

## CEPF Final Project Completion Report

<b>Organization Legal Name:</b>	Association Vahatra Madagascar's Protected Areas: A Bilingual Book and Associated Database Reviewing their History, Biodiversity and Guiding the Future
<b>Project Title:</b>	
<b>Grant Number:</b>	65745
<b>CEPF Region:</b>	Madagascar and Indian Ocean Islands
<b>Strategic Direction:</b>	2 Enable civil society to mainstream biodiversity and conservation into political and economic decision- making.
<b>Grant Amount:</b>	\$182,633.00
<b>Project Dates:</b>	October 01, 2015 - March 31, 2019
<b>Date of Report:</b>	February 02, 2019

### Implementation Partners

List each partner and explain how they were involved in the project

#### FAPBM

1. Collate and scan legal documents; 2. Chapter on legal aspects of protected area system; 3. Texts on the legal aspects of the sites; 4. Create website to post thousands of pdfs used to write the book (did not happen); 5. Create website to post land vertebrate lists for sites (did not happen).

#### MNP

1. Provide access, including scanning, to protected area documents; 2. Liaison between book editors and MNP staff for information and responses to questions.

#### MBG, CJBG and Famelona

1. Introductory chapter to the flora and vegetation; 2. Separate texts for sites concerning the local flora and vegetation; 3. Collate a vast amount of information on plant specimens collected in protected areas and held in herbaria; 4. Lists of the known flora of each site and post on a website (<http://www.tropicos.org/Project/Madagascar>).

#### Frank Glaw and Miguel Vences

1. Work in the collection at the Université d'Antananarivo to verify reptile and amphibian identifications of specimens collected in protected areas, as well as sequence tissue samples, 2. Survey reptiles and amphibians of poorly known protected areas, 3. Introduction chapter on reptiles and amphibians, with update to the taxonomy of known species, 4. Lists of the known reptiles and amphibians for each site.

## Conservation Impacts

Summarize the overall impact of your project, describing how your project has contributed to the implementation of the CEPF ecosystem profile

**This project had three components:**

**Component 1 - establish a definitive list of the official protected areas (PAs) as of mid-May 2015.**

**Component 2 - Conduct biological inventories in poorly known protected areas of Madagascar to obtain new information for component 3 and to work closely with Malagasy graduate students in the advancement of their studies.**

**Component 3 - write and edit a bilingual book on the protected areas of Madagascar.**

**The overall results and impact of this project can be summarized as follows:**

- 1. Establishing the list of protected areas on Madagascar was completed, which has been circulated to a considerable number of partner organizations. This allowed for consistent references to the status of the island's protected area system up to the date the list was complete.**
- 2. At least four Malagasy Master's graduate students completed their high degrees in the context of this project.**
- 3. Nicoll and Langrand's (1989) book on the island's protected area, published nearly three decades ago, was a milestone in conservation activities on Madagascar. During the subsequent period, a significant amount of field and laboratory work was conducted around the island. The literature on these sites and the organisms they contain is notably extensive and based thousands of publications and available reports. Further, in the past 15 years Madagascar has seen an expansion of its conservation network and the creation of new and different types of protected areas. Hence, the book we have produced on the protected areas is of considerable utility to summarize a variety of aspects of these sites and having this large-scale synthesis within a single book.**
- 4. The printed bilingual book, in French and English, is a critical source for the international and national conservation and protected area communities. Malagasy site managers and staff now have access to clear and concise lists of the terrestrial biota in the protected areas they are conserving, which in turn gives a greater context to their activities to advance and prioritize actions.**
- 5. The information contained in the book is an important resource to increase national and international awareness of the biota of Madagascar's protected areas, which can only have positive implications for the advancement of conservation on the island. The different lists are a great resource for national and international visitors to protected areas, which should have a measurable positive impact on ecotourism.**
- 6. The final section of the book (end of volume 3) provides a synthesis of advances in information and measures of species richness of land vertebrates on the island and specifically 98 protected areas. Further, the final chapter provides a roadmap of priorities of scientific research in the existing terrestrial protected area network.**

