. (2016). Determinants of integrated soil fertility management technologies adoption by smallholder farmers in the Chinyanja Triangle of Southern Africa. *Land Use Policy* 59, 38-48. <https://doi.org/10.1016/j.landusepol.2016.08.029>  Desta L., **Mponela P.**, Ndengu G. and Kihara J. (2015). Assessment of maize yield gap and major determinant factors between smallholder farmers in the Dedza district of Malawi. *Nutrient Cycling in Agroecosystems* 105:291-308. <https://doi.org/10.1007/s10705-015-9692-7>  **Mponela P**., Mwase W., Jumbe C.B.L. and Ntholo M.D. (2010). Plant species diversity on marginal and degraded areas for Jatropha curcas L. cultivation in Malawi. *African Journal of Agricultural Research* Vol. 5(12):1497-1503. <https://academicjournals.org/journal/AJAR/article-abstract/DEE52E636486>  **Mponela P**., Jumbe C.B.L. and Mwase W. (2010). Determinants and extent of land allocation for Jatropha curcas L. cultivation among smallholder farmers in Malawi. *Journal of Biomass and Bioenergy*. Vol. (35(7): 2499-2505. <https://doi.org/10.1016/j.biombioe.2011.01.038> | |
| Conference presentations |  | **Mponela P**., Villamor G. and Tamene L. (2019). *High resolution mapping of soil organic carbon and major nutrients within smallholder farms using randomForest and satellite imagery: Towards improved soil fertility management*. Oral presentation at the Wageningen Soil Conference: understanding soil functions. Held from 27-30 August, 2019 at Wageningen, the Netherlands. <https://wageningensoilconference.eu/2019/wp-content/uploads/2019/08/WSC2019_Book_of_Abstracts.pdf>  **Mponela P**., Villamor G., Tamene L., Snapp S., Le Q.B. and Borgemeister C. (2019). *10 m x 10 m Map of Soil Organic Carbon and Major Nutrients: Towards Plot Level Soil Fertility Management.* Oral presentation at the Tropentag - International conference on research on food security, natural resource management and rural development: Filling gaps and removing traps for sustainable resources development. Held from 18-20 September 2019 at Kassel, Germany. <https://www.tropentag.de/2019/abstracts/links/Mponela_73IKNnaO.php>  **Mponela P**., Villamor G., Tamene L., Snapp S., Le Q.B. and Borgemeister C. (2019). *Uptake of Integrated Soil Fertility Management Techniques in Maize Mixed Farming Systems of East and Southern Africa: Case of Malawi's Rift Valley Escarpments.* Poster presented at the Tropentag - International conference on research on food security, natural resource management and rural development: Filling gaps and removing traps for sustainable resources development. Held from 18-20 September 2019 at Kassel, Germany. <https://www.tropentag.de/2019/abstracts/posters/511.pdf> |
| Experience |  | Research Assistant, International centre for Tropical Agriculture (CIAT) 2010 - 2016   * Contributed to proposal writing for projects on *Intensification of nitrogen fixing crops in cereal dominated farming systems of Malawi* and *Malawi seed systems* that were funded by USAID and IRISH AID respectively. * Trained field team on biomass and SOC sampling and estimation for bush encroachment and land degradation neutrality in Namibia. * Supervised and trained field staff conducting land degradation surveillance (LDS) in 36 sites across 6 countries in southern Africa, 2 sites in northern Ghana and 2 sites in central and northern highlands of Ethiopia.   + Co-authoured papers on above ground and soil biomass and carbon stocks. * Conducted socioeconomic studies linked to LDSF datasets for 8 sites in Malawi, Zambia and Mozambique.   + Co-authored papers on drivers for farmers' decision to use integrated soil fertility management, irrigation for climate change adaptation and soil and water conservation technologies. * Implemented participatory trials aimed at enhancing adoption of integrated soil fertility management and sustainable land management practices in maize-legume farming systems. |
| Skills & Abilities |  | **Computer packages:** While working on individual modules to find connections between humans and their ecosystems, I have collected data and used several analysis tools including:   * Stata and SPSS - socio-economic analysis of drivers of land use change * Atlas.TI- gendered participation in non-farm activity in Nyungwe * NetMap –power relations among Soil Fertility Management stakeholders * NetLogo - multi agent simulation of agricultural sustainability as part of my PhD studies * SAS for heritability among natural occurring provenances of fruit trees. * R - digital soil nutrient and soil organic carbon (SOC) mapping * Microsoft Excel - analysis of plant growth and above ground carbon stocks * QGIS and ArcGIS - spatial analysis of remote sensing and GIS data. * BioDiversity Professional – plant diversity analysis |
| Leadership and cultural awareness |  | For the six years I was at CIAT, I planned and executed the research activities according to the operating procedures within the set timeline and budget. I trained and guided the research teams in the 9 research countries.  Led culturally diverse field teams in 7 countries across southern Africa; and in Ethiopia and Ghana. The interdisciplinary studentship and intercultural trainings at the Center for Development Studies (ZEF) equipped me with skills to interact and work with people from different parts of the world. |
| Referees |  | PROFESSOR CHRISTIAN BORGEMEISTER (PhD supervisor)Director, Centre for Development Research (ZEF), University of BonnE-mail: [cb@uni-bonn.de](mailto:cb@uni-bonn.de)Professor Sieglinde Snapp (PhD supervisor) Michigan State University  Email: [snapp@msu.edu](mailto:snapp@msu.edu)   Dr. lulseged D. Tamene (Previous work supervisor) Leader for Soil Information Services, International Centre for Tropical Agriculture (CIAT)  E-mail: [lt.desta@cgiar.org](mailto:lt.desta@cgiar.org) |