

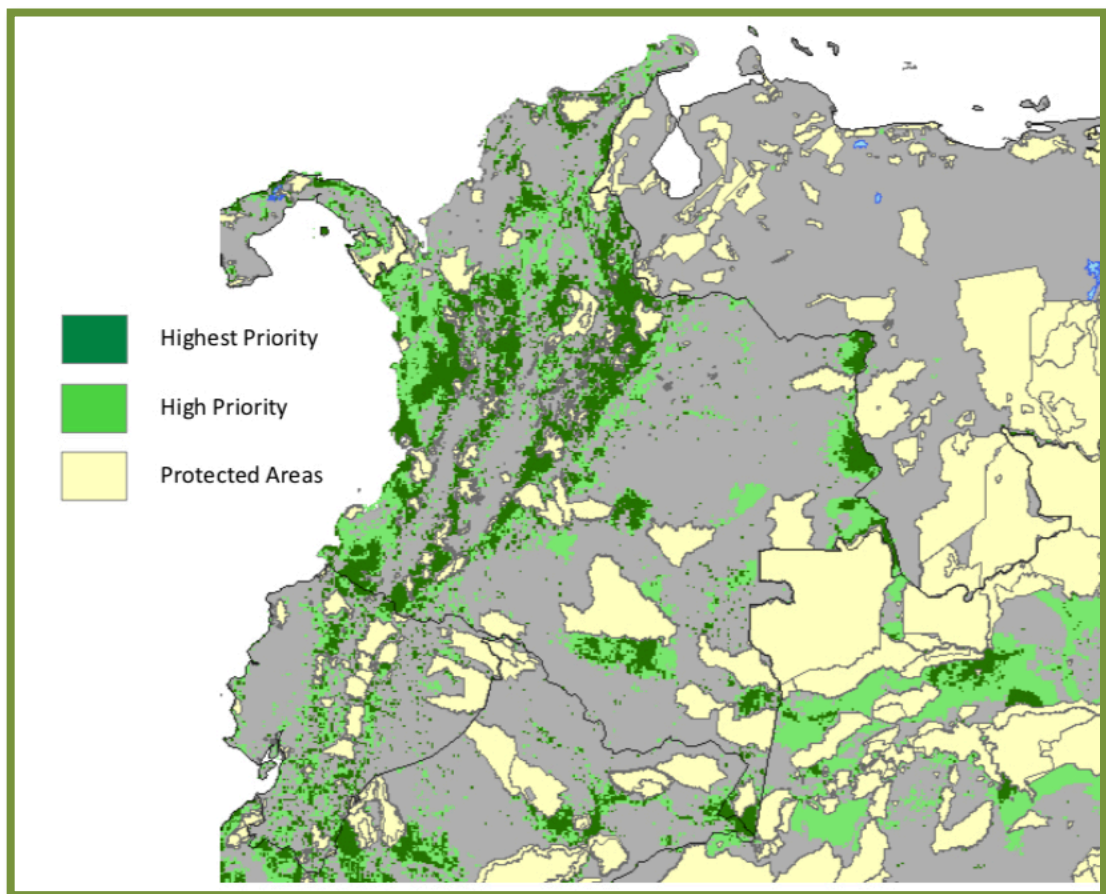
Spatial Planning for Protected Areas in Response to Climate Change (SPARC)

Global

**GEF Agency: Conservation International
Executing Entity: Conservation International
GEF Biodiversity Focal Area; GEF Project ID: 5810**

Terminal Evaluation Report

November 12, 2019



Josh Brann, International Consultant, Brann.Evaluation@gmail.com

Contents

I. Executive Summary	5
II. SPARC Project Terminal Evaluation Approach.....	12
A. Terminal Evaluation Purpose, Objectives and Scope	12
B. Principles for Design and Execution of the Evaluation.....	13
C. Evaluation Approach and Data Collection Methods	14
D. Limitations to the Evaluation	14
III. Project Overview	15
A. SPARC Project Development Context.....	15
B. Problems the SPARC Project Seeks to Address	15
C. SPARC Project Description and Strategy	16
D. Implementation Approach and Key Stakeholders.....	17
i. Implementation Arrangements	17
ii. Key Stakeholders	19
iii. Key Milestone Dates	20
IV. Relevance	22
A. Relevance of the SPARC Project Objective.....	22
i. Relevance to GEF Strategic Objectives	22
ii. Relevance to Supporting Implementation of the CBD	23
B. Relevance of the Project Approach: Theory-of-Change, Project Strategy and Design.....	23
V. Project Management and Cost-effectiveness (Efficiency).....	25
A. Implementation, Including CI Oversight.....	25
B. Execution (Project Management)	26
C. SPARC Project Workflow Timing and Delivery	26
D. Partnership Approach and Stakeholder Participation.....	27
E. Risk Assessment and Monitoring	28
F. Flexibility and Adaptive Management	28
G. Financial Planning by Component and Financial Management	29
H. Planned and Actual Co-financing	31
I. Monitoring and Evaluation.....	32
i. M&E Design	32
ii. M&E Implementation.....	33
VI. Effectiveness and Results: Progress Toward the Objective and Outcomes	33
A. <i>Component 1: Global data compilation and analysis of protected area vulnerability to climate change</i> ...	35
B. <i>Component 2: Regional fine scale assessment and research-to-policy briefs</i>	38
C. <i>Component 3: Monitoring and Evaluation</i>	45
D. Progress Toward Impacts and Global Environmental Benefits	47
VII. Key GEF Performance Parameters	48
A. Sustainability	48
B. Catalytic Role: Replication and Up-scaling	49
C. Gender Equality and Mainstreaming	50
VIII. Main Lessons Learned and Recommendations	52
A. Lessons from the Experience of the SPARC Project	52
B. Recommendations for Consolidating Results and Supporting Sustainability.....	55
IX. Annexes	57
A. Annex 1: Terms of Reference	58
B. Annex 2: GEF Operational Principles.....	72
C. Annex 3: SPARC Project Terminal Evaluation Matrix	73
D. Annex 4: Interview Guide.....	77
E. Annex 5: Rating Scales.....	86
F. Annex 6: Key Informants Interviewed	87
G. Annex 7: Documents Reviewed.....	88
H. Annex 8: SPARC Project Results Framework Assessed Level of Indicator Target Achievement.....	90

I.	Annex 9. Publications in Preparation Resulting from SPARC	103
J.	Annex 10. Number of Participants per Meeting	104

Acronyms

BEIN	Botanical Information and Ecology Network
CBD	Convention on Biological Diversity
CEO	Chief Executive Officer
CI	Conservation International
COP	Conference of Parties
DGVM	Dynamic Global Vegetation Model
GCM	Global Climate Model
GEF	Global Environment Facility
Ha	hectares
IUCN	International Union for the Conservation of Nature
KM	Kilometers
M&E	Monitoring and Evaluation
MSP	Medium-sized Project
N/A	Not applicable
NGO	Non-governmental Organization
PA	Protected area
PIF	Project Information Form
PIMS	Project Information Management System
PIR	Project Implementation Report
PMU	Project Management Unit
PPG	Project Preparation Grant
PSC	Project Steering Committee
SAP	Science Advisory Panel (of the SPARC project)
SPARC	Spatial Planning for Protected Areas in Response to Climate Change
STAP	Science and Technical Advisory Panel (of the GEF)
TE	Terminal Evaluation
TOR	Terms of Reference
UCSB	University of California Santa Barbara
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollars
WWF	World Wildlife Fund

I. Executive Summary

Table 1 Project Summary Data

PROJECT INFORMATION			
PROJECT TITLE:	Spatial Planning for Protected Areas in Response to Climate Change (SPARC)		
PROJECT OBJECTIVE:	Provide countries in the Neotropical, Afrotropical and Indo-Malayan biogeographic realms with the assessments and data needed to improve planning, design and management of terrestrial protected areas for climate change resilience.		
PROJECT OUTCOMES:	1.1. Information on species range shifts and ecosystem change made available for regional protected areas planning. 1.2. Conservation planning tools allowing regional assessments of representation losses resulting from species range shifts and ecosystem changes developed and readily available. 1.3. Regional assessment teams have information needed to understand priority areas for protected areas system planning to counteract loss of representation due to climate change. 2. 1. Regional assessments produced by teams of leading scientists from each of the three regions. 2.2. Research-to-policy briefs prepared and presented to government protected areas agencies 2.3. Decision support tools for visualization and interactive use of the research results produced. 3.1. Participatory monitoring and evaluation framework integrated at all levels of project management. 3.2. Adaptive implementation of regional assessments.		
COUNTRY(IES):	83 tropical countries in the 3 target regions (Neotropical, Afro-tropical and Indo-Malayan biogeographic realms)	GEF ID:	5810
GEF AGENCY(IES):	Conservation International	CI CONTRACT ID:	
OTHER EXECUTING PARTNERS:	The Moore Center for Science and Oceans at Conservation International (MCSO); University of Leeds; University of Stellenbosch; Catholic University of Chile; Xishuangbanna Tropical Botanical Gardens	DURATION IN MONTHS:	36
GEF FOCAL AREA(S):	Biodiversity	START DATE (mm/yyyy):	01/2016
INTEGRATED APPROACH PILOT:	N/A	END DATE (mm/yyyy):	12/2018
NAME OF PARENT PROGRAM:	N/A	PRODOC SUBMISSION DATE:	10/1/2015
RE-SUBMISSION DATE(S):	10/27/2015		

FUNDING SOURCE	AMOUNT (USD)
GEF PROJECT FUNDING:	1,804,862
PPG FUNDING:	0.00
TOTAL GEF GRANT:	1,804,862
CO-FINANCING 1: CONSERVATION INTERNATIONAL FOUNDATION	638,692
CO-FINANCING 2: UNIVERSITY OF STELLENBOSCH	785,00
CO-FINANCING 3: UNIVERSITY OF ARIZONA	649,716
CO-FINANCING 4: UNIVERSITY OF LEEDS	598,000
CO-FINANCING 5: CATHOLIC UNIVERSITY OF CHILE	450,000
CO-FINANCING 6: IUCN	350,000
CO-FINANCING 8: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION (CSIRO)	184,584
TOTAL CO-FINANCING :	3,655,992
TOTAL PROJECT COST:	5,460,854

PROJECT DESCRIPTION AND OVERVIEW

1. The global project “*Spatial Planning for Protected Areas in Response to Climate Change*” project (the SPARC project) is a Global Environment Facility (GEF) -funded medium-sized project (MSP) working construct scenarios of change in the three highest diversity continental tropical regions, to better understand threats from disrupting climate shifts and opportunities for adaptation of terrestrial protected area networks. The SPARC project was specifically initiated as a “targeted research” project in response to a request from the GEF’s Science and Technical Advisory Panel (STAP) to better understand the potential impacts of climate change on the GEF’s biodiversity portfolio, and especially with respect to the GEF’s support for the global protected area estate.

2. The project received GEF approval December 5, 2015, implementation began in April 2016 with the inception workshop, and the operational completion was October 31, 2019. The project is under the GEF’s biodiversity focal area. The project had GEF funding of \$1.80 million United States dollars (USD), and planned co-financing of \$3.66 million USD, for a total project cost of \$5.46 million. The Conservation International (CI) GEF Project Agency is the project’s GEF Agency, and served as the main executing body for this global project, with multiple other executing partners. As the responsible GEF Agency, the CI-GEF Project Agency was responsible for supporting execution and implementation, and was responsible for oversight of delivery of agreed outputs as per agreed project work plans, financial management, and for ensuring cost-effectiveness.

3. As stated in the Prodoc, the project vision is for: “*National protected areas systems that maximize representation of species and ecosystems as climate changes.*” The project objective is to: “*Provide countries in Afrotropical, Neotropical and Indo-Malayan biogeographic realms with the assessments and data needed to improve planning, design and management of terrestrial protected areas for climate change resilience*”. The project was structured in two technical components and one component dedicated to coordination and knowledge management through monitoring and evaluation:

- **Component 1: Global data compilation and analysis of protected area vulnerability to climate change**
 - Outcome 1.1. Improved information on species range shifts and ecosystems change made available for regional assessment
 - Outcome 1.2. Conservation planning tools allowing regional assessment of representation losses resulting from species range shifts and ecosystem changes developed and readily available
 - Outcome 1.3. Regional assessment teams have coarse scale information needed to understand priority areas for protected areas system planning to counteract the loss of representation due to climate change
- **Component 2: Regional assessment and research-to-policy briefs**
 - Outcome 2.1. Fine grain regional assessments produced by leading regional scientists from the priority biogeographic realms
 - Outcome 2.2. Research-to-policy briefs prepared and presented to government protected areas agencies

- Outcome 2.3. Decision support tools for visualization and interactive use of research results
 - **Component 3: Monitoring and Evaluation**
 - Outcome 3.1. Participatory M&E framework and an informative and proactive feedback mechanism integrated into all levels of project cycle management.
 - Outcome 3.2. Adaptive implementation of scenario modeling
4. The project results framework, with expected indicators and targets, is included in the project document (Appendix I of the Prodoc, pp. 55-69). The project results framework represents the primary foundational element for assessing project results (progress toward the expected outcomes and objective) and effectiveness.
5. According to GEF and CI-GEF evaluation policies and procedures, terminal evaluations (TE) are required for all GEF funded MSPs, and the terminal evaluation was a planned activity of the monitoring and evaluation (M&E) plan of the SPARC project. The terminal evaluation reviews the actual performance and progress toward results of the project against the planned project activities and outputs, based on the standard evaluation criteria: relevance, efficiency, effectiveness, results and sustainability. The evaluation assesses progress toward project results based on the expected objective and outcomes, as well as any unanticipated results. The evaluation identifies relevant lessons for other similar projects in the future, and provides recommendations as necessary and appropriate. The evaluation methodology was based on a participatory mixed-methods approach, which included two main elements: a) a desk review of project documentation and other relevant documents; and b) semi-structured interviews with Key Informants at regional and global levels. The evaluation is based on evaluative evidence from the project development phase through October 31, 2019, when the terminal evaluation data collection phase was completed. The evaluation commenced August 15th, 2019 with the signing of the evaluation contract. The desk review and data collection portion of the evaluation was completed in September and October 2019. No field mission was carried out for the project, as the project was a global targeted research project working with 80+ countries, without specific field sites.

FINDINGS AND CONCLUSIONS ON THE MAIN EVALUATION CRITERIA

6. With respect to **relevance**, the project is considered **relevant / highly satisfactory**. Considering that the project was specifically requested by the GEF, through the STAP, the project clearly supported GEF priorities and strategies. The project conforms with GEF biodiversity focal area strategies and priorities for GEF-5, and is directly supportive of and relevant to Convention on Biological Diversity (CBD) strategic priorities and targets. The project strategy and design is relevant, and the project's implicit theory-of-change is sound.
7. Project **efficiency** is rated **satisfactory**. The project's internal coordination, financial management, adaptive management, and partnership approach are all highlights related to project efficiency. The project's M&E approach could have been strengthened. The project faced some delays during implementation, which slightly affected the project's secondary results in terms of outreach and uptake of modeling results. Project financial management was positive, though procurement and contracting took longer than project participants expected. Project

management costs are expected to be at or below the planned amount of 8.3% of GEF funding. Project co-financing commitments have been fully met.

8. The SPARC project has achieved the project objective and the associated planned outcomes. The project's **effectiveness** is rated **satisfactory**, and project **results / achievement of overall outcomes** is rated **highly satisfactory**. The project achieved all eight results indicator targets, including exceeding one of these.

9. In terms of the scientific analysis and results of the project, the SPARC project provides a benchmark example of what GEF-funded targeted research projects can and should be: A focused and relatively compact effort to answer a well-defined driving question, with a robust scientific approach based on cutting edge methods and data, and findings that have relevance for future GEF investments at global, regional, and national levels.

10. Under Component 1, the project was more successful in aggregating global data than had originally been anticipated in the project design phase. The project results framework did not specify the number of species that the project would include data for, but the project document stated "*Up to 5,000 species will be modeled, including 3,000 or more plants and 2,000 threatened or climate vulnerable vertebrates.*" In fact, the project was able to model more than 20 times this number. In terms of the scientific results, final results were synthesized into regional reports and country-specific research to policy briefs, and high level findings were submitted to a forthcoming special issue of *Science Advances* which aims to come out in advance of the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP) in Chile in late 2019. The project has so far resulted in 13 scientific papers prepared and submitted for publication, or in preparation. It is anticipated additional papers summarizing aspects of the regional assessments will be submitted over the next 6-12 months.

11. Beyond the scientific research and findings, on the one hand it is impressive that the project design went so far as to include plans for outreach and dissemination of results once the scientific analysis was completed (under Component 2). At the same time, the amount of time and resources available under the SPARC project for this outreach process was far from sufficient to be fully effective. To ensure the sustainability of project results much more ongoing outreach and dissemination is necessary at global, regional and national levels.

12. The SPARC project was not designed or intended to achieve impact-level results within the life of the project. Therefore, as of the time of this terminal evaluation it is necessary to apply a "theory-based evaluation" concept to understanding the project's likely future contribution to biodiversity impacts. Based on the project's Theory-of-Change and the project results achieved, in terms of **impact** and the project's **progress toward stress reduction/status change**, it is anticipated that the project is likely to make a **significant** contribution to impact level results and global environmental benefits in the future. This is dependent on the further ongoing dissemination and uptake of the project results into national protected area and conservation planning approaches in the three target regions.

13. There are some risks to the sustainability of the project results but overall **sustainability** is considered **moderately likely**. The project was able to substantively answer the scientific questions that were the project's main goal, but those results will not be useful if they are not actually put into practice in terms of adjustments to conservation planning in the three tropical regions the project targeted. The project made some initial steps toward outreach and

dissemination of results, but much more, and more sustained, effort is required to reach outcomes where conservation planning and national protected area networks are modified to reflect priorities under climate change. There are already some preliminary efforts to further the work of the SPARC project, and disseminate the results, and the regional Principal Investigators also all indicated that they plan to continue the work of the SPARC project. However, continuing more in-depth and widespread outreach and dissemination across countries in the target regions would take much more significant investment. A key assumption for project outcomes and impacts relates to the political will at the national level to take up SPARC findings and recommendations, and actually make changes to national protected area networks, and political will often depends on socio-economic issues much more than it does on science. Institutional and governance sustainability is closely linked with the financial and socio-economic sustainability risks discussed above. At a minimum the GEF and CI should ensure the SPARC results are institutionalized within their respective portfolios. The major environmental risk to the project results is the extent to which the climate models the project used end up being at least somewhat accurate. All project participants expressed a high level of confidence in the project results, but at the same time emphasized the need to recognize the limitations in terms of the data availability, data quality, and uncertainty of the climate models used.

14. There were no significant issues related to the planning and implementation of **environmental and social safeguards**. This aspect of the project is rated as **satisfactory**. There remains room for improvement in terms of gender mainstreaming in similar future projects.

RECOMMENDATIONS

15. The recommendations of the terminal evaluation are listed below, with the primary target audience for each recommendation following in brackets. Lessons from the project are summarized at the end of the main evaluation report body.