Planned Long-term Impacts - 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
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<p>1. Up-to-date information on the protected area system of Madagascar with a definitive list of sites and their conservation status, as well as the means to track site changes and new information on the associated biota, including research, fieldwork, and scientific information (systematics and taxonomy). Current information from a single source, Nicoll and Langrand's 1989 book, is more than two decades out of date, which is particularly significant in light of all of the field and laboratory work conducted over the past decades.</p>	<p>This aspect was completed on schedule. The database was made available to a number of collaborating organizations to make sure different players were using the same information. Since the database was completed, several new protected areas have been named.</p>
<p>2. The book and website information, in both English and French, will be a critical source for the international and national conservation and protected area communities. Site managers and staff will have access to clear and concise lists of the biota in the protected areas they are conserving, which in turn will give a greater context to their activities to advance actions.</p>	<p>The bilingual book, in English and French, was published in late 2018. It was produced in three volumes: 1 - introduction (424 pp.), 2 - protected areas of the east and center (807 pp.), and 3 - protected areas of the western half (485 pp.) is certain to be a critical source of information for the international and national conservation and protected area communities. Site managers and staff now have access to clear and concise lists of the biota in the protected areas they are conserving, which is presumed to provide a greater context to their activities to advance actions. The website project was not completed and Vahatra has submitted a proposal with Strand Life Sciences to complete this aspect.</p>
<p>3. This information will be an important resource to increase national and international awareness of the plants and animals of Madagascar protected areas, which in the long-term can only have positive implications for the advancement of conservation on the island. The different lists that will be downloadable and the eBook version of the protected areas book, which tourists can carry into the field, should have a measurable impact on ecotourism.</p>	<p>The website and ebook projects were not completed and Vahatra has submitted a proposal with Strand Life Sciences to complete these aspects.</p>
<p>4. The associated data and analyses will provide a new road map for a wide variety of aspects concerning conservation and management of Malagasy biodiversity under the protected areas mechanism, including prioritization of new protected areas. This is a critical step for advancing new conservation and research programs.</p>	<p>The last portion of the book is a look into where we have come from since the publication of Nicoll and Langrand's 1989 book, which is rather remarkable, and then a detailed road map into scientific research in protected areas that are poorly known, with a clear program of priority. This last aspect should have important long term impact for the Malagasy scientific community, in helping to set the direction for many years to come.</p>

Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
<p>1. A large scale synthesis to bring up-to-date information on each protected area of Madagascar and highlight those that</p>	<p>The large scale synthesis has been completed that updates information on 98 terrestrial protected area of Madagascar. Based on different analyses, it is clear that</p>

