



BID Africa 2017 – Small Grant Template

Final narrative report

Instructions

- Fill the template below with relevant information. **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 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 direct 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 direct link or sending a copy of the documents.
- This report must first be sent as a **Word document** to GBIF@GBIF.org and be pre-approved 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

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2. Project Information

2.1. Project Coordinator: Institution/network/agency name:

Moses Nsanyi Sainge: Tropical Plant Exploration Group (TroPEG) Cameroon

2.2. Main contact person and role:

Moses Nsanyi Sainge, Project Coordinator and BID contact person. Oversee the running of the project in collaboration with the finance team, data capturist, and partners

2.3. BID proposal identifier:

BID-AF2017-0039-SMA

2.4. Project title:

Mobilization of Biodiversity Data Related to Protected Areas and Threatened Species in Western Cameroon

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

01/11/2017 to 31/01/2019

2.6. Country in which the activities take place:

Cameroon

3. Overview of results

3.1. Executive summary

Give a short summary of the activities implemented and the outcomes of the project for the reporting period (500 words maximum)

The project titled: Mobilization of Biodiversity Data Related to Protected Areas and Threatened Species in Western Cameroon was planned for one year from 01/11/2017 to 30/11/2018 with the reporting period extended till 31/01/2019. This project was based on Tropical Plant Exploration Group (TroPEG) Cameroon data from 70 1-ha permanent plots established along the Continental Cameroon Mountains. Data was captured using Darwin Core (DWC) and published through the Global Biodiversity Information Facility (GBIF), trained students on aspects of Biodiversity Informatics (Data capture, clearing and management), held a stakeholder meeting, support and work with students on their final theses.

This project was achieved through the effort of six staff: a project coordinator (Dr. Moses Nsanyi Sainge), senior researcher (Nghoh Michael Lyonga), senior technician (Sabastian Wirsiy), project assistant (Benedicta Jailughe), and two Master of Science students (Luam Theodora and Doris Enow). At the end, field work and thesis of three students were supported by the project. **Marilyn Penga:** Utilisation and Valorisation of Non-Timber forest Products (NTFP) in the Rumpi Hills Landscape, Southwest Region Cameroon from National Forestry School, Mbalmayo. **Luam Theodora:** Guide to Medicinal and Wild Food Plants (MWFP) of the Continental Cameroon Mountains using Biodiversity Informatics concept: Case-study Kimbi Fungom National Park, Cameroon. Master of Science student, department of Botany and Plant Physiology, University of Buea. **Doris Enow:** Assessment of threatened



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and endemic plants using Biodiversity Informatics techniques in the continental Cameroon Mountains. Master of Science student, department of Botany and Plant Physiology, University of Buea.

The outcome of this project were all achieved. The first training was carried out in January 2018

(<http://tropegcam.org/2018/01/15/tropeg-introductory-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/>). In February 2018 a called for application was announced on data capture, cleaning and management (<http://tropegcam.org/2018/01/25/training-on-data-mobilization-and-biodiversity-informatics/>).

At this training, 23 students were trained from different universities in Cameroon. A stakeholder meeting was held with members of Ministry of Environment and Protection of Nature, University lecturers, researchers and members of the civil society. Training was organized by TroPEG Cameroon and the University of Kansas in collaboration with the department of botany and plant physiology, University of Buea (<http://tropegcam.org/2018/03/19/tropegs-second-training-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/>).

At the international level, the project coordinator attended two training workshops in Cape Town, South Africa in December 2017 and April 2018 on Capacity enhancement on Data Use for Decision Makers. Both workshops were organized and ran by the Biodiversity Information for Development/Global Biodiversity Information Facility (BID/GBIF).

Two reports were sent to GBIF: the early progress narrative report and the mid-term report including financial details. In September 2018, the final data base of 43, 420 records were sent to GBIF. These data were uploaded to GBIF portal with the assistant of VETNET and GBIF France using the IPT of GBIF France.

