



BID Africa 1 – Small Grant Template Final narrative report

Remember that all project activities <u>should be completed</u> within the implementation period of your project. The evaluation period must focus on final reporting and evaluation of your project.

Instructions

- Fill the template below with relevant information. If no result has been achieved on a
 specific point, please indicate the reason of the delay and expected date of
 completion. Use the information included in your project Full proposal (reproduced
 in annex III.a. of your BID contract) as a baseline from which to complete this
 template
- The information provided below must correspond to the financial information that appears in the financial report
- Sources of verification are for example links to relevant digital documents, news/newsletters, brochures, copies of agreements with data holding institutions, workshop related documents, pictures, etc. Please provide access to all mentioned sources of verification by either providing the link or sending a copy of the documents.
- This report must <u>first</u> be sent as a **Word document** to <u>BID@GBIF.org</u> and be preapproved by GBIFS
- Once this report is pre-approved in writing by GBIFS, it must be signed by the BID project coordinator and sent by post to:

The Global Biodiversity Information Facility Secretariat (GBIFS)

Universitetsparken 15

DK-2100 Copenhagen Ø

Denmark

Template

1. Table of Contents

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2. Project Information

2.1. Principal investigator and grant coordinator: Institution/network/agency name:

Laboratory of Forest Sciences/Faculty of Agricultural Sciences/University of Abomey-Calavi

2.2. Principal investigator name and role:

GANGNIBO Nounagnon Charles, Professor of Forestry

2.3. BID proposal identifier:

BID-AF2015-0044-SMA

2.4. Project title:

Gathering of biodiversity data on bird species for their sustainable management in Benin

2.5. Start date and end date of the reporting period:

From 06/06/16 to 05/05/17

2.6. Country(ies) in which the activities take place:

Benin

3. Overview of results

3.1. Executive summary

Give a short summary of the activities implemented and the outcomes of the project for the whole implementation period (no more than 500 words maximum).

The project aims at contributing to the conservation of bird species in Benin through the enhancement of data availability on these species. In the framework of the project, many activities were implemented from June 2016 to May 2017. Among these activities are: the organization of workshop on data digitizing, cleaning and publishing of biodiversity data; the training on ecological niches modelling; the digitizing, cleaning and publishing occurrences of bird species found in Benin; the ecological niches modelling of two threatened bird species. During the implementing of the project activities, there was a good collaboration with other projects: BID individual projects, BID regional and national projects, National Biodiversity Information System project. The project team members and partners attended some workshops organized by other BID projects. At the end of the project implementing period, the following outcomes can be listed:

(i) the project partners were made sensitive on the importance of bird species (ii) the capacity of the project partners was built on data mobilisation (iii) the capacity of the project partners was built on ecological niche modelling (iv) 5,179 bird occurrences were digitized, cleaned and published on GBIF-Benin portal (v) a checklist of 476 bird species found in Benin is elaborated and published on GBIF-Benin portal (vi) the ecological niche modelling of two threatened bird species (*Lophaetus occipitalis* and *Glaucidium perlatum*) is done (vii) some important areas for bird species conservation in Benin were identified (viii) bird species conservation strategies were suggested for decision-making. It is important to notice that as a proof of collaboration between projects, about 9,000 occurrences were digitized and published by the BID-AF2015-0044-SMA team members in the framework of the implementation of BID regional and national projects in Benin.







3.2. Progress against expected milestones:

Expected milestones/activities	Completed ? Yes/No	Explanatory notes	Sources of verification
Completed capacity self-assessment questionnaire for data holding institutions (http://www.gbif.org/resource/82785)	Yes	We have filled in the capacity self-assessment questionnair e and sent it to GBIF via the email address Bid@gbif.or g	Sent to BID@GBIF.org
The instituton that will publish your data is registered with GBIF.org For registered data publishers see: http://www.gbif.org/publisher/searc h	Yes	Datasets are always submitted to the Node Manager of GBIF Benin for publishing	Université, d'Abomey-Calavi, Faculté des Sciences Agronomiques http://www.gbif.org/publisher/2afeb273-cbbc-4fcf-a10f-7baf271b62c5
The data users identified in the full proposal have documented their intended use of the mobilized data and provided early feedback	Yes	The use of mobilized data has been expressed by the users during workshops: workshop on data mobilization and Ecological niche modeling training	Workshops reports: during these workshops mentionned in the column of 'Explanatory notes', somes users affirm that they will use mobilised data for ecological niches modeling of threatened or important species (medecinal, food, etc. species). Reports attached
All mobilized data has been published to GBIF.org	Yes	All mobilized data in the framework of this project are available on GBIF portal	GBIF website







