

 **BID**
BID Africa 2015 – National 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.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 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

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Template

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2. Project Information

- 2.1. Project Coordinator: Institution/network/agency name: Kenya Wildlife Service
- 2.2. Main contact person and role: Dr. Patrick Omondi, Acting Director – Biodiversity Research and Planning
- 2.3. BID proposal identifier: BID-AF2015-0035-NAC
- 2.4. Project title: Organizing and mobilizing biodiversity information from the Kenya Wildlife Service.
- 2.5. Start date and end date of the reporting period: Start date 01/07/2016 and End date 31/12/2018
- 2.6. Country in which the activities take place: Kenya

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)

To date the following activities have been implemented. The first activity comprised participation in the BID Capacity Enhancement Workshop that was held in Kigali, Rwanda from 22nd-25th August, 2016. The second activity was an inception workshop which was held from 27th-30th September, 2016 in Nairobi, Kenya. Biodiversity training was held from 18th -21st December, 2017 at the Kenya Wildlife Training Institute (KWSTI) in Naivasha that involved the three project partners (Kenya Wildlife Service, Nature Kenya and National Museums of Kenya). We also held workshops and meetings in Naivasha, Nakuru and Nanyuki where the quality of data mobilized was enhanced (Data collation, verification, cleaning, digitization and GIS database development). Data dissemination workshop was held on 4th-7th December 2018 at Kenya Agricultural and Livestock Research Organization (KALRO) in Naivasha.

One KWS staff participated in the BID Capacity Enhancement Workshop on biodiversity data mobilization in South Africa (8th – 13th April 2018). One of the outcomes from the BID Capacity Enhancement workshop was increased knowledge in biodiversity data digitizing, cleaning and publishing using the Integrated Publishing Toolkit (IPT).



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For the inception workshop, one of the outcomes was creation of awareness about GBIF and BID to KWS scientists. A further outcome was a better understanding about the biodiversity related datasets that exist in Kenya Wildlife Service's (KWS) field stations and at Nature Kenya as well as dissemination of knowledge on Darwin Core and the Open Refine tool.

KWS has a limited number of GIS and Remote Sensing staff hence there was need to train more scientists on these important skills. 20 scientists were trained on QGIS, Image processing using Land Impact Tool, Ornithology and Bioinformatics.

Database has been designed, developed and is operational (kwsbis.kws.org).

During the activity implementation, the project experienced serious delays between June to November 2017 occasioned by change of financial procedures within Kenya Wildlife Service. We therefore requested for 3 months extension which was granted.

KWS has received 54,000 Euro out of the expected 60,000 Euro. This means that 6,000 Euro has not been released to KWS and we expect it to be disbursed for project evaluation and more data mobilization and organization.



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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 national biodiversity information facilities https://www.gbif.org/document/82277/capacity-self-assessment-guidelines-for-national-biodiversity-information-facilities (EN) https://www.gbif.org/document/82782/auto-evaluation-des-capacites-pour-les-systemes-nationaux-dinformation-sur-la-biodiversite (FR) <i>(Early Progress report milestone)</i>	YES	Completed	Submitted self-assessment form
At least three national data publishing institutions are registered with GBIF.org Guidelines to become a publisher: https://www.gbif.org/become-a-publisher <i>(Early Progress report milestone)</i>	YES/NO	Three partners: 1. Kenya Wildlife Service (KWS) 2. National Museums of Kenya (NMK) 3. Nature Kenya (NK) NMK and KWS are registered data publishers	GBIF Portal and authorization notifications. Datasets published in the GBIF portal
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 (<i>Early Progress report milestone</i>)	YES	Awarded with a badge certification i.e. denoting sufficient understanding of how to perform analyses of biodiversity data following internationally accepted standard within the context of the national decision-making processes.	1 KWS staff (Peter Hongo) participated in the workshop, completed and submitted a follow up assignment and was awarded a GBIF badge
Knowledge dissemination activities have been scheduled following the first BID Capacity Enhancement workshop <i>(Early Progress report milestone)</i>	YES	At an inception workshop attended by Kenya Wildlife Service and Nature Kenya, disseminated	Power Point Presentation made during the inception workshop, the biodiversity training workshop as well as data mobilization and data



