

PERSONAL INFORMATION

Tamegnon Hospice TOSOU

 Germany

 (+49) 163 806 7756

 htossou01@yahoo.fr

Sex Male | Date of birth 03/09/1985 | Nationality BENIN

CURRENT POSITION

Junior Researcher at ZEFc, Batch 2022

WORK EXPERIENCE

From 2nd August 2021 to 31st July 2022

Consultant at the International Institute of Tropical Agriculture (IITA-BENIN)

IITA-BENIN, 08 BP 0932 Tri Postal, Cotonou, Republic of Benin (+229) +229 21350188

<https://www.iita.org/iita-countries/benin/>, E-mail : m.tamo@cgiar.org

Activities done: I am responsible for testing bio and synthetic pesticides. Maintenance of pathogen's gene bank. Coaching and technical assistance to the students during their internship in the microbiology laboratory. Conduct pathogenicity trials in laboratory and greenhouse.

Business: Agriculture research

From 22nd March 2019 to 25th May 2021

Technical Manager at Blue skies Benin

Blue Skies Republic of Benin Sarl. Lot 1356 M, HOUEYIHO 2, 01 BP: 5564 COTONOU BENIN.

T : (+229) 66155217. www.blueskies.com; E-mail : ronald.jossou@blueskies.com

Activities done: I had in charge the management a quality laboratory and the quality system of the company. I used to run biochemical and microbiological tests on finished products (foods). Monitoring micro-organism trends, identifying and/or eliminating microorganisms in all inputs used within the factory in the process. Implementing sanitation protocols and cleaning procedures to maintain the Food Safety Global Standard (BRCGS) hygiene standard within the factory and promote safe work place. I was interacting with external auditors and conducting internal audits (social, quality and environment).

Business: BLUE SKIES BENIN, is a company that produces fresh fruit salads for export to supermarkets in France such as: Monoprix, Daily Monoprix, Carrefour, Cojean, Proxi, Pomona, LA Martiniquaise. The scope of fruits processed includes: mangoes, lemon, coconut, passion fruit, papaya and pineapple.

From 1st May 2017 to 30th June 2017

Specialist consultant in pest control at HELVETAS Swiss Interco-operation BENIN

HELVETAS Swiss Interco-operation BENIN Lot 648 D, Maison Gaza Issiaka Les Cocotiers - 08

BP 1105. Cotonou - BENIN. T : (+229) 97163805 (+229) 21302199 (+229) 66845391.

www.helvetas.org; E-mail : lionnel.chabi-china@helvetas.org

Activities done: Coaching, monitoring of farmers in the management of insect pests of sesame in organic production farms in BENIN, in the framework of Organic and Fair-Trade Cotton project in Protected Areas of Benin (CAP-BIO). I have trained agricultural extension officers on the process of preparation of the bio pesticides products (plant extracts) and how to use them to efficiently control insect attack in organic farming system. They were also taught on the factors affecting the efficacy and efficiency of the products including but not limited to weather conditions, temperature, flow rate, swale rate, droplet size, drift, walking speed, coverage, spray equipment to be used and nature of products to be chosen.

Business: Assistance and development cooperation

From 1st July 2014 to 31th April 2017**Senior research Technician at AricaRice**

AricaRice 01 BP 4029, Abidjan, Côte d'Ivoire. T: +225 27 22 48 09 10 F: +225 27 22 44 26 29
<http://www.africarice.org/>; E-mail : siluer.drissa@gmail.com; AfricaRice@cgiar.org

Activities done: I have worked as a research technician in Genetic Diversity and crop Improvement Program under Phytopathology unit at AfricaRice.

I have carried out chemical checks and microbiological tests in rice, characterizing pathogenic bacteria, virus, and fungi. Identifying microorganisms and insects using genetics and molecular biology tools. Cultivation, purification and inoculation of microorganisms, including *Xanthomonas oryzae*, *Sphingomonas spp.*, *Pantoea spp.*, *Rice Yellow Mottle Virus (RYMV)*, *Rice Stripe Necrosis Virus (RSNV)*, *Polymixa graminis* and *Magnaporthe oryzae*, rice pathogenic microorganisms. Screening of rice germplasm to diseases. I routinely used PCR, RT-PCR and q-PCR technics.

I am familiar in using the dichotomous key to identify fungi and some insects as well.

I used to carry out Immuno-enzymatic analyses such as ACP-ELISA, DAS-ELISA, TAS-ELISA for the diagnosis and characterization of viruses (RYMV and RSNV).