16. *Recommendation 1:* The GEF and CI should conceptualize a follow-up effort to the SPARC project to further disseminate and support uptake the SPARC results, and ensure that SPARC findings are ultimately incorporated in the national conservation planning strategies of as many countries as possible in the targeted regions. It was not realistic or feasible within the SPARC project to catalyze significant uptake of the results, although some positive progress was made. In addition, further work is needed on capacity development of national-level practitioners (e.g. training on the use of SPARC data, and application of methods) to turn the SPARC project results into a highly catalytic resource. [GEF Secretariat, CI-GEF Project Agency]

17. *Recommendation 2:* The GEF and CI should identify opportunities to apply SPARC analysis in highly sensitive and high priority regions outside the tropics. One example is in mountain ecosystems in other highly biodiverse areas (i.e. “Hotspots”), such as the Caucasus, and the mountains of central Asia. Mountain ecosystems are highly sensitive to climate change, and there is a significant need to improve the understanding of how climate change will impact biodiversity in these regions, and what types of geospatial planning should be done to address these impacts. For example, there is a significant global effort to conserve snow leopards and associated ecosystems under the Global Snow Leopard and Ecosystem Conservation Program, but a large amount of the work currently being done to establish protected areas and ecosystem corridors

for the conservation of snow leopards may turn out in a few decades to have been futile in the face of climate change impacts. [GEF Secretariat, CI]

18. **Recommendation 3:** To further the SPARC project's catalytic influence, the GEF should require GEF-funded projects in the GEF-8 funding cycle that address protected area systems to incorporate SPARC findings. Conservation International should also take all available opportunities to institutionalize the SPARC project findings within CI's full portfolio of work. [GEF Secretariat, CI]

19. **Recommendation 4:** CI should expand its suite of financial partnership arrangements beyond the existing current "grant" or "contract" modalities. There are other types of partnership arrangements that other GEF agencies have applied (i.e. Memorandums of Understanding or similar, or strategic partnerships), that allow more flexibility in terms of procurement, financial management, and operational procedures. Under appropriate circumstances, alternative modalities could improve transparency and simplify financial reporting. [CI]

20. **Recommendation 5:** CI-GEF should strengthen its M&E approach for GEF projects. This would involve: a.) Tailoring GEF-funded project's M&E plans to the specific project, rather than having a generic M&E plan; b.) Improving the correlation between M&E planned budgeting and the implementation of M&E activities, with consistency in M&E budgeting in all project design documents, and a rough target of 2%-5% of the project budget for M&E activities; and, c.) Designing project results frameworks with indicator targets at the objective level, and improving the "SMARTness" of all indicators and targets. [CI-GEF Project Agency]

21. **Recommendation 6:** Future GEF / CI targeted research projects should include a gender mainstreaming strategy and action plan at the project approval stage (rather than as an afterthought once implementation begins), which specifically includes a goal of addressing current gender imbalances in terms of the number of women represented in scientific and technical fields, in relation to the scientific topic to be targeted under the project. In other words, such projects should include activities to proactively cultivate technical capacity among women in the targeted field of study (assuming women are under-represented in the particular scientific field of study addressed). [GEF Secretariat, CI]

SPARC PROJECT TERMINAL EVALUATION SUMMARY RATINGS TABLE

Evaluation Ratings:			
1. Monitoring and Evaluation	Rating	2. Implementation & Execution	Rating
M&E Design at Entry	MS	Quality of CI Implementation	S
M&E Plan Implementation	MS	Quality of Execution - Executing Agency	S
Overall Quality of M&E	MS	Overall Quality of Implementation / Execution	S
3. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R / HS	Financial Resources	ML
Effectiveness	S	Socio-political	ML
Efficiency	S	Institutional Framework and Governance	ML
Overall Project Outcome Rating	HS	Environmental	ML
		Overall Likelihood of Sustainability	ML
5. Impact	Rating	6. Environmental and Social Safeguards	
Environmental Status Improvement	Negligible	Design and Implementation of Safeguards	S
Environmental Stress Reduction	Negligible		
Progress Toward Stress/Status Change	Significant	Overall Project Results	HS

Standard GEF Ratings Scale

Rating Criteria	Rating Scale
Relevance	Relevant (R) Not-relevant (NR)
Effectiveness, Efficiency, Results, GEF principles, other lower-level ratings criteria, etc.	Highly satisfactory (HS): There were no shortcomings in the achievement of objectives in terms of effectiveness or efficiency Satisfactory (S): There were minor shortcomings in the achievement of objectives in terms of effectiveness or efficiency Moderately satisfactory (MS): There were moderate shortcomings in the achievement of objectives in terms of effectiveness or efficiency Moderately unsatisfactory (MU): There were significant shortcomings in the achievement of objectives in terms of effectiveness or efficiency Unsatisfactory (U): There were major shortcomings in the achievement of objectives in terms of effectiveness or efficiency Highly unsatisfactory (HU): There were severe shortcomings in the achievement of objectives in terms of effectiveness or efficiency
Sustainability	Likely (L): Negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future Moderately Likely (ML): Moderate risks, but expectations that at least some outcomes will be sustained Moderately Unlikely (MU): Substantial risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on Unlikely (U): Severe risk that project outcomes as well as key outputs will not be sustained
Impact	Significant (S): The project contributed to impact level results (changes in ecosystem status, etc.) at the scale of global benefits (e.g. ecosystem wide, significant species populations, etc.) Minimal (M): The project contributed to impact level results at the site-level or other sub-global benefit scale Negligible (N): Impact level results have not (yet) been catalyzed as a result of project efforts
Other	Not applicable (N/A) Unable to assess (U/A) Not specified (N/S)

II. SPARC Project Terminal Evaluation Approach

22. The terminal evaluation was initiated by CI, which is the GEF Agency for the project, in line with the monitoring and evaluation plan of the project. The evaluation was carried out as a collaborative and participatory exercise, and identifies key lessons and any relevant recommendations necessary to ensure the achievement and sustainability of project results.

A. Terminal Evaluation Purpose, Objectives and Scope

23. The **purpose** of the evaluation is to provide an independent external view of the progress toward the project's objective and expected outcomes, and to provide feedback and recommendations to CI and project stakeholders that can help consolidate project results and support the sustainability of the project after completion.

24. The **objective** of the terminal evaluation is to:

- Identify potential project design issues;
- Assess progress toward achievement of expected project objective and outcomes;
- Identify and assess current risks to the success of the project;
- Identify and document lessons that can both improve the sustainability of benefits from this project and aid in the overall enhancement of CI and GEF programming; and
- Make recommendations for any necessary measures to consolidate the results and support sustainability of the project.

25. The **scope** of the evaluation is as outlined in the inception report for the evaluation, and covers the following aspects, integrating the GEF's Operational Principles, as appropriate. The scope is elaborated in more detail in the evaluation inception report, which is available on request.

i. Project Theory-of-Change and Strategy

- Project design
- Results Framework/Logframe

ii. Progress Towards Results

- Progress Towards Outcomes Analysis
- Impact and Global Environmental Benefits
- Catalytic role: Replication and up-scaling

iii. Project Implementation and Adaptive Management

- Management Arrangements
- Work Planning
- Finance and co-finance
- Project-level Monitoring and Evaluation Systems
- Stakeholder Engagement and Partnership Approach
- Reporting
- Communications

iv. Sustainability

- Financial risks to sustainability

- Socio-economic risks to sustainability
- Institutional Framework and Governance risks to sustainability
- Environmental risks to sustainability

v. Conclusions and Recommendations

- Lessons learned
- Recommendations

26. Evaluative evidence was assessed against the main GEF evaluation criteria, as identified and defined in Table 2 below:

Table 2. GEF Main Evaluation Criteria for GEF Projects

Relevance
• The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time. • The extent to which the project is in line with the GEF Operational Programs or strategic priorities under which the project was funded. • Note: Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances.
Effectiveness
• The extent to which an objective has been achieved or how likely it will be achieved.
Efficiency
• The extent to which results have been delivered with the least costly resources possible; also called cost-effectiveness or efficacy.
Results
• The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention. • In GEF terms, results include direct project outputs, short to medium-term outcomes, and longer-term impact including global environmental benefits, replication effects and other local effects.
Sustainability
• The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion: financial risks, socio-political risks, institutional framework and governance risks, environmental risks • Projects need to be environmentally, as well as financially and socially sustainable.

B. Principles for Design and Execution of the Evaluation

27. The evaluation was conducted in accordance with the GEF M&E Policy,¹ which includes the following principles for evaluation: Credibility, Utility, Impartiality, Transparency, Disclosure, and Participation. The evaluation was also conducted in line with United Nations Evaluation

¹ See <http://www.thegef.org/gef/Evaluation%20Policy%202010>.

Group norms and standards.² The evaluation provides evidence-based information that is credible, reliable and useful. The evaluation followed a participatory and consultative approach ensuring close engagement with the CI project team.

C. Evaluation Approach and Data Collection Methods

28. The evaluation commenced August 15th, 2019 with the signing of the evaluation contract. The desk review and data collection portion of the evaluation were completed in September and October 2019. No field mission was carried out for the project, as the project was a global targeted research project working with 80+ countries, without specific field sites.

29. The TE evaluation matrix, describing the indicators and standards applied with respect to the evaluation criteria, is attached as Annex 3 to this report. The interview guide used to provide a framework for qualitative data collection is included as Annex 4 to this evaluation report. The standard GEF rating tables and rating scale applied is included as Annex 5 to this report. The list of individuals interviewed is included as Annex 6 to this report.

30. The collection of evaluative evidence was based on two primary data collection methodologies:

1. Desk review of relevant documentation (a list of documents reviewed included as Annex 7 to this report).
2. Semi-structured interviews with Key Informants at regional and global levels

31. As such, the TE process involved four main steps, some of which overlapped temporally:

1. Desk review of project documentation
2. Organization and completion of key stakeholder interviews
3. Analysis of data, follow-up to address any data gaps, and drafting of the evaluation report, then circulation to evaluation participants for additional feedback and input
4. Finalization of the evaluation report and follow-up with the project team and stakeholders

32. Key stakeholders targeted for interviews were intended to represent the main project partners, which are those most knowledgeable about various aspects of the project.

D. Limitations to the Evaluation

33. All evaluations face limitations in terms of the time and resources available to adequately collect and analyze evaluative evidence. For the SPARC project TE, there were no additional significant limitations. All key documents were available in English language, or were translated. The project team provided all requested information and data for the evaluation data collection process. There were two identified Key Informants that were not available for interviews during the data collection process, but this is not considered a significant limitation, as extensive information about the project was available from multiple other sources. Wherever possible the evaluation has tried to draw on multiple data sources for triangulation of evaluation findings. Altogether the evaluation challenges were manageable, and the evaluation is believed to represent a fair and accurate assessment of the project.

² See http://www.uneval.org/normsandstandards/index.jsp?doc_cat_source_id=4.

III. Project Overview

A. SPARC Project Development Context

34. This section contains a brief description of the project development context. It draws from the project document, which contains more extensive and detailed information.

35. Climate change is impacting species and ecosystems worldwide. Species' ranges are shifting to track suitable conditions as climate changes. Simulations of future change show movements of species and ecosystems, rearrangement of plant and animal communities, the emergence of novel communities and risk of extinction for hundreds of thousands or millions of species.

36. Protected areas are a principal conservation tool for conserving species and ecosystems. They have been shown to be effective in reducing extinction risk from climate change. Representation of species and ecosystems is a general goal of national protected areas systems and a specific goal of GEF support to these national efforts.

37. Climate change rearrangement of species and ecosystems may result in loss of representation in protected areas, increasing extinction risk. This problem is accentuated because most protected areas have not been selected a part of a systematic spatial planning effort and not planned with climate change in mind. As a result, the opportunity to place protected areas in the best locations to avoid extinctions and loss of representation of species and ecosystems due to climate change is mostly unrealized.

38. Species' ranges movements in response to climate change often occur on regional and continental scales, making it more cost effective to conduct continental-scale assessments with nested country assessments, rather than having country assessments perform multiple repetitive and independent continental scale analyses. Because the resources required to mount continental-scale assessments are substantial, there are major cost-savings to be realized in performing a uniform set of continental scale studies.

B. Problems the SPARC Project Seeks to Address

39. The SPARC project was specifically initiated as a "targeted research" project in response to a request from the GEF's STAP to better understand the potential impacts of climate change on the GEF's biodiversity portfolio, and especially with respect to the GEF's support for the global protected area estate.

40. The project document identifies the main problem the SPARC project is designed to address, which is the geospatial shifting of biodiversity over time due to climate change, while the boundaries of the protected areas intended to conserve biodiversity remain stationary. As described in the Prodoc, *"Climate change is causing species ranges to move upslope and to higher latitudes (IPCC 2013). These range shifts take place at paces unique to each species, resulting in rearrangement of plant and animal associations (Williams 2001). The result is species moving, sometimes to areas entirely outside their current range, the formation of novel ecosystems, and the movement or disappearance of current ecosystems across parts or all of their ranges (IPCC 2013)."* "Most protected areas have not been sited to be effective in the face of climate change," and "existing national protected areas systems are not well designed to deal with climate change – they are likely to suffer loss of species and ecosystem representation as climate change unfolds.

The root cause of systems poorly planned for climate change is the lack of recognition of the impacts of climate change in the last century when most national protected areas systems were developed.” “The root cause of species range shifts and the movement of ecosystems is climate change itself. Further, the root cause of lack of protected area adaptation for climate change is the lack of understanding that climate change poses a fundamental challenge for maintaining representation of species and ecosystems in protected areas.”

41. The project document highlights multiple barriers to adapting protected area systems to future climate change. These are:

- *Barrier 1: Lack of resources for comprehensive assessment*
- *Barrier 2: Lack of data to estimate tropical species’ response to climate change*
- *Barrier 3: Inability to mine large global datasets*
- *Barrier 4: Country-focused protected areas planning*
- *Barrier 5: Relative scarcity of Regional Climate Models for the tropics*
- *Barrier 6: Time lags in translating research into actionable recommendations*

C. SPARC Project Description and Strategy

42. As stated in the Prodoc, the project vision is for: “*National protected areas systems that maximize representation of species and ecosystems as climate changes.*” The project objective is to: “*Provide countries in Afrotropical, Neotropical and Indo-Malayan biogeographic realms with the assessments and data needed to improve planning, design and management of terrestrial protected areas for climate change resilience*”. The project was structured in two technical components and one component dedicated to coordination and knowledge management:

- **Component 1: Global data compilation and analysis of protected area vulnerability to climate change**
 - Outcome 1.1. Improved information on species range shifts and ecosystems change made available for regional assessment
 - Output 1.1.1. Species range shifts due to climate change simulated at coarse scale and species vulnerability data compiled
 - Output 1.1.2. Global models of ecosystem change compiled and formatted
 - Outcome 1.2. Conservation planning tools allowing regional assessment of representation losses resulting from species range shifts and ecosystem changes developed and readily available
 - Output 1.2.1. Methodology for assessment of representation losses in terrestrial protected areas developed and peer-reviewed
 - Output 1.2.2. Methodology for protected areas system planning to compensate for representation losses developed and peer-reviewed
 - Outcome 1.3. Regional assessment teams have coarse scale information needed to understand priority areas for protected areas system planning to counteract the loss of representation due to climate change
 - Output 1.3.1. Coarse scale conservation planning conducted for the three regions

- **Component 2: Regional assessment and research-to-policy briefs**
 - Outcome 2.1. Fine grain regional assessments produced by leading regional scientists from the priority biogeographic realms
 - Output 2.1.1. Scenario analysis refined at high resolution (1km) by teams of leading scientists in each priority biogeographic realm
 - Output 2.1.2. Potential regions for protected areas expansion to offset loss of representation identified
 - Outcome 2.2. Research-to-policy briefs prepared and presented to government protected areas agencies
 - Output 2.2.1. Research-to-policy briefs delineating multi-country technical issues and multi-national collaborative response opportunities associated with species and ecosystem changes
 - Output 2.2.2. Research-to-policy briefs on country technical issues and opportunities for protected areas adaptation presented to government protected areas management agencies
 - Outcome 2.3. Decision support tools for visualization and interactive use of research results
 - Output 2.3.1. Option-exploration decision support tool developed and protected areas planners and policymakers trained in its use
- **Component 3: Monitoring and Evaluation**
 - Outcome 3.1. Participatory M&E framework and an informative and proactive feedback mechanism integrated into all levels of project cycle management.
 - Outcome 3.2. Adaptive implementation of scenario modeling

43. The project results framework, with expected indicators and targets, is included in the project document (Appendix I of the Prodoc, pp. 55-69). The project results framework represents the primary foundational element for assessing project results (progress toward the expected outcomes and objective) and effectiveness.

44. The project received GEF approval December 5, 2015, implementation began in April 2016 with the inception workshop, and the operational completion was July 31, 2019. The project is a under the GEF's biodiversity focal area. The project had GEF funding of \$1.80 million USD, and planned co-financing of \$3.66 million USD, for a total project cost of \$5.46 million. CI-GEF is the project's GEF Agency, and served as the main executing body for this global project, with multiple other executing partners. As the responsible GEF Agency, CI-GEF was responsible for supporting execution and implementation, and was responsible for oversight of delivery of agreed outputs as per agreed project work plans, financial management, and for ensuring cost-effectiveness.

D. Implementation Approach and Key Stakeholders

i. Implementation Arrangements

45. CI (specifically the CI-GEF Project Agency) was the GEF agency responsible for the project. In this role CI provided project assurance, including supporting project implementation by maintaining oversight of all technical and financial management aspects, and providing other

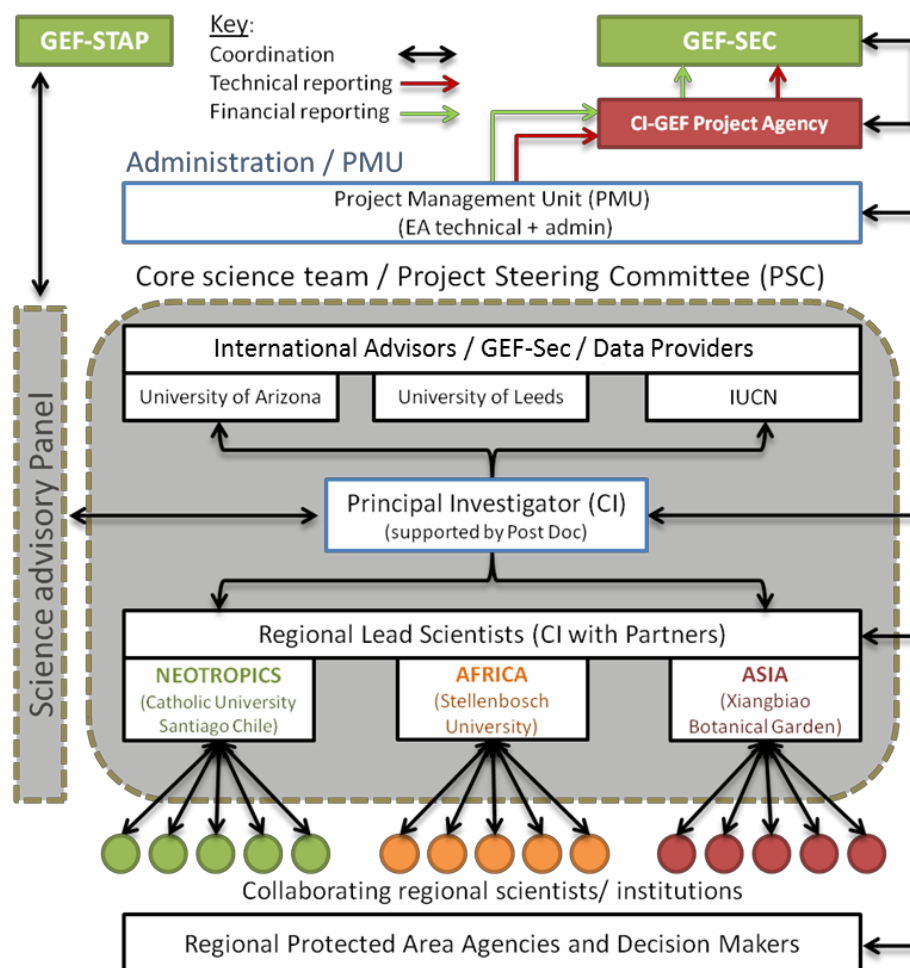
assistance on request. The CI-GEF Project Agency also monitored the project's implementation and achievement of the project outputs, ensured the proper use of GEF funds, and reviewed and approved any changes in budgets or work-plans.

46. The project was managed by a project manager (based at the University of California Santa Barbara (UCSB) Bren School for Environmental Science & Management) and project coordinator (a CI senior scientist at CI's Moore Center for Science, who was also associated with the USCBA Bren School) (the "project management unit" (PMU)). The project "team" of principal investigators consisted of senior scientists based primarily at universities and scientific institutions. These consisted of a regional lead scientist for each of the three project focus regions, plus a few additional data providers and computational modelers. There were multiple individuals supporting the project activities within each of the regions.

