

The deployment of EarthRanger, a data visualization and analysis software to strengthen Protected Area Management Effectiveness in Africa's National Parks.

Review PIF and Make a recommendation

Basic project information

GEF ID

10551

Countries

Regional (Botswana, Congo, Mozambique)

Project Name

The deployment of EarthRanger, a data visualization and analysis software to strengthen Protected Area Management Effectiveness in Africa's National Parks.

Agencies

CI

Date received by PM

3/23/2020

Review completed by PM

4/16/2020

Program Manager

Jaime Cavelier

Focal Area

Biodiversity

Project Type

FSP

PIF

Part I – Project Information

Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

The project is aligned with BD-2-7. *Address direct drivers to protect habitats and species and Improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate.*

Cleared

Agency Response

Indicative project/program description summary

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Yes. The outputs are clearly stated and will deliver the proposed outcomes.

Cleared

Agency Response

Co-financing

3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20|

The co-financing from Vulcan is not complete (Vulcan = Private Sector?)

In Co-financing Table, it says

Others	Vulcan	Grant	Investment mobilized	2,000,000
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An in text it says

- **Private Sector:** Vulcan Inc. has committed \$2M (cash) co-financing. In addition, Vulcan will contribute EarthRanger as an in-kind donation. This includes the typical FTE effort to set up new EarthRanger sites, support and training. The estimated value is \$6,250 per site per year for software and \$15,000 per site for training and support over the course of the project. For six sites the total in-kind value would be ~\$202,500.

Assign an indicative amount to CI's co-financing for Recurrent Expenditures (to be confirmed at CEO Endorsement). If best estimated values can be provided for the two Government, please add them (these are indicative only). If not, remove the un-known co-financing for the two Governments and the "Other".

GEF Agency		In-kind	Recurrent expenditures
Government	To be confirmed during PPG	Unknown at this stage	
Government	To be confirmed during PPG	Unknown at this stage	
Others	To be confirmed during PPG	Unknown at this stage	

4-9-20

Cleared

Agency Response

Vulcan's in-kind co-finance (USD \$202,500 has been captured. The project's total co-finance amount has been updated from USD \$2,325,000 to \$2,527,500

In-kind co-financing from CI removed. Amounts will be determined during the PPG phase. To be confirmed amounts from recipient governments will be included in the PPG phase.

GEF Resource Availability

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Remove Mozambique from Tables D & E

CI	GET	Mozambique	Biodiversity	BD STAR Allocation	0
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CI	GET	Mozambique	Biodiversity	BD STAR Allocation	0
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4-9-20

Cleared

Agency Response Mozambique removed. However, Mozambique has committed USD 500,000 from the STAR allocation through the MozBio Project implemented by the World Bank. During implementation, the WB and the government of Mozambique will issue a sub-grant to Vulcan for EarthRanger.

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

Agency response 04/22/2020:

Reference to 500k from Mozambique removed.

The focal area allocation?

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

The LDCF under the principle of equitable access

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

Focal area set-aside?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

The project is requesting \$2M from the BD set aside

Cleared

Agency Response

Impact Program Incentive?

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

PPG (\$88K+) is within the upper limit for FSP of projects up to \$6M

Cleared

Agency Response

Core indicators

6. Are the identified core indicators in Table F calculated using the methodology included in the correspondent Guidelines? (GEF/C.54/11/Rev.01)

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Please include the names of the target Protected Areas (and hectarage) that add to 500,000 ha. These PAs are indicative and subject to change during PPG. Provide WDPA ID and IUCN Category

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF) ⓘ
At least two protected areas per country (to be identified during PPG Phase)			500,000.00

4-9-20

- 1) Please enter 2,154,000 ha in Indicators 1.2. (PAs under Improved Management).
- 2) This number should replace the 1,000,000 currently in the Target in Outcome 1 (See below). Use only one number throughout the PIF because having two creates and unnecessary confusion.

Target:

· At least 1,000,000 hectares of protected areas with improved METT scores (*hectares, baseline and target METT scores TBD in the PPG phase*)

- 3) Remove Tables 2 to 7, and leave the Tables of the potential PAs per country only. If feel like you need to show the complete liste of PAs per country, include them in an Annex and upload it in the Portal).
- 4) In the space reserved for the Names of the PAs, WDPA-ID, IUCN Category, etc. it is necessary to explain why the list of PAs is not there. Use some of the language in the PIF. Like "*At least 2 PAs per country will be selected from the list of areas listed in Tables 8, 9 and 10*". (NUMBERS TO CHANGE WHEN REMOVING TABLES 2 TO 7) *Proposed target PAs may change during PPG*

Agency Response

The Core Indicator section has been updated to include the names of the protected areas. This information was also included in Section 1. Explanation of how this estimate was arrived at:

- Provided each country's Protected Area profile. This is because the proposed target PAs may change during PPG, and we may end up selecting from the remaining PAs in
- Tentative list of potential target Protected Areas for Earth Ranger deployment has been provided (Tables 8,9 and 10).

