

Curriculum Vitae

PERSONAL INFORMATION



Pierre Gbènoukpo TOVIHOUDJI

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✉ pierretovihoudji@yahoo.fr

Sex Male | Date of birth 01/01/1984 | Nationality Beninese

POSITION

Post-Doctoral Fellow/ 'Scaling Readiness of Nutrient Management Decision Support Tools'

WORK EXPERIENCE

2015-2018

Research Assistant

Hydraulics and Environmental Modeling Laboratory (HydroModE Lab)/University of Parakou, Benin

Research topic 1: Modelling the long-term impact of on-farm management practices on soil carbon dynamics in northern Benin

Research topic 2: Sustainable intensification of maize-based cropping systems through integrated mineral fertiliser microdosing and organic amendments in Northern Benin

Research topic 3: Valorisation of fertilizing potential of wastewater and municipal solid wastes compost (MSWC) in urban and sub-urban agriculture in Parakou (North Benin): case study of *corchorus olitorius*, *Amaranthus cruentus*.

Responsibilities: Setting up and monitoring of experimentations, design of databases and statistical analysis of data, DSSAT model calibration and validation

2013-2015

Research Assistant

Agricultural Research Centre of Northern Benin (CRA-Nord, Benin)

Responsibilities:

- Setting up and monitoring of experimentations regarding different crop and nutrient management practices,
- design of databases and statistical analysis of data,
- Worked closely with specialized technicians in crop production and rural extension agents in the dissemination of different good crop production practices;
- Preparation and execution of training for research technicians
- Supervision of on-farm demonstration trials

2011-2013

Specialized technician in crop production

Ministry of Agriculture, Centre Agricole Régional pour le Développement Rural (CARDER/Oueme, Benin)

Responsibilities:

- Worked closely with rural extension agents in the dissemination of different good crop production practices;
- Preparation and execution of training for rural extension agents and farmers
- Supervision and demonstration of good crop production practices through "School Fields"

EDUCATION AND TRAINING

2014 - 2018

PhD in Agricultural Sciences and Bioengineering

Co-tutel: Earth and Life Institute - Environmental Sciences/Université catholique de Louvain, Belgium and Department of Natural Resources Management/University of Abomey-Calavi, Benin

Research topic: Improving maize productivity in northern Benin through localised placement of amendments: Experiments and Modelling

2012 - 2013

Master of Sciences in Agricultural and Environmental Sciences with the grade very good and congratulations of the jury

Pluridisciplinary Post Graduate School/University of Parakou, Benin

Thesis title: Agricultural use of sewage effluents: agronomic and environmental implications and perspectives in Northern Benin, 110p

2010 - 2011

Agronomic Engineer Diploma with the grade very good and congratulations of the jury

Department of Crop production and Management/ Faculty of Agronomy, University of Parakou, Benin

Thesis title: Dynamique de population et nuisibilité des mauvaises herbes dans le système maïsicole du nord-ouest Bénin, 70p

2005 - 2009

General Agronomy Diploma with distinctions

Faculty of Agronomy / University of Parakou, Benin

2002 - 2005

High School Degree with distinctions

2004: General secondary school, Benin (Baccalauréat Seie D: Mathematics and Biology)

2005: Agricultural Secondary School of Sekou, Benin (Tropical Agriculture Studies Diploma)

PERSONAL SKILLS

Mother tongues Torri and Goun

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1/C2	C1/C2	B1/B2	C1/C2	C1/C2
French	C1/C2	C1/C2	C1/C2	C1/C2	C1/C2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Computer skills Good control of MS Office package Word, Excel, PowerPoint
 Statistical data analysis: Good control of Minitab 16, ArcGIS 10.1, SPSS, STATA 14, R, Genstat,
 Soil-Crop models: Good control of DSSAT and APSIM