47. The project was further supported by a Science Advisory Panel (SAP), which provided high level strategic and scientific oversight and guidance. Approximately seven internationally recognized scientists were invited to join the SAP, with approximately three individuals participating in each of the SAP meetings.

48. Figure 1 below summarizes the SPARC project's implementation approach.

Figure 1 SPARC Project Implementation Arrangements



Source: Project Document.

ii. Key Stakeholders

49. The Prodoc includes a full analysis of project stakeholders, summarized in Table 3 below.

Table 3 Key Stakeholders for the SPARC Project (Source: Prodoc)

Stakeholder	Interests in the Project	Stakeholder Influence in the Project	Project Effect(s) on Stakeholder
Convention on Biological Diversity signatories	Long-term sustainable conservation of biodiversity	Through national protected areas agencies	Positive - improves likelihood that biodiversity will be conserved as climate changes
National Protected Areas Agencies	Receive information that will improve planning and management of protected areas	Through definition of species of interest, through identification of existing and planned protected areas, through use of decision support tools	Positive – improves protected areas planning for climate change; results in more efficient and effective planning of new protected areas
International Scientific Community	Participants in evolving understanding of climate change impacts on species, ecosystems and protected area functioning.	Integrating state of the art knowledge through expert advice and peer review re: climate modeling and effects upon ecosystems and species is central to the project.	Will benefit through increased knowledge of climate change impacts in high-biodiversity tropical regions.
National biodiversity conservation NGOs	Improved performance of protected areas agency counterparts; improved integration of protected areas into national climate change planning	Through interaction with the national and regional scientists working in the regional assessments	Positive – improved working environment and improved information for conservation decisions
International biodiversity conservation NGOs	Improved performance of protected areas agency partners; improved integration of protected areas into national climate change planning	Through interaction with the national, regional and international scientists working in the regional assessments	Positive – improved working environment and improved information for conservation decisions
National climate change planning agencies	Improved consideration of protected areas in national climate change adaptation plans	Through national protected areas agency and NGOs	Positive – improved national climate change adaptation planning
National development planning agencies	Improved consideration of climate change and protected areas in national development plans	Through national protected areas agency and NGOs	Positive – reduced possible future conflicts between protected areas and development plans

Regional and National Scientists	Key users and providers of understanding of climate change impacts on species, ecosystems and protected areas.	The results of the project will directly inform regional climate change biology research efforts	Positive – Provides local research tools and capital that contribute to a better planning process for avoiding extinctions due to climate change, with sufficient lead time to consolidate research
---	--	--	---

iii. Key Milestone Dates

50. **Error! Reference source not found.** below indicates the key project milestone dates. The Project Information Form (PIF) was first submitted to the GEF Secretariat April 25, 2014, and the project received final GEF approval December 3, 2015, and official project start, per CI standards, was February 1, 2016. The project was planned for a 36 month implementation period. The project's actual operational closing was October 31, 2019.

Table 4 SPARC Project Key Milestone Dates³

Milestone	Expected Date [A]	Actual Date [B]	Months (Total)
1. PIF First Submission	N/A	April 25, 2014	
2. First GEF Secretariat Review	May 7, 2014	April 28, 2014	0 (0)
3. Revised PIF First Re-submission	N/S	April 29, 2014	0 (0)
4. Second GEF Secretariat Review	May 11, 2014	April 29, 2014	0 (0)
5. PIF/Concept/PPG Approval	May 11, 2014	May 8, 2014	0.5 (0.5)
6. Request for GEF CEO Approval Submission	May 2015	October 1, 2015	17 (17.5)
7. Prodoc Submission for Request for GEF CEO Approval	N/S	October 23, 2015	0.5 (18)
8. GEF CEO Approval	November 23, 2015	December 3, 2015	1 (19)
9. Project Start	March 2016	February 1, 2016	2 (21)
10. Inception Workshop	March 2016	April 11-16, 2016	2.5 (23.5)
11. Date of First Disbursement	N/S	June 30, 2016	2.5 (26)
12. Mid-term Evaluation	N/A	N/A	0 (26)
13. Terminal Evaluation	January 31, 2019	Sept.-Oct. 2019	40 (66)
14. Project Operational Completion	January 31, 2019	October 31, 2019	0 (66)
15. Project Financial Closing	N/S	December 31, 2019	2 (68)

³ Sources: 1.A. Not applicable; 1.B. GEF online PIMS project timeline; 2.A. Within 10 business days, per GEF Secretariat business standards; 2.B. GEF Review Sheet; 3.A. Not specified; 3.B. Revised PIF document; 4.A. Within 10 business days, per GEF Secretariat business standards; 4.B. GEF Secretariat Review Sheet; 5.A. Within 10 business days, per GEF Secretariat business standards; 5.B. GEF online PIMS project timeline; 6.A. Within 12 months of PIF approval, per GEF Secretariat business standards; 6.B. Request for CEO Approval document; 7.A. Not specified; 7.B. Document date of revised Prodoc submission; 8.A. Within 30 days, per GEF Secretariat business standards; 8.B. GEF online PIMS project timeline; 9.A. Within 3 months of GEF approval; 9.B. 2017 PIR; 10.A. Within 3 months of GEF approval; 10.B. Inception workshop report; 11.A. Not specified; 11.B. 2017 PIR; 12.A. Not applicable for MSPs; 12.B. Not applicable for MSPs, although a mid-term review was indicated in the project M&E plan in the Prodoc; 13.A. 2017 PIR; 13.B. Timeframe of terminal evaluation data collection and report; 14.A. 2017 PIR; 14.B. End date of final project operational extension; 15.A. Not specified; 15.B. End of fiscal quarter following operational completion.

51. The project's total documented lifespan was 68 months, which is more than 5.5 years, and there was some indeterminate amount of time that the project concept was in development prior to the PIF submission. There were a few points in the project cycle where steps took longer than what would have been expected.

52. The first such delay was between PIF Approval by the GEF Secretariat, and the subsequent submission of the request for GEF CEO Approval of the full project. Normally this step is expected to be completed in 12 months for MSPs, but for the SPARC project this took 17 months. The PIF was technically cleared May 11th, 2014, but then the Request for GEF CEO Approval was not submitted until October 1, 2015. The exact reason for this approximately five month delay was not investigated in depth by the Terminal Evaluation, but is likely due to some changing circumstances in terms of the planned GEF Agencies to implement the project. The PIF indicates that the World Wildlife Fund (WWF) will be the GEF Agency, with CI as an executing partner; for unspecified reasons WWF decided not to participate in the project, and CI took on the full role of GEF Agency. Such a significant change in the implementation arrangements would likely result in extra time required to re-define and agree on the project's implementation approach and co-financing commitments.

53. The GEF Secretariat turnaround on GEF project cycle milestones was timely, with no significant delays in the PIF review and approval process, nor the approval of the Request for CEO Endorsement,

54. Once the project was approved and started, the full project start-up took more time than planned. Although the project officially started February 1, 2016 according to CI milestones, the first disbursement was not recorded until five months later, on June 30, 2016. In addition, more time was required than expected to get the regional partnership arrangements in place (as further discussed in later Section V of this report on efficiency). This delay, combined with a few other steps in the implementation progress that took longer than planned (e.g. modeling), meant that at the time of the initial planned project completion (January 31, 2019), the project's implementation progress was approximately six months slower than originally planned. The project was formally extended to July 31, 2019, and then further extended to October 31, 2019.

EVALUATION FINDINGS AND CONCLUSIONS

IV. Relevance

55. With respect to **relevance**, the project is considered **relevant / highly satisfactory**. Considering that the project was specifically requested by the GEF, through the STAP, the project clearly supported GEF priorities and strategies. The project conforms with GEF biodiversity focal area strategies and priorities for GEF-5, and is directly supportive of and relevant to CBD strategic priorities and targets.

56. The project strategy and design is relevant, and the project's implicit theory-of-change is sound.

A. Relevance of the SPARC Project Objective

i. Relevance to GEF Strategic Objectives

57. The GEF has limited financial resources so for each funding period it identifies a set of strategic priorities and objectives designed to support the GEF's catalytic role and leverage resources for maximum impact. The GEF's strategic priorities are carefully structured to reflect global priorities, as indicated in CBD COP decisions. All GEF-funded projects must adequately align with and support GEF strategic priorities. The SPARC project was approved under the strategic priorities for GEF-5 (July 2010 – June 2014).⁴ Under the GEF-5 biodiversity strategic objectives, the project's objective is directly in line with and supportive of GEF biodiversity focal area Strategic Objective 1 (see Table 5 below).

Table 5 GEF-5 Biodiversity Strategic Objectives Supported by the SPARC Project

Objective 1. Improve Sustainability of Protected Area Systems	Outcome 1.1: Improved management effectiveness of existing and new protected areas	Indicator 1.1: Protected area management effectiveness score as recorded by Management Effectiveness Tracking Tool	Target 1.1: Eighty-percent (80%) of projects meet or exceed their protected area management effectiveness targets covering 170 million hectares of existing or new protected areas.	Output 1. New protected areas (number) and coverage (hectares) of unprotected ecosystems. Output 2. New protected areas (number) and coverage (hectares) of unprotected threatened species (number)
---	--	--	---	--

58. As a targeted research project, per the project's theory-of-change, the SPARC project was not expected to make contributions to these GEF-5 strategic priorities during the life of the project in terms of generating results that help meet Target 1.1 above. It is anticipated that the project will contribute to the achievement of this target in the long-term, as the project's results

⁴ For the focal area strategic priorities for GEF-5, see GEF Council document GEF/R.5/31, "GEF-5 Programming Document," May 3, 2010.

are integrated into global and national conservation planning. In addition, it may be possible for the GEF to require future GEF-financed protected area projects to incorporate the findings and recommendations of the SPARC project.

ii. Relevance to Supporting Implementation of the CBD

59. The GEF is the financial mechanism for the CBD, and projects supported with GEF funding must align with relevant CBD priorities and strategies. The SPARC project supports CBD objectives by supporting the Convention's Articles 6 (General Measures for Conservation and Sustainable Use), 7 (Identification and Monitoring), 8 (In-situ Conservation), 12 (Research and Training), 13 (Education and Awareness), 14 (Impact Assessment and Minimizing Adverse Impacts) and 17 (Exchange of Information). The project is supportive of the CBD's Program of Work on Protected Areas, and also especially supports the following Aichi Biodiversity Targets:

- *Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.*
- *Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.*

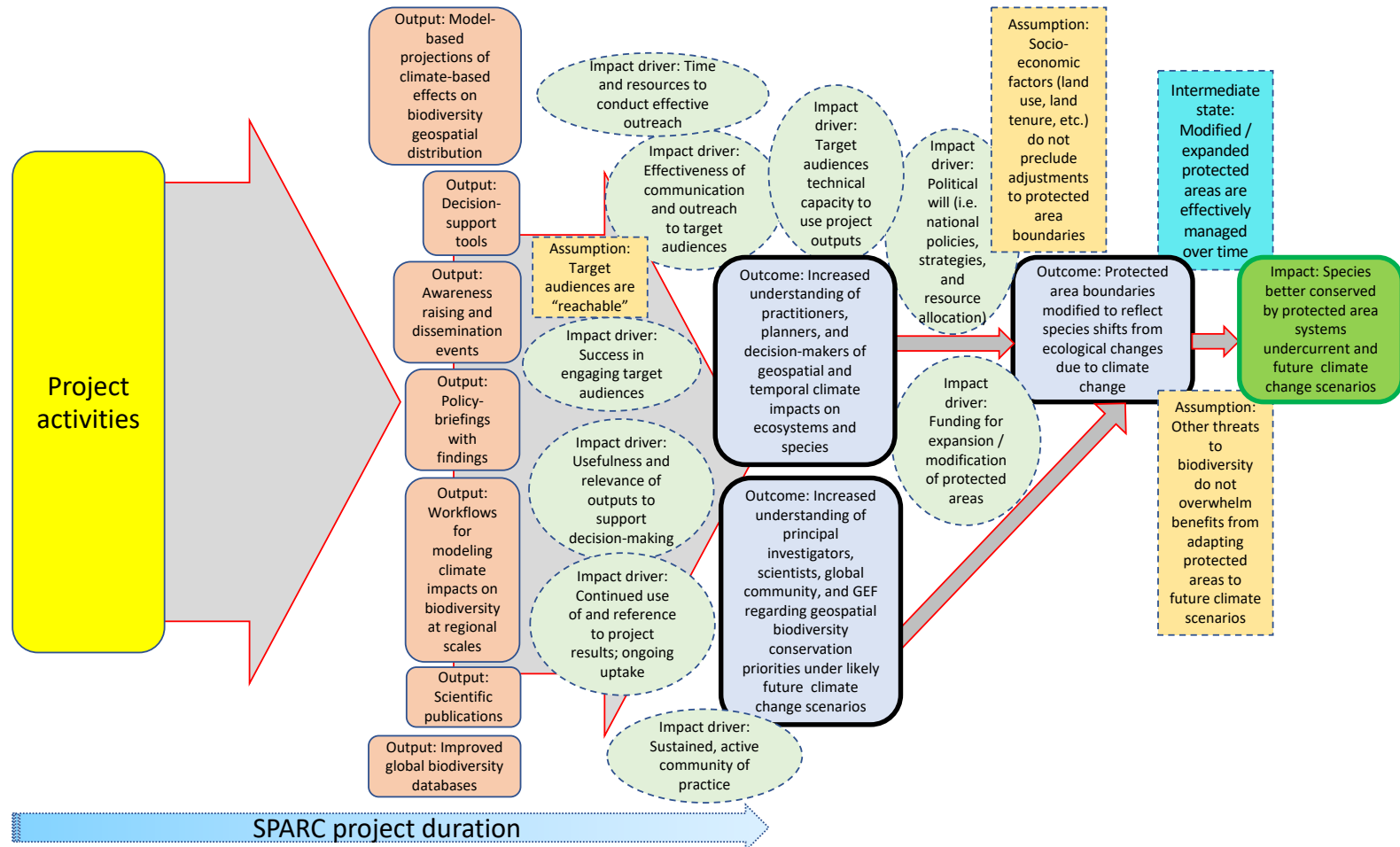
B. Relevance of the Project Approach: Theory-of-Change, Project Strategy and Design

60. The project proposal does not explicitly outline the project's expected theory-of-change, though this is implied at various points in the proposal. Figure 2 below provides a proposed explicit theory-of-change for the SPARC project, based on the GEF Evaluation Office methodology "Review of Outcomes to Impacts".⁵ The project aims to address the identified six barriers (see earlier Section III.B of this report) to support improved adaptation of the global protected area estate in response to potential climate impacts. The project's theory-of-change is considered valid. It should be noted that the project design was such that the project was not expected to reach impact-level results within the life of the project.

61. It is admirable that the SPARC project, even though it was a "targeted research" project, was designed to take subsequent steps in progress toward impact beyond the initial research findings. The second component of the project included activities and outputs that aimed to make progress on some of the output-to-outcome pathway impact drivers indicated in Figure 2 below, such as producing decision-support tools and policy briefs, and engaging target audiences through outreach workshops. There is much more work to be done to reach impacts, but if the project results can be further disseminated through a second degree of outreach and target audience engagement, the project results are likely to be sustained and eventually lead to impacts. One of the lessons of the project relates to the complexity and large level of effort required to effectively reach the targeted audiences; it would not have been possible to push this effort further under the SPARC project without significantly more time and resources.

⁵ See <http://www.gefio.org/sites/default/files/ieo/ieo-documents/ops4-m02-roti.pdf>.

Figure 2 Proposed Explicit SPARC Project Theory-of-Change (based on GEF Review of Outcomes to Impacts approach)



62. One important aspect relating to the project design, and especially to the aspects related to the effort to disseminate and promote the uptake of the project's scientific research results, is that the project was originally conceptualized to include an entire additional socio-political science component of the project, looking at how people make decisions regarding climate change. This was to be supported by the WWF, via the Luc Huffman Institute, which focuses on multi-disciplinary science. For reasons outside the scope of this evaluation WWF ultimately did not participate in the project, and consequently the component of the project addressing socio-political science aspects was not included in the project in a significant way. Outputs 2.2 and 2.3 of the project were designed to partially address this gap, but as discussed later in Section VI.B of this report on results under Component 2, the project time and resources were not sufficient to support the dissemination and uptake of project results in a highly significant way, although there have been some positive steps forward on this front (e.g. in Angola, Thailand, and a few other countries), and additional work is continuing after the project.

V. Project Management and Cost-effectiveness (Efficiency)

63. Project **efficiency** is rated **satisfactory**. The project's internal coordination, financial management, adaptive management, and partnership approach are all highlights related to project efficiency. The project's M&E approach could have been strengthened. The project faced some delays during implementation, which slightly affected the project's secondary results in terms of outreach and uptake of modeling results.

64. As one participant noted, *"My experience with GEF grants through governments was completely different than this one. I think it is wonderful that agencies like CI and [other NGOs] can run GEF grants, because think they are much more, much more, cost effective. I was really happy, this was great science, and I've never seen so much outreach to the stakeholders."*

A. Implementation, Including CI Oversight

65. CI is the GEF Agency responsible for the project, and carries general backstopping and oversight responsibilities. On the whole CI adequately supported the project, and provided high quality backstopping and financial management support. Overall for the SPARC project implementation by CI is considered **satisfactory**.

66. A benefit for the project of having CI as an implementing agency related to CI's network of regional and country offices and staff. This resource was leveraged for the project's outreach efforts under Output 2.2, relating to the dissemination of project results. As one project participant explained, *"Outreach is a delicate process, involving personal relationships, and local knowledge. We had CI to help us identify certain key people in key countries, so having CI as implementer with its global network had real value there."*

67. One minor issue that was raised by project participants was that many of the project partners were not initially adequately familiar with the rigorous CI and GEF financial reporting requirements, and were not equipped to sufficiently respond to and meet these requirements. Project participants had varying views on dealing with financial reporting requirements from CI: *"very good support"* vs. *"nightmare"*, *"they didn't know us and didn't trust us"*, *"wasted a lot of our time"*. Financial reporting requirements were presented to the Principal Investigators (responsible for technical aspects) from the partner institutions during the project inception phase, but there was not a specific session with the partner institutions' financial and

administrative staff. There was also “*appreciable turnover*” in the finance and administrative staff both within CI and within the partner institutions; within CI the primarily responsible person changed over three times during the course of the project, involving three different people. Project staff also noted that the project timeline “*was concurrent to a period where CI had an institutional focus around updating and reinforcement [of] the procurement and financial management of external grants,*” which led to some additional financial information being requested of partner institutions. One lesson from the project for CI is that when project implementation arrangements are such that they require financial reporting from external third-party project partners, it is beneficial from the very beginning to proactively provide support and initial training specifically to the finance staff of partner organizations to ensure smooth financial reporting procedures.

68. A related issue is that the CI procurement and contracting procedures required much more time than project participants expected – approximately twice as long. Therefore this meant that project moved more slowly than hoped, and financial management also required long-term planning.

B. Execution (Project Management)

69. The day to day management of the SPARC project was considered **satisfactory**. The project was characterized by excellent internal communication and coordination, good workplanning, strong adaptive management, and good reporting, and financial delivery. This was no small feat for a project involving multiple partner institutions across three continents. One participant described the success of the project as significantly due to the project management team: “*Much of [the project’s success was] due to [the project manager], [who is] exceptionally clever and hard working.... I don’t know how [he] managed to do all the things he did. Without him we would have seriously struggled. So having a person like [that] with a broad range of skills: awareness of where project was, how to manage data, how to manage [the modeling team] in Arizona, how to do the modeling, the computer stuff. We were very fortunate to have him.*”

70. The management of project activities and workflows had both strengths and weaknesses. On one hand, some participants felt that communication was good, and the expectations of what was required from them was very clear, which allowed them to go off and do their work and produce the outputs expected of them. At the same time, some participants felt that the management of the project workflow was too flexible, without adequately set deadlines and targets, which resulted in a lot of “*slippage*” in the timing of project outputs, and which “*resulted in a lot of stress on us*” (see additional discussion on timing of project activities and results in Section V.C below).

71. In terms of the overall management of the team the participants felt that there was a very positive esprit de corps, with a number of people coming together with a flexible approach and a shared vision, which was cultivated by the project management team.