- The minimum number of hectares with improved management effectiveness that would be achieved by deploying Earth Ranger in two PAs in each country from the list of tentative PAs would be 2,154,900 ha (if the smallest PAs would be chosen). However, as the definitive list of PAs will be determined during the PPG phase on the basis of the criteria mentioned below, the target is that at least 1,000,000 hectares will be under improved management effectiveness
- We will work with the host governments to identify the final PAs and we are open to recommendations outside the pre-selected potential areas as long as they meet the required criteria.
- An overview of the criteria for selecting the Protected Areas during the PPG Phase has been provided (Paragraph 10)

CI-GEF Response 4/10/2020:

Target PA hectare values changed to 2,115,200. Core indicator section updated to include list of PAs and their corresponding WDPA ID and values. Core indicator worksheet also attached.

Project/Program taxonomy

7. Is the project/ program properly tagged with the appropriate keywords as requested in Table G?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Please point to Table G or upload if missing

Cleared

Agency Response Taxonomy uploaded.

Part II – Project Justification

1. Has the project/program described the global environmental / adaptation problems, including the root causes and barriers that need to be addressed?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

There is detailed information of the Status and trends of biodiversity and threats in the target countries (Table 2), the Barriers (N=3) and case studies on how Earth Ranger is addressing selected global environmental problems in Africa (Table 3).

Cleared

Agency Response

2. Is the baseline scenario or any associated baseline projects appropriately described?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

For the baseline project include the Baseline Projects relevant to the target protected areas in this project to the extent possible.

In the Baseline Projects, include best estimates (not necessarily official) of the Recurrent Costs of the Management of the Target Protected Areas.

Add the participating countries in this project (Mozambique, Congo and Botswana) to the Location

Title of Project: Global Wildlife Program (GWP).

Project location: Mozambique

Donor: GEF (via World Bank)

Remove this box

Title of Project: MARISMA Project

Project location: Angola, Namibia and South Africa

Duration: 2016 – 2020

Donor: German Government (via GIZ)

Include a Box for Republic of Congo. Participating in GWP-GEF-6.

Are the participating countries in this project benefiting from the Biodiversity and Protected Areas Management Programme (BIOPAMA)?

4-9-20

Cleared

Agency Response

Baseline projects section has been updated to include relevant projects linked to the targeted protected areas.

It is difficult to provide estimates of the recurrent costs of the management of the PAs that we will identify - At this stage, we do not have adequate time and resources to engage stakeholders from the target countries. We will provide this information during PPG Phase (Para 11).

Para 23 Botswana, Mozambique, Republic of Congo have been added in the text under the GWP.

MARISMA has been included.

Yes, Botswana, Mozambique, Republic of Congo part of the 79 countries benefitting from the BIOPAMA project

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Yes

Cleared

Agency Response

4. Is the project/program aligned with focal area and/or Impact Program strategies?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Yes

Cleared

Agency Response

5. Is the incremental / additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Suggest removing paragraphs 17,18 and 19 and concentrate on the narrative as follows: Baseline Project: The Description of the existing tools for data gathering and surveillance in the Protected Areas. Expected contributions: How EarthRanger will contribute to improve PA management effectiveness.

4-9-20

Cleared

Agency Response

Paragraphs have been deleted. Incremental Cost section has been updated.

Added the common existing tools for data gathering and surveillance used to manage Protected Areas in Africa (Paragraph 28 - 30)

During PPG Phase (after finalising the list of PAs), we will add the specific technologies being used in each PA and explain how the existing technologies will complement Earth Ranger.

Paragraph 31 and Table 14 – shows how Earth Ranger technology will strengthen Management effectiveness and achieve GEBs

6. Are the project's/program's indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Yes. Please include the names of the potential target PAS with hectares.

4-9-20

See above

Cleared

Agency Response

Names of PAs included in the Core Indicators and Section 1.