I am familiar to the New Generation of Sequencing technics, Sequencing approach using DArtSeq Technology as well as Genomic analysis tools. I use to conduct phenotyping trials and genotyping analysis of rice cultivars. Rice biparental population development using the Advance backcross method. I am familiar to the marker systems such as SSR, SNP and genetic mapping technics.

Business: Agriculture research, livestock and fisheries

From 09th January 2012 to 30th June 2014**Research Technician at the International Institute of Tropical Agriculture (IITA-BENIN)**

IITA-BENIN, 08 BP 0932 Tri Postal, Cotonou, Republic of Benin (+229) +229 21350188
<https://www.iita.org/iita-countries/benin/>, E-mail : m.tamo@cgiar.org

Activities done: My work at the IITA deals with studying the interactions between natural enemies and host plants (cowpea, maize and *Jatropha curcas*), biology and behaviour of pests and their associated natural enemies. I have first-hand experience in rearing insects such as: *Maruca vitrata*, *Aphis craccivora*, *Clavigralla tomentosicollis*, *Megalurothrips sjostedti* and their parasitoids *Apanteles taragamae*, *Trichogramma spp.*, *Nemorilla maculosa*, *Phanerotoma leucobasis*, *Ceranisus menes* and *Ceranisus femoratus* to be used in various laboratory and field tests.

I am familiar with using the olfactometer system and performing specific multivariate analyses in the chemical ecology studies. I was associated to a work that used the olfactory system to investigate the effects of volatiles from *M. vitrata* and caterpillar infested flowers of their host plant *Vigna unguiculata* on the foraging behaviour of the parasitoid *Apanteles taragamae*.

I have participated in the studies of the life cycle of *Denticera divisella*, insect pest attacking *Jatropha curcas*, and its parasitoids.

I got experiences in the implementation of integrated pest management options in cowpea agroecosystems, including biological control, use of bio pesticides, cultural practices and chemical control. I have mass-produced entomopathogens such as the entomopathogenic baculovirus MaviMNPV using *Maruca* larvae, and entomopathogenic fungi *Beauveria bassiana* and *Metarhizium anisopliae*. I have also tested biopesticides such as: Top Bio, Neem oil, *Jatropha curcas* oil on different larval instars of *Denticera divisella*, insect pest of *J. curcas*. I have also tested the effectiveness of *Jatropha* cake mixed in soil in controlling nematodes.

I am familiar with the extraction of nematodes using methods of differential centrifugation and that of Berman. I have extracted *Pratylenchus*, *Ditylenchus* and *Aphelenchoides besseyi* nematodes from infested soils, rice and tomato roots and leaves for their characterization.

In addition, I have worked on cowpea and one of its main pests, the flowers thrips *Megalurothrips sjostedti* Trybom for a full year in the framework of my Mphil thesis. I reared thrips, identified species and screened 48 cowpea accessions in greenhouses and fields to identify resistant lines for the improvement of cowpea yield.

Business: Agriculture research

From 14th August 2011 to 30th December 2011 Academic internship as an extension officer at the Benin Pineapple Producers' Network (RéPAB).

RéPAB, Allada, street Gbowèlè. BP : 342 Allada. T : (+229) 97125076. E-mail : Repab1@yahoo.fr

Activities done: Follow-up, support and advice to pineapple producers in the district of Allada. Training of producers on the use of plastic films in pineapple cultivation to manage weeds, soil moisture, soil borne diseases and good yield as well.

Business: Famers based organization in the field of Agriculture

From 04th August 2010 to 04th October 2010 Academic internship at the National Institute of Agricultural Research of BENIN (INRAB)

INRAB, Godomey, street IITA, 01 BP 884 Cotonou-Benin. T: 229 64 28 37 02. Fax : (229) 21 30 04 10. <https://inrab.org> ; E-mail : sp.inrab@inrab.org; rachidatous@yahoo.fr

Activities done: I have been taught to perform analysis related to mineral or inorganic checks as well as organic chemistry. Physico-chemical analysis was done on soil samples, plants, fertilizer, and water. I mastered Carbon extraction and quantification by the "ANNE" method described in the NF ISO 31 109 standard, Nitrogen extraction and quantification using the "Kjeldahl" method and Phosphorus extraction and quantification using "Bray 1" method, and Chromatography technics.