C. SPARC Project Workflow Timing and Delivery

72. As indicated in previous Section III.D.iii on key milestones, the SPARC project has been completed in approximately the planned overall time period, with a three-month no-cost extension, from July 31, 2019 to October 31, 2019. However, project activities within the implementation period did not go fully according to planned timeframes, which may have had

some slight effects on the effectiveness of the project. The project was approved by the GEF in December 2015, with project startup expected by the 2nd quarter of 2016. The inception workshop was held in April 2016, but the partner institutions were not fully engaged until approximately September 2016, as the process of setting up the grant arrangements to the partner institutions took longer than expected.

73. All in all the project activities got fully underway with an approximately six month delay. As one participant noted, *“That initial delay had a ripple effect throughout the project.”* Consequently, when the project reached the planned end point there were still a number of activities to be completed. The main project modeling results were only completed in late 2018 / early 2019, and the regional synthesis workshops held in January (Africa), March (Asia) and April (neotropics) 2019. Therefore the project outreach activities only began in May 2019, only approximately two months before the project was to be completed. In the original project workplan developed at the inception workshop the outreach activities under Output 2.2 were planned to be carried out during the last nine months of the project, not the last two. Many project participants ultimately felt that the project would have benefited from more time for the outreach, uptake, and capacity development activities. As one participant explained, *“What I was a little disappointed in, because of the time crunch, we didn’t get the products, and delivery was scrunched right to the end, so even though the info is there, it is not well publicized. It is not easily available, I would hope it would be online for easy access, and download, and use. I think that will happen, with the extension. There is fabulous data, but it is not easily accessible. It also needs training [for people to be able to use it].”*

74. However, even with the originally planned time and resources it seems unlikely that the project would have made much more significant progress on outreach. When asked if it would have been useful to have more time for outreach, one participant explained, *“Yes, I think only one person from [region] was trained by [the project on using the outputs]. Yes, certainly. But we would need another two years added on to the project, we couldn’t take time out of the project, it would have to be added on.”*

D. Partnership Approach and Stakeholder Participation

75. The project had a strong partnership approach, with direct partnerships established with the universities and research institutions in each of the three targeted regions – the University of Stellenbosch, Catholic University of Chile, and Xishuangbanna Tropical Botanical Gardens. In addition, the partnership with the data providers and computer modeling support team (University of Leeds, and University of Arizona) was also effective and fruitful, and was a key element of allowing the project to achieve its planned outcomes.

76. Beyond the main project partners, there were not many “stakeholders” to be engaged in the project execution, although the project is expected to have a large number of beneficiaries. The main channel for stakeholder engagement under the SPARC project was through the outreach and awareness raising activities under Component 2 of the project (see Section VI.B on results under Component 2). The project conducted successful outreach efforts within the life of the project, but as discussed Section VI on results, for the project results to be disseminated and used, and sustainable, there is an ongoing need for further stakeholder outreach.

E. Risk Assessment and Monitoring

77. The SPARC project had adequate risk assessment and monitoring. This was mainly handled by the project implementation team, with support and oversight from CI. The Prodoc included a discussion on three main results-based risks faced by the project, plus one operational risk:

- *First, uncertainties in global climate models are substantial, and must be constrained within the project analyses well enough to allow information useful for protected areas planning to emerge.*
- *Second, protected areas managers must be able to use information on climate change in systematic planning of protected areas.*
- *Finally, there must be enough remaining natural habitat to extend protection to areas that will compensate for representation loss to climate change.*
- *There is one risk associated with project management, which is the willingness of scientists to participate in the regional assessments.*

78. The Prodoc provides a risk assessment table for these risks, and how they affect different aspects of the project, as well as risk mitigation measures. The project risk assessment was not revised at the project inception phase, and no new risks were added during the annual project implementation reporting (i.e. PIRs).

79. The risk assessment and mitigation measures at the project development stage were adequate, except for the risk related to end-user uptake. As described in the project document, “Stakeholder uptake is essential to project success”, and the project design attempted to mitigate this risk by having two types of outputs, the research-to-policy briefs, and the decision-support tool. However, this risk was rated as “low” at the project development phase, and remained rated as “low” in the final project PIR in 2019. In fact this remains the most significant risk to the effectiveness and sustainability of the project’s results, as further discussed in Section VI.B on project results under Component 2, and in Section VII.A on sustainability.

F. Flexibility and Adaptive Management

80. Flexibility is one of the GEF’s ten operational principles, and all projects must be implemented in a flexible manner to maximize efficiency and effectiveness, and to ensure results-based, rather than output-based approach. Thus, during project implementation adaptive management must be employed to adjust to changing circumstances.

81. Output 3.1 of the project included a focus on leveraging the project’s monitoring and evaluation framework for adaptive management and decision-making. On the whole the project was implemented in an adaptive manner, following a results-based approach. Budget revisions were made throughout the implementation period, in accordance with CI and GEF procedures, requirements and guidelines.

82. There were a number of notable adaptive management decisions made during project implementation. Early on in the project the participants realized that the available computing power would not be sufficient for the planned computer modeling work. As one participant noted, after attempting a few initial modeling exercises, the computers available in the university labs were running for weeks at a time. Consequently the project was forced to seek alternative

approaches, and ultimately ended up using Amazon.com cloud computing services to provide the necessary computing horsepower to produce the project models. Adjustments were also made to the way data and models were stored and managed, in order to minimize required computer storage and memory resources. One operational lesson from the project was that big data science requires significant amounts of computing power, meaning even more computing resources than may be found in many universities, and which can mainly be found in the private sector.

83. Another adaptive management decision was to establish the decision-support group of experts to provide inputs and support for the dissemination and uptake of project results. This was a highly valuable approach that led to the project's progress in this regard. In addition, as the project moved forward in dissemination activities, the target audience focus was expanded to include protected area managers, who showed particular interest in project results.

G. Financial Planning by Component and Financial Management

84. The breakdown of project GEF financing is indicated in Table 6 below. The total GEF-allocation was \$1,804,862. The project also had \$3.66 million in planned co-financing, but these funds and in-kind support was managed by partners, and not as cash co-financing managed by the project team. From the GEF funds, \$403,424 (22.4% of the total) was planned for Component 1, and Component 2 was budgeted at \$1,057,567 (58.6%). Component 3, on M&E, was budgeted for \$194,846, or 10.8% of the project budget. Project management was budgeted at \$149,025, or 8.3% of the total. The project's planned financing by component is indicated in Figure 3.

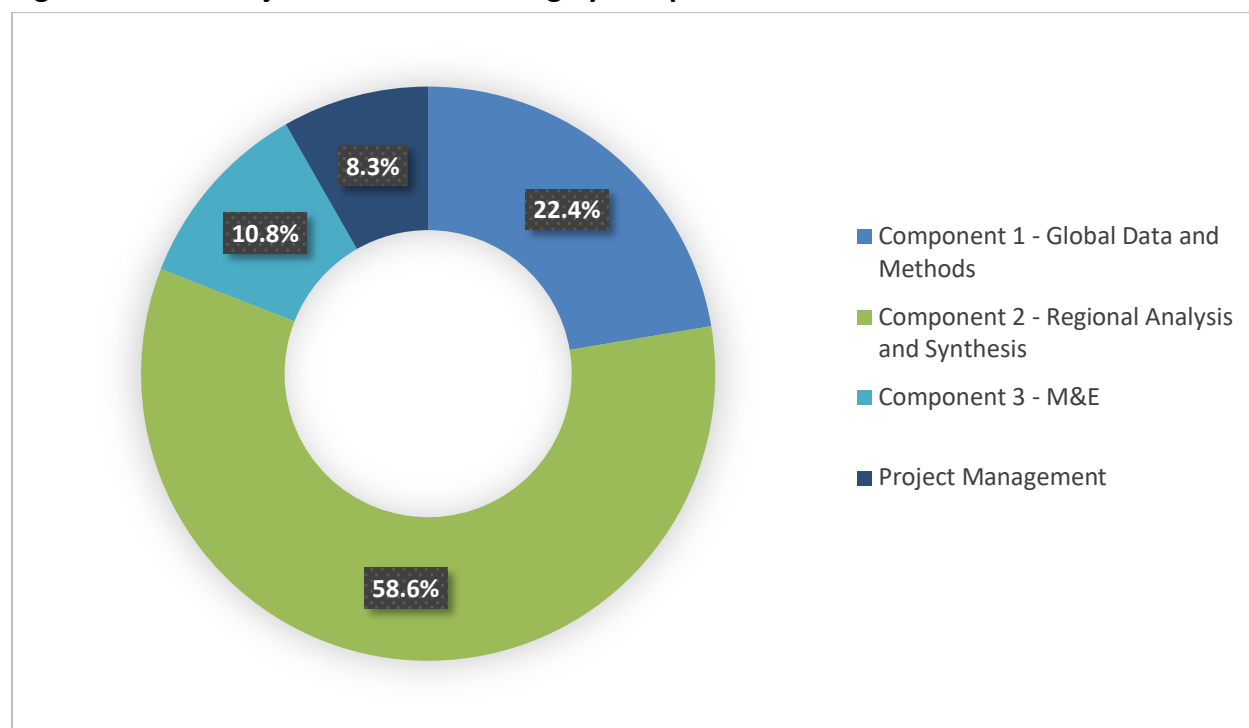
85. As of September 9, 2019 the project has spent \$1,673,442 of the GEF funding, or 92.7% of the planned GEF funds. It is anticipated that the remaining balance of \$131,419 was spent in the remaining project implementation period through October 31, 2019. The expenditure amounts per component were roughly in-line with the planned amounts, with none of the component expenditures exceeding what was originally planned.

Table 6 Project Planned vs. Actual Financing, Through September 9, 2019 (\$ USD)

	GEF amount planned	Share of total GEF amount	GEF amount actual	% of GEF amount actual	% of original planned
Component 1 – Global Data Compilation and Methods	\$403,424	22.4%	\$395,596	23.7%	98.1%
Component 2 – Regional Assessments and Outreach	\$1,057,567	58.6%	\$975,963	58.3%	92.3%
Component 3 – M&E	\$194,846	10.8%	\$172,694	10.3%	88.6%
Project Coordination and Management	\$149,025	8.3%	\$128,829	7.7%	86.4%
Total[†]	1,804,862	100.0%	1,673,442	100.0%	100%

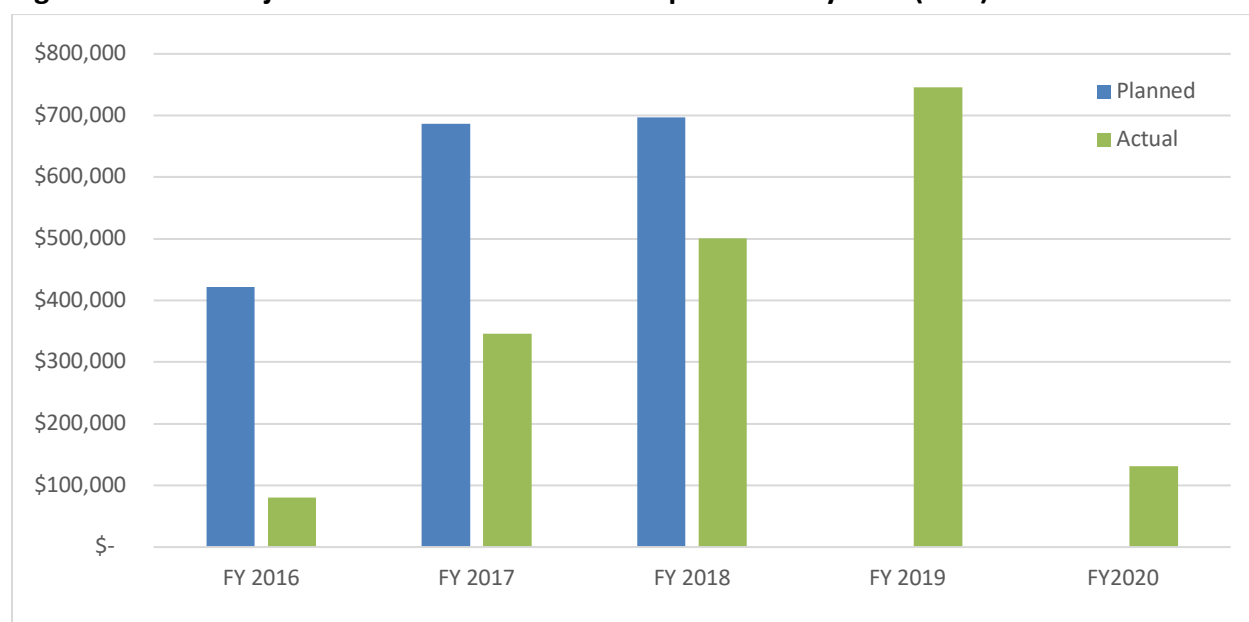
Sources: Project Document for planned amount; project financial documents provided by CI for actual amounts.

Figure 3 SPARC Project Planned Financing by Component



86. The project was planned for 36 months, with implementation scheduled to end July 31, 2019. The project received a three month no-cost extension, to October 31, 2019. The project was scheduled to cover three years, but because CI follows the GEF fiscal year, the project actually spanned parts of five fiscal years. Figure 4 below provides an overview of the project's planned and actual disbursement by year. As can be seen from the figure, the project's actual disbursement lagged the planned disbursement the first few years, but it should be kept in mind that "year 1" of the project was planned as a full 12 months, while the project was actually only active for approximately 3-4 months of FY2016. At the same time, only in FY2019 did the project exceed the disbursement planned for FY2017 and FY2018, which implies that either the project's original financial planning was overly optimistic, or the project had a slower than planned implementation, or both. Multiple project participants noted that contracting and procurement through CI-GEF took much more time than anticipated, typically twice as long. One example is that contracting (actually through a grant mechanism) the main project institutional partners took five to six months, instead of the expected two to three months. Participants did recognize that such rigorous financial management requirements can be necessary when managing public funding. The project had budget revisions each year to re-program the annual project budget funds that were not disbursed for the year. On the whole, the project's financial planning and management is considered adequate.

Figure 4 SPARC Project Total Planned vs Actual Expenditure by Year (USD)



87. The project did have an audit, as CI conducts a multi-project audit for all GEF-funded projects in its portfolio. Audits were conducted for FY2016, FY2017, and FY2018, with the FY2019 audit forthcoming at the time of the terminal evaluation. The audit report found no major issues, only noting in FY2017 that some donor reports were submitted slightly late, although it is not entirely clear if this is even referring specifically to the SPARC project.

H. Planned and Actual Co-financing

88. The expected project co-financing was \$3,655,992, from seven co-financing partners, which are the main academic and technical institutions involved in the project's research. This is an expected co-financing ratio of slightly more than 2 : 1. Table 7 below shows planned and actual co-financing. According to data provided by the project team, the project had received a total of at least \$3.67million USD in co-financing as September 19, 2019. This is 101% of the expected co-financing. The breakdown of co-financing is not tracked by project outcome because it is not managed by the project. A large portion of co-financing was in the form of data acquisition and provision, in addition to activities such as staff time for data cleaning and running models.

89. The actual co-financing is directly in-line with planned co-financing, with the same co-financing partners, and almost exactly the same amount of co-financing, although four of the five co-financing partners that committed grant co-financing provided less grant co-financing than planned (86.1% of planned grant co-financing in total), which was compensated for by an increase in in-kind co-financing (114.4% of planned in-kind co-financing). Considering the almost direct correlation between planned and actual co-financing, some sources of co-financing likely have not been fully accounted, and therefore it is likely that the actual co-financing received is greater than indicated. For example, there is no co-financing indicated in relation to unplanned in-kind contributions from project staff.

Table 7 Planned and Actual Co-financing Received, as of September 19, 2019 (USD)

#	Type	Name of Co-financier	Total proposed co-financing (USD)	Amount Contributed (USD)	Percent Materialized
1	Grant	CI	189,188	153,609	81%
2	In-kind		449,504	449,504	100%
3	Grant	University of Leeds	98,000	(0)	0%
4	In-kind		500,000	768,473	154%
5	Grant	University of Stellenbosch	365,000	333,000	91%
6	In-kind		420,000	425,000	101%
7	Grant	Catholic University of Chile	450,000	365,930	81%
8	In-kind	CSIRO	184,584	184,584	100%
9	In-kind	IUCN	350,000	350,000	100%
10	Grant	University of Arizona	649,716	656,217	101%
Co-financing Total			3,655,992	3,686,317	101%

Sources: Planned from Project Document. Actual total co-financing received as per data from the project team.

I. Monitoring and Evaluation

90. The SPARC project **M&E design** generally meets GEF minimum standards, although there are some issues with M&E planning and budgeting, and with the results framework design. M&E design is considered **moderately satisfactory**. **M&E implementation** is considered **moderately satisfactory**, and therefore **overall M&E** is considered **moderately satisfactory**.

i. M&E Design

91. The SPARC project M&E plan is outlined in the project document, including a budgeted M&E plan in table format (Section 7, pp. 56-59 of the Prodoc, and Appendix IV of the Prodoc). The M&E plan describes each of the planned M&E activities, including roles, responsibilities, and timeframe. The identified M&E activities include inception workshop and report, quarterly and annual progress reporting (i.e. PIR), the independent external evaluations, and audits. The M&E plan is summarized in a table in the Prodoc (in multiple locations) showing responsible parties, budget, and timeframe for each of the M&E activities.

92. The M&E plan appears to be a generic boilerplate M&E plan for all CI-GEF projects, and includes multiple elements that were not relevant to the SPARC project. For example, the M&E plan includes “CI-GEF Project Agency Field Supervision Missions”, indicating that annual visits would be conducted “to the project country, and potentially to project field sites.” The M&E plan also called for a mid-term review, which was not required since the project was a GEF MSP, and which was never conducted, although in the Prodoc it was budgeted for \$25,000.

93. The total planned M&E budget indicated in the budgeted M&E plan was around \$200,000. This is more than adequate for a project of this size and scope, representing more than 10% of the GEF allocation. Within the project documentation budgeting for M&E is inconsistent. Component 3 of the project, which was the project’s specific stand-alone M&E component, was budgeted for \$194,846. The project M&E table within the project document body shows an M&E budget of \$136,765 (when the individual M&E activities items are totaled, including the \$25,000 budgeted for the mid-term review), while the M&E budget in Appendix IV to the Prodoc shows a

budget that is \$129,436, but also includes a budgeted plan for Safeguards Monitoring, which is budgeted at \$74,234 (for creating a list of project communications and stakeholder engagement, and tracking the number of PSC and PMU meetings), equaling a total M&E cost of \$203,670. The M&E activities are also budgeted unnecessarily precisely, as most activities are budgeted to the individual dollar. For example, project results monitoring is budgeted at \$2,932 dollars, while project quarterly reporting is budgeted at \$1,591 dollars.

94. The project results framework is a critical component of the project's overall M&E framework. The SPARC project results framework has strengths and weaknesses. The results framework includes four objective level indicators, but does not provide any targets for the indicators, which makes it difficult to assess progress in achieving the objective. For example, indicator d. is *"Number of protected areas agency staff trained in and implementing climate change decision support tools"*, but there is no indication of the number of staff expected to actually be trained as part of the project. Was it expected that the project would train protected areas staff in all 83 countries targeted under the project? Or was it expected that the project would not actually train any staff during its lifetime? In addition, if a target were to be given, it would need to be clearly rationalized and contextualized, in terms of identifying the actual number of protected areas staff that would require or benefit from such training, as clearly not all protected areas staff would need training on climate change decision-support tools.