		<p>knowledge on GBIF, BID and the knowledge gained during the Enhancement workshop in Kigali and South Africa.</p> <p>Data dissemination workshop was organized where 73 participants (Ag. Director General, Directors, Park managers and scientists) attended.</p>	<p>verification and cleaning workshops.</p>
<p>At least one dataset has been published to GBIF.org (<i>Midterm report milestone</i>)</p>	YES	<p>KWS is registered to publish data in the GBIF portal. Six (6) datasets have been published</p>	<p>https://www.gbif.org/publish/5a1a662b-4ec7-4b73-95bd-6356ebde1ba8</p>
<p>The data users identified in the full proposal have documented their intended use of the mobilized data and provided early feedback (<i>Midterm report milestone</i>)</p>	YES	<p>Done</p>	<p>Data dissemination workshop proceedings (page no.12,15)</p>
<p>All mobilized data have been published to GBIF.org (<i>Final report milestone</i>)</p>	YES	<p>Done</p>	<p>https://www.gbif.org/publish/5a1a662b-4ec7-4b73-95bd-6356ebde1ba8</p>
<p>All published data meet the minimum requirements outlined in the Data Quality Requirements available at https://bid.gbif.org/en/community/data-quality/ (<i>Final report milestone</i>)</p>	YES	<p>The datasets have been verified and cleaned for quality purposes ready for publication</p>	<p>https://www.gbif.org/publish/5a1a662b-4ec7-4b73-95bd-6356ebde1ba8</p>
<p>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 (<i>Final report milestone</i>)</p>	YES	<p>20 Scientists were trained. The Scientists appreciated the training. The Scientist agreed to use data collection template for future data gathering. Evaluation has not been carried out.</p>	<p>Workshop proceedings, Attendance lists, workshop programs, certification badge</p>
<p>Final capacity self-assessments for national biodiversity information facilities have been completed with sustainability</p>	YES	<p>KWS has developed a standized data</p>	<p>Standardized data collection template, data publishing</p>



plans. https://www.gbif.org/document/82277/capacity-self-assessment-guidelines-for-national-biodiversity-information-facilities (EN) https://www.gbif.org/document/82782/auto-evaluation-des-capacites-pour-les-systemes-nationaux-dinformation-sur-la-biodiversite (FR) (Final report milestone)		collection template, GBIF has granted KWS data publishing rights	credentials
All uses of the mobilized data have been documented (Final report milestone)	YES	Done	Data dissemination workshop proceedings (page no.10) Biodiversity training proceedings
Best practices and lessons learned have been documented (Final report milestone)	YES	Done	All data mobilization workshops proceedings

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
Establish or strengthen national biodiversity information facilities	Biodiversity Training	YES	Training workshop; 20 scientists trained on GIS and Image Processing, Bioinformatics, Ornithology, use of GIS database, how to use GBIF and KenBIF	Workshop presentations, Attendance list, Workshop program, Workshop proceedings
Increase available biodiversity data, within and beyond the grant period.	Data mobilization	YES	Data mobilization workshops were organized and field scientists from KWS conservation areas were involved, ornithology datasets from	Workshop presentations, attendance list, Workshop program, workshop proceedings, datasets



			Nature kenya	
Biodiversity Database Design and development	YES	Field meetings with the Scientists to collect the relevant themes for the database One workshop was organized to develop data collection template with the necessary themes	kwsbis.kws.org, database schema, Workshop presentations, Attendance list, Workshop program, Workshop proceedings and field reports	
Populate database	YES	Biodiversity Database has been allocated a space in KWS server	www.kwsbis.kws.org	
Publish records	YES	The following datasets have been published in the GBIF portal. <ul style="list-style-type: none"> • Aerial census occurrence data • Marsabit Forest Ecosystem plants checklist • Mt. Kenya Forest Ecosystem checklist • Kenya Bird Map occurrence data 	https://www.gbif.org/publisher/5a1a662b-4ec7-4b73-95bd-6356ebde1ba8	
Web interface - Coding	YES	Done	www.kwsbis.kws.org	
Database operationalization	YES	Done	www.kwsbis.kws.org	
Pilot publish	YES	Done	https://www.gbif.org/publisher/5a1a662b-4ec7-4b73-95bd-6356ebde1ba8	