<p>remain insufficiently known, which will include a definitive list as of late May 2015 of the current protected area system, and biotic, abiotic, judicial, and legal aspects of each. To further enhance the utility of the information to be gathered, on-line databases will be created of the known biota of each protected area.</p>	<p>several remain insufficiently known with regards to biotic and abiotic aspect. To further enhance the utility of the information to be gathered, on-line databases need to be created of the known biota of each protected area; this was to be done by FAPBM, but they abandoned this aspect. Vahatra is seeking funds to complete this aspect with Strand Life Sciences.</p>
<p>2. Field inventories to fill in information lacking for certain areas and animal groups, as well as verification of specimen identification in The University of Antananarivo collections, and bar-coding different amphibian specimens using previously preserved tissue collections. Associated with this work, different Malagasy graduate students will be trained and advanced to be future field biologists and conservationist practitioners.</p>	<p>All of these different aspects were completed as planned. Vahatra conducted field inventories to a number of sites to fill in data holes for certain sites and different vertebrate groups. A German herpetologist worked through many hundreds of specimens in the Université d'Antananarivo collections and extensive bar-coding was completed on close to a thousand specimens; data from these two studies were used to construct reptile and amphibian species lists for the 98 sites covered in the book. At least four Malagasy Master's students finished their degrees in the context of this program.</p>
<p>3. Production and publication of a bilingual (French-English) book on the protected areas of Madagascar and associated web-based information on the biota and other aspects of each site. The book will also be in EBook form, which should be an important tool and have a positive impact for ecotourists visiting Madagascar's protected areas.</p>	<p>As mentioned above, the book has been published. The ebook was not undertaken and Vahatra has submitted a proposal with Strand Life Sciences to complete this aspect.</p>
<p>4. A large-scale project of this nature, bringing together collaborators from different countries, disciplines, and working groups, should help to enhance inter-organizational relations. Over and above the physical products of this project, the resulting synergies should help advance conservation on the island.</p>	<p>Certainly during the preparation of the book and interacting with a considerable number of colleagues to obtain and refine different forms of information, from the side of the book editors, there was a sort of synergy. The hope is that after the book is in the hands of a wide range of people working on Malagasy conservation aspects, these positive interactions will be reinforced and maintained.</p>

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives

**A project, particularly the protected area book, as conducted in the context of this grant was not a simple matter, both in advancing the large scope of information gathering, condensing a vast amount of data, and managing the different facets of partnerships, writing, translating, editing, and book production. This challenge has now been completed, in a fashion that we consider a success. The short-term and long-term impacts of the project are considerable, and include a new synthesis on Madagascar's terrestrial protected areas, which will be a point of reference for scientists, conservation biologists, site managers, and national and foreign tourists. The short- and long-term**



**impacts are considerable in light of advancing conservation on the island, providing a new breadth of fresh-air to a recent complicated history of protection, and helping to launch in a new manner ecotourism, which should advance economic growth.**

Were there any unexpected impacts (positive or negative)?

**It is a bit premature to respond to this question in any meaningful manner, as the impacts of the protected area book will become clear in the next few years.**

## Project Components and Products/Deliverables

Describe the results from each product/deliverable:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
1	Establish list of current protected areas, make final decision of the sites to be included in the protected area review, and retrieve documents on the legal aspects of these sites.	1.1	Together with colleagues at the Madagascar Biodiversity Fund and Madagascar National Parks, establish a definitive list of currently recognized terrestrial (excluding exclusively marine) protected areas.	Completed as planned.
1	Establish list of current protected areas, make final decision of the sites to be included in the protected area review, and retrieve documents on the legal aspects of these sites.	1.2	Together with colleagues from Madagascar Biodiversity Foundation and Madagascar National Parks make final decisions on which sites will be included in this project concerning a review of the protected areas of Madagascar.	Completed as planned.
2	Inventories, gene	2.2	In the context of these	Completed as planned.

	sequencing, and specimen identification.		biological inventories, several Malagasy Master's students enrolled in the national university system will be engaged to conduct research and use obtained data to advance their academic careers.	
3	Producing a large-scale review of the protected areas of Madagascar in two different forms: 1) on-line database , and 2) book presenting comprehensive information on each site.	3.3	Type-setting and publication of book, which will include an electronic version.	Completed, but the ebook project is still in process and hopefully will be completed by Strand Life Science in collaboration with Vahatra.
3	Producing a large-scale review of the protected areas of Madagascar in two different forms: 1) on-line database , and 2) book presenting comprehensive information on each site.	3.4	Placing in the public domain the databases and associated documents concerning the protected areas of Madagascar.	Not completed, but Association Vahatra in collaboration with Strand Life Science is currently seeking funding for this work.
3	Producing a large-scale review of the	3.5	Formal presentation of book.	