95. Other results framework indicators also do not fully meet "SMART" criteria for indicators and targets, with the biggest weakness being that a number of indicator targets are not specific or measurable. For example, the target for Outcome indicator 1.1 begins *"Data on species and ecosystem change is available for regional analysis from a spectrum of methods,"* but does not specify how much data, or how "available" should be defined. At the same time, some of the targets are too narrative to be specific; the target for Outcome indicator 2.1 is 145 words. Overall there are a variety of opportunities for strengthening the SPARC project results framework.

ii. M&E Implementation

96. The project M&E activities were generally implemented in an adequate manner, apart from a few key points; M&E implementation is considered **moderately satisfactory**. The project team provided reports at required reporting intervals (i.e. quarterly progress reports, annual PIR), the project had annual financial audits, and CI oversight has been appropriate. Not all of the planned M&E activities were implemented, though it is likely that some of the M&E activities indicated in the M&E plan were not actually planned for the SPARC project, such as the mid-term review. The implementation of M&E activities did not fully correspond with the planned M&E budget. This is not to imply that project M&E funds were used inappropriately, but rather that the planning and budgeting for implementation of Component 3, and the project M&E activities, should have been better in the design phase.

VI. Effectiveness and Results: Progress Toward the Objective and Outcomes

97. The SPARC project objective was to: *"Provide countries in Afrotropical, Neotropical and Indo-Malayan biogeographic realms with the assessments and data needed to improve planning, design and management of terrestrial protected areas for climate change resilience"*.

98. The SPARC project has achieved the project objective and the associated planned outcomes. The project's **effectiveness** is rated **satisfactory**, and project **results / achievement of overall outcomes** is rated **highly satisfactory**. The project achieved all eight results indicator targets, including exceeding one of these.

99. In terms of the scientific analysis and results of the project, the SPARC project provides a benchmark example of what GEF-funded targeted research projects can and should be: A focused and relatively compact effort to answer a well-defined driving question, with a robust scientific approach based on cutting edge methods and data, and findings that have relevance for future GEF investments at global, regional, and national levels.

100. As one participant noted, *"In terms of the science, I think we got exactly to where we intended to get. We got the science we wanted to get out of this."*

101. Another noted, *"GEF projects through the government for example, are really long, diluted, have a lot of turnover of people, and the results...it's not always clear how strong they are. They end up publishing little booklets, etc., sometimes you wonder what was the impact of the project. But for the SPARC project it is clear."*

102. Another added, *"From a technical perspective, the project has done a fantastic job, pulling together data sets that hadn't been done before, and pulling partners together to get that data, that had never been done before, and the modeling methods are the state of the art."*

103. Another participant emphasized,

I must say, it was a very daunting project initially. I thought it was overly ambitious. Especially at the beginning, I thought we would potentially have to scale way back: fewer models, fewer species, fewer GCMs [Global Climate Model], etc. So I am actually quite astonished that we were able to maintain much of our original vision. At the second workshop, we proposed the notion of adding dynamic vegetation models, along with species models, and I didn't think that was feasible at the beginning. So I'm pretty blown away by how we managed.

104. Beyond the scientific research and findings, on the one hand it is impressive that the project design went so far as to include plans for outreach and dissemination of results once the scientific analysis was completed (under Component 2). At the same time, the amount of time and resources available under the SPARC project for this outreach process was far from sufficient to be fully effective. To ensure the sustainability of project results much more ongoing outreach and dissemination is necessary at global, regional and national levels.

105. A detailed terminal evaluation assessment of the status of achievement of each of the project's results indicator targets is included in Annex 9 of this report, which includes the project results framework and the project's self-reporting on indicators and targets from the 2019 PIR.

106. The project's objective level indicators are summarized below:

- a. Number of plans governing national protected areas systems integrating the effects of climate change on species and ecosystem targets
- b. Number of policies or regulations integrating research-to-policy brief recommendations
- c. Number of opportunities identified to reduce loss of species or ecosystem representation in protected areas due to climate change

- d. Number of protected areas agency staff trained in and implementing climate change decision support tools

107. The project results framework did not include baselines and targets for the objective level indicators.⁶ This means that the relative progress of the project toward achievement of objective level results could not be easily assessed. Based on the project's implied theory-of-change and strategy/design, it would appear that objective indicators a. and b. were not expected to be achieved at project completion. There was significant progress on indicator c., as this was the main focus of the project's research. There were limited initial results relating to indicator d., but per the project design, and the time and resources available, it is not anticipated that the project would have been able to conduct substantive trainings for any significant number of protected areas agency staff among the 83 countries within the scope of the project.

108. The output and outcome results of the project are further discussed below.

A. Component 1: Global data compilation and analysis of protected area vulnerability to climate change

109. The first component of the project focused developing global scenarios of change, applicable in all three study regions and to developing methods that would be applied in the regional analyses. The component was budgeted for \$403,424 USD, and the project was projected to spend this amount on the component. The component activities were organized around three outcomes:

- Outcome 1.1. Improved information on species range shifts and ecosystems change made available for regional assessment
- Outcome 1.2. Conservation planning tools allowing regional assessment of representation losses resulting from species range shifts and ecosystem changes developed and readily available
- Outcome 1.3. Regional assessment teams have coarse scale information needed to understand priority areas for protected areas system planning to counteract the loss of representation due to climate change

110. Key results indicators for Component 1 are summarized in Table 8 below.

Table 8 Component 1 Indicators and Targets

Indicator	Baseline	Target	Status
Outcome indicator 1.1.: Species and ecosystem change databases and geospatial data available to regional assessment teams	See Annex 9.		Exceeded.
Outcome indicator 1.2.: Method for regional conservation planning for climate change available to regional assessment teams			Achieved.
Outcome indicator 1.3.: Regional maps of high-risk areas available			Achieved.

111. Component 1 of the SPARC project was focused on the aggregation of global data, and the further development of the project methodology to be deployed at the regional level. A

⁶ The project results framework could have been better designed, as discussed in Section V.I.i on M&E design.

detailed summary self-description of the project's main results under Component 1, from the final annual Project Implementation Report, is included in Box 1 below.

Box 1 SPARC Project Summary Self-Description of Component 1 Results

The first year of the SPARC project was designed to be devoted primarily to Component 1 – consisting of global data compilation, methods recruitment + evaluation, preliminary pan-tropical analysis and planning for the in-depth analysis that will be conducted through the regional assessments in Component 2. To this end, the project successfully consolidated a diverse array of high-resolution global datasets – including a state-of-the-science effort to further consolidate occurrence records for hundreds of thousands of vascular plant species into a database that can be centrally accessed by project partners for analysis. Additional novel products resulting from the first year of effort include: 1) high resolution models of species ranges for 60,000+ plant species and 3,000+ vertebrate species; 2) a high resolution analysis of remaining habitat (i.e., scope for additional protection); 3) climate model selection ensuring a range of high-quality projections is considered; 4) a suite of climate exposure metrics (e.g. velocity of climate change, climate stability index); 5) a novel application of the Generalized Dissimilarity Model to prioritize additional protected areas under climate change; 6) Network Flow, a spatial prioritization method that explicitly links modeled species distributions through time that can optimize protected areas placement, for many thousands of species. The project obtained global projections of ecosystem change from dynamic global vegetation models (DGVM) and worked with collaborators to produce custom DGVM in each region. with the launch of the regional assessments we have received additional improved data with which we have refined the models of species and ecosystem change. This process of refinement will continue as the model results and recommendations are vetted by the experts that comprise the regional assessment teams. All datasets and/or products have been made available to the regional assessments and all products were created with reproducible methods and workflows to allow for the process of iteration and refinement in the regional assessments.

112. On the whole the project was more successful in aggregating global data than had originally been anticipated in the project design phase. The project results framework did not specify the number of species that the project would include data for, but the project document stated “Up to 5,000 species will be modeled, including 3,000 or more plants and 2,000 threatened or climate vulnerable vertebrates.” In fact, the project was able to model more than 20 times this number, mainly due to the use of the Botanical Information and Ecology Network (BIEN) botanical database. As stated in the PIR, “Models have been produced 80,000+ vascular plant species; 9500+ bird species; 4500+ mammal species; 4000+ reptile species; 2500+ amphibian species; 2000+ insect species,” (totaling more than 100,000 species). Project participants felt that the project did truly include the best available global biodiversity data, and the project made a significant contribution to improving the quality of this data through cleaning and standardizing, much of which was done by the project partners at the University of Arizona. One project participant stated “In terms of the biological data, the database we used is an ongoing project by [the BIEN team], it is the best you can aim for, it is well curated, revised, etc., so I really feel we were working with best data available, and it is very comprehensive, there are zillions of records.”

113. However, this does not mean that the project modeling drew on extensive data about each species included – for the plant data, it was found that approximately 36% of the plant species had five records, when the project ideally needed 10 or more records for effective

modeling. Nonetheless, on the whole the project was able to significantly exceed the expected number of species to be modeled.

114. Some participants felt that the project could have been strengthened if it had been able to access more extensive national biodiversity databases for many of the countries involved. However, this likely would have presented myriad challenges in terms of initial access to begin with, data use and data sharing permissions, and then in terms of cleaning and standardizing the available. This could be a potential next step for the SPARC approach in many countries, and there are some preliminary indications that SPARC will continue developing along these directions, as, for example, there is the recent opportunity to add a major database on Tanzania's birds to the SPARC data repository (see Section VII.B below).

115. A majority of the project participants felt that the SPARC project's main data limitations were not in relation to the biodiversity data used, and that with additional biodiversity data the project's findings in terms of priority geographic areas would not significantly change. As one participant explained regarding their confidence in the project results, *"In terms of the proposition of how to improve the PA networks, my confidence is very high. We ran one analysis doing typical [zonation], looking at climate change and connectivity. We were able to crosscheck with the network flow tool, [so these are] two independent ways of doing the same thing, network flow is more precise. So we were able to see a good match between two solutions. This provides a good level of confidence."*

116. According to participants, there were some data limitations. The resolution (and uncertainty) of climate models was one notable limitation. In addition, one participant noted *"For me, the one thing that was less perfect was the land use, the cost layers used. Different countries came out with different cost layers, in terms of how you value land, but they weren't comparable, so we had to make a choice in terms of scale or comparability."* Other participants noted the general lack of data in relation to aquatic ecosystems: *"There is room to improve this though, and the big improvement for me in terms of terrestrial would be to include aquatic ecosystems. It is a different game – fishes, birds, aquatic plants, etc. it is complicated. It is a big gap in the region, and big gap around the world."*

117. One goal of the project was to make the data used widely available, so other scientists and end-users could use the data for similar types of analysis. To some extent this is the case – the BIEN database used by the project is publicly available⁷, and further progress on data access on the SPARC website has been made during the project's extension period in the 3rd quarter of 2019. SPARC project datasets are now available for download on the SPARC project website, here: <http://www.sparc-website.org/data-access>, as of November 2019.

118. However, some participants felt there was still more work to do in this regard, especially in terms of developing capacity and training practitioners to actually use the SPARC methods and data. As one participant commented, *"even though the info is there, it is not well publicized. It is not easily available, I would hope it would be online for easy access and download and use. I think that will happen, with the extension, it is fabulous data, but it is not easily accessible. It needs training..... [That] needed to be available. It is even not accessible for me, the data is not accessible."*

⁷ See <http://bien.nceas.ucsb.edu/bien/biendata/>.

119. Another participant commented,

“The data adds up for the biodiversity side, we identified the main patterns for biodiversity, but then the responses to climate change depend on the models, and species responses to climate change, species interactions, etc., which we don’t understand. So there are many other factors. This is one of the reasons I’m keen to have the data discoverable in a way that PA planners can do their own thing with it. I don’t know [what concrete steps are needed to make that happen], but my guess is that CI has experts on this, I’ve never had to do this, I’m basically an academic.... So, I don’t know, they must have search engine optimizers [and similar tools]. It is certainly not enough to just put it on a website where it joins the trillion other pages and nobody finds it, it will have to be pushed as well, it will have to be discoverable.”

120. Aspects of the project related to the outreach and dissemination of project results are discussed further below, under Component 2 results in relation to Outputs 2.2. and 2.3.

121. There are many potential follow-ups and uses for the SPARC leveraged data. For example, one important opportunity would be to leverage the SPARC data for improvements and updates to the IUCN Red List database. Additional funding and time would be required to further expand these network and catalytic opportunities.

122. This evaluation also recommends that the GEF and CI identify opportunities to apply SPARC analysis in highly sensitive and high priority regions outside the tropics. One example is in mountain ecosystems in other highly biodiverse areas (i.e. Hotspots), such as the Caucasus, and the mountains of central Asia. Mountain ecosystems are highly sensitive to climate change, and there is a significant need to improve the understanding of how climate change will impact biodiversity in these regions, and what types of geospatial planning should be done to address these impacts. For example, there is a significant global effort to conserve snow leopards and associated ecosystems under the Global Snow Leopard and Ecosystem Conservation Program, but a large amount of the work currently being done to establish protected areas and ecosystem corridors for the conservation of snow leopards may turn out in a few decades to have been futile in the face of climate change impacts.

B. Component 2: Regional fine scale assessment and research-to-policy briefs

123. The second component of the project aimed to take the data and approach from Component 1 to greater detail, at the regional level. Regional assessments provide the most detailed and in-depth analysis of the project and provide the results summarized in research-to-policy briefs and the decision support tool. Component 2 was budgeted for \$1,057,567 USD (58.6% of the project budget), and as of the TE, had spent 92% of that amount, with the expectation that the full amount budgeted for this component would be disbursed by the end of the project. The component activities were organized around three outcomes:

- Outcome 2.1. Fine grain regional assessments produced by leading regional scientists from the priority biogeographic realms
- Outcome 2.2. Research-to-policy briefs prepared and presented to government protected areas agencies
- Outcome 2.3. Decision support tools for visualization and interactive use of research results

124. Key results indicators for Component 2 are summarized in Table 9 below.

Table 9 Component 2 Indicators and Targets

Indicator	Baseline	Target	Status
Outcome indicator 2.1.: Regional assessment results available and published in the peer-review literature	See Annex 9.		Achieved
Outcome indicator 2.2.: Number of multi-national and country research-to-policy briefs presented to protected areas agency staff			Achieved
Outcome indicator 2.3.: Decision support tools developed and disseminated.			Achieved

125. A detailed summary of results under Component 2 from the project's self-reported annual Project Implementation Report are included in Box 2 below.

Box 2 SPARC Project Summary Self-Description of Component 2 Results

The second year of the project was focused on Component 2, including the launch of the regional assessments and the deployment of centrally developed methods to begin a finer scale analysis in each region. The products from the regional assessment will ultimately comprise the final project outputs and the information that will populate the research to policy briefs and in person trainings. Each regional assessment was launched with a kickoff meeting in Q1 of FY18. Kickoff meetings were well attended, each with 25-40 scientists and practitioners with broad geographic representation from each region. Key outcomes from the kickoff meetings included: 1) review and evaluation of central project methods and preliminary results; 2) composition of the regional assessment teams which conducted the research throughout FY18; 3) identification of regional projects financed through 'onward grants' to formally involve regional scientists and institutions; 4) development of a regional assessment workplan with timeframe and key deliverables; 5) initiation of outreach to practitioners (Protected Area (PA) policymakers or managers) as to how SPARC may best inform PA decision making processes. All three regional assessments were successfully launched and Outputs include geographic ranges for 110,000 plant and animal species across the tropics – produced with a range of methods and iteratively refined based on expert review. Projections of geographic ranges across many distinct climate scenarios provides inputs for: 1) full accounting of current and potential future representation of species in countries and protected areas; 2) protected-area specific assessments of species and ecosystem change and/or vulnerability; 3) inputs for synthetic spatial prioritization surfaces that aim to maximize species and ecosystem conservation in a changing climate. All results were presented and reviewed through three regional assessment synthesis meetings – each meeting resulted in minor tweaks in either the methodology or, more often, in the effective communication of results to both scientists and more policy-oriented stakeholders. The final phase of the project will be focused on finalizing the decision support platform/data access and engaging in focused outreach to deliver project results to key decision-makers. Engagement opportunities began in earnest in association with the regional synthesis workshops – where many promising connections were made and opportunities for follow-up were identified.

126. Output 2.1 of the SPARC project consisted of a majority of the regional level modeling and assessments to identify priority geographic zones for future protected area coverage, in order to address climate impacts. The results from these assessments were brought together and disseminated in a regional synthesis workshop for each of the target regions. The synthesis workshop for the Afrotropics was held January 14-16, 2019 in Fish Hoek, South Africa. The Asia regional synthesis workshop was held March 4-8, 2019 in Bangkok, Thailand. The Neotropics region synthesis workshop was held April 4-6, 2019, in Santiago, Chile.

127. In terms of the scientific results, final results were synthesized into regional reports and country-specific research to policy briefs, and high level findings were submitted to a forthcoming special issue of *Science Advances* which aims to come out in advance of the UNFCCC COP in Chile in late 2019. The project has so far resulted in 13 scientific papers prepared and submitted for publication, or in preparation (see Annex 9). It is anticipated additional papers summarizing aspects of the regional assessments will be submitted over the next 6-12 months.

128. As part of the work under Output 2.1 the project design foresaw “onward grants” to additional regional experts who could be leveraged for specific inputs to the regional assessments. The onward grants were envisioned as a way to secure the engagement and participation of a broader network of regional experts, rather than have the assessments come from one institution in the region. The grants and grantees were typically chosen in the regional assessment kickoff meetings to fill identified needs for each assessment. There were 17 onward grants executed (see Box 3 below) with funding in the range of ~\$3,000-\$20,000. Some of these onward grants were more successful and contributed more than others, most notably the GENs analysis from the Asia assessment, the additional occurrence records/georeferencing from the Asia assessment, the butterfly assessment from the Asia assessment, and the protected areas vulnerability analysis from the Africa assessment.

Box 3 List of SPARC Project "Onward Grants" to Support Regional Assessments

Africa

Ben Freeman -- Modeling of West Africa Endemic Birds
David Gwynne Evans - Field sampling of Cape Protea to verify species models
Kevin Coldrey/Anchor Environmental -- Protected Areas Vulnerability Assessment
Wendy Foden -- Re-survey of quiver tree distribution (follow up of seminal publication of species range shift under climate change)
Yolanda Chirango -- Coordination of Africa Assessment outreach and sub-awards
Yolanda Chirango -- Analysis of climate change language in existing national conservation strategies
Geoffrey Mwachala -- Traits data compilation for sampled red list assessment

Asia

Robert Zomer -- GENs classifications under climate change
Neils Raes -- Georeferencing of botanical record locality information
Tim Bonebrake -- Butterfly conservation assessment under climate change
Tomasso Savini -- Literature search for bird occurrence records and habitat association

Neotropics

Paola Arias -- GCM performance analysis for neotropics
Jelena Maksic - Regional climate models and vegetation change analysis
Enrique Martinez Meyer -- SDM Validation
Rafael Loyala - Conservation planning consultancy
Sebastian Herzog -- Bird SDM Validation
Javier Nori - SDM with seasonal components

Global

Steven Phillips -- Corridor irreplaceability index methods design
Cory Merow -- Species distribution modeling workflow design

129. The onward grants were executed through the partner institutions in the neotropics and afrotropics, i.e. Stellenbosch University and Pontifica Catholica, which required a high administrative burden relative to the size of the grants. The onward grants in Asia were administered directly through CI, due to considerations related to the transfer of funds into and out of China, where the Asia regional institutional partner is based. A lesson from the project is that administering grants of this relatively small size should be done in a centralized manner, to avoid burdensome administrative requirements.