All published data meet the minimum requirements outlined in the Data Quality Requirements available at http://bid.gbif.org/en/community/data-quality/	Yes	All data published pass two steps of data cleaning before publishing: the first one before submission and the second one before publication	Published datasets http://www.gbif.org/dataset/025769ee-df28- 40de-bead-69fe1259bbad http://www.gbif.org/dataset/3b20a82 7-4afe-428f-b84b-ac8c629c523d http://www.gbif.org/dataset/2dca5fb d-1989-4634-b745-269ff1098ebf http://www.gbif.org/dataset/be6a090 1-0116-4629-9211-c89710b993bb
The training outcomes of the project have been documented, including the number of people receiving certification through the BID Capacity Enhancement workshops, the number of people trained in nationally organized events, and the evaluation of the impacts of these training activities	Yes	Reports of training are available. Impacts of training are noticed trough the quality of datasets submitted and the use of datasets in research area. 32 and 16 attended respectively the workshop on data mobilization and the training on ecological niches modeling. Through the training in the framework of BID projects, the capacities of the participants have been	Reports, datasets quality: the number of people who attended the mentionned workshop/training is available in the reports attached. Some of them have published biodiersity data on GBIF website (e.g KINGBO Armand, LOKOSSOU Romaric) and other research studies involving ecological niches modeling (e.g Wabi Faroukou, AIKPON Gorgias, HOUNSA Michael, GOHOUNGBE Rodrigue).







		strenghtene d so they can publish biodiversity data and do the modeling of ecological niches.	
Final capacity self-assessments have been completed with sustainability plans	Yes	Final capacity self-assessment s is completed	Sent to BID@GBIF.org
All uses of the mobilized data have been documented	Yes	Ecological niches modelling of some bird species (Lophaetus occipitalis and Glaucidium perlatum have been done. The results were presented during a workshop. Actually, papers writing is in progress on Lophaetus occipitalis and Glaucidium perlatum.	Reports attached
Best practices and lessons learned have been documented	Yes	Through trainings participants develop capacities dans learn lessons. After the training they	Reports of training attached







are able to do tasks as data digitizing and cleaning; runing of Maxent software,
Especially for ecological niches modeling, there was a traing follow up that allows participants to express their didfficulties
and needs about ecological niches modeling.





3.3. Project deliverables and activities

Refer to the table in section 2.2 "Deliverables, activities and reporting criteria" of your BID full proposal. Provide updates on the status of each of planned deliverables. We remind you that all deliverables should be completed at the time of drafting this report (end of implementation period). In the event of unexpected delay, please provide detailed explanatory notes and indicate planned completion date. Add as many rows as needed.

Deliverable	Related activity	Complete d ? Yes/No	Explanatory notes	Sources of verification
Synthesis of information on conservation project on threatened bird species involving the use of biodiversity data	Review of literature on conservation project worldwide.	Yes	Presentation of the importance of bird species and necessity of their conservation during a workshop and the elaboration of a checklist	Report (attached) Presentation (attached) Checklist (http://www.gbif.org/dataset/be6a09 01-0116-4629-9211-c89710b993bb)
Raise of the awareness on the importance of biodiversity data for data holders and policy makers	Meeting / training session	Yes	The raise of the awareness on the importance of biodiversity data for data holders and policy makers was done during workshops/trainin g	Report (attached)
Enhance capacity for data mobilization	Meeting/trainin g session	Yes	This activity was done in collaboration with National and Regional BID projects	Report (attached)
Checklist of bird species found in Benin	Review of published works on birds species	Yes	A checklist of 476 bird species is published on GBIF website	Checklist available on GBIF website (http://www.gbif.org/dataset/be6a09 01-0116-4629-9211-c89710b993bb)
Publishing of at least 3,000 georeference d occurrences data on bird	Occurrences digitizing and publishing	Yes	A total of 3,000 occurrences was foreseen. At the mid-term evaluation, this number is	Datasets of 5,179 bird occurrences available on GBIF website via the following links (http://www.gbif.org/dataset/025769 ee-df28-40de-bead-69fe1259bbad; http://www.gbif.org/dataset/3b20a82 7-4afe-428f-b84b-ac8c629c523d;