Explanation of how this estimate was arrived at:

- Provided each country's Protected Area profile. This is because the proposed target PAs may change during PPG, and we may end up selecting from the remaining PAs in
- Tentative list of potential target Protected Areas for Earth Ranger deployment has been provided (Tables 8,9 and 10).
- The minimum number of hectares with improved management effectiveness that would be achieved by deploying Earth Ranger in two PAs in each country from the list of tentative PAs would be 2,154,900 ha (if the smallest PAs would be chosen). However, as the definitive list of PAs will be determined during the PPG phase on the basis of the criteria mentioned below, the target is that at least 1,000,000 hectares will be under improved management effectiveness
- We will work with the host governments to identify the final PAs and we are open to recommendations outside the pre-selected potential areas as long as they meet the required criteria.
- An overview of the criteria for selecting the Protected Areas during the PPG Phase has been provided (Paragraph 10)

7. Is there potential for innovation, sustainability and scaling up in this project?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Yes

Cleared

FOR NEXT WINDOW (PORTAL DOES NOT TAKE IT)

Please include map of the participating countries with location of target Pas. Coordinates desirable.

4-9-20

Cleared

Agency Response Map included.
Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project's/program's intended location?

Secretariat Comment at PIF/Work Program Inclusion

Agency Response
Stakeholders

Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Cleared

Agency Response
Gender Equality and Women's Empowerment

Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Cleared

Agency Response

Private Sector Engagement

Is the case made for private sector engagement consistent with the proposed approach?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Cleared

Agency Response

Risks

Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Risk table completed

Cleared

Agency Response CI added a risk on COVID-19
Coordination

Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined? Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Should the PA Agencies in the participating countries be included as part of the Executing Agencies?

Other Executing Partner(s)	Executing Partner Type
Vulcan Inc.	Others

4-9-20

Suggest adding the names of the Agencies at the top of the PIF along Vulcan's.

Other Executing Partner(s)	Executing Partner Type
Vulcan Inc.	Others

4-10-20

Cleared

Agency Response

The Government PA Agencies have been added as Executing Agencies – refer to Paragraph 50 (page 38-40) and Figure 2 (page 40)

CI-GEF 4/10/2020: government EA's included in the list at the top of the PIF.

Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country's national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Cleared

Agency Response

Knowledge Management

Is the proposed “knowledge management (KM) approach” in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project's/program's overall impact and sustainability?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Suggest reducing budget for COMPONENT 2: Learning and knowledge sharing on the Earth Ranger technology. No need to spend \$428K on this component. Use funds to secure proper installation and functioning of the EarthRanger

4-9-20

The response is probably refering to Component 2.

Cleared

Agency Response Funding for component 1 reduced

Part III – Country Endorsements

Has the project/program been endorsed by the country's GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

Congo; LoE signed by Mrs. Arlette Soudan-Nonault (OFP

Source de financement	Agence FEM	Champ cible	Montant (en US \$)			
			Préparation du projet	Projet	Frais	Total
	CI	Biodiversité	13.080	446.716	40.204	500.000
Total des ressources du FEM			13.080	446.716	40.204	500.000

Mozambique: Co-financing from Mozbio (\$500K) Signed by Mr. Momed Abdurramene Nemane (OFP

Focal Area	Amount (in US\$)			
	Project Preparation	Project	Fee	Total
Biodiversity	13,080	446,716	40,204	500,000
Total MozBio Resources	13,080	446,716	40,204	500,000

Botswana. Signed by Mr. Botshabelo Othusitse (OFP).

Source of Funds	GEF Agency	Focal Area	Amount (in US\$)			
			Project Preparation	Project	Fee	Total
GEFTF	CI	Biodiversity	28,078	616,442	55,480	700,000
Total GEF Resources			28,078	616,442	55,480	700,000

Cleared

Agency Response

Agency response 04/22/2020:

Letters from the 3 focal points endorsing the additional resources from the BD set aside included.

Official LOEs with the FAS funding will be included at CEO endorsement.

Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

GEFSEC DECISION

RECOMMENDATION

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

3-31-20

No. Please address issues raised in the above windows.

4-9-20

No. Please address issues under items "Core Indicators" and "Coordination".

4-10-20

No. Please provide a less technical title for the project for the non-specialist to understand. Thank

4-13-20

Please reduce the BD Set Aside Co-Financing from \$2,000,000 to \$1,600,000 and adjust all the tables affected by the reduction.

Please also explain how the present crisis will affect the viability of this project. Suggest adding a paragraph on the subject at the top of Point "5. Risk" in the PIF.

4-16-20

No.

1) Please reduce the BD Set Aside to \$1,500,000 . Ensure all tables ad-up and re-submit.

2) Please upload a translation of the LoE to English. Thanks.

4-22-20

1. Please remove any references to the \$500K to be provided by Mozambique for this project. Keep Mozambique and the other two countries in the list of participating countries.