Business: Agricultural research

From 02nd July 2009 to 30th September 2009 Academic internship as an extension officer at the Municipal Centre for Agricultural Promotion (CeCPA-Ouidah),

CeCPA-Ouidah, street Gbènan BENIN. T: (+229) 21308685.

Activities done: I have trained the vegetable producers in chemical handling, crop rotation and the management of cabbage insect pests, especially the diamondback moth - *Plutella xylostella* (Linnaeus). Technical support to the farmer-based organizations in the district.

Business: National Agriculture Extension service

EDUCATION AND TRAINING

from 1st July 2017 to 31st July 2019

Master of philosophy in Entomology

University of GHANA, Legon

from 1st October 2011 to 19th June 2017

Master in Geography, Land planning

University of Abomey-Calavi, BENIN

from 1st October 2008 to 31st October 2011

Bachelor in Agronomy, Crop Production

African University of Technology and Management, BENIN

PERSONAL SKILLS

Mother tongue(s) French, Fongbe, Mahi

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Common European Framework of Reference for Languages (CEFR) awarded by the University of GHANA

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

[Common European Framework of Reference for Languages](#)

Communication skills

I have acquired very good communication skills (Active listening, Communication method, Friendliness, Confidence, Sharing feedback, Volume and clarity, Empathy and Respect).

- These good communication skills were gained through my experience as a Technical Manager at Blue skies Benin Factory and my position of the Chairman of the DAAD Alumni Association in Benin

Organisational / managerial skills

I have a very good organisational / managerial skills. I have acquired these skills during my work at the IITA, AfricaRice and at Blue skies BENIN. As a Technical Manager of the factory, I had an organizational training.

- I have a high leadership competence (I am currently the chairman of the DAAD alumni association of Benin, managing more than 205 members since April 2019, also my former position of Technical Manager at Blue skies BENIN Factory, has enabled me to acquire a very good Organisational /managerial skills)

Job-related skills

- Field evaluation of cowpea resistance to Flower bud thrips. Characterization and evaluation of genetic materials of Green Super Rice in Nigeria for their resistance to the BLAST, RYMV, and bacterial wilting. Filed trial installation based on different experimental designs, data collection and analysis, seeking for resistance genes to diseases and insect pests. Capacity building of extension officers on seeds treatment and distribution policies (Burkina Faso, Niger, and Togo through CAP-Bio Project_ Helvetas).
- Reports and proposal / projects, writing skills
- I have gained skills in the Bio-informatics and data analysis “New Generations of Sequencing”
- I have gained skills in the management of biological risks of microorganisms such as contamination, infection, confinement, precaution
- My position of Chairman of the DAAD Alumni association in Benin, allowed me to develop interpersonal and writing skills and to establish several useful relationships.
- I have an ability to innovate, to convince easily and to build lasting relationships, curiosity, creativity and result orientation.
- I have the ability to work under pressure with a minimum of supervision.
- I have a good command of project management and the written of technical and financial reports
- I have good command of quality control processes
- I got to experience in operating the Hazard Analysis and Critical Control Point (HACCP), Food Fraud and Food defence (VACCP and TACCP) systems.
- I got to experience in passing international audits, such as: BRCGS, FESS2000, SMETA, Global GAP and ICS.
- I have been trained and certified by the “Société Générale de Surveillance” (SGS) on Internal audit.
- I have been trained and certified in first aid and firefighting.
- I've been trained and certified on the cleaning technics of food factories, chemical handlings, hygiene monitoring technics, and risk assessments procedures by HOLCHEM.
- I have attended the international training Course in organic farming, from July 15th – August 4th, 2018. Training held at Makerere University Kampala (MUK) in Uganda, in collaboration with the University of Nairobi (UoN) in Kenya, Sokoine University of Agriculture (SUA) in Tanzania, Uganda Martyrs University (UMU), and the University of Rwanda (UoR).

Digital skills

Information processing	Communication	SELF-ASSESSMENT		
		Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- I hold an advance certificate of achievement in the advance use of computer and related core computer software (CEFIB Formation)
- I have been trained for one year on the use of the computer and got certificate (CEFIB Formation). I have also used laptops in work places and during my studies at the universities.
- I have acquired good command of office suite (word processor, spread sheet, presentation software)
- I have a good command of cartography software (ArcGIS, QGIS, Arc View), map-source and the use of GPS devise gained as a geographer.
- I have a good command of data analysis software such as: GenStat, Excel, SAS 9.2 and R. knowledge gained during thesis data analysis and work as senior research technician in applied agricultural research at the international Institutions (AfricaRice and IITA)

PUBLICATIONS

Oludare A, **Tossou TH**, Kini K, Silue D. (2016) Diversity of *Rice yellow mottle virus* in Benin and Togo and Screening for Resistant Accessions. *Journal of Phytopathology* 164:11-12.