species found in Benin			revalued to 5,000 occurrences	http://www.gbif.org/dataset/2dca5fbd -1989-4634-b745-269ff1098ebf)
Training session on the use of biodiversity data to drive key policies	Meeting/trainin g session	Yes	A training on ecological niche modelling was hold	Report attached
Achieve the current and potential ecological niche of two threatened bird species in the context of global change	Definition of strategies for birds conservation in Benin	Yes	Ecological niche modelling of Lophaetus occipitalis and Glaucidium perlatum is done and of strategies of conservation have been defined	Distribution maps Strategies of conservation

3.4. Datasets published on GBIF.org

If the dataset is not yet published, please indicate detailed explanation about causes of delays". Add as many rows as needed.

Dataset title	Publishing institution	DOI or URL/Planned hosting institution	Date/expecte d date of publication	Explanatory notes
Annotate d list of observed birds in W and Pendjari Reserves in Benin, february 2010	Laboratory of Forest Sciences/Facult y of Agricultural Sciences	http://www.gbif.org/dataset/025769ee -df28-40de-bead-69fe1259bbad	11/15/2016	It is a list of 920 georeference d occurrences of birds observed around ponds, waterfalls, rivers and other areas inside W and Pendjari Reserves in Benin from 3 to 17 february 2010
Aves of wetlands and	Laboratory of Forest Sciences/Facult	http://www.gbif.org/dataset/3b20a827 -4afe-428f-b84b-ac8c629c523d	06/23/2017	It is a dataset of 2,500 georeference







protected forests in Benin	y of Agricultural Sciences			d occurrences of birds observed in wetlands and protected forests of Benin from 1990 to 2011
Census of birds species of Benin from the inventory data in National Parc of Pendjari	Laboratory of Forest Sciences/Facult y of Agricultural Sciences	http://www.gbif.org/dataset/2dca5fbd- 1989-4634-b745-269ff1098ebf	08/01/2017	It is a dataset of 1,759 georeference d occurrences observed in 2004 in the National Park of Benin
Checklist of bird species found in Benin	Laboratory of Forest Sciences/Facult y of Agricultural Sciences	http://www.gbif.org/dataset/be6a0901 -0116-4629-9211-c89710b993bb	07/26/2017	It is a list of 476 bird species found in Benin. This preliminary checklist will be improved base on litterature and new data in future





3.5. Examples of use of biodiversity data available through GBIF

Use the table to document use or planned use of data available through GBIF as part of your project. You may want to refer to the section 2.5 'Plan to support the integration of biodiversity information into policy and decision-making processes' of your BID full proposal. Please provide the DOI for datasets published on GBIF or data downloaded from GBIF in the "Dataset" column. Briefly describe how the data have been used or are planned to be used in the "Data use" column (ca. 50 words). Provide the date or approximate time frame in months for the use or planned use in the "Date/time frame" column. Please provide links to any documents or webpages documenting the use in the "Sources of verification" column. Add as many rows as needed.

Dataset	Data user	Data use	Date/time frame	Sources of verification	Notes
Occurrences of Lophaetus occipitalis	Project team/Laboratory of Forest Sciences	Ecological niche modelling of Lophaetus occipitalis	May, 2017	Distribution map of Lophaetus occipitalis	The distribution map is available in the manuscript of Lophaetus occipitalis
Occurrences of Glaucidum perlatum	Project team/Laboratory of Forest Sciences	Ecological niche modelling of Glaucidum perlatum	June, 2017	Distribution map of Glaucidum perlatum	The distribution map is available in the manuscript of Glaucidum perlatum
Occurrences of Lophaetus occipitalis and Glaucidum perlatum	Project team/Laboratory of Forest Sciences	Scientific paper on the distribution of <i>Lophaetus</i> occipitalis and <i>Glaucidum</i> perlatum	October, 2017	Papers under finalization	The manuscripts attached

3.6. Events organized as part of the project

List all the events that have been organized as part of your project. Please provide links to any documents or webpages documenting the use in the "Sources of verification" column. Add as many rows as needed.