In conclusion, over 40 students were trained, three theses initiated, one completed and validated and two Master of Science theses pending defence, over 43,000 records uploaded to GBIF portal. This project indirectly initiated the establishment of the GBIF node for Cameroon.

3.2. Progress against expected milestones:

Give an overview of all the expected milestones for your project from the beginning until now (see Annex V of your contract)

Expected milestones/activities	Completed? Yes/No	Explanatory notes	Sources of verification
Completed capacity self-assessment questionnaire for data holding institutions https://www.gbif.org/document/82785/self-assessment-guidelines-for-data-holding-institutions (EN) https://www.gbif.org/document/82813/modèle-d'auto-évaluation-pour-les-institutions-dépositrices-de-données (FR) (Early Progress report milestone)	Yes	Assessment questionnaire completed	GBIF
At least one national data publishing institutions are registered with GBIF.org Guidelines to become a publisher: https://www.gbif.org/become-a-publisher (Early Progress report milestone)	Yes	In 2014 TroPEG registered as a data publishing institution with GBIF	GBIF Portal https://www.gbif.org/publisher/50a4c4c2-3b12-4515-b4b5-ee39ef7fba8c



At least one person from the project team has completed the certification process following the BID Capacity Enhancement workshop on Data Mobilization organized as a part of the BID programme Africa 2015 or the BID programme Africa 2017 (Early Progress report milestone)	Yes	Completed training in 2017 at SANBI Cape Town, South Africa..	GBIF
Knowledge dissemination activities have been scheduled following the first BID Capacity Enhancement workshop (Early Progress report milestone)	Yes	-Training workshop on Darwin Core in October 2017. -Preliminary workshop on data mobilization and Biodiversity Informatics. -Training workshop planned for February 27 –March 02, 2018 in Buea, Cameroon -Stakeholders evaluation meeting plan for September 2018	TroPEG website: www.tropegcam.org http://tropegcam.org/2018/01/15/tropeg-introductory-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/
At least one dataset has been published to GBIF.org (Midterm report milestone)	Yes	TroPEG data of ~23,000 records	GBIF
The data users identified in the full proposal have documented their intended use of the mobilized data and provided early feedback (Midterm report milestone)	Yes	TroPEG	GBIF Portal https://www.gbif.org/publisher/50a4c4c2-3b12-4515-b4b5-ee39ef7fba8c
All mobilized data have been published to GBIF.org (Final report milestone)	Yes	TroPEG	GBIF Portal
All published data meet the minimum requirements outlined in the Data Quality Requirements available at https://bid.gbif.org/en/community/data-quality/ (Final report milestone)	Yes	TroPEG	GBIF Portal
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 (Final report milestone)	Yes	TroPEG	GBIF
Final capacity self-assessments for national biodiversity information facilities	Yes	TroPEG	GBIF



have been completed with sustainability plans. https://www.gbif.org/document/82785/self-assessment-guidelines-for-data-holding-institutions (EN) https://www.gbif.org/document/82813/modèle-d'auto-évaluation-pour-les-institutions-detentrices-de-donnees (FR) (Final report milestone)			
All uses of the mobilized data have been documented (Final report milestone)	Yes	TroPEG	GBIF Portal
Best practices and lessons learned have been documented (Final report milestone)	Yes	TroPEG	GBIF

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. 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	Completed ? Yes/No	Explanatory notes	Sources of verification
Training on Biodiversity data captured, management and analysis	Capacity Building	Yes	Twenty-three students trained on data capture, cleaning and management	TroPEG website: www.tropegcam.org http://tropegcam.org/2018/01/15/tropeg-introductory-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/
Captured data records from images, geo-referencing and data cleaning on Western Cameroon Plants	Mobilization of data and publishing	Yes	43,420 data record captured and cleaned	www.gbif.org
Published data from Western Cameroon Plants	Mobilization of data and publishing	yes	43,420 occurrence points.	www.gbif.org
Identify stakeholders interested in data	Involvement	Yes	University of Buea, Ministry of Environment and Protection of Nature, Pan African Institute for Development, Ministry of	TroPEG website: www.tropegcam.org http://tropegcam.org/2018/01/15/tropeg-introductory-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-





			Forestry and Wildlife	university-of-buea/
Publications	Used of data	Yes	Diploma thesis from the Forestry School in Mbalmayo, Cameroon Two pending Master of Science Theses, University of Buea	
Research, Management, and Policy	Used of data	Yes	Institutions and individual researchers are not willing to share their data on this platform	GBIF node for Cameroon may improve on this aspect in the future.



