<table>
<thead>
<tr>
<th>Title:</th>
<th>Promoting Environmentally friendly Practices for Sustainable Baobab Leaves Production for Food and Nutritional Security in Smallholders Farming Systems in Benin</th>
</tr>
</thead>
</table>
| PI: | Assogbadjo Achille Ephrem  
Associate Professor, Department of natural resources management,  
Faculty of Agronomic Sciences, University of Abomey-Calavi, Republic of Benin (West Africa)  
05 P.O. Box 1752, Cotonou, Republic of Benin  
Tel: + 229 95 05 59 75  
Fax: + 229 21 30 30 84  
E-mail: assogbadjo@yahoo.fr  
E-mail: achille.assogbadjo@fsa.uac.bj |
| Co-Researchers: | Glèlè Kakaï Romain  
04 BP 1525, Cotonou, Republic of Benin  
Tel.: +229 95840800  
Fax : +229 21303084  
E-mail : gleleromain@yahoo.fr  
Salako Kolawolé Valère,  
03 BP 1974 Cotonou (Benin);  
Phone: (+229) 95346579,  
Email: salakovalere@gmail.com |
| Purpose | To set a cost-effective, environmentally-friendly and sustainable method of baobab leaf production for food and nutritional security in smallholders farming systems in the Republic of Benin |
| Project Summary | Baobab is a highly valued Non-Timber Forest Products-provider tree species in Africa. Among these products, baobab leaves are widely consumed as legume in rural households and stand as a key source of both micronutrients and macronutrients. However, the leaves are often totally harvested from trees in wild and trend shows that wild populations will hardly satisfy the increasing demand. There is then a need to integrate baobab leaves production into farming systems. This project seeks to develop cost-effective, environmentally-friendly and sustainable methods of baobab leaf production for food and nutritional security in smallholders farming systems in three contrasting climatic zones in the Benin republic. Our methodology is three-folds: on-station, on-field researcher managed and on-field farmer managed research experiments. Different doses of two organic manures (compost versus animal-organic manure) will be used under different frequencies of total baobab leaves harvest in an on-station experiment to record leaves biomass and growth parameters. Promising options will then be tested in on-farm experiments. The study will be conducted by 2 MSc students registered with the University of Abomey-Calavi and outputs disseminated.  
**Keywords**: food and nutritional security; leaves production, baobab, safe environment, University of Abomey-Calavi |
| Country and Specific Location(s) | Republic of Benin: Kandi, Boukoubémé, Porga, Dassa-Zoumè, Bassila, Sekou, Comè, Sehouè |
| Participating Institutions | Laboratory of Applied Ecology (LEA)  
|                          | Laboratory of Biomathematics and Forest Estimations (LABEF) |
| Start Date               | 1st July 2015 |
| End Date                 | 30th July, 2017 |
| Budget                   | USD 59,787 |
Assogbadjo Achille Ephrem (PhD)

School of Environment Planning and management,
Faculty of Agronomic Sciences,
University of Abomey-Calavi,
Republic of Benin (West Africa)
05 P.O. Box 1752, Cotonou, Republic of Benin
Tel: + 229 95 05 59 75
Fax: + 229 21 30 30 84
E-mail: assogbadjo@yahoo.fr , achille.assogbadjo@fsa.uac.bj

Achille Ephrem Assogbadjo is an Agronomist and forester with a special interest, in Agriculture and biodiversity, wild edible plants and crop wild relative species. He is an Associate Professor and researcher at the Faculty of Agronomic Sciences, University of Abomey-Calavi, Republic of Benin. Doctor in Applied Biological Sciences, he teaches conservation genetic, forest ecology, ethnobotany and domestication of forest genetic resources used by indigenous people. He is member of (i) IUCN World Commission on Protected Area (WCPA), (ii) medicinal and edible forest plants network of the South Saharan African Forest Genetic Program (SAFORGEN), (iii) Society of Economic Botany, (iv) Society of Ecological Restoration International, (v) Biodiversity and Biotechnology Network (InWEnt), as well as of (vi) IUCN Species Survival Commission (SSC) specialist group on wild crop relatives for which he is the regional leader for Sub Saharan Africa Region.