Full title	Organizing institution	Dates	Number of participants	Sources of verification
Meeting to inform colleagues of the High School of Agricultural Science of Sékou about the project	LSF/FSA	08/31/2016	54	Pictures attached







Capacity Enhancement workshop on the mobilization of biodiversity data	LSF/FSA	12-13 october 2016	40	Attached pictures, powerpoint, report
Training on ecological niche modelling	LSF/FSA	02-03 march, 2017	19	Attached report
Sharing of the project results with partners and decision-makers	LSF/FSA	06-08 June, 2017	42	Attached report





4. Implementation of BID project activities

Refer to section 2.2 "Deliverables, activities and reporting criteria" in your BID full proposal. Provide updates on each of the activities using the reporting criteria and other sources of verification as appropriate.

Sources of verification are for example links to relevant digital document, news, newsletter, brochures, copies of agreements with data holding institutions, workshop related documents, pictures, etc.

4.1. Goal 1: Increase available biodiversity data, within and beyond the grant period *Activity 1 name:*

Review of literature on conservation project worldwide

Description of any implementation during the reporting period

The review of literature was done. Evidences of GBIF data in the conservation planning, and in management of birds and their areas are being summarized. This activity is useful to better understand the importance of birds, the state of their conservation in Benin, to analyze two threatened bird species and to elaborate a checklist of birds found in Benin.

Sources of verification

Manuscripts on *Lophaetus occipitalis* and *Glaucidium perlatum* distribution, checklist of birds found in Benin (http://www.gbif.org/dataset/be6a0901-0116-4629-9211-c89710b993bb).

Activity 2 name:

Meeting/training session on Biodiversity data mobilization

Description of any implementation during the reporting period

In the framework of the implementation of BID Regional and National Projects implemented by the Faculty of Agricultural Sciences, a workshop was hold on the biodiversity data mobilization. We participated to this workshop and gave an presentation with details about the project. We also shared the knowledge gained through BID online and onsite workshop on data mobilizattion. Although this activity is not organized in the framework of our project, it was an opportunity to present the project to the partners who also attended the workshop. Therefore we decided to not hold another meeting of information because all of our target partners attended this workshop. The planned resources have been reallocated to increase the quantity of published data.

It is also important to notice that before this workshop we have organized a short meeting with colleagues of the High School of Agricultural Sciences of Sékou, to inform them about our project and to make them sensitive to biodiversity data mobilization. This activity was not planned in our full proposal but has been implemented because of three reasons:

- 1- The teaching fields of most of the professors in the school are related to natural ressources management.
- 2- The location of the school is very far from the center of Abomey-Calavi. So, inviting them to an activity at Abomey-Calavi will require additionnal financial support to cover travelling that is not planned in the project.
- 3- This activity has no financial incidence on the project budget because room and required equipement have been provided by the school.

This short meeting has been hold to inform the colleagues about the project and to make them sensitive to biodiversity data mobilization.







Sources of verification

Pictures (attached)

Report of the workshop on biodiversity data mobilization (attached)

Activity 3 name:

Training session on data digitization, cleaning and publishing

Description of any implementation during the reporting period

This activity was achieved during the workshop organized by GBIF Benin (from 26 to 28 April 2016) and also the one organized in the framework of Regional and National BID projects implementation (from 12 to 13 october 2016).

Sources of verification

Report of the workshop on biodiversity data mobilization (attached)

Activity 4 name:

Occurrences digitizing and publishing.

Description of any implementation during the reporting period

Three datasets have been digitized and published on GBIF portal.

Sources of verification

http://www.gbif.org/dataset/025769ee-df28-40de-bead-69fe1259bbad

http://www.gbif.org/dataset/3b20a827-4afe-428f-b84b-ac8c629c523d http://www.gbif.org/dataset/2dca5fbd-1989-4634-b745-269ff1098ebf

4.2. Goal 2: Apply biodiversity data in response to conservation priorities Activity 1 name:

Training session on ecological niches modeling

Description of any implementation during the reporting period

The initiation to the use of GIS and ecological niche modeling tools for species conservation was done for students, scientists, data holders and policy makers working in the field of animal conservation.