	protected areas of Madagascar in two different forms: 1) on-line database , and 2) book presenting comprehensive information on each site.			
1	Establish list of current protected areas, make final decision of the sites to be included in the protected area review, and retrieve documents on the legal aspects of these sites.	1.3	With support from the Madagascar Biodiversity Fund and Madagascar National Parks ,obtain documents associated with the establishment of currently recognized protected areas and any subsequent modifications to their statute and boundary delimitation.	Completed as planned.
2	Inventories, gene sequencing, and specimen identification.	2.1	Conduct biological inventories at important protected area sites poorly known with respect to their vertebrate biodiversity. The resulting information will be incorporated	Completed as planned. The resulting data was incorporated into different aspects of the book. However, the on-line database was not completed.

			in a database associated with the biodiversity of Madagascar protected areas.	
2	Inventories, gene sequencing, and specimen identification.	2.3	Sequencing of frog tissue samples to identify specimens housed in the University of Antananarivo museum collection (Dr Vence, Braunschweig). Data and associated identifications incorporated in the protected area biodiversity database.	Completed as planned.
2	Inventories, gene sequencing, and specimen identification.	2.4	Identification of reptile specimens housed at the University of Antananarivo museum collection (Dr. Frank Glaw, Zoologische Staatssammlung, München). The associated identifications will be incorporated in the protected area biodiversity	Completed as planned and the associated data was incorporated into the species lists for each site covered in the book.

			database.	
2	Inventories, gene sequencing, and specimen identification.	2.5	List of the known flora established for each protected area, based on herbarium specimens (MBG and Jardin botaniques de Genève). These identifications will be incorporated in databases associated with Madagascar protected areas.	Completed as planned.
3	Producing a large-scale review of the protected areas of Madagascar in two different forms: 1) on-line database , and 2) book presenting comprehensive information on each site.	3.1	Together with Madagascar Biodiversity Fund ,create and populate an on-line database for each protected area that include access to documents associated with legal aspects	This was not completed, as explained in another portion of this final report. Vahatra is seeking funds with Strand Life Sciences to complete this portion of the project.
3	Producing a large-scale review of the protected areas of Madagascar in two different forms: 1) on-line	3.2	Writing and editing a multi-authored bilingual (French-English) book	Completed as planned, although several months later than planned. Book published in late 2018.

database , and 2) book presenting comprehensive information on each site.		on the protected areas of Madagascar.	
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Please describe and submit any tools, products, or methodologies that resulted from this project or contributed to the results.

**Not applicable to current project**

## Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building.

Consider lessons that would inform:

- Project Design Process (*aspects of the project design that contributed to its success/shortcomings*)
- Project Implementation (*aspects of the project execution that contributed to its success/shortcomings*)
- Describe any other lessons learned relevant to the conservation community

**Biological and conservation politics can be complicated among the different individuals and organizations working on Madagascar. Our colleagues at FAPBM have an excellent rapport with different national and international organizations working in these domains and graceful ambassadors for advancing different collaborations. It became clear at the onset of this project that the best strategy to get around these complications was to let our colleagues at the foundation establish contacts and advance on the organizational politics and then for Association Vahatra to follow through on different scientific aspects.**

**This system worked well until our principal collaborator at FAPBM, Julie Ranivo, left her job on 30 April 2018 to accept another post at UNESCO. After her departure from FAPBM, no other staff member, including her replacement, Ranto Herilahatsa Randriantsoa, was interested in this CEPF project, including remaining aspects FAPBM was responsible for in the original grant submission to CEPF. This comprised aspects of posting thousands of pdf files on their website, as well as vertebrate species lists for each of the 98 sites, with regular downloadable updates as new information becomes available. After discussions with the head of FAPBM, this organization decided not to advance on these activities and was in agreement that other organizations could take responsibility for these activities.**

**Association Vahatra strongly believes that these different forms of on-line information and updates, as well as an ebook version of the book, are critical elements for this project to have the short- and long-term intended impacts. It is for this reason that Association Vahatra has teamed up with Strand Life Sciences to submit a pre-proposal to CEPF to complete these activities.**

## Sustainability / Replication

Summarize the success or challenges in ensuring the project will be sustained or replicated, including any unplanned activities that are likely to result in increased sustainability or replicability.