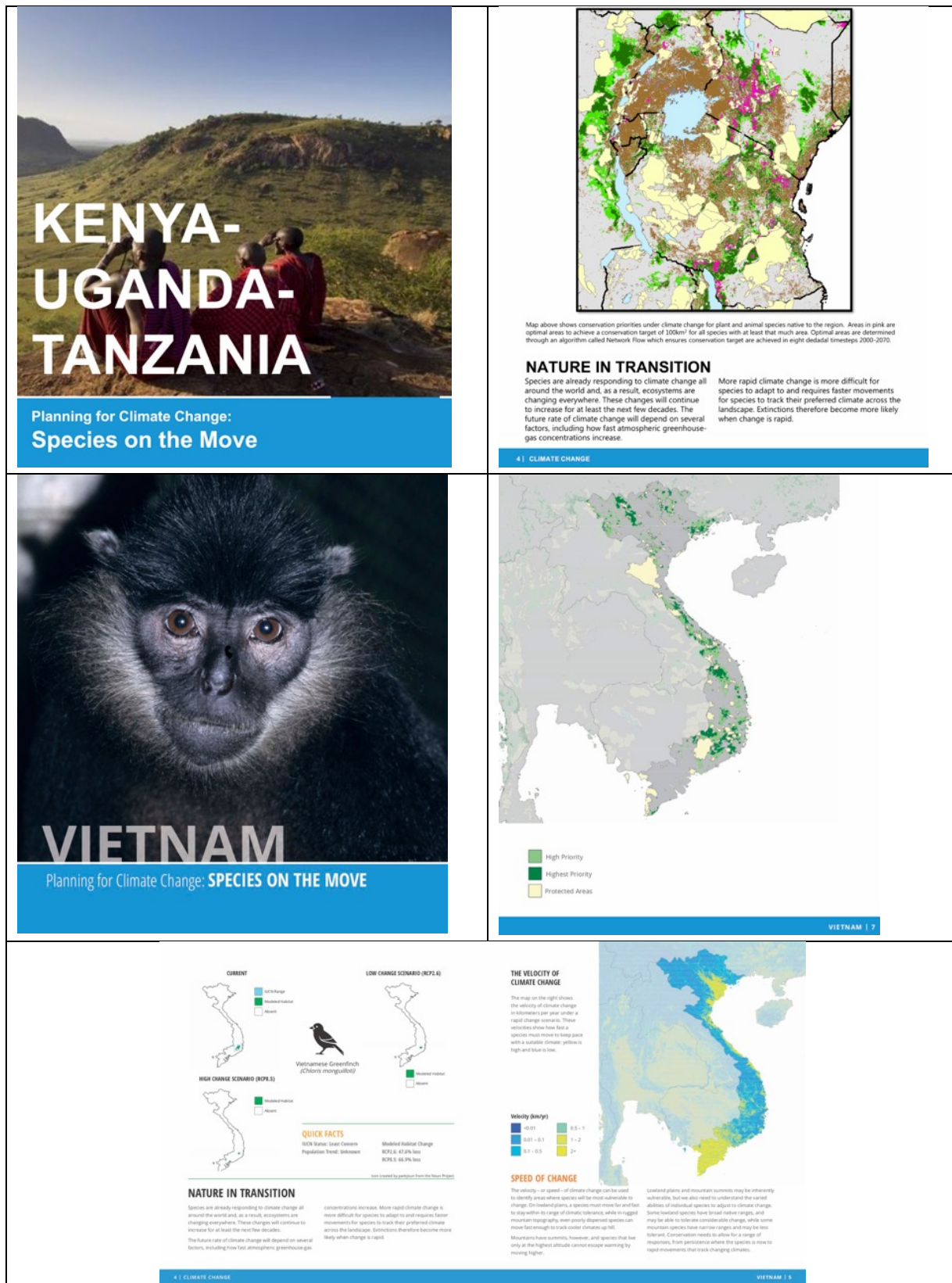
130. Stakeholders also noted that a lot of time is required for such onward grants to be executed and completed. The SPARC project onward grants were “nested” within the grants allocated to the regional institutions (with the exception of Asia), and required a lot of time to come to fruition. The exact timing of these grants was not calculated as part of this evaluation, but many of the grants were conceptualized in August-September 2017 during the project regional inception workshops, were formally initiated in late 2017-early 2018, and were finalized in mid 2018 (for the Asia sub-grants) to late 2018 (Africa and Neotropic sub-grants).

131. In addition, the selection of the onward grants was done in an ad-hoc opportunistic manner, which has both positive and negative implications. On the one hand it is good to opportunistically leverage high value needs through individuals who happen to have strong connections to the project partner institutions. On the other hand, it is optimal to have clear and transparent selection criteria established for such allocations. Similar “micro grant” programs are implemented in many GEF projects, and projects typically take great pains to ensure transparent selection criteria are developed and communicated prior to the selection process; granted many of these programs work directly with community level stakeholders, where objectivity and transparency are critical to ensure legitimacy of such programs.

132. Output 2.2 of the project addressed the outreach, dissemination and uptake of the project’s scientific findings. As previously mentioned, this portion of the project was originally planned for the last nine months of the project, but in fact ended up being undertaken mainly in the final 2-3 months of the original project timeframe (prior to the extension). Including the regional synthesis meetings, six outreach meetings were held in the Africa region, six in the Asia region, and five in the Neotropics. Altogether it is estimated the outreach and dissemination events reached approximately 200-300 people across the three regions (see Annex 10 for participant figures per meeting). However, the number of people reached is less critical than the type of people, and the results from the meetings and workshops held. The project has had positive initial progress on the uptake the project results in Angola, South Africa, and Zimbabwe. In Asia Thailand and Indonesia have taken initial steps to integrate SPARC findings. In the Neotropics the project had preliminary synergistic exchanges with multiple countries.

133. In addition to the outreach meetings and workshops, the project also produced country “research to policy briefs” as tools for bridging the science-to-policy interface. Figure 5 below provides examples of these outreach tools. These briefs were produced for 36 individual countries (including in Spanish for Neotropical countries). In addition, briefs were produced for six additional regional clusters of countries, such as Kenya-Uganda-Tanzania, in East Africa. These briefs have all been published on the SPARC website, but their proactive distribution to target audiences (i.e. other than being available on the SPARC website) has been limited.

Figure 5 Examples of SPARC Multi-country and Country Research to Policy Briefs



134. Altogether, the time and resources available for this aspect of the project were relatively little in terms of full and effective dissemination and outreach. In particular, significant additional investment would be required in capacity development to train end-users to effectively access and use the SPARC data and analysis tools. This shortage of time and resources for this aspect of the project were partly due to some delays in the project's overall timeline, and partly due to overoptimistic project design. At the same time, the project was not intended to achieve full widespread uptake of the project results; such a significant effort would require additional investment and time beyond what was available for the SPARC project.

135. Many project participants were cognizant of the project's limitations in this area. Box 4 below includes a variety of participant feedback on the outreach efforts.

Box 4 SPARC Participant Reflections on the Project Outreach and Dissemination Efforts

"We were definitely underfunded in terms of getting that science out into practical application in the real world. We didn't realize that until we got out there working on that."

"If there were surprises, toward the end we were doing decision-support development and what people were telling us there was different than what we might have thought. Ideally people would be just taking climate science and just plugging it into conservation planning, but that's not what we were hearing. So we had a decision-support group of people from all three regions, and from talking to them, [the indication was] government agencies don't have their eye on biodiversity much at all, and ministers wouldn't even understand the climate aspects. So we focused more on a much less technical level than we had originally envisioned. So I think our understanding of where things are [was] way overoptimistic, the readiness to incorporate this kind of science is not where we hoped it would be."

"How do you change the prioritization on biodiversity decision making? In Thailand, the university is working closely with the government conservation agency, the trusted advisors, so we need to be finding those people, they're excited about getting the big data. We need to find them and move ahead. Then there is a whole realm of questions, like how do you get the minister of environment interested? Our decision support group, [is providing feedback] saying I'm going to have maybe five minutes with minister of environment, and he's going to have one minute with the minister of finance."

"We hope it will be considered, being considered in different regions, people are aware these data sets and analysis exists. There is the potential they will have the tools to tailor the results to their own realities, we might be a little far from that in terms of requiring more time to train people."

"My main frustration was feeling we could have done more on the outreach, and spent a bit more time thinking through the results as a cross-regional team before then going into outreach mode. But the modeling took a long time, and it was a lot to get it all done. I have no complaints, this is just in an ideal world..."

136. The project website, www.sparc-website.org, is a key tool for the outreach and dissemination of project results as well. The major project outputs were consolidated and posted on the website during the project extension period, from August-October 2019. This included:

- a. SPARC project datasets for download
- b. Consolidation of interactive tools and visualizations

- c. Posting project documentation
- d. Posting research to policy briefs outputs
- e. Posting scientific publications resulting from the SPARC project (additional publications to be added in the future as they come out)

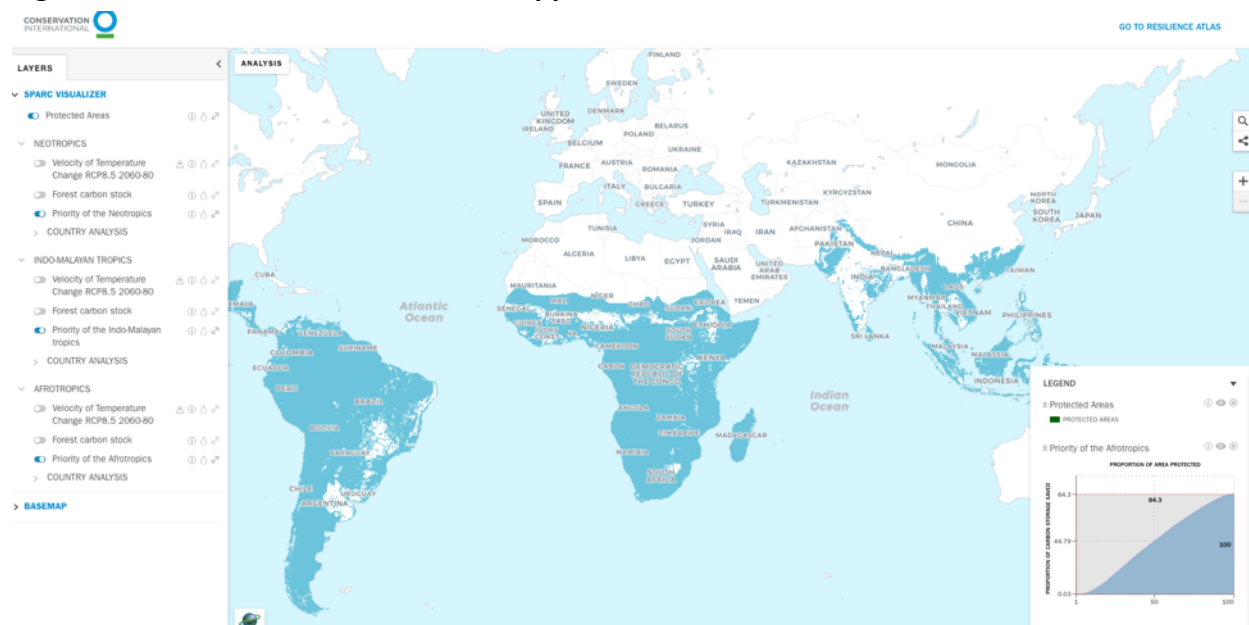
137. A key recommendation of this terminal evaluation is that the GEF and Conservation International should conceptualize a follow-up effort to the SPARC project to further disseminate and support uptake the SPARC results, and ensure that SPARC findings are ultimately incorporated in the national conservation planning strategies of as many countries as possible in the targeted regions.

138. Output 2.3 of the project targeted another strategy for project results dissemination and uptake, which was the production of a decision-support tool, the “SPARC Visualizer”, which has been integrated as a multi-layer tool in CI’s online Resilience Atlas. This is a web-based data assessment tool that the project has succeeded in developing and publishing online. Additional datasets have been uploaded to the SPARC Visualizer during the project extension period from August-October 2019. The tool is found here:

139. <http://sparc.resilienceatlas.org/map?tab=layers&zoom=3¢er=lat%3D3.7765593098768635%26lng%3D47.28515625000001&layers=%5B%5D>

140. Figure 6 below provides a screen shot of this decision-support tool.

Figure 6 "SPARC Visualizer" Decision Support Tool



141. As with the dissemination and outreach aspects of the project under Output 2.2, it is unlikely that target audiences and potential end-users have had much opportunity for uptake and use of the decision-support tool as yet.

C. Component 3: Monitoring and Evaluation

142. The project's third component focused on monitoring and evaluation aspects of the project, including a participatory M&E framework, and adaptive management mechanisms. This component was budgeted for \$194,846 USD, or 10.8% of the project budget, and as of the TE, had spent 89% of that amount, with the expectation that the full amount budgeted for this component would be disbursed by the end of the project. The component was organized around two outcomes:

- Outcome 3.1: Participatory M&E framework and an informative and proactive feedback mechanism integrated into all levels of project cycle management
- Outcome 3.2: Adaptive implementation of scenario modeling

143. Key results indicators for Component 2 are summarized in Table 9 below.

Table 10 Component 3 Indicators and Targets

Indicator	Baseline	Target	Status
Outcome indicator 3.1.: Monitoring plan completed and reflected in data compilation and regional assessment work plans.	See Annex 9.		Achieved
Outcome indicator 3.2.: Number of adaptations to regional assessments based on learning from other regions.			Achieved

144. The implementation of basic monitoring and evaluation activities (i.e. regular monitoring meetings, annual progress reporting, terminal evaluation, etc.) has been discussed previously under Section V.I of this report, on monitoring and evaluation. It is considered good practice for the project to have had a separate component specifically on monitoring and evaluation, to ensure a robust and well-resourced approach to monitoring and evaluation. Many GEF projects only have monitoring and evaluation activities added in to other unrelated project components.

145. While it was good practice for monitoring and evaluation to be designed as a separate component, there are a few lessons from the budgeting details, workplanning, and implementation of this component. The component was budgeted for more than 10% of the project budget, which is more than sufficient as an M&E budget for a project of this size. The details of this budget planning are not fully transparent. In the Prodoc, Appendix IV(b) including the safeguards monitoring plan, budgeted at \$74,234, seemingly for a set of annual meetings on the topic. The budgeted M&E plan, Prodoc Appendix IV(c) is budgeted for \$129,436. These two aspects of the budgeted M&E plan total \$203,670 – more than the budget for the component. At the same time, in the project financial management documents, the budget for component 3 is mainly (89.8% of the component budget) planned to support personnel salaries for the project manager, principal investigator, and global synthesis senior director, while a mid-term review and terminal evaluation (\$25,000 each) are budgeted under the project management costs budget line. In the project's revised budget, the planned allocation of the Component 3 budget was shifted to focus much more on travel, meetings, and workshops, to fund aspects such as the project team's participation in the regional synthesis meetings, which can be seen as a form of monitoring activity. All of this is to say that one lesson from the project's implementation is that while it is good practice for M&E to be designed as a separate component, it is best if M&E

activities are transparently and realistically budgeted and spent, rather than having this component serve as a flexible budget line to support non-M&E specific activities.

146. The first key activity under this component (Output 3.1) was the development and application of the project results monitoring plan. The monitoring plan was actually completed prior to project implementation, as part of the project proposal (Appendix IV of the project proposal). The project's monitoring approach was also intended to support adaptive management, which has also been previously discussed in Section V.F of this report.

147. The second major part of Component 3 focused on inter-regional learning. As described in the project's final annual Project Implementation Report,

Coordination among the three regional assessments is centralized and is largely the responsibility of the core management team. Communication among the regional PIs is frequent and lessons learned are quickly assimilated; e.g. through immediate feedback and modification to meeting format as the kickoff meetings progressed. Perhaps the most illustrative example of cross-region knowledge sharing is the individual projects financed within region that contribute to outputs in all three regions, namely 1) GEnS analysis (Asia); 2) Global protected area vulnerability analysis (Africa); 3) Network flow algorithm and GCM evaluation (Neotropics).

148. These results are mainly supported by the findings of the terminal evaluation. Some project participants felt that there could have been more inter-regional learning and knowledge sharing, while some felt that this aspect of the project was sufficient. As one participant stated, "What I would have liked more of is inter-regional interaction. So, for us to sit down a little more often with [the modelers and the other regions], to go through results, and comparing and getting excited about what was coming out. We were so involved in running the models and producing outputs, that the real academic thinking, and inter-regional comparisons...we couldn't really do that."

149. During the project there were semi-frequent "remote" meetings held with all of the regional project Principal Investigators (and supporting institutions), but participants stated that this aspect of project coordination was challenging simply due to the many time zones involved. According to various project sources there were somewhere between one to four project coordination meetings that involved all regional Principal Investigators. One participant highlighted both logistical aspects, as well as the diversity of the regions as factors that limited inter-regional learning and knowledge sharing:

The problems have been largely due to the diversity of the countries and the spatial separation, making meetings difficult: jet lag, skype with 12 hours separation..... Travel is a huge problem in the tropics, there is no easy way to go between countries without going through hubs. So we all only met once, but enough of us met at other times to coordinate. But I think the first PIs meeting was the only time we had everybody together. I missed one or two subsequently. But going from Chile to South Africa, or to UK at Kew meetings, it was just not practical. The regions are very difficult, they are different in many ways. Asia has a much wider range of capacity and resources. Africa, if you exclude South Africa, has got a wide range of capacity too..... In South America they still have a lot of forest and some areas of low population density. China and India have billions of people, so [the] PAs are small PAs, and they're surrounded by lots of people. South America is the opposite.

150. At the same time, another participant thought that *“the face to face meetings were enough, but I thought we could have connected to each other on calls more often.”*

151. Another opportunity for inter-regional knowledge sharing and learning was during the regional synthesis meetings. The project aimed to involve the Principal Investigators from all regions in each of the regional synthesis workshops, but at only the Africa regional synthesis meeting were participants from other regions present. As one participant stated, *“It could have been useful, it came down to resources and logistics. We really did try to bring everyone together, but we only managed at one Cape Town meeting.”* [i.e. the Africa regional synthesis meeting]

152. In this regard, another important lesson from the SPARC project is that if a global project has ambitions for inter-regional learning and knowledge sharing, there needs to be a specific mechanism designed to achieve this, that accounts for the challenges of coordination at the global level, in terms of logistics and time zones.

D. Progress Toward Impacts and Global Environmental Benefits

153. The GEF Evaluation Office requires a rating on project impact, which in the context of the GEF biodiversity focal area, relates to actual change in environmental status (e.g. improvements in species, improvements in ecosystems, improved ecosystem services related to biodiversity, etc.).

154. The SPARC project document describes the expected global environmental benefits as such:

The project will help secure conservation of global biodiversity in the face of climate change. Representation of species and ecosystems may be lost as species move in response to climate change and ecosystems reorganize. The project will provide the information necessary to reverse this erosion of representation, thus making existing conservation system goals attainable even as climate changes. This will help donors strategize and prioritize protected areas and climate change adaptation investments.

The project results will allow the design of expansion of protected areas in ways that are robust to climate change, further ensuring that the gains of GEF and other conservation investments are protected against climate change. Project outputs will therefore secure conservation of globally significant biodiversity. They may also materially assist in sustainable forest management.

155. The SPARC project was not designed or intended to achieve impact-level results within the life of the project. Consequently, the project results framework did not include impact-level indicators (i.e. # of species with improved status, etc.). However, based on the project’s Theory-of-Change and the project results achieved, it is anticipated that the project is likely to make a significant contribution to impact level results and global environmental benefits in the future. As discussed in the following Section VII.A on sustainability, this is dependent on the further dissemination and uptake of the project results into national protected area and conservation planning approaches in the three target regions. Ultimately, impact level results will only be able to be assessed decades in the future, depending on the reality of climate change impacts, and the corresponding adjustments made to national protected area systems. Therefore, as of the time of this terminal evaluation it is necessary to apply a “theory-based evaluation” concept to understanding the project’s likely future contribution to biodiversity impacts.

156. It should be stressed that although the first two ratings below are required to be assessed at project completion, the SPARC project was not designed to achieve impact level results during the life of the project. Therefore, based on the above, the impact ratings for the project must be assessed as follows:

- *Environmental status improvement* is assessed as **negligible**;
- *Environmental stress reduction* is assessed as **negligible**; and
- *Progress toward stress reduction/status change* is assessed as **significant**.

VII. Key GEF Performance Parameters

157. Sustainability is one of the five main evaluation criteria, as well as being considered one of the GEF operational principles. The GEF's catalytic role is also one of the GEF's operational principles, which is not otherwise specifically addressed elsewhere in this terminal evaluation report. In addition, this report provides feedback on the project's efforts with respect to gender mainstreaming, per GEF policies.

A. Sustainability

158. There are some risks to the sustainability of the project results but overall **sustainability** is considered ***moderately likely***, as all four elements of sustainability are considered moderately likely.