Sources of verification

Report of the training on Ecological niches modelling (attached)

Activity 2 name:

Training session on the use of biodiversity data to drive key policies







Description of any implementation during the reporting period

After the training on ecological niche modeling, the distribution of two threatened bird species was done. During the workshop organized by the Laboratory of Forest Sciences in the framework of the implementation of National Biodiversity Information System funded by JRS, results achieved by the project BID-AF2015-0044-SMA were shared and discussed. Through the results of the ecological niche modelling of *Lophaetus occipitalis*, conservation measures have been suggested. Decision-makers have been invited to use the results of species ecological niche modelling to improve the bird conservation measures in Benin.

Sources of verification

Report attached

Activity 3 name:

Definition of strategies for birds' conservation in Benin

Description of any implementation during the reporting period

From the synthesis of the literature review and the results of the project, some strategies for bird's conservation in Benin have been defined. These strategies have been shared with some decision-makers and scientists.

Sources of verification

List of strategies; report.

Activity 4 name:

Identification of important bird's areas in Benin

Description of any implementation during the reporting period

Important bird's conservation areas in Benin were identified by the team projet based on the litterature review, field observations and the results of ecological niche modeling of two threatened species..

Sources of verification

List of important bird's areas, manuscripts.

[Add as many activities as given in your full proposal under "Deliverables, activities and reporting criteria" for goal 2]







5. Updated calendar for the BID project implementation and evaluation period

The calendar should be completed in the same way as in the Full Project Proposal, but should include any expected changes. Provide reasons for any expected changes in section 5.1 'Explanatory Notes'.

Implementation period (maximum 12 months, starting 1 June 2016 at the earliest)																										
Implementation period start date and end date (06/06/16 to 05/05/17)																										
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	3 14	15	16	17	18	19	20	21	2	2 23	3 2	24	Notes
Review of literature on conservation project worldwide		X	Х	Х	Х	Х	х	X	Х	X	X	X														The literature review was continued longer than projected in order to achieve the identification of important bird areas
Meeting / training sessions			Χ		Х	Х			Х	X	Х															
Review of published works on birds species		Х	Χ	Х	Х	Х	Х	Х																		
Occurrences digitizing and publishing				Х	х	х	Х	Х	Х	X	Х	X	Х	X												The publishing was continued until July 2017 due to some difficulties encountered by the Node Manager of GBIF Benin
Mid-term evaluation & reporting							Χ	Χ																		







Evaluation period (maximum 6 months, ending 31 De	cem	ber	201	7 at	the	late	est)
Evaluation period start date and end date (01/07/17 to 31/12/17)							
Activity	1	2	3	4	5	6	Notes
Identification of important birds areas in Benin	Х						
Identification and conservation measures of important birds Areas in Benin		Х	Х	Х			
Final financial and narrative reporting				Χ	Х	Χ	

5.1. Explanatory notes:

- -There is a small change in the calendar proposed in the full Project Proposal and reviewed at the mid-term evaluation.
- The activities planned in the framework of the project were realized. Some of them were implemented with the collaboration or the support of other projects of the Faculty of Agricultural Sciences (e.g. BID regional and national projects, NBIS/JRS).
- The number of bird occurrences planned in the full proposal to be published was 3,000. At the mid-term evaluation, this number was increased to 5,000. At the end of the project, 5,179 occurrences were published. This performance id due to institution collaboration that allows relocating some planned resources to data publishing.







6. Sustainability plans

Explain the approach that will be taken to ensure the sustainability of the project's results after the end of your project (500 words maximum)

The proposed approach to ensure the sustainability of the results of the project BID-AF2015-0044-SMA is based on three main activities:

- Capacity building on biodiversity data mobilization and use to support decision making.

Short training (1 day to 2 days) will be organized for some students of the Faculty of Agricultural Sciences on data mobilization and ecological niche modeling.

- Mobilization of bird species data

Researchers, conservationists and advanced students of the faculty of agricultural sciences working on animals will be sensitized to publish their data on GBIF portal to ensure the continuity of data mobilization. Funds will be sought with the support of the GBIF Benin Node to support activities linked to the mobilization of these data.