Driving licence Category B

ADDITIONAL INFORMATION

- Publications**
- Tovihoudji, G. P.**, Akponikpè, P. I., Agbossou, E. K., Bertin, P., & Biielders, C. L. (2017). Fertilizer microdosing enhances maize yields but may exacerbate nutrient mining in maize cropping systems in northern Benin. *Field Crops Research*, 213, 130-142.
 - Tovihoudji, G. P.**, Akponikpè, P. I., Adjogboto, A., Djenontin, J. A., Agbossou, E. K., & Biielders, C. L. (2017). Combining hill-placed manure and mineral fertilizer enhances maize productivity and profitability in northern Benin. *Nutrient Cycling in Agroecosystems*, 1-19.
 - Yolou, I., **Tovihoudji, G. P.**, Batamoussi Hermann, M., Yabi, I., Paraiso, A. A., Akiyo, R., & Afouda, F. (2015). Short-term effects of conjunctive use of municipal solid waste compost and inorganic fertilizer on soil properties and maize productivity in Northern Benin. *International Research Journal of Agricultural Science and Soil Science*, 5(5), 137-149.
 - Tovihoudji, G. P.**, Djogbenou, C. P., Akponikpe, P. B. I., Kpadonou, E., Agbangba, C. E., & Dagbenonbakin, D. G. (2015). Response of Jute Mallow (*Corchorus olitorius* L.) to organic manure and inorganic fertilizer on a ferruginous soil in North-eastern Benin. *Journal of Applied Biosciences*, 92(1), 8610-8619.
 - Agossou, J., Afouda, L., Adédémy, J. D., Noudamadjo, A., N'da Tido, C., **Tovihoudji, G. P.**,..... & Ayivi, B. (2014). Risques de fièvres typhoïdes et paratyphoïdes liés à l'utilisation des eaux usées en agriculture urbaine et périurbaine: cas du maraîchage dans la ville de Parakou. *Environnement, Risques & Santé*, 13(5), 405-416.
 - Tovihoudji, G. P.**, Akponikpè, P.B.I., Agbossou, E.K., Biielders, C.L. Variability in maize yield and profitability following microdose fertilization under smallholder farm conditions in northern Benin. *To be submitted*
 - Tovihoudji, G. P.**, Yegbemey, R.N., Akponikpè, P.B.I., Yabi, J.A., Agbossou, E.K., Biielders, C.L. Resource endowment and soil fertility management strategies in maize farming systems in Northern Benin. *To be submitted*
 - Tovihoudji, G. P.**, Akponikpè, P.B.I., Agbossou, E.K., Biielders, C.L. Using CERES-Maize model to develop decision support tools regarding fertilizer microdosing for maize production in the dry savanna region of Benin. *To be submitted*
 - Tovihoudji, G. P.**, Akponikpè P.B.I. Growth, yield and nutrient content of *Amaranthus cruentus* L. grown under wastewater irrigation and inorganic fertilizer on ferruginous soil in Benin. *To be submitted*
 - Tovihoudji, G. P.**, Akponikpè P.B.I. A comparative study of irrigation with two types of wastewater to a lettuce crop (*Lactuca sativa*): effects on growth, yield, mineral content and soil properties. *To be submitted*

