

## CURRICULUM VITAE FOR GIFT BENJAMIN NDENGU (MSc)

### A. PERSONAL DETAILS:

**Name:** Ndengu, Gift Benjamin Thabethe (MSc).

**Nationality:** Malawian

**Address:** Papermate Consultancy, P/B 30, Likuni, Lilongwe, Malawi.

**Cell No:** +265999 568 012/+265888 399 298;

**E-mail Address:** [gndengu@gmail.com](mailto:gndengu@gmail.com)

### B. PROFESSIONAL PROFILE

Gift is a motivated, self-starter, adaptable and responsible individual, utilising the professional as well as technical skills developed through past job experiences in achieving my work objectives, while recognising the importance of flexibility to new and emerging methods in solving new and unfamiliar situations. He is particularly very familiar with theory and practical issues in soil science (soil sampling and laboratory analysis protocols). He also has advanced knowledge skills in use of new cut edge NIR & MIR spectroscopy techniques to enhance efficiency, accuracy and precision in the handling soil sample analysis. Based on this he analysed over 10,000 soil samples in southern African countries for the African Soils Information System (AfSIS) project between 2010 & 2012. He has been to Ghana training soil scientists, students and technicians in these techniques. He is well versed in experimental designs, mounting of experiments, land restoration techniques, data collection, technical report writing, grant proposal writing, scientific writing as well as drafting manuscripts for publication in papers for publication in peer reviewed journals. He is particularly skilled in handling research documentation and keeping of records. He also has teaching experience at both secondary and tertiary levels. Being an insightful professional, he is ready to apply over fifteen years of experience in teaching and soils research to the new role of soil science lecturer, with room for growth and advancement.

His approaches to work are methodical, problem analysis-based, to ensure that the problem-solving efforts are effective and efficient in contributing to the society's well-being. Being a result oriented professional scientist, he has a strong drive to see things through to completion. His skills in problem solving and critical thinking, as well as meticulous attention to detail and the methodical nature of approach, helps him to effectively tackle problems in a unique way and develop innovative solutions.

Additionally, he is knowledgeable about approaches in social science research, and study procedures. His experience in both government and NGO systems has helped him to competently handle jobs involving social-economic & biophysical research (both national and international), publications, proposal drafting, data collection & analysis, report writing, conducting consultancy work, engaging with stakeholder from different backgrounds

(political, public & private), project management, planning, budgeting & office management, written & aural presentation, teaching and training. These can be evidenced in the subsequent sections:

**C. CORE SKILLS:**

- Inclusive approaches in developmental and agriculture research interventions;
- Climate change interventions/studies for increased productivity, building resilience and environmental management;
- Soil sample analysis (wet and dry methods)
- Environmental management (natural resources management: soil, water and land);
- Watershed approaches to land restoration as well as water resources management;
- Effective engagement with senior officials from public and private sectors, politicians, CSO leaders and development partners at both central and field level;
- Excellent planning, budgeting and office management skills. Pro-active, results driven and able to multi-task effectively in a multicultural setting;
- Disaster and risk management skills;
- Excellent skills drafting project proposals, scientific papers, reports and publications
- Research (soil & agronomic, biophysical and social-economic);
- Strong analytical skills-both qualitative and quantitative (using SPSS, Stata, Statistica, Systat, GenStat, and Instat (for climatic data); GIS and remote sensing
- Excellent computer knowledge (programming, database management, Microsoft office);
- Consultancies (baseline, midterm end-line evaluations; trainings);
- Excellent aural presentation and teaching skills;
- Project management (Planning & implementation, financial & human resources); and
- Expertise in soil science concepts
- Report and Technical writing as well as drafting publications
- Project management
- Grant writing Data collection and analysis
- Quality assurance standards
- Research project support
- Documentation management

#### **D. HIGHEST EDUCATION QUALIFICATIONS:**

- i. **Qualification:** Master of Science (Environmental Sciences) (University of Malawi) (2009) (with credit)
  - **Majors:** *Environmental soil science, land and water resources management;*
  - **Others:** *environmental and resource economics, food and nutrition security, alternative energy sources, energy economics, population and environment, advanced research methods, statistics, GIS & Remote sensing, as well as climate and meteorology.*

#### **E. WORK EXPERIENCE**

- i. **Research work under the Soils and Landscape department of International Centre for Tropical Agriculture (CIAT) (2010 – 2018)**

**Positions held:** (1) *Research Associate (2016-2018)* (2) *senior Technician (laboratory and field) (2010-2016)*

**Broad outline:** Reporting to my immediate boss (the Senior scientists for Southern Africa and Ethiopia) based in Ethiopia, and other senior scientists in Malawi & Kenya delegated to run research and developmental project activities within Malawi and Southern Africa.