As is the nature with any large-scale compilation such as the protected area book and the rapid advancement of scientific research on Madagascar, certain portions will become quickly out of date. This is the sign of positive progress and should not be considered in any negative manner. The one aspect that is clear, a considerable amount of research still needs to be conducted to document the biota of different sites in the current protected area system. The last two chapters in the book document this aspect and propose priorities for different scientific interventions in the immediate future. These projected actions are important and the chapters have been fashioned to allow Malagasy researchers (botanists and zoologists) to use the recommendations to find needed funding to fill in missing information. Hence, not only would these actions be important for the advancement of scientific information on the protected areas of Madagascar, but a further step to allow national scientists to fulfill their role.

Association Vahatra has organized a number of events to publicize the protected area book, which provides the possibility of the world discovering the natural wonders of Madagascar and, in turn, conservation and economic advancement for the island's protected areas. These include a formal presentation on 1 March at the Université d'Antananarivo, which will have considerable media coverage and be attended by governmental officials, and individuals working in the university, conservation, and scientific sectors. About the same time *Prime*, the onboard magazine of Air Madagascar, will have an article on the protected area book. On 9 March, there will be a large-scale presentation at the Institut Français de Madagascar, with the general public and many travel agents specializing in ecotourism being invited. Subsequently, Association Vahatra will have bookstands at two different tourism shows on Madagascar, as well as at the Island Biology meeting on La Réunion and the Association of Tropical Biology and Conservation meeting in Antananarivo. These are some of the actions that will be taken to advance the message of the book and ecotourism development on Madagascar.

## Safeguards

If not listed as a separate Project Component and described above, summarize the implementation of any required action related to social, environmental, or pest management safeguards

Not relevant to the current project.

## Additional Comments/Recommendations

Use this space to provide any further comments or recommendations in relation to your project or CEPF

**We believe all of the needed details related to this question are presented in other sections of this report.**

## **Additional Funding**

Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of CEPF investment

### **Total additional funding (US\$)**

*\$234,500.00*

### **Type of funding**

*Please provide a breakdown of additional funding (counterpart funding and in-kind) by source, categorizing each contribution into one of the following categories:*

- A Project Co-Financing (other donors or your organization contribute to the direct costs of this project)*
- B Grantee and Partner Leveraging (other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF funded project)*
- C Regional/Portfolio Leveraging (other donors make large investments in a region because of CEPF investment or successes related to this project)*

- 1) Helmsley Charitable Trust (\$102,500) - a grant was received from this organization for different activities of Association Vahatra on Madagascar, which included the above mentioned sum specifically for the protected area book and associated with translation, a portion of the printing costs, and purchase the writes to print photos from professional photographers.**
- 2) Biodiversity Conservation Madagascar (\$5000) - specifically for printing costs.**
- 3) Two private funders (\$52,000) - specifically for different production costs.**
- 4) Conservatoire et Jardin botaniques de la Ville de Genève (\$10,000) - specifically for translation of the vegetation section into English.**
- 5) Field Museum of Natural History (\$5000) - specifically for costs associated with the presentation of the book on 4 June in Chicago.**
- 6) Liz Claiborne and Art Ortenberg Foundation (\$25,000) - specifically for book printing costs.**
- 7) Nitidae (\$10,000) - in kind salary payment of one of the book editors.**
- 8) MacArthur Foundation (\$25,000) - specifically for book printing costs.**

## **Information Sharing and CEPF Policy**

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, [www.cepf.net](http://www.cepf.net), and publicized in our newsletter and other communications.

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1. Please include your full contact details (Name, Organization, Mailing address, Telephone number, E-mail address) below

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