Dr. Assogbadjo has so far received 21 research grants including the Third World Academy of Sciences research grants (2013), International Tropical Timber Organisation research grants (2012), International Foundation for Sciences (2004; 2007 and 2011); Cleveland Metroparks Zoo and Cleveland Zoological Society conservation grants program (2011); Rufford Small Grant (RSG) for Nature Conservation (2006; 2010); National Geographic Society Grant for Research and Exploration (2009); People’s Trust For Endangered Species Grant (2009).

He has also been granted three international prizes: (i) “Ebi Kimanani Memorial Fellowship Award” in 2008 (Peru) for the best research in ethnobiology; (ii) “Heinz and Johannes Prize for the best scientific research paper in ecological measurement in Africa” in 2009 (Germany) and (iii) the Prize of the Belgian Development Cooperation in 2010 for the best PhD thesis in the field of Biodiversity and environment for improved livelihoods.

Other major achievements for which he is/was involved are Conservation and management of more than 10 forest genetic resources in Benin (e.g: *Adansonia digitata*; *Afzelia africana*; *Caesalpinia bonduc*; *Tamarindus indica*; etc..); and Ecological restoration of more than 5 degraded areas (e.g. Lama forest reserve and Swampy forest of Lokoli in Southern Benin; dry dense forest of Bassila and Wari Maro in Northern Benin).

Dr. Assogbadjo’s scientific research since 2000 up to now has yielded more than 100 scientific publications in peer-reviewed international journals, books, contribution of books and proceedings of scientific conferences. He has also attended more than 50 international conferences and 20 training workshops during which he has presented the outputs of his research as oral communications and/or posters. Dr. Assogbadjo is a native French speaker with good command of English, with a competence in the use of various software including among others: ArcView, Distance, Microsoft Office, SAS, and Minitab.

The numerous achievements enumerated above facilitated his nomination in 2013 as Young Affiliate of the World Academy of Sciences. In 2014, Dr. Assogbadjo was awarded the honorary title “The name in Science” by decision of the Socrates Committee (Oxford, United Kingdom) recorded in the World Register of outstanding scientists of the 21st century.
Selected publications


**Selected funded projects**

2010-2015: **European Union.** Understanding and combating desertification to mitigate its impact on ecosystem services. FP7-ENV-2009-1. Scientists

2013-2015: **CORAF/WECARD.** Amélioration de la résilience aux changements climatiques des écosystèmes agricoles le long des bassins-versants par le développement participatif de systèmes agroforestiers anti-érosifs et fertilisants dans six pays ouest africains, 2013. Coordinator for Benin

2012-2015: **African Union.** Projet de mise au point de technologies de production et d’utilisation durables de biocarburant de *Jatropha curcas* pour une réduction de la pauvreté rurale en Afrique de l’Ouest. Scientist


2013: **Third World Academy of Sciences research grants (Italy)**

2012: **International Tropical Timber Organisation (ITTO) fellowship (Japan)**

2013: **Third World Academy of Sciences research grants (Italy)**

2012: **International Tropical Timber Organisation (ITTO) fellowship (Japan)**

2012: **International Foundation for Sciences (IFS) Third Grants (Sweden)**

2011: **Cleveland Metroparks Zoo and Cleveland Zoological Society conservation grants program**

2010: **Rufford Small Grant (RSG) for Nature Conservation (Renew)**

2009: **National Geographic Society Grant for Research and Exploration (USA)**

2009: **People’s Trust For Endangered Species Grant (UK)**

2007: **Idea Wild Grants for materials supplying (USA)**

2007: **King Leopold III Fund for Nature Conservation and Exploration**

2007: **The Dennis Stanfield Memorial Fund / Linnean Society of London (UK)**

2006: **International Foundation for Sciences (IFS) Renew Grants (Sweden)**

2006: **Rufford Small Grant (RSG) for Nature Conservation**

2006: **British Ecological Society / Overseas Bursaries and Fellowship (UK)**

2006: **Vavilov-Frankel Fellowship (VFF) / Bioversity International & Hi-Bred International Inc.**