##### **Responsibilities of the position:**

- Writing project proposals for calls falling under the interest of the organisation;
- Implementing research and development project activities (designing trials/experiments/surveys, data collection for both biophysical and socioeconomic issues budgeting, financial management);
- Soil sampling and laboratory analysis (dry methods using NIRS<sup>1</sup>);
- Data analysis and writing technical report for projects;
- Drafting and publishing papers in peer reviewed journals;
- Supervision of research assistants and laboratory assistant in undertaking the research activities of the projects;
- Maintaining the database for the soils data and ensuring data quality;
- Reporting the programme and project progress activities to my immediate boss in Ethiopia;
- Supported the design and implementation of the survey instrument such as questionnaires, check lists etc to obtain study information.

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<sup>1</sup> NIRS is Near Infrared Spectroscopy

- Evaluation of potential subject participants to assess their suitability for planned studies
- Gathered, arranged, and corrected research data and conducting data analysis;
- Set up equipment organised inventory and maintained project facilities;
- Conducted research which lead to development of the AfSIS soils database for African soils.
- Assisted 6 scientists with in-depth data research in both lab, field and office environment
- Took active role in meetings as well as workshops, engaging with parties from different sectors and transcribing detailed notes of plans, decisions and options taken in projects activities.
- Facilitating trainings and making presentations about our work and proposals.

#### Activities done under this position

- CIAT-Malawi (2016-2018):** Coordinated and implemented soil and agronomic research activities in the southern, central and northern regions of Malawi, under Malawi Seed Industry Development project (MSIDPII). Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org) or Dr Kihara, [j.kihara@cgiar.org](mailto:j.kihara@cgiar.org)
- CIAT-Malawi (2016-2017):** Conducted soil-water management research for improved crop production under limited rainfall in Machinga district, stratified by the rainfall gradient, funded by the Africa RISING (AR) project (2016-2017). Contact: Dr Desta: [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)
- CIAT-Malawi (2013-2017):** Conducted soil, integrated soil fertility management (ISFM) and sustainable agricultural intensification (SI) research for improved crop productivity under Africa RISING (AR) project (2013 – 2017). Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)
- CIAT-Malawi (2015):** Participated in AR cross learning program for the Ethiopian highlands land restoration approaches (2015). Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)
- CIAT-Malawi (2014-2016):** Participated in a research on sustainable land management (SLM) for climate smart agriculture and participatory resource mapping, AGORA project in Nsipe and Phambala EPAs Ntcheu. Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)
- CIAT-Malawi (2013):** Conducted the scooping exercise for the CRP1.1 project in the Chinyanja triangle covering Eastern Zambia, Central Malawi and the Tete province of Mozambique on soil and water conservation in dryland farming systems. Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)
- CIAT-Malawi (2013):** Conducted soil and land degradation survey and research in eastern Zambia, Malawi and Mozambique sites under CRP 1.1 and AR projects. [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)

- h. **CIAT-Kenya (2013):** Trained national soil research and NUST <sup>2</sup>staff members in Ghana soil sampling and land degradation survey technics and use of NIR spectrometer (NIRS) in soil analysis (2013). Contact Dr Fred Kizito: [f.kizit@CGIAR.ORG](mailto:f.kizit@CGIAR.ORG)
- i. **CIAT-Malawi (2010-2012):** I analysed Southern African soils (10,000 samples) using NIRS under the AfSIS<sup>3</sup> project and managed the database for the soils data (2010-2012). Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org) or Dr Kihara, [j.kihara@cgiar.org](mailto:j.kihara@cgiar.org)
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  - ii. **Consultancy work (2011-2018)**

**Position:** Consultant

**Broad outline:** Undertaking baseline, midterm and endline consultancy work (disaster management, WASH, water, soils-land and climate change issues).

**Responsibilities under this position:**

- Drafting proposals;
- training enumerators;
- data collection & Supervision of enumerators; and
- data analysis and report writing

**Activities and experience under this position**

- a. **Water Aid Malawi (March, 2018):** Conducted an end of project evaluation of the Water Aid Project on MNH & WASH activities in Machinga, Nkhosha and Kasungu districts. Contact: Dr Joseph Ndengu : [josephndengu@gmail.com](mailto:josephndengu@gmail.com)
- b. **A Comprehensive Baseline Assessment of Disaster Risk Management in Malawi: (October 2018-December 2018).** This study has been commissioned by the Government of Malawi through the Department of Disaster Management Affairs (DoDMA) in the Office of President and Cabinet. Contact: Barthlomew Chataika, [barthchataika@gmail.com](mailto:barthchataika@gmail.com)
- c. Study on Readiness of Farmers to Adopt Weather Insurance and Factors Needed to Overcome Weather Insurance uptake by Smallholder Farmers in Malawi **National Smallholder Association of Malawi (NASFAM): July-November, 2018.** Contact: Barthlomew Chataika, [barthchataika@gmail.com](mailto:barthchataika@gmail.com)
- d. **Oxfam International, Baseline study for Gendered Land Ownership and Women Land Rights in Malawi (February 2018- May 2018).** This study was commissioned by the Oxfam Malawi to conduct baseline for Women Land Rights Project which is being implemented in Mzimba, Kasungu, and Phalombe districts. Contact: Barthlomew Chataika, [barthchataika@gmail.com](mailto:barthchataika@gmail.com)