- Update of the published data.

Access to recent, accurate and reliable distribution data is critical to address the problem of out-to-date of information. Therefore, it is very important to update data gathered through this project. The update of data on bird species will lean on the Laboratory of Forest Science of the Faculty of Agricultural Sciences and it partners such as NGO. New published researches on bird species will be reviewed to update published datasets and checklist.







7. Beneficiaries/affiliated entities and other cooperation

7.1. Relationship with project partners

Please describe the relationship between your project coordinating team/institution and your project partners, and with any other organisations involved in implementing your BID project.

As already mentioned at the mid-term narrative report, the relationship between the project team members and the project partners is excellent. There is a good communication between persons involved in the implementation of the project and the support of each one contributes to the project achieved results.

7.2. Links to other projects and actions

Where applicable, outline any links and synergies you have developed with other actions, e.g. GBIF nodes, other BID funded projects, etc. If your organization has received previous grants in view of strengthening the same target group, how far has your BID project been able to build upon/complement the previous project(s)?

The collaboration between the project BID-AF2015-0044-SMA and other BID projects in Benin is excellent. The BID-AF2015-0044-SMA team members have participated to the planning and the implementation of most of activities of regional and national projects. The BID-AF2015-0044-SMA partners have attended most of workshops organized by other BID projects in Benin on biodiversity data mobilization and use. The collaboration between the BID-AF2015-0044-SMA and other BID projects in Benin is a great support for the implementation of some activities of the project (Meeting on the importance of biodiversity data and the meeting on the training session on Data digitization, cleaning and publishing). The collaboration between BID-AF2015-0044-SMA and projects under implementation by the Faculty of Agricultural Sciences is also excellent. For example at a recent workshop organized by the project NBIS funded by JRS Foundation, the results of the project BID-AF2015-0044-SMA were shared and discussed.

Furthermore, as proof of good collaboration with other projects, the BID-AF2015-0044-SMA team members have already published about 9,000 occurrences.

(http://www.gbif.org/dataset/4aaa8072-3711-4668-8276-deef01ad29bc; http://www.gbif.org/dataset/c349aada-38d4-4602-99c1-5939680ad9cb; http://www.gbif.org/dataset/107c4e84-79a1-4e3f-b96b-77d87d723628; http://www.gbif.org/dataset/aef22888-444e-4cba-bfc5-f709ef15ccf4; http://www.gbif.org/dataset/2fa46259-69f3-4fe0-946a-b64f3e61d83b).

Other datasets are under finalization for submission and publishing.

8. Visibility

Please refer to the BID guidelines

8.1. Visibility of the BID project

How is the visibility of your BID project being ensured?

Short summary

The visibility of the project BID-AF2015-0044-SMA is ensured through some mains actions and activities.

- Workshop of planning of activities of BID projects coordinated by the Faculty of Agricultural Sciences: at this planning workshop, the project BID-AF2015-0044-SMA was briefly presented.







- Short meeting with professors of the High Scholl of Agricultural Science of Sékou: at this occasion the project BID-AF2015-0044-SMA was also briefly described.
- Workshops organized by other BID projects: it was opportunities for the BID-AF2015-0044-SMA team members to address specific aspects of the project.
- Activities of the project: training session, data publishing, presentations ... ensure the visibility of the project BID-AF2015-0044-SMA.
- Informal exchanges with some biodiversity users and holders as well as some decision-makers.

Sources of verification

Reports, pictures and published data.

8.2. Visibility of the EU contribution

How is the visibility of the EU contribution being ensured within your project implementation?

Short summary

During the implementation of the BID-AF2015-0044-SMA the visibility of the EU contribution is ensured. At the beginning and the end of any activity, presentation of BID-AF2015-0044-SMA, it is always being mentioned the financial support from the EU. Powerpoint presentations always show EU flag and finish with acknowlegement words addresed to the EU. The EU contribution is also described in all datasets published in the framework of the project BID-AF2015-0044-SMA.

Sources of verification

Reports, presentations, published datasets.

Signature
Name of the contact person for the BID Project: _Charles Nounagnon GANGNIBO
Date report sent by email in Word format to bid@gbif.org for pre-approval: 08/02/2017
Date report sent by post to GBIF Secretariat:

