

Position

Postdoctorant

Home institution

DOCTORAL SCHOOL OF AGRICULTURAL SCIENCES AND WATER

Background

For my Bsc thesis, I have conducted research on diagnosis of the functioning of the Direction of National Park W (DPNW), the use and management of aromatic plants, spices and dyes used by the local population for its improvement. These research activities have helped me to develop abilities on the sampling methods, data collection and data analysis for ethnobiological studies. My Master thesis which focused to the Development of best agro-ecological practices for African baobab tree *Adansonia digitata* L. leaves production in smallholders farming systems in Benin enabled me to determine the urgent need to find suitable strategies to promote wild oil plants for the improvement of food and nutritional security in Benin. Currently, I am PhD student and working on wild oil plants in Benin. My research is focused on ethnobotany, conservation and domestication of indigenous species, forest inventory for studying their diversity, distribution, structure and ecology.

Research project

Non-timber forest products among which are dietary oil plants are important assets used by local people since immemorial time because of their multiple benefits: source of essential nutrients in human and animal diets, contribution to achieving food safety, capacity to enhance ecosystem resilience by fighting soil degradation while offering sinks for carbon sequestration. However, they remained poorly valorized in Benin. This research project aims at highlighting the most important wild oil plants that can really contribute to achieving food and nutrition security in Benin. Specifically, the study aims to identify the priority WOPs for valorization, characterize the population structure and threats to *B. aegyptiaca* and *R. heudelotii*: two priorities WOPs for valorization, assess the endogenous knowledge, estimate their fruit and seed productivity, map suitable areas for the conservation and domestication under future climate scenarios, and Evaluate the techniques for dormancy breaking of their seeds for domestication program. Quantitative ethnobotany indices, prioritization methods, geographical information systems, linear and generalized linear mixed effects and prediction models will be used for data analyses. At the end of this study, production and commercialization chain of vegetable oils will be revealed. Consequently, the households will be emancipated with the biodiversity preserved.

Awards and distinctions

- Summer school scholarship award from the African Network for Natural Resources, the University of Abomey Calavi (Benin) and the Leibniz Universität - Hannover (Germany) with financial support from the Volkswagen Foundation (Germany), to attend the Sustainable Natural Resource Management Summer School, Session I at the Makerere University, Uganda.
- IDEA-WILD – Equipment donation; Distribution, diversity, population structure, and ethnobotany of priority wild oil plants in Benin.
- International Foundation for Science – Distribution, diversity, population structure and ethnobotany of priority wild oil plants in Benin.
- Summer school scholarship award from the African Network for Natural Resources, the Leibniz Universität - Hannover (Germany) with financial support from the Volkswagen Foundation (Germany), to attend the Sustainable Natural Resource Management Summer School, Session II at the University of Abomey-Calavi, Benin, from 27 July-10 August 2019.
- Award for best presentation, 3rd Edition International Workshop of Global Research Challenges in Science and Engineering, University of Abomey-Calavi (UAC), Benin Team « Innovation in water, soil or environment technologies applied to African challenges for the next 10-20 years ».

Profiles and Curriculum (ResearchGate page, Google scholar, LinkedIn, etc.)

- <https://scholar.google.fr/citations?user=1DcDyOMAAAAJ&hl=fr> ;
- <https://www.linkedin.com/in/guillaume-hounsou-dindin-5206967b/> ;
- Twitter: @hddguillaume

Total number of publications (Articles, communications, technical documents)

Technical documents: 03

Publications

1. Hounsou-Dindin G., Salako V.K., Idohou R., Sero Nadejda, Gbedomon Castro, Chadare F.J., Glèlè Kakai R., Assogbadjo A.E., 2018. Fiche technique pour la culture de feuilles fraîches du baobab (*Adansonia digitata* L.). Laboratoire de Biomathématiques et d'Estimations Forestières (LABEF), Université d'Abomey-Calavi (UAC), Série Agroforestière N° : AGF/001/2018, Abomey-Calavi, Bénin.
2. Hounsou-Dindin, G., Assogbadjo, A.E., Idohou, R., Salako. V.K. & Glèlè Kakai, R. 2017. Developing best agro-ecological practices for African baobab tree *Adansonia digitata* L. leaves production in smallholders farming systems in Benin. UNIVERSITY OF ABOMEY-CALAVI. RUFORUM Books, RUFORUM OER, RUFORUM SCARDA, RUFORUM Tenders :
[https://repository.ruforum.org/sites/default/files/RU%202015%20GRG-135_Msc%20Thesis_HOUNSOU-DINDIN%20Guillaume%20\(Management%20of%20Natural%20Resources\).pdf](https://repository.ruforum.org/sites/default/files/RU%202015%20GRG-135_Msc%20Thesis_HOUNSOU-DINDIN%20Guillaume%20(Management%20of%20Natural%20Resources).pdf) .

3. Hounsou-Dindin, G., Assogbadjo, A.E., Idohou, R., Salako, V.K. & Glèlè Kakaï, R. 2016. Morphological variation of baobab fruits and seeds traits in smallholders farming systems in Benin: a preliminary study on baobab leaves production. RUFORUM Working Document Series (ISSN 1607-9345) No. 14 (2) : Available from <http://repository.ruforum.org>.