Curriculum Vitae

- Presentations**
1. **Tovihoudji, G. Pierre**, Defourmy M., Akponikpè, PB Irénikatché, Agbossou, K. Euloge, Biolders, L. Charles. Fertilizer microdosing adoption in maize farming in northern Benin: Understanding farmer decision-making and potential constraints. Colloque UAC 2017, Abomey Calavi, Benin, 25 au 30 septembre 2017.
 2. **Tovihoudji, G. Pierre**, Akponikpè, PB Irénikatché, Agbossou, K. Euloge, Biolders, L. Charles. Understanding Variability in Maize Yield and Profitability under Fertiliser Microdosing Technology in Farmers' Fields in Northern Benin. Poster presentation at International conference TROPENTAG, September 20-22, 2017, Bonn, Germany.
 3. **Tovihoudji, G. Pierre**, Akponikpè, PB Irénikatché, Agbossou, K. Euloge, Biolders, L. Charles. Microdose fertilization increases yields but exacerbates nutrient mining in maize farming systems in Benin", oral and poster presentation at International conference on "Plant Nutrition, Growth & Environment Interactions III (Session: Plant Nutrition: Fertilizers and Soil)", February 20-21, 2017, Vienna, Austria.
 4. Akponikpè, PB Irénikatché, **Tovihoudji, G. Pierre**, Agbossou, K. Euloge, Biolders, L. Charles. Efficient use of nutrients and water through combination of manure and fertilizer in smallholder maize farming system in northern Benin". Présentation orale à l'atelier de recommandation des engrais organisé par IFDC à Lomé (Togo) le 14 juin 2016.
 5. **Tovihoudji, G. Pierre**, Akponikpè, PB Irénikatché, Agbossou, K. Euloge, Biolders, L. Charles. 2015. Integrated fertiliser microdosing and organic manure to adapt to climate variability and change in Northern Benin. Global Science Conference/Climart Smart Agriculture 2015, Montpellier, France; 03/2015.
 6. O'Neil G.M.M. Takpa, **Pierre G. Tovihoudji**, N. Ollabodé, Innocent A. Labiyi, Jacob A. Yabi. Fertilizer microdosing application as a climate change mitigation strategy in maize farming in northern Benin: Farmers' perception and willingness to be informed and to apply. Colloque UAC 2017, Abomey Calavi, Benin, 25 au 30 septembre 2017.
 7. Abdou W. Abiola, **Pierre G. Tovihoudji**, Emmanuel Sekloka, Ismail M. Moumouni, Léonard Afouda. Performance and farmers' preference of different drought tolerant maize varieties under fertilizer microdosing in northern Benin. Colloque UAC 2017, Abomey Calavi, Benin, 25 au 30 septembre 2017.
- Training/Workshop**
1. Five-days modeling training organized by ICRISAT and the Center For Dryland Agriculture (CDA) (4th to 8th December 2017), Kano (Nigeria)
 2. Training courses on soil and plant analysis; Introduction to DSSAT (Decision Support System for Agrotechnology Transfer) software and applications to statistics and modelling (Mars-April 2016), ICRISAT, Niamey
 3. Program on crop livestock integration in dryland agriculture (December 2014), ICRISAT/BUK, Kano state, Nigeria
 4. Capacity Building/Developing value chains of underutilized crops in Benin: amaranth spp. and Bambara groundnut (14-16 June 2014), Cotonou, Benin.
 5. Training courses on proposal writing skills for NUS research, with emphasis on Bambara groundnut and amaranth and their value chains (17-21 November, 2014), Lomé, Togo.
 6. Introduction to R and APSIM (Agricultural Production SIMilator) software and applications to statistics and modelling (june 2013), Faculty of Agronomy/University of Parakou, Parakou, Benin
- References**
- Charles L. Biolders (PhD)
- Full Professor, Soil and water conservation
 - Earth and Life Institute - Environmental Sciences and Faculty of Bioscience Engineering
 - Université catholique de Louvain, Croix du Sud 2, bte L7.05.02 B-1348 Louvain-la-Neuve, Belgium
 - Tel : +32 10 473714
 - e-mail : charles.biolders@uclouvain.be
- P.B. Irenikatché Akponikpè (PhD)
- Associate Professor, Soil-Water-Environment Physics and Modeling
 - Hydraulics and Environmental Modeling Laboratory (HydroModE Lab)
 - Université de Parakou, 03 BP: 351 Parakou Université, Benin
 - Tel: (+229) 94 15 78 89 / 66 24 24 74
 - e-mail : akponikpe@yahoo.com
- Dougbedji Fatondji (PhD)
- Senior Scientist, Agronomy, Soil & Water conservation
 - ICRISAT Sahelian Center
 - P.O. Box: 12404, Niamey Niger
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