3.4. Datasets published on GBIF.org

Refer to the table in section 2.4 “Biodiversity data mobilization plan” of your BID full proposal. If the dataset is not yet published, please indicate the name of the institution that is expected to host the data when published in the column “DOI or URL/Planned hosting institution”. Add as many rows as needed.

Dataset title	Publishing institution	DOI or URL/Planned hosting institution	Date/expected date of publication	Explanatory notes
Sainge, NM., Lyonga, NM., Nchu, F., and Peterson, AT., (2018) Plant Diversity and Distribution on the Continental Cameroon Mountains.	Tropical Plant Exploration Group (TroPEG), Cameroon	www.gbif.org	October 2018	www.gbif.org

3.5. Examples of use of biodiversity data available through GBIF

Data mobilised through the BID programme, ultimately, should guide natural resource conservation and management policy. We require you to report on how you have integrated these data into these policy-making processes. You may want to refer to the section 2.5 “Plan to support the integration of biodiversity information into policy and decision-making process” of your original proposal as a reminder of your original commitments.

As part of that process, we request you to provide us with a summary of how you have used these data within the decision-making process and we have included some guiding questions below to help with that process. Please note that if your dataset has been combined with other datasets in analyses that guide the decision-making process, then this should be recorded too.

Description

Has your project been successful in integrating data within the policy-making process?

Where did the demand for these data come from?

If yes, which policies have been developed using your data?

If no, what were some of the challenges you faced in getting your data into those processes?

Did you have a biodiversity data integration plan from the beginning of your project? If so, did you have to adapt your plan as the project progressed and why did you have to make those alterations?

In what format are your data being used i.e. what were the analyses, if any, that you needed to perform on the data to ensure that they was in a format accessible to policy-makers?

What level of communication has there been with the relevant policy stakeholders i.e. by which means? With what regularity? And, how critical have these interactions been for the development policy-relevant analyses?

What additional support (resources, tools, network, training) would be needed for your project to ensure the flow of information from mobilisation to decision-making?



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How would you improve on your own processes in the future to improve data integration in the future?

Data may serve other purposes other than for policy-making and these are as valuable. How was your data used for other purposes e.g. development of training materials, scientific publications, communication activities etc?

Supporting materials

As part of our reporting, we request you to provide us with a copy of any materials highlighting data use on your dataset, either on its own or in combination with other datasets. This could be in the form of:

- Reports – governmental, ministerial, non-governmental organisations, international policy-making bodies
- Policy briefs
- Scientific publications
- Outputs from analyses that will be used in the future e.g. species distributions maps and other spatial analyses
- Education/communication materials

Please provide a valid dataset to the doi. Where the doi is not known, please state why.

Name of resource	Type of resource i.e. report, policy brief, scientific publication, analysis output, education materials, communication materials, other (please specify)	Dataset doi	Link to document or publication citation
Utilisation and Valorisation of Non-Timber forest Products (NTFP) in the Rumpi Hills Landscape, Southwest Region Cameroon from National Forestry School, Mbalmayo.	Diploma Thesis	www.tropegcam.org	Pending
Guide to Medicinal and Wild Food Plants (MWFP) of the Continental Cameroon Mountains using Biodiversity Informatics concept: Case-study Kimbi Fungom National Park, Cameroon. Master of Science student, department of Botany and Plant Physiology, University of Buea.	MS Thesis	Pending	Pending
Assessment of threatened and endemic plants using Biodiversity Informatics techniques in the continental Cameroon Mountains. Master of Science student, department of Botany and Plant Physiology, University of Buea.	MS Thesis	Pending	Pending