159. Financial risks to sustainability relate to the need for continued investment and ongoing support to ensure the uptake the SPARC project's results and findings. Financial sustainability is considered moderately likely. The project was able to substantively answer the scientific questions that were the project's main goal, but those results will not be useful if they are not actually put into practice in terms of adjustments to conservation planning in the three tropical regions the project targeted. As discussed in previous Section VI.B on the results under Component 2, the project made some initial steps toward outreach and dissemination of results, but much more, and more sustained, effort is required to reach outcomes where conservation planning and national protected area networks are modified to reflect priorities under climate change.

160. There are already some preliminary efforts to further the work of the SPARC project, and disseminate the results. One of the project Principal Investigators has received a two-year grant from the United States National Science Foundation to continue work related to SPARC. The regional Principal Investigators also all indicated that they plan to continue the work of the SPARC project, in some cases through small-scale funding available through their academic institutions. However, continuing more in-depth and widespread outreach and dissemination across countries in the target regions would take much more significant investment. As one participant noted, *"In the end..., it's a fantastic platform, and hopefully the GEF will see the potential, and it will roll on. Obviously country level stakeholder workshops require a bit more funding, and that's got to come from another agency to be able to do that."* This evaluation report has recommended that the GEF and CI work together to identify strategic opportunities for further dissemination and uptake of SPARC results.

161. Socio-economic risks to sustainability are limited, and sustainability in this regard is considered likely. A key socio-economic issue for the SPARC project was assessing the geographic

opportunities to actually expand protected area networks in relation to priorities for biodiversity under climate change scenarios. The project partially dealt with this issue by including geospatial data on the valuation of land across the landscape (though one participant noted the data for this layer was a weak area for the project), in order to assess the real opportunities for adjusting protected areas. At the same time, as indicated in the proposed project theory-of-change diagram (see earlier Section IV.B), a key assumption for project outcomes and impacts relates to the political will at the national level to take up SPARC findings and recommendations, and actually make changes to national protected area networks, and political will often depends on socio-economic issues much more than it does on science.

162. Institutional and governance risks to sustainability exist in terms of the SPARC project results not yet being institutionalized in national conservation planning agencies (or other supra-national biodiversity conservation entities and institutions as well), but this was not anticipated at project completion. Sustainability in this regard is considered moderately likely. Institutional and governance sustainability is closely linked with the financial and socio-economic sustainability risks discussed above. At a minimum the GEF and CI should ensure the SPARC results are institutionalized within their respective portfolios, as recommended by this evaluation.

163. In addition, multiple SPARC participants talked about the need to continue creating and developing a community of practice on these issues, in order to continue the uptake, replication, and further dissemination of results. The SPARC project catalyzed some nascent elements of such a community of practice, but this is not well-developed as yet. As one participant described,

We do have the network of people in all the regions, that allows us to be in touch with them and provide products as they need it. So I think this human capital was created, the network is amazing, and there have been some other spinoffs.... Things are moving, and we will keep working and doing this for years. As a group, we are still working on this. It changed me too, because it forced me to spend time reaching out and contacting people across the [region], and now we have a large network of people, which is very valuable for future projects. I'm meeting a few of these people here and there, at CBD meetings, at the parks congress, and we're talking, so it is really, really great. Beyond science, the network we have in place now makes a huge difference. Hopefully we can keep having initiatives that can help foster the development of this network.

164. In terms of environmental risks to sustainability, risks are also limited, and environmental sustainability is considered moderately likely. The major environmental risk to the project results is the extent to which the climate models the project used end up being at least somewhat accurate. All project participants expressed a high level of confidence in the project results, but at the same time emphasized the need to recognize the limitations in terms of the data availability, data quality, and uncertainty of the climate models used. Participants felt that an increase in the availability and quality of biodiversity data would not significantly affect the project results.

B. Catalytic Role: Replication and Up-scaling

165. It is too early to assess the SPARC project's actual catalytic role, considering a majority of project final results were completed in the six to nine months prior to the terminal evaluation; however, the SPARC project has the potential to be extremely catalytic. This level of global

analysis covering all three tropical regions in the world, encompassing 83 countries, provides massive insight on the potential effects of climate change on biodiversity, and the implications for protected area networks in each of these regions. This project obviates the need for dozens of smaller-scale biodiversity climate vulnerability analyses across a large swath of the globe. As previously discussed in Section VI.B on the project's results under Component 2, there are some initial positive results on the uptake of SPARC results in a few countries in each of the three regions targeted by the project.

166. The SPARC website (with all main project outputs) and the scientific papers (which are mostly still to be published) from the project will have some catalytic influence. For example, through SPARC project information posted on the social network Facebook by one of the principal investigators, a leading ornithologist in Tanzania who manages the Tanzanian Bird Atlas has expressed interest in contributing this database to future SPARC-method analysis: *"I guess I need to be in contact with these people [the SPARC project] now our geo-referenced data approaches half a million records."*

167. However, there are other concrete steps that can be taken further increase the project's impact. This evaluation recommends that the GEF should require GEF-funded projects in the GEF-8 funding cycle that address protected area systems to incorporate SPARC findings. CI should also take all available opportunities to institutionalize the SPARC project findings within CI's full portfolio of work.

C. Gender Equality and Mainstreaming

168. The SPARC project did include attention to and some awareness of gender-related aspects. The Prodoc included a brief discussion on gender mainstreaming, stating

"The project includes developing method manuals, capacity building activities, development of science-to-policy briefs, consultations and deliberations on scientific methodologies for the project. Therefore, the project should put in place the procedures to ensure gender representation and participation at all levels including recruitment for project staff, regional lead scientists, and the scientific advisory panel."

169. The Prodoc also indicated that in order to comply with the GEF and CI gender mainstreaming policies, the project would develop a "Gender Management Plan" within 30 days that would outline:

- *How gender issues will be effectively incorporated into recruitment processes, capacity building activities, consultations and decision-making bodies;*
- *The measures that will be put in place to ensure the equitable participation of women and men in the project, and*
- *The M&E system that would be put in place to ensure that gender issues will be properly tracked over the life of the project to allow for adaptive management measures.*

170. The project inception report appears to include this "Gender Mainstreaming Plan", which consists of the identification of three indicators to be used to track gender mainstreaming in the SPARC project:

- A. INDICATOR GENDER #1: Number/percentage of women/men attending activities & trainings & meetings. Target: No gender discrimination (not applicable to male/ female focus groups).
- B. INDICATOR GENDER #2: Number of men/women demonstrating leadership in project implementation. Threshold: No discrimination between men and women as leaders.
- C. INDICATOR GENDER #3: Number/percentage of relevant policy briefs produced that include discussion of gender. Threshold: All policy briefs consider any differential implications for men and women.

171. However, these three indicators were not directly reported on in the annual PIRs, wherein two of the three gender indicators were different:

- 1. Number of men and women that participated in project activities (e.g. meetings, workshops, consultations)
- 2. Number of men and women that received benefits (e.g. employment, income generating activities, training, access to natural resources, land tenure or resource rights, equipment, leadership roles) from the project
- 3. Number of strategies, plans (e.g. management plans and land use plans) and policies derived from the project that include gender considerations (this indicator applies to relevant projects)

172. In the FY2019 PIR narrative the project summarized gender mainstreaming results from the first part of the project in relation to the indicators A./1., above:

...the attendance of the regional assessment kickoff workshops had a measurable male bias (32% of participants were female across all three kickoff meetings). This was despite our best efforts at achieving gender balance and primarily reflects a differing response rate to a gender-balanced invitation list. Our efforts at achieving gender balance throughout the project are reflected in that, from those kickoff workshops, those selected for onward grants and/or project employment are 46% female. In general, our project outreach and stakeholder engagement activities had fairly balanced gender representation (53% female).

173. Indicators B. and C. from above were not reported on. Indicator B. is difficult to objectively assess, as it would require determining if there was any gender discrimination (intentionally or otherwise) in the project in relation to the selection of leadership positions. Regarding Indicator C., none of the research to policy briefs produced by the project included any reference to gender, but it seems unlikely that there was any gender-specific issue related to the SPARC results that would have risen to the level of something that should have been included in a policy brief.

174. Regarding indicator 3. From above (“Number of strategies, plans...”), the 2019 PIR reported that “Recommendations will be developed with project results during FY19”; no such recommendations have as yet been developed.

175. Overall the SPARC project clearly was aware of and made efforts at gender mainstreaming, in terms of gender-balanced participation in project activities. For example, gender was a specific topic on the project inception workshop agenda. The project reporting also specifically noted and highlighted when the gender mainstreaming results did not fully meet project goals. Nonetheless, in hindsight, the project’s gender mainstreaming approach still could

have been strengthened. An area one participant felt could have been improved was in terms of targeting potential young female scientists in developing countries to be more engaged in the project research and analysis, to increase capacity in this regard:

It was certainly something we bore in mind, something particularly in terms of workshops and meetings we were aware of. I do think in terms of capacity development within the project team it could have been more of a focus. [One of the Principle Investigators] had a few students pushing up, we were also doing that, but I don't think there was enough effort to build capacity. It is not just having women involved at the administrative level; that it is not great, and just perpetuates that. It needs to be much more explicit, and I didn't find it that easy within the project.

176. It is important to emphasize and recognize that gender mainstreaming is not just about gender-balanced participation in workshops or seminars, but at the same time the fact that 46% of those selected for onward grants and project employment were women indicates that the project did make a significant effort in this regard.

177. This evaluation recommends that future GEF / CI targeted research projects include a gender mainstreaming strategy and action plan at the project approval stage (rather than as an afterthought once implementation begins), which specifically includes a goal of addressing current gender imbalances in terms of the number of women represented in scientific and technical fields, in relation to the scientific topic to be targeted under the project. In other words, such projects should include activities to proactively cultivate technical capacity among women in the targeted field of study (assuming women are under-represented in the particular scientific field of study addressed).

VIII. Main Lessons Learned and Recommendations

A. Lessons from the Experience of the SPARC Project

178. The terminal evaluation has identified the below notable lessons from the experience of the SPARC project. These lessons should be aggregated by CI for application to other similar future initiatives.

179. **Lesson:** One of the lessons of the SPARC project relates to the complexity and large level of effort required to effectively reach the targeted audiences; it would not have been possible to push this effort further under the SPARC project without significantly more time and resources. The effective uptake of new and innovative biodiversity conservation strategies requires sustained and multi-faceted engagement with target audiences. As one project participant put it, *"We realize that waving maps in front of them has limitations....., it is something we need to continue to follow-up on."*

180. **Lesson:** Leveraging the global network of a GEF implementing agency can have great benefits for project results that require tapping into personal relationships, such as communicating results to policy makers. The SPARC project was able to link into Conservation International's network of regional and country offices to improve the targeting of project results.

181. **Lesson:** A related lesson is that the sustainability of project results may have benefited from a stronger focus on building the community of practice as a key project output, in addition to the multiple slick websites and policy briefs produced by the project. Developing a community

of practice is not necessarily quick, easy (or potentially cheap) to catalyze, and it is an outcome that likely would not have been fully achieved within the project's lifetime, barring the addition of significantly more time and resources. Nonetheless, project participants noted that recognizing the importance of such a community of practice from the early stages of the project would have been beneficial.

182. ***Lesson:*** If a global project such as SPARC has ambitions for inter-regional learning and knowledge sharing in real-time, there needs to be a specific mechanism designed to achieve this, that accounts for the challenges of coordination at the global level, in terms of logistics and time zones. One of the SPARC project's aims was to achieve cross-regional learning among the project's main regional participants. Although the project had regular skype calls and internal coordination was a strong aspect of the project, true multi-regional learning and cross-fertilization in relation to the substantive research and analyses of the project proved more challenging, and the project did not have a specific mechanism to achieve this. It seems to have been assumed that this would occur naturally through the participation of regional experts in the project's work relating to other regions, but in practice the work done in each of the regions was relatively siloed within that region. In the Africa regional synthesis workshop the project did successfully manage to bring representatives from each of the regions together.

183. ***Lesson:*** Biodiversity conservation faces different socio-economic and geographic challenges on the ground in different parts of the world. Again related to the cross-regional learning goal of the project, multiple participants noted that in fact the three targeted tropical regions are quite different in terms of population density, extent of "virgin" ecosystems, and the current status and extent of national protected area systems. It was noted, in particular, that in Asia two countries alone contain 1/3rd of the global population (China and India), while the geographic area available is actually less than in the Neotropics and Afrotropics. Therefore, to some extent, the findings of the SPARC project were not highly relatable between regions.

184. ***Lesson:*** One operational lesson from the project was that big data science requires very large amounts of computing power - even more computing resources than may be found in many universities, and which can mainly be found in the private sector. The SPARC project team realized early on that the computing power available through the project's university partners would not suffice to complete the analyses in a timely manner, and the project ended up using Amazon.com cloud computing services, which turned out to be a cost-effective solution. Ultimately the project leveraged multiple computing resources to produce the key project outputs.

185. ***Lesson:*** When project implementation arrangements are such that they require financial reporting from external third-party project partners (i.e. under grant or sub-grant agreements), it is beneficial from the very beginning to proactively provide support and initial training to ensure smooth financial reporting procedures, specifically with the finance staff of partner organizations. In the case of the SPARC project the main project partners were financially linked to the project as "grantees" under the project, which meant that they were subject to direct financial reporting requirements to CI. These sub-grantee institutions initially struggled to comprehend and respond to the financial management and reporting requirements of CI-GEF, which led to inefficiencies (i.e. reporting delays, strain on project teams) in the project's financial management.

186. **Lesson:** Another financial management lesson is that operating under the financial management requirements and procedures of multilateral organizations requires significant advance planning. The CI-GEF procurement procedures took more time than project participants expected, even though “those requirements are all in place for good reason.” Ultimately the project team learned that procurement requirements (including short-term human resource requirements) necessitated planning a minimum of three to four months in advance.

187. **Lesson:** While it is good practice for M&E to be designed as a separate component, it is best if M&E activities are clearly and realistically budgeted and spent, rather than having this component serve as a flexible budget line to support non-M&E specific activities. The SPARC project had a component designed specifically for M&E, but this was over-budgeted for a project of this size and not clearly budgeted in terms of the planned expenses. Under implementation, the budget from this component mainly funded travel and meeting expenses for Components 1 and 2 of the project, which was not primarily an M&E expense.

188. **Lesson:** Administering grants of the relatively small size of the “onward grants” (i.e. \$3,000-\$20,000 USD) should be done in a centralized manner, to avoid burdensome administrative requirements. The SPARC project “onward grants” were delegated through the participating partner institutions, which put an administrative strain on these institutions for managing and processing a relatively small amount of money (approximately \$30,000 - \$40,000 per each of the three regional institutions).

189. **Lesson:** Another lesson related to the “onward grants” is that a lot of time is required for such micro grants to be executed and completed. The SPARC project onward grants were “nested” within the grants allocated to the regional institutions (with the exception of Asia), and required a lot of time to come to fruition.

190. **Lesson:** Projects should have a clear external communications strategy (at least key elements), discussed with all key stakeholders, in advance of project implementation. The SPARC project has faced a situation where a key element for the dissemination of project outputs was a project website, but there was uncertainty around which institution should host a website, how it should be maintained, and what the plans for long-term operation and maintenance would be. As of project completion, the maintenance and operation of the SPARC project website is significantly dependent on the project manager, which is not a robust long-term strategy for ensuring the website remains operational and updated.

191. **Lesson:** Even when research projects involve some of the leading global experts in a particular topic, it can still be useful to have a technical oversight and guidance body. The SPARC project design included the SAP. While this body did not meet frequently, it provided valuable strategic guidance in terms of ensuring the project’s methodological approach fit (and was constrained to) meeting the project’s objectives. As one participant put it, the SAP “helped us be efficient with our approaches early on.”

192. **Lesson:** Another lesson related to the SAP is that high level technical oversight bodies are most effective when their members are personally and professionally invested in the results and success of the project. In the SPARC project a significant reason the SAP was engaged and effective was that some members of the SAP had been directly involved in the initiation of the project (the chair of the SAP had also been the chair of the GEF STAP), had strong interest in seeing it succeed, and also had sufficient professional stature to attract and catalyze the

engagement of other SAP members. Some GEF projects that have similar high level technical bodies fail to effectively leverage this expertise, as it can be difficult to attract and maintain the engagement of high level experts when they are recruited to a project that they don't otherwise have direct personal linkages to.

B. Recommendations for Consolidating Results and Supporting Sustainability

193. The recommendations of the terminal evaluation are listed below, with the primary target audience for each recommendation following in brackets.

194. *Recommendation 1:* The GEF and CI should conceptualize a follow-up effort to the SPARC project to further disseminate and support uptake the SPARC results, and ensure that SPARC findings are ultimately incorporated in the national conservation planning strategies of as many countries as possible in the targeted regions. It was not realistic or feasible within the SPARC project to catalyze significant uptake of the results, although some positive progress was made. In addition, further work is needed on capacity development of national-level practitioners (e.g. training on the use of SPARC data, and application of methods) to turn the SPARC project results into a highly catalytic resource. [GEF Secretariat, CI-GEF Project Agency]

195. *Recommendation 2:* The GEF and CI should identify opportunities to apply SPARC analysis in highly sensitive and high priority regions outside the tropics. One example is in mountain ecosystems in other highly biodiverse areas (i.e. "Hotspots"), such as the Caucasus, and the mountains of central Asia. Mountain ecosystems are highly sensitive to climate change, and there is a significant need to improve the understanding of how climate change will impact biodiversity in these regions, and what types of geospatial planning should be done to address these impacts. For example, there is a significant global effort to conserve snow leopards and associated ecosystems under the Global Snow Leopard and Ecosystem Conservation Program, but a large amount of the work currently being done to establish protected areas and ecosystem corridors for the conservation of snow leopards may turn out in a few decades to have been futile in the face of climate change impacts. [GEF Secretariat, CI]

196. *Recommendation 3:* To further the SPARC project's catalytic influence, the GEF should require GEF-funded projects in the GEF-8 funding cycle that address protected area systems to incorporate SPARC findings. CI should also take all available opportunities to institutionalize the SPARC project findings within CI's full portfolio of work. [GEF Secretariat, CI]

197. *Recommendation 4:* CI should expand its suite of financial partnership arrangements beyond the existing current "grant" or "contract" modalities. There are other types of partnership arrangements that other GEF agencies have applied (i.e. Memorandums of Understanding or similar, or strategic partnerships), that allow more flexibility in terms of procurement, financial management, and operational procedures. Under appropriate circumstances, alternative modalities could improve transparency and simplify financial reporting. [CI]

198. *Recommendation 5:* CI-GEF should strengthen its M&E approach for GEF projects. This would involve: a.) Tailoring GEF-funded project's M&E plans to the specific project, rather than having a generic M&E plan; b.) Improving the correlation between M&E planned budgeting and the implementation of M&E activities, with consistency in M&E budgeting in all project design documents, and a rough target of 2%-5% of the project budget for M&E activities; and, c.)

Designing project results frameworks with indicator targets at the objective level, and improving the “SMARTness” of all indicators and targets. [CI-GEF Project Agency]

199. ***Recommendation 6:*** Future GEF / CI targeted research projects should include a gender mainstreaming strategy and action plan at the project approval stage (rather than as an afterthought once implementation begins), which specifically includes a goal of addressing current gender imbalances in terms of the number of women represented in scientific and technical fields, in relation to the scientific topic to be targeted under the project. In other words, such projects should include activities to proactively cultivate technical capacity among women in the targeted field of study (assuming women are under-represented in the particular scientific field of study addressed). [GEF Secretariat, Conservation International]

IX. Annexes

Annex 1: Terms of Reference

Annex 2: GEF Operational Principles

Annex 3: SPARC Project Terminal Evaluation Matrix

Annex 4: Interview Guide

Annex 5: Rating Scales

Annex 6: Key Informants Interviewed

Annex 7: Documents Reviewed

Annex 8: SPARC Project Results Framework Assessed Level of Indicator Target Achievement

Annex 9. Publications in Preparation Resulting from SPARC

Annex 10. Number of Participants per Meeting

A. Annex 1: Terms of Reference

APPENDIX 3: Request for Proposals Request for Proposals (RFP)

Date: May 31, 2019

RFP No. 002 - 2019

SECTION I. INTRODUCTION AND INSTRUCTION FOR OFFERORS

I.1. Introduction

Conservation International - GEF, invites proposals from suitably qualified consultants or firms for assignments outlined below [Section III [III.1-III.2-III.3- III.4]. The award(s) will be in the form of service agreement (hereinafter referred to as "the contract"). The successful offeror(s) shall be required to adhere to the *code of ethics, statement of work, and the terms and conditions of the contract*. This RFP does not obligate CI to execute a contract nor does it commit CI to pay any costs incurred in the preparation and submission of the proposals. Furthermore, CI reserves the right to reject any and all offers, if such action is considered to be in the best interest of CI.