	Database system documentation	YES	Ongoing	www.kwsbis.kws.org User Manual
	Biodiversity status, distribution and trends	YES	Ongoing	www.kwsbis.kws.org http://www.kws.go.ke/file/2874/download?token=zLiEvNc0
Apply biodiversity data in response to national priority	National priorities with Biodiversity information embedded	YES	Biodiversity data has been applied during the compilation of the National Wildlife Status report Held Biodiversity Status Workshop to disseminate collected and collated biodiversity information to protected area managers and planners (11 th Dec,2018).	http://www.kws.go.ke/file/2874/download?token=zLiEvNc0
	User Friendly information for non-specialists	YES	User friendly database	www.kwsbis.kws.org
	Enhanced PA Manager decisions	YES	PA uses kwsbis to share data and information with other stakeholders	www.kwsbis.kws.org



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
Aerial census occurrence data	Kenya Wildlife Service	Kenya Wildlife Service	25 th September 2018	Published
Marsabit Forest Ecosystem plants checklist	Kenya Wildlife Service/National Museums of Kenya	Kenya Wildlife Service	16 th November, 2018	Published
Mt. Kenya Forest Ecosystem checklist	Kenya Wildlife Service/National Museums of Kenya	Kenya Wildlife Service	16 th November, 2018	Published
Kenya Bird Map occurrence data	Nature Kenya	Kenya Wildlife Service	28 th December, 2018	Published
Ground Census	Kenya Wildlife Service	Kenya Wildlife Service	29 th October, 2018	Published
Zoology collection data	National Museums of Kenya	Kenya Wildlife Service	Next Month	Data yet to be availed
Botany collection data	National Museums of Kenya	Kenya Wildlife Service	Next Month	Data yet to be availed
Important Bird Areas Occurrence Data	Nature Kenya	Kenya Wildlife Service	Next Month	Data yet to be availed

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.



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Description

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

Yes data mobilized and organized under this project has been used in the compilation of the National Wildlife Status Report to inform the country on biodiversity status. Further, Kenya Wildlife Service maintains an institutional Knowledge Management System and toward this, these datasets have been pivotal in developing an internal biodiversity database for accessibility and availability of information to management and KWS staff at the click of a button. Further, the data and databases that have been accrued from this project are critical for local as well as international researchers for enhanced biodiversity conservation. As well KWS has been using these data for developing protected area management plans to guide protected area (PA) managers.

Where did the demand for these data come from?

The National Government and its ministries, County Governments, Non-Governmental Organizations (NGOs), KWS Managers and scientists, Learning institutions, and International Researchers

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

Amendment of the Kenya's Wildlife Management Act, 2013 (Human Wildlife Conflict compensation Scheme, Wildlife Utilization)

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

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?

YES. KWS has been having an internal integrated database. However, the datasets were in different formats and not readily accessible to many scientists. There was also lack of awareness amongst users.

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?

Most data were stored in raw formats. Datasets were verified, cleaned and are now available in the form of thematic maps, tables and charts that depict trends and future wildlife scenarios (modeling).

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?

Meetings, workshops, telephone interviews and emails. Data/information requests are often very regular. Very important interactions.

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

KWS needs financial support to procure a powerful server to host the databases, continual training of staff on GIS and databases and acquire equipment e.g. Laptops for field scientists to enable better data collection and also sustainability of the project.

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

Data collection using the format generated from this project. Increase data sharing as well as make sure that data collected in the field is forwarded to KWS HQs for integrating into the database. Maintain the online platform.

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?

KWS staff and other stakeholders undertaking Masters and PhDs programmes use these data in their studies. Internal research newsletters development



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.

This part has not yet been implemented

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

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
Data Mobilization and Organization and Inception	Kenya Wildlife Service	27 th -30 th September 2016	24	Project activity timeline, Workshop Proceedings
Biodiversity Information Database Systems Training and Data entry Workshop	Kenya Wildlife Service	3 rd -5 th April, 2018	24	Project activity timeline, Workshop Proceedings
Biodiversity Training	Kenya Wildlife Service	18 th -21 st December 2017	22	Project activity timeline, Workshop Proceedings



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Data Mobilization and Organization	Kenya Wildlife Service	August-September2018	20	Project activity timeline
Data cleaning	Kenya Wildlife Service	August-September2018	20	Project activity timeline
Organize Biodiversity Status Workshop	Kenya Wildlife Service	September2018	50	Project activity timeline
Project Report writing	Kenya Wildlife Service	October2018	10	Project activity timeline
Project Dissemination materials	Kenya Wildlife Service	December2018	73	Project activity timeline Workshop proceedings
Data mobilization and organization report writing	Kenya Wildlife Service	December, 2018	9	Project Timeline Final Report