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
Darwin Core training	TroPEG Cameroon	October 10 th , 2017	3	23,427 occurrence records
Preliminary workshop on data mobilization and Biodiversity informatics, Buea	TroPEG Cameroon	January 13 th , 2018	27	http://tropegcam.org/2018/01/15/tropeg-introductory-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/
Planning workshop	TroPEG Cameroon	January 22-24 th , 2018	3	Attendance list
Workshop on Biodiversity data mobilization, capture and management and stakeholders meeting	TroPEG Cameroon	February 26 th -March 1 st 2018	23	http://tropegcam.org/2018/03/19/tropeg-second-training-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/
Second stakeholders meeting	TroPEG Cameroon	September 21, 2018	Failed	The second stakeholders meeting could not hold because all invited stakeholders were afraid of the prevailing insecurity in Southern Cameroon and till date people are not still comfortable with the security situation.





4. 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 4.1 'Explanatory Notes'.

Implementation period start date and end date (dd/mm/yy). 14 months. 01/11/2017 to 31/01/2019																
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Notes
Short training on Darwin core to kick-off data entry	x	x														
Preliminary workshop and planning			x													
Early Progress evaluation & reporting				x												
Workshop of Data capture, cleaning and management				x	x											
Mid-term evaluation & reporting							x									
BID Capacity Enhancement workshop – Data mobilization and publication (Online training - Participation is mandatory)	x															
BID Capacity Enhancement workshop – Data use (Physical training - Participation is mandatory)		x														
BID Capacity Enhancement workshop – Data use (Online training - Participation is mandatory)			x													
Training Workshop (with stakeholders)				x	x											
BID Capacity Enhancement workshop – Data use (Physical training - Participation is mandatory)						x										
Workshop with the actors of Biodiversity and Conservation in Cameroon (Stakeholders)										x						
Data capture	x	x	x	x	x	x	x	x	x	x	x					
Final project report														x		



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Evaluation period start date and end date (dd/mm/yy)				
Activity	1	2	3	Notes
Early financial and narrative reporting	x			
Midterm financial and narrative reporting		x		
Final financial and narrative reporting			x	

4.1. Explanatory notes:



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5. 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)

TroPEG being the lead organization in Cameroon that promote the concept of Biodiversity Informatics and one of the institution in Cameroon spear heading this phase of the BID project, wishes to follow up the two Matser of Science student theses to be presented at the University of Buea and published through journal articles. Since TroPEG has the highest data record from Cameroon published at GBIF for plants, we wish to download all other sources of data from Cameroon via GBIF portal to enable us to published articles on the endemism, inventory completement and other aspects for Cameroon. With the recent appointment of the GBIF Node for Cameroon at the Ministry of Environment and Protection of Nature, we hope the second phase of the BID project will involve many institutions in Cameroon and policy aspect of our biodiversity will be strengthen. TroPEG wishes to work closely with the Cameroon Node if given the opportunity.

Training on Biodiversity Informatics is one aspect we will wish to continued. In the future, TroPEG wish to build a database of strictly threatened plants of Cameroon and if funding permits to capture data of particular families from Old Floras such as the flora of West Tropical Africa that at the moment is not readily available to a cross section of African researchers. Build this into a database following DarwinCore Standard and publish on portals like GBIF.

However, TroPEG as an institution will seek for funding from different sources and partners for the project sustainability.

6. Beneficiaries/affiliated entities and other cooperation

6.1. 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.

All project partners are aware of the project milestone

6.2. 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, to what extent has your BID project been able to build upon/complement the previous project(s) ?