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i. <sup>2</sup>KNUST means Kwame Nkrumah University of Science and technology (Ghana)

ii. <sup>3</sup> AfSIS means Africa Soil Information Service

- e. **Beneficiary Assessment for MASAF 4 for the Malawi Government Local Development Fund (LDF) (November 2016-March 2017)** The programme has the following components; Social cash Transfer, Public Works Programme and Livelihoods Skills Development Programme commissioned by Local Development Fund; September to December 2016. Contact: Barthlomew Chataika, [barthchataika@gmail.com](mailto:barthchataika@gmail.com)
- f. **World Vision Malawi (October, 2014):** Conducted a Mid-Term Evaluation of Malawi WASH Project Participated in the national wide Activities under Papermate Consulting (October, 2014). Contact Dr Joseph Ndengu: [josephndengu@gmail.com](mailto:josephndengu@gmail.com)
- g. **COMSIP End of Project Evaluation (2014):** End of project evaluation for the COMSIP national project activities in Malawi. Contact: Mr Barthlomew Chataika: [barthchataika@gmail.com](mailto:barthchataika@gmail.com)
- h. **Shire River Siltation problem (by World Bank) (2011):** Conducted a consultancy on sources of siltation for the Mid Shire River (field data collection and GIS methods). Contact: Dr Desta, [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)

### iii. Teaching

**Position: Teaching and part-time lecturing (1998-2010)**

**Position:** (1) Physical science, Computer Studies and Mathematics teacher & Head of Physical science section (1998-2002, (2) Head of Science Department (3) Systems administrator for the Malosa V-SAT LAN) (4) Part time lecture for Applied Physics and Chemistry and Computer Applications at ST Luke's College of Nursing (2007-2010)

**Broad outline:** teaching as well as managing the running of the science department on behalf of the headmaster as well as ensuring the proper functioning of LAN.

#### *i. Part-time lecturer in applied physics and Chemistry as well as Computer Applications at ST Luke's college of Nursing. (2007 – 2010)*

- Taught applied physics and chemistry as well as computer Studies;
- Set up examinations and conducted assessment to define performance for awarding them with certificates or progress to the next academic year in their studies;
- Planned and supervised class projects, field trips and visits
- Utilised multimedia strategies and technology to convey information in fresh and interesting ways to facilitate learning

#### *ii. Head of department (05/2002 – 02/ 2010)*

- Arranged or conducted training and change management processes to improve operations;
- Recommended use of records to address teaching and learning improvement opportunities for effective learning in the department;

- Supervised planning and teaching of subjects in the department of science; and
  - Headed departmental meetings to discuss issues pertaining to improvement of service deliveries in the science department.
- iii. ***Physical science, Mathematics and Computer studies teacher (09/1997 – 02/2010)***
- Taught Physics, chemistry, Mathematics, Additional mathematics and Computer Studies
  - Planned and supervised class projects, field trips and visits
  - Utilised multimedia strategies and technology to convey information in fresh and interesting ways to facilitate learning
  - Diversified techniques and learning tools to help students with different ability levels and varied learning modalities
  - Worked as a MANEB examiner in Physical science and Additional Mathematics.

#### **F. INSERVICE SHORT TRAININGS AND CERTIFICATION**

- Guiding practical decision making for inclusive SAI<sup>4</sup> (SAIRLA Project Workshop, July, 2019)
- Gender Analysis in Agriculture (AR, Malawi, 2017).
- APSIM crop modelling (AR, Lilongwe, Malawi, 2017).
- Proposal and scientific writing (CIAT, Nairobi, Kenya, 2016).
- Statistical analysis for experimental data (CIAT, Lilongwe, Malawi, 2016).
- Land restoration techniques (AR, Addis Ababa, Ethiopia, 2015).
- Modelling natural resource usage, to predict impacts over time, to guide decisions on their management (CIAT, Lilongwe, Malawi).
- Statistical analysis for Researchers (Malawi Institute of Management, Malawi, 2014)
- CropSyst crop modelling (CIAT, Arusha, Tanzania, 2014).
- GIS and remote sensing (ICRAF, Lilongwe, Malawi, 2012).
- School management (Gender in schools and management, (GOM, MEDI, Malawi, 2005).