2. Please re-submit when the Three Focal Points respond to the request made by email, of endorsing the additional resources from the BD Set Aside.

3. Official Letters of Endorsement to be presented by the time of CEO Endorsement request at the latest.

4-22-20

This PIF is Recommended to Technical Clearance.

ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

Review Dates

	PIF Review	Agency Response
First Review		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval

CONTEXT: EarthRanger is a data visualization and analysis software for Protected Area Management. Earth Ranger is a real-time situational awareness software program that enables and capacitate improved Protected Area management to collect, integrate and display all historical and up to minute data available to allow managers and rangers to take immediate, proactive actions to prevent and mitigate threats including poaching. EarthRanger has been successfully deployed across numerous public and privately managed protected areas during the proof of concept phase. Now that EarthRanger has been suitably tested with a proven track record of success, Vulcan Inc (the software developers) wish to deploy this software together with other enabling technologies across state owned and managed protected areas in Africa to help authorities achieve higher levels of management effectiveness on an enduring basis. This project will fund the capital expenditure required to equip the selected protected areas with the hardware required to achieve the desired outcomes. Other than the possibility of recurrent backhaul costs (which are normal for any remote field operation) and the salaries of control room operators, the technology deployed through this project will entail no other recurrent costs other than

routine maintenance and upkeep. There are no large licensing or support fees involved. The objective of this project is to deploy EarthRanger in at least two protected areas in three countries participating in the Global Wildlife Program (GWP): Botswana, Mozambique and Republic of Congo.

PROJECT: The project has the following components and outputs; **COMPONENT 1:** Installation of EarthRanger software together with other technological tools and infrastructure to be able to operate the software. The deployment of the technologies to improve real-time situational awareness within the context of a resource constrained environment will greatly enable protected area managers to deploy the limited assets and resources at their disposal in a more informed, effective and efficient manner, thereby improving impact and overall management effectiveness. This component has the following outputs: 1) EarthRanger software incorporated in the existing PA management structure in the target protected areas; 2) Establish a dedicated, secure and functional control room facility to be used by management to improve real-time situational awareness; 3) Build the necessary infrastructure and internet capabilities to operate the software; 4) Install and make operational the necessary digital radio communications network; 5) Installation of Long Range (LoRa) Communications Networks (i.e. a new low-bandwidth technology to provide connectivity from the field to the control room. LoRa networks will be installed where the selected protected areas do not have GSM coverage, another low bandwidth); 6) Protected area management staff trained to utilize EarthRanger software (sensors, radios, satellite collars and other data transmitters). **COMPONENT 2:** Learning and knowledge sharing on the EarthRanger technology (Outputs: i) Learning site visit undertaken by other African countries to at least 1 PA; ii) Success stories published on blogs, and websites; iii) Monitoring and Evaluation.

GLOBAL ENVIRONMENTAL BENEFITS: The project will deliver the installation and operation of EarthRanger technologies to improve the management effectiveness of at least 6 protected areas in Botswana, Mozambique and Republic of Congo totaling 2.5 million hectares. The target protected areas participating in the GWP will be selected in close communication with the Governments and Protected Area Agencies during PPG.

INNOVATION, SUSTAINABILITY AND POTENTIAL FOR SCALING UP. Over the past three years, the deployment of technology to improve protected area management effectiveness in Africa has been tested in various Reserves that are predominantly privately managed. Due to access to greater amounts and more flexible funding, these Reserves have been able to incur the associated risk of expenditures on new and untested solutions. Now that the risk takers have paved the way, National Parks will have the opportunity to make use of the advances in the technologies. The EarthRanger software is a tailored solution that has been engineered specifically for the conservation sector. It is therefore robust, user-friendly and able to absorb multiple data inputs as new sensor and tracking technologies emerge. Hence, the relevance of the software and its application is expected to endure for many years. In terms of scalability, this project will act as proof of concept within the public sector protected area management realm to demonstrate the considerable value-add of technology to improve management effectiveness. This proof of concept is expected to promote and advance uptake of such technologies within the public sector. It is true that deployment entails capital costs that are unavoidable for each protected area and these will vary depending on the state of existing technologies and infrastructure. However, when deciding on how best to spend a limited budget, we anticipate that this project will convince decision makers that investment into tested, robust fit-for-purpose technologies can deliver a disproportionate return.

CO-FINANCING: Co-financing in the amount of \$2.5 million will be provided by Vulcan INC (\$2.0 million in Investment mobilized and \$202,500 in recurrent expenditures), the Government of Botswana (\$300,000 in Investment Mobilized) and Conservation International (\$25,000 investment mobilized).