Aigbedion-Atalor PO, Idemudia I, Adom M, Forchibe EE, **Tossou H**, Wilson DD, et al. (2021) Marching across and beyond West Africa: First record of the stem-galling fly *Cecidochares connexa* (Diptera: Tephritidae) in Central Africa and the implications for biological control of *Chromolaena odorata* (Asteraceae). *PLoS ONE* 16(6): e0252770. <https://doi.org/10.1371/journal.pone.0252770>

Symphorien Agbahoungba, Benjamin Datinon, Maxwell Billah, **Hospice Tamegnon Tossou**, Eric Etchikinto Agoyi, Akovognon Dieudonne Kpoviessi, Achille Ephrem Assogbadjo, Brice Sinsin. (2021) Flower bud thrips (*Megalurothrips sjostedti* Trybom) population diversity and sources of resistance among Benin cowpea germplasm. *Journal of Applied Biology*. <https://doi.org/10.1111/aab.12713>

PRESENTATIONS

I was selected and gave a physical presentation during the workshop organized by the Right Livelihood College (RLC) in Bonn in 2022 in Germany from September 24th to 29th, 2022, with the financial support of the DAAD. The workshop topic was "Contextualizing smallholders' livelihoods for food security and sustainable agriculture: bio-diverse agro-ecosystems, market changes, and land tenure". I have presented on the "Use of the endophytic fungus (*Beauveria bassiana*) as a biological weapon to control Fall Army Worm (*Spodoptera frugiperda*) attacking maize in Benin, West Africa"

Agboton C, Tossou TH. (2018). Relationship between Soils' Health and Plant responses to Insects and Diseases' attacks. Paper presented at DAAD workshop "Capacity building on vegetable farming" Cotonou, 12-15 December 2018, Benin Atlantic Beach Hotel, Benin.

Agboton C, Tossou TH. (2019). General Phytosanitary Inspection Procedures in West African countries. Paper presented at DAAD workshop "Enhancing plant protection and quarantine services using bioinformatics and data analysis tools in West Africa". 7-11 May 2019, Méditerranéen Hotel, Cotonou, Benin.

Small projects

On the framework of the DAAD association activities, I have written and obtained funding for several projects in the field of agriculture, entrepreneurship and project management. Projects with a national and regional character, such as:

- "Food loss and waste reduction to achieving food security" project funded by the German Ministry of Foreign Affairs in 2021.
- "Capacity building on Project Management tools" project funded by the German Ministry of Foreign Affairs in 2021.
- "Survey Methods and the use of data collection and analysis tools: Kobo collect and software R" project funded by the Federal Ministry for Economic Cooperation and Development (BMZ) in 2021.
- "Open GIS Technology for the Development of Agriculture and Natural Resources Management in Africa" project funded by BMZ in 2021.
- "Enhancing plant protection and quarantine services using bioinformatics and data analysis tools in West Africa". Project funded by BMZ in 2019.'
- "Entrepreneurship and project management" project funded by BMZ and supported by the German Embassy in Benin in 2019.
- "Capacity building on the sustainable vegetable farming in West Africa" project funded by the German Foreign Office in 2018.
- "Youth employability for successful professional integration" project currently submitted and under consideration by the German Foreign Office for the year 2021

Awards and Grants

- Fiat Panis foundation, a German foundation financed my PhD research field work.
- The Deutscher Akademischer Austauschdienst (**DAAD**) granted me a full scholarship in 2022 in Development-Related Postgraduate Courses (EPOS) for my PhD programme at the Center for Development Research (ZEF), University of Bonn, Germany.
- Blue Skies Awards: I've been nominated in the innovation category for the 2020 Blueprint Awards for having implement and validate an ozone sanitization system at **Blue Skies Benin**.
- I won the competitive awards of **Carnegie cooperation of U.S.** through **RUFORUM** to support student's research in 2018 for 6months research grants.
- The **DAAD** granted me a full scholarship in 2017 in the African Regional Postgraduate Programme in Insect Science (ARPPIS) Programme for a Master of Philosophy Degree at the University of Ghana.

 Bonn, April 19th, 2023