Interested offerors should indicate their interest in submitting a proposal for the anticipated agreement by sending an email indicating their intention to CIProcurement@conservation.org by 4:00 PM on June 5, 2019.

General Background: All Global Environment Facility (GEF) funded projects are required to complete a Terminal Evaluation. The Terminal Evaluation (TE) is designed to provide a comprehensive and systematic account of the performance of a completed project by assessing its design, implementation, and achievement of objectives. The evaluation is expected to: promote accountability and transparency; and facilitate synthesis of lessons. Also, the TE will provide feedback to allow the GEF Independent Evaluation Office (IEO) to identify recurring issues across the GEF portfolio; and, contribute to GEF IEO databases for aggregation and analysis.

I.2. Code of Ethics

See Appendix 2.

I.3. Proposals Deadline

Offerors shall submit their offers electronically at the following email address, CIProcurement@conservation.org

Offers must be received no later than 4:00 PM EST June 28, 2019. Offerors are responsible for ensuring that their offers are received in accordance with the instructions stated herein. *Late offers may not be considered.*

Page: 11 of 24

Template Version: June 4, 2018

I.4. Chronological List of Proposal Event

Offerors must strictly follow the calendar of important dates in the solicitation process. The dates can be modified at the sole discretion of CI. Any changes will be published in an amendment to this RFP.

RFP Published	May 31, 2019
Deadline for Questions	June 10, 2019
Proposal Due Date	June 28, 2019 - 4:00 PM-EST

I.5. Evaluation and Basis for Award

Award(s) will be made to the offeror(s) whose proposal is determined to be responsive to this solicitation document, meets the technical capability requirements, and is determined to represent the most advantageous to CI. *CI reserve the right to split the award (s) among the highest ranked offerors, if such action is considered to be in the best interest of CI.*

- Understanding of Scope of Works [0- 25 PTS]
- Proposed Solution/ Requirements Fulfillment [0- 25 PTS]
- Responsive to the requirement of the RFP- [0-20]
- Proven ability [0- 20 PTS]
- Cost [0- 10 PTS]

I.6. Instruction for Proposal Submission

Technical and Financial proposals shall be submitted in one volume and in English language to the address identified in **I.3**. In respect to the offerors time availability, offerors can bid in one or preferably to all four assignments, listed in Section III. Offers will be evaluated on each individual assignment in Section III.

I.6.1 Technical Proposal

The technical proposal should demonstrate a clear understanding of the work to be undertaken in Section III. The Technical Proposal should have a detail work plan including a timeline to meet the deadlines identified in Section III [III.1-III.2-III.3- III.4]. The Technical Proposals should have the following details:

- a. Cover Letter: Offerors should include a cover letter indicating the offerors interest for the assignments listed in Section III. The cover letter should provide a complete mailing address, electronic mail address(es) and telephone numbers. It should clearly list the name of offeror(s) submitting the proposal

- b. Management, Key Personnel, and Staffing Plan. This section should include CV(s) of consultant(s) that will be assigned to the implementation of the proposed methodology.
- c. A narrative proposal for delivering Section III, scope of work, including (1) approach or methodology (2) workplan for completion of each assignments, and (3) Outcome of Scope of Work.
- d. List of not more than three most recent experiences with similar assignment

I.6.2 Financial Proposal

A detailed budget in USD. It should have daily rates, devoted number of days per deliverables, and a total cost for each assignment as Section III [III.1-III.2-III.3- III.4]. Budget template is attached as an "Annex 1" to this RFP.

SECTION II. INFORMATION AND GENERAL GUIDANCE

II.1 Guidelines for the Evaluator(s)

- 1. Evaluators will be independent from project design, approval, implementation and execution. Evaluators will familiarize themselves with the GEF programs and strategies, and with relevant GEF policies such as those on project cycle, M&E, co-financing, fiduciary standards, gender, and environmental and social safeguards.
- 2. Evaluators will take perspectives of all relevant stakeholders (including the GEF Operational Focal Point[s]) into account. They will gather information on project performance and results from multiple sources including the project M&E system, tracking tools, field visits, stakeholder interviews, project documents, and other independent sources, to facilitate triangulation. They will seek the necessary contextual information to assess the significance and relevance of observed performance and results.
- 3. Evaluators will be impartial and will present a balanced account consistent with evidence.
- 4. Evaluators will apply the rating scales provided in these guidelines in II.3.
- 5. Evaluators will abide by the GEF Evaluation Office Ethical Guidelines found at <https://www.conservation.org/gef/Pages/about.aspx>.

II.2 Outline for Draft and Terminal Evaluation Reports

The draft and final evaluation reports should at a minimum contain the information below:

II.2.1 General Information

The Terminal Evaluation report will provide general information on the project and conduct of the Terminal Evaluation. This includes information such as:

- GEF Project ID
- Project name
- GEF financing
- Planned and materialized co-financing
- Key objectives
- GEF Agency
- Project countries
- Key dates: Date of project start, Date of project completion
- Name of the Project Executing Agency(ies)

The Terminal Evaluation report will also provide information on when the evaluation took place, places visited, who was involved, the methodology, and the limitations of the evaluation. The report will also include, as annexes to the main report, the evaluation team's terms of reference, its composition and expertise.

Where feasible and appropriate, the Terminal Evaluation reports should include georeferenced maps and/or coordinates that demarcate the planned and actual area covered by the project. To facilitate tracking and verification, where feasible, the Terminal Evaluations should include geo-referenced pictures of the sites where GEF supported interventions were undertaken.

II.2.2 Project Theory

The Terminal Evaluation report will include a description of the project's theory of change including description of: the outputs, outcomes, intermediate states, and intended long-term environmental impacts of the project; the causal pathways for the long-term impacts; and, implicit and explicit assumptions.

The project's objective(s) should also be included within the theory of change. Some of the projects may already have an explicit theory of change. Where appropriate, after consultations with the project stakeholders, the evaluators may refine this theory of change. Where an explicit theory of change is not provided in the project documents, the evaluators should develop it based on information provided in the project documents and through consultations with the project stakeholders.

II.2.3 Assessment of Project Result

The TE must assess achievement of project outputs and outcomes, and report on these. While assessing a project's results, evaluators will determine and rate the extent to which the project objectives – as stated in the documents submitted at the CEO Endorsement stage – have been achieved. The evaluator(s) should also indicate if there were any changes in project design and/or expected results after start of implementation. If the project did not establish a baseline (initial conditions), where feasible, the evaluator should estimate the baseline conditions so that results can be determined. Where applicable, the Terminal Evaluation report will include an assessment of the level of achievement of the GEF corporate results targets to which the project contributes and will also incorporate data from the focal area tracking tool.

- a. **Outputs:** The evaluator should rate the extent to which the expected outputs were actually delivered. An identification and assessment of the factors that affected delivery of outputs should also be included.
- b. **Outcomes:** The evaluator should rate the extent to which the expected outcomes were achieved and the extent to which its achievement was dependent on delivery of project outputs. They should also assess the factors that affected outcome achievement, e.g. project design, project's linkages with other activities, extent and materialization of co-financing, stakeholder involvement, etc. Where the project was developed within the framework of a program, the assessment should also report on the extent the project contributed to the program outcomes.
- c. **Criteria for Outcome Ratings:** Outcome ratings will take into account the outcome achievements of the projects against its expected targets. Project outcomes will be rated on three dimensions: a. Relevance: Were the project outcomes congruent with the GEF focal areas/operational program strategies, country priorities, and mandates of the Agencies? Was the project design appropriate for delivering the expected outcomes? b. Effectiveness: Were the project's actual outcomes commensurate with the expected outcomes? c. Efficiency: Was the project cost-effective? How does the project cost/time versus output/outcomes equation compare to that of similar projects? Rating Scale for Outcomes: An overall outcome rating will be provided on a six-point scale (highly satisfactory to highly unsatisfactory) after taking into account outcome relevance, effectiveness, and efficiency (II.3).
 - a. **Sustainability:** The assessment of sustainability will weigh risks to continuation of benefits from the project. The assessment should identify key risks and explain how these risks may affect continuation of benefits after the GEF project ends. The analysis should cover financial, socio-political, institutional, and environmental risks. The overall sustainability of project outcomes will be rated on a four-point scale (Likely to Unlikely) based on an assessment of the likelihood and magnitude of the risks to sustainability. Higher levels of risks and magnitudes of effect imply lower likelihood of sustainability. II.3 describes the rating scale for sustainability.
 - b. **Progress to Impact:** The evaluators should also assess the extent to which the progress towards long-term impact may be attributed to the project. The evaluators should report the available qualitative and quantitative evidence on environmental stress reduction (e.g. GHG emission reduction, reduction of waste discharge, etc.) and environmental status change (e.g. change in population of endangered species, forest stock, water retention in degraded lands, etc.). When reporting such evidence, the evaluator should note the information source and clarify the scale/s at which the described environmental stress reduction is being achieved.

The evaluators should cover the project's contributions to changes in policy/ legal/regulatory frameworks. This would include observed changes

in capacities (awareness, knowledge, skills, infrastructure, monitoring systems, etc.) and governance architecture, including access to and use of information (laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc.). Contribution to change in socioeconomic status (income, health, well-being, etc.) should also be documented.

Where the environmental and social changes are being achieved at scales beyond the immediate area of intervention, the evaluators should provide an account of the processes such as sustaining, mainstreaming, replication, scaling up and market change, through which these changes have taken place. The evaluators should discuss whether there are arrangements in the project design to facilitate follow-up actions, and should document instances where the GEF promoted approaches, technologies, financing instruments, legal frameworks, information systems, etc., were adopted/implemented without direct support from, or involvement of, the project. Evidence on incidence of these processes should be discussed to assess progress towards impact. When assessing contributions of GEF project to the observed change, the evaluators should also assess the contributions of other actors and factors.

The evaluators should assess merits of rival explanations for the observed impact and give reasons for accepting or rejecting them. Where applicable, the evaluators are encouraged to identify and describe the barriers and other risks that may prevent further progress towards long-term impacts.

The evaluators should document the unintended impacts – both positive and negative impacts – of the project and assess the overall scope and implications of these impacts. Where these impacts are undesirable from environmental and socio-economic perspectives, the evaluation should suggest corrective actions.

- c. Assessment of Monitoring & Evaluation Systems:** The evaluators will include an assessment of the strengths and weaknesses of the project M&E plan and its implementation.

M&E Design. To assess the quality of the M&E plan, the evaluators will assess:

- a. Was the M&E plan at the point of CEO Endorsement practical and sufficient?
- b. Did it include baseline data?
- c. Did it: specify clear targets and appropriate (SMART) indicators to track environmental, gender, and socio-economic results; a proper methodological approach; specify practical organization and logistics of the M&E activities including schedule and responsibilities for data collection; and, budget adequate funds for M&E activities?

M&E Implementation. The evaluators should assess:

- a. Whether the M&E system operated as per the M&E plan?
- b. Where necessary, whether the M&E plan was revised in a timely manner?
- c. Was information on specified indicators and relevant GEF focal area tracking tools gathered in a systematic manner?
- d. Whether appropriate methodological approaches have been used to analyze data?
- e. Were resources for M&E sufficient? How was the information from the M&E system used during the project implementation?

Project M&E systems will be rated on the quality of M&E design and quality of M&E implementation using a six-point scale (Highly Satisfactory to Highly Unsatisfactory). Annex 2 provides more details on the scale.

- d. Assessment of Implementation and Execution:** The assessment of the implementation and execution of GEF full size projects will take into account the performance of the GEF Implementing Agencies and project Executing Agency(ies) (EAs) in discharging their expected roles and responsibilities. The performance of these agencies will be rated using a six-point scale (Highly Satisfactory to Highly Unsatisfactory). See Annex 2 for more information on the scale.

II.2.4 Quality of Implementation

Within the GEF partnership, GEF Implementing Agencies are involved in activities related to a project's identification, concept preparation, appraisal, preparation of detailed proposal, approval and start-up, oversight, supervision, completion, and evaluation. To assess performance of the GEF Agencies, the evaluators will assess the extent to which the agency delivered effectively on these counts, with focus on elements that were controllable from the given GEF Agency's perspective. The evaluator will assess how well risks were identified and managed by the GEF Agency.

II.2.5 Quality of Execution

Within the GEF partnership, the EAs are involved in the management and administration of the project's day-to-day activities under the overall oversight and supervision of the GEF Agencies. The EAs are responsible for the appropriate use of funds, and procurement and contracting of goods and services to the GEF Agency. To assess EA performance, the evaluators will assess the extent to which it effectively discharged its role and responsibilities.

- a. Assessment of the Environmental and Social Safeguards:** The evaluator will assess whether appropriate environmental and social safeguards were addressed in the project's design and implementation (II.3) for more details on the rating scale). It is expected that a GEF project will not cause any harm to environment or to any stakeholder and, where applicable, it will take measures

to prevent and/or mitigate adverse effects. The evaluator should assess the screening/categorization of the project along with the implementation of the safeguard plans that were approved by the GEF Agency.

II.2.6 Gender

The evaluator will determine the extent to which the gender considerations were taken into account in designing and implementing the project. The evaluator should report whether a gender analysis was conducted, the extent to which the project was implemented in a manner that ensures gender equitable participation and benefits, and whether gender disaggregated data was gathered and reported on beneficiaries. In case the given GEF project disadvantages or may disadvantage women or men, then this should be documented and reported. The evaluator should also determine the extent to which relevant gender related concerns were tracked through project M&E, and if possible, addressing whether gender considerations contributed to the success of the project.

II.2.7 Stakeholder Engagement

The evaluator should, where applicable, review and assess the Stakeholder Engagement Plan and project specific aspects such as involvement of civil society, indigenous population, private sector, etc. The evaluator should also indicate the percentage of stakeholders who rate as satisfactory, the level at which their views and concerns are taken into account by the project.

II.2.8 Accountability and Grievance Mechanism

The evaluator should review and assess the project's Grievance Mechanism. The evaluator should analyze and assess whether project stakeholders were aware of the grievance mechanism and whether the mechanism was effective in addressing grievances. The evaluator should also review and assess any other safeguard plans that were triggered.

II.2.9 Other Assessments

The Terminal Evaluations should assess the following topics, for which ratings are not required:

- a. Need for follow-up: Where applicable, the evaluators will indicate if there is any need to follow up on the evaluation findings, e.g. instances financial mismanagement, unintended negative impacts or risks, etc.
- b. Materialization of co-financing: the evaluators will provide information on the extent to which expected co-financing materialized, whether co-financing is cash or in-kind, whether it is in form of grant or loan or equity, whether co-financing was administered by the project management or by some other organization, how shortfall in co-financing or materialization of greater than expected co-financing affected project results, etc.
- c. Lessons and Recommendations: Evaluators should provide a few well-formulated lessons that are based on the project experience and applicable to the type of project at hand, to the GEF's overall portfolio, and/or to GEF systems and

processes. Wherever possible, Terminal Evaluation reports should include examples of good practices in project design and implementation that have led to effective stakeholder engagement, successful broader adoption of GEF initiatives by stakeholders, and large-scale environmental impacts. The evaluators should describe aspects of the project performance that worked well along with reasons for it. They should discuss where these good practices may or may not be replicated. Recommendations should be well formulated and targeted. The recommendations should discuss the need for action, the recommended action along with its likely consequences vis-à-vis status quo and other courses of action, the specific actor/actors that need to take the action, and time frame for it.

II.3 Rating Scale

The main dimensions of project performance on which ratings are first provided in the terminal evaluation are: outcomes, sustainability, quality of monitoring and evaluation, quality of implementation, and quality of execution. The CI-GEF Agency also includes ratings for environmental and social safeguards.

II.3.1 Outcome Ratings

The overall ratings on the outcomes of the project will be based on performance on the following criteria:

- a. Relevance
- b. Effectiveness
- c. Efficiency

Project outcomes are rated based on the extent to which project objectives were achieved. A six-point rating scale is used to assess overall outcomes:

- Highly satisfactory (HS): Level of outcomes achieved clearly exceeds expectations and/or there were no short comings.
- Satisfactory (S): Level of outcomes achieved was as expected and/or there were no or minor short comings.
- Moderately Satisfactory (MS): Level of outcomes achieved more or less as expected and/or there were moderate short comings.
- Moderately Unsatisfactory (MU): Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings.
- Unsatisfactory (U): Level of outcomes achieved substantially lower than expected and/or there were major short comings.
- Highly Unsatisfactory (HU): Only a negligible level of outcomes achieved and/or there were severe short comings.
- Unable to Assess (UA): The available information does not allow an assessment of the level of outcome achievements.

The calculation of the overall outcomes rating of projects will consider all the three criteria, of which relevance and effectiveness are critical. The rating on relevance will determine

whether the overall outcome rating will be in the unsatisfactory range (MU to HU = unsatisfactory range). If the relevance rating is in the unsatisfactory range, then the overall outcome will be in the unsatisfactory range as well. However, where the relevance rating is in the satisfactory range (HS to MS), the overall outcome rating could, depending on its effectiveness and efficiency rating, be either in the satisfactory range or in the unsatisfactory range.

The second constraint applied is that the overall outcome achievement rating may not be higher than the effectiveness rating. During project implementation, the results framework of some projects may have been modified. In cases where modifications in the project impact, outcomes and outputs have not scaled down their overall scope, the evaluator should assess outcome achievements based on the revised results framework. In instances where the scope of the project objectives and outcomes has been scaled down, the magnitude of and necessity for downscaling is taken into account and despite achievement of results as per the revised results framework, where appropriate, a lower outcome effectiveness rating may be given.

II.3.2 Sustainability Ratings

The sustainability will be assessed taking into account the risks related to financial, sociopolitical, institutional, and environmental sustainability of project outcomes. The evaluator may also take other risks into account that may affect sustainability. The overall sustainability will be assessed using a four-point scale.

- Likely (L): There is little or no risk to sustainability.
- Moderately Likely (ML): There are moderate risks to sustainability.
- Moderately Unlikely (MU): There are significant risks to sustainability.
- Unlikely (U): There are severe risks to sustainability.
- Unable to Assess (UA): Unable to assess the expected incidence and magnitude of risks to sustainability.

II.3.3 Project M&E Ratings

Quality of project M&E will be assessed in terms of:

- Design
- Implementation

Quality of M&E on these two dimensions will be assessed on a six-point scale:

- Highly satisfactory (HS): There were no short comings and quality of M&E design / implementation exceeded expectations.
- Satisfactory (S): There were no or minor short comings and quality of M&E design / implementation meets expectations.
- Moderately Satisfactory (MS): There were some short comings and quality of M&E design/implementation more or less meets expectations.
- Moderately Unsatisfactory (MU): There were significant shortcomings and quality of M&E design/implementation somewhat lower than expected.
- Unsatisfactory (U): There were major short comings and quality of M&E design/implementation substantially lower than expected.

- Highly Unsatisfactory (HU): There were severe short comings in M&E design/implementation.
- Unable to Assess (UA): The available information does not allow an assessment of the quality of M&E design/implementation.

II.3.4 Implementation and Execution Ratings

Quality of implementation and of execution will be rated separately. Quality of implementation pertains to the role and responsibilities discharged by the GEF Agencies that have direct access to GEF resources. Quality of Execution pertains to the roles and responsibilities discharged by the country or regional counterparts that received GEF funds from the GEF Agencies and executed the funded activities on ground. The performance will be rated on a six-point scale.

- Highly satisfactory (HS): There were no short comings and quality of implementation / execution exceeded expectations.
- Satisfactory (S): There were no