#### **G. PUBLICATIONS**

##### **i. Articles in peer reviewed journals:**

- Mango, Nelson, Makate, Clifton, Tamene, Lulseged, Mponela, Powell, Ndengu, Gift. Impact of the adoption of conservation practices on cereal consumption in a maize-

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<sup>4</sup> SAI means Sustainable Agricultural Intensification

based farming system in the Chinyanja Triangle, Southern Africa. 2020. Published online. Elsevier, Sustainable Futures

- Tamene, L., Sileshi, G.W., Ndengu, G., Mponela, P., Kihara, J., Silla, A., and Tondo, J. Soil structural Degradation and Nutrient Limitations Across Land Use Categories and Climatic Zones in southern Africa. Land degradation and Development. 2019. Published online.
- Mango, Nelson, Makate, Clifton, Tamene, Lulseged, Mponela, Powell, Ndengu, Gift. 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. 2018. Published online
- Mango, Nelson, Makate, Clifton, Tamene, Lulseged, Mponela, Powell, Ndengu, Gift, Magreta, Ruth, Kihara, Job. Awareness and adoption of land, soil and water conservation practices in the Chinyanja Triangle, Southern Africa. International Soil and Water Conservation Research. 2017. Published online.
- Mponela, Powell, Tamene, Lulseged, Ndengu, Gift, Magreta, Ruth, Kihara, Job Mango, Nelson. Determinants of integrated soil fertility management technologies adoption by smallholder farmers in the Chinyanja Triangle of Southern Africa. Land Use Policy. 2016. Published online
- Tamene, Lulseged; Mponela, Powell; Ndengu, Gift; Kihara, Job. Assessment of maize yield gap and major determinant factors between smallholder farmers in the Dedza district of Malawi. Nutrient Cycling in Agroecosystems. 2015. Published online.

## ii. Posters

- Effects of soil management and cropping options on yields of drought tolerant bush bean varieties in two agro-ecologies in central Malawi. Ndengu, G., Mponela, P. Chataika, Chirwa, R., Tamene, L. (2017). AfricaRISING Workshop, Nairobi. <https://cgspace.cgiar.org/handle/10568/80617>.
- Drought tolerant bean varieties offer hope to smallholder farmers in Malawi .Chataika, B, Ndengu,G,Mponela,P,Desta,L.T,Chirwa,R.(2016). [https://cgspace.cgiar.org/discover?filtertype=author&filter\\_relational\\_operator=equals&filter=Mponela%2C+Powell](https://cgspace.cgiar.org/discover?filtertype=author&filter_relational_operator=equals&filter=Mponela%2C+Powell)
- Chataika B., Desta L.T., Chirwa R., Ndengu G., Mponela P., Magreta R. and Chikowo R. Participatory yield assessment of climbing and bush bean varieties under different management options in Malawi (2015). <http://humidtropics.cgiar.org/international-conference-integrated-systems/>
- Participatory yield assessment of climbing and bush beans under different management options in Malawi :Chataika, B, Ndengu, G, Mponela, P, Magreta, R, Desta, L, Chirwa, R, Chikowo, R (2015)

iii. **Published Presentations**

Soil health in Southern Africa and implications on sustainable intensification: how much is the gap? Tamene, L, Sila, A, Ndengu, G, Kihara, J, Mponela, P, Shepherd, K, Walsh, M, Bossio, D. (2014). [https://cgspace.cgiar.org/discover?filtertype=author&filter\\_relational\\_operator>equals&filter=Sila%2C+A](https://cgspace.cgiar.org/discover?filtertype=author&filter_relational_operator>equals&filter=Sila%2C+A)

iv. **Published Reports**

Report from a cross learning visit to Africa RISING project sites in the Ethiopian highlands. Ndengu, G.B., Tamene, L., Mekonnen, K., Mengistu, S. (2015). <https://cgspace.cgiar.org/handle/10568/66320>

**H. REFEREES**

1. Mr Bartholomew Chataika, University of Namibia, Ogongo Compus, Namibia. E-mail: [barthchataika@gmail.com](mailto:barthchataika@gmail.com) Cell: + 264813316996
2. Dr Mathews Daniel Tsirizeni (Research Scientist), LEAD Southern and Eastern Africa, Fishing Flies Road, P/B 007, Zomba. Email: [mdtsirizeni@gmail.com](mailto:mdtsirizeni@gmail.com) or [mtsirizeni@leadsea.mw](mailto:mtsirizeni@leadsea.mw) Cell: +265994554731
3. Mr Zwide Jere, Total Land Care, P.O. Box 1302, Lilongwe, Malawi. E-mail: [zwidejere@hotmail.com](mailto:zwidejere@hotmail.com) Cell: +265999822420 or +265888822420
4. Dr. Lulseged Desta (Senior Soil Scientist), International Centre for Tropical Agriculture (CIAT), P.O. Box 158, Lilongwe, Malawi. E-mail: [Lt.desta@cgiar.org](mailto:Lt.desta@cgiar.org)