In 2010, TroPEG Cameroon had a vision to study the biodiversity of the Continental Cameroon Mountains. To attain this vision, TroPEG has received four grants all from Rufford Small Grant Foundation between 2011 to 2016 to study the biodiversity of the Mbembe Forest Reserve, Rumpi Hills Forest Reserve, Kimbi Fungom National Park, Bakossi National Park, Mt Nlonako and to disseminate the results of the work in Mbembe Forest Reserve. All these study areas are found along the continental Cameroon Mountains. As an outcome of all these work, 70 1ha permanent plots were established. As a way forward, TroPEG got involved in a series of training on Biodiversity Informatics across Africa (Kenya, Ghana, Uganda, Cameroon, and Ethiopia) organized by the Biodiversity Informatics Training Curriculum (BITC) headed by A. Townsend Peterson and Kate Ingenloff both from the Biodiversity Institute, University of Kansas, USA. Funds for this were received from the JRS biodiversity Foundation.

Tropical Plant Exploration Group (TroPEG) Cameroon just rounded off a collaborative project with the University of Ghana, University of Togo, and the Forestry Research Institute of Ibadan, Nigeria. This project titled West Africa Plant Initiative, was funded by JRS Biodiversity Foundation with an objective to capture data from images.

The BID project has come to complement all our field efforts as it ensures that all the data (70 ha) TroPEG has captured from the field with funds from Rufford Small Grant, TroPEG, and A. Townsend Peterson via JRS is mobilized and entered into standard platforms like the Darwin Core archives and made available to different biodiversity portals such as GBIF for more visibility. As an outcome of this project, 43,420 occurrence records were published on GBIF portal (www.gbif.org).

With the appointment of a GBIF Node for Cameroon, TroPEG wish we'll be able to work together as to upgrade the biodiversity understanding of the Continental Cameroon Mountains.



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7. Visibility

Please refer to the [BID guidelines](#).

<http://tropegcam.org/2018/01/15/tropeg-introductory-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/>

<http://tropegcam.org/2018/01/25/training-on-data-mobilization-and-biodiversity-informatics/>).

<http://tropegcam.org/2018/03/19/tropegs-second-training-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/>

7.1. Visibility of the BID project

How is the visibility of your BID project being ensured?

To ensure better visibility of the BID project, the TroPEG Website www.tropegcam.org and Facebook page was launched in November 2018.

Promotional materials such as badges, flash drives, caps, T-shirts, stickers were produced and handed to trainee, stakeholders, staff, students and other initiatives in Cameroon. All property obtained with funds of this project carried a sticker with GBIF, BID and European Union logo on it. TroPEG website will always be available for people to give these information globally.

Short summary

On the 13th of January 2018, an introductory workshop on “Biodiversity Informatics and data mobilization “was held in the faculty of science at the University of Buea with Participants drawn from post graduate classes of the Department of Botany and Plant Physiology. Work shop pictures and videos are being published on TroPEG website www.tropegcam.org

All training documents and presentations organized under the BID project carries the EU logo as the fund provider.

Sources of verification

<http://tropegcam.org/2018/01/25/training-on-data-mobilization-and-biodiversity-informatics/>).

<http://tropegcam.org/2018/03/19/tropegs-second-training-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/>

7.2. Visibility of the EU contribution

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

All promotional materials carried the phase: This project was funded by the European Union with the EU logo.



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Short summary

It was clearly spelled out through invitations, memo, communications, training documents and workshop presentations that the BID project is solely funded by the European Union.

All training documents and presentations organized under the BID project carries the EU logo as the fund provider.

Sources of verification

<http://tropegcam.org/featured-presentations/>

<http://tropegcam.org/2018/01/25/training-on-data-mobilization-and-biodiversity-informatics/>).

<http://tropegcam.org/2018/03/19/tropegs-second-training-workshop-on-biodiversity-informatics-and-data-mobilization-at-the-university-of-buea/>

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Signature _____

Name of the contact person for the BID Project: __ Moses Nsanyi Sainge (PhD)

Date report sent by email in Word format to bid@gbif.org for pre-approval: _____

Date report sent by post to GBIF Secretariat: _____



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