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 (maximum 24 months, starting 1 June 2016 at the earliest)																															
Implementation period start date and end date (dd/mm/yy)	1 st July 2016- 31 st December, 2018																														
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	NOTES
BID Capacity Enhancement workshop 1		X																													
6-month progress analysis						X																									
Mid-term evaluation & reporting											X	X																			
INCREASE AVAILABLE BIODIVERSITY DATA																															
Preliminaries:																															
Database Mobilization																															
• Create awareness on project																															
• Demonstrate GBIF and KenBIF data																															
• Determine biodiversity information user needs																															
• List biodiversity datasets for KWS and partners																															
• Identify data gaps viz a viz identified user needs																															
• List formats for existing datasets																															





data mobilization and awareness creation. We intend to spend the balance of undisbursed funds of 6,000 Euro for project evaluation and more data mobilization and organization.



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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)

Kenya Wildlife Service and National Museums of Kenya and Nature Kenya who were partners in this project are government and civil society institutions respectively and whose main mandate is environmental conservation. The activities carried out in this project have contributed directly and indirectly to their mandates and work programs. Therefore, it will be the responsibility of these institutions to ensure that biodiversity data and information are not only maintained but also propagated within and across various sectors due their indispensability in policy decisions for Kenya.

Capacity building of personnel and infrastructure will enhance the project's sustainability. It is expected that the staff that have been trained on various tools including GIS, Remote Sensing, use and usefulness of databases have gained sufficient skills and interest to keep the project activities going into the future. Standardization of data collection achieved through this project will be replicated to other areas for timely sharing, analysis and informed decision making for biodiversity conservation.

Kenya Wildlife Service maintains an institutional Knowledge Management System and toward this, the datasets will be enriched regularly to enhance internal biodiversity database for accessibility and availability of information to management and KWS staff at the any given time. The datasets will be used regularly generate information for various wildlife policy development

This project has brought to the fore the usefulness of centralized biodiversity information to the KWS management. As a result KWS will seek to entrench the item on biodiversity databases within its annual work plans and budget.

Through this project Kenya Wildlife Service (KWS) has been recognized as an International data publisher through GBIF. KWS can use this opportunity to seek for funding from stakeholders to enable continuous collection, sharing and archiving of more data on biodiversity.

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.

The relationship has been amicable throughout the project implementation. However, it is important to realise that different institutions have different human resource procedures and therefore due to other official duties of officers, planning of activities by the coordinating partner was not easy.

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) ?

Kenya Wildlife Service is supporting A ROCHA Kenya to implement "Application of biodiversity monitoring data to resolve competing conservation management priorities in an East African forest landscape" project.

Kenya Wildlife Service is also supporting Field Museum of Natural History, Chicago to implement "Kenya's other carnivores: Harnessing biodiversity data for conservation" Project Number BID- AF2015- 0124- SMA



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7. Visibility

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

7.1. Visibility of the BID project

How is the visibility of your BID project being ensured?

Short summary

Datasets have been published in the GBIF portal and operational KWS database. KWS staff was trained and certified by GBIF (BID capacity enhancement workshop on biodiversity data use for decision making, South Africa).

Sources of verification

<https://www.gbif.org/publisher/5a1a662b-4ec7-4b73-95bd-6356ebde1ba8>

www.kwsbis.kws.org

<https://openbadgefactory.com/c/receive?k=PCRZEWaALHa6H&e=peterh%40kws.go.ke&t=d6bf57d6f93a042d140bbe3da2bf79d9ee278098&v=2.0>

7.2. Visibility of the EU contribution

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

Short summary

Reports bear EU logo

Sources of verification

Workshop proceedings

Signature

Solomon **KYALO**

Head, Multilateral Environmental Agreements/Research Authorization

Name of the contact person for the BID Project: Dr. Patrick **OMONDI, Director Biodiversity Research & Planning, KWS**

Date report sent by email in Word format to bid@gbif.org for pre-approval: **31 December 2018**

Date report sent by post to GBIF Secretariat: **31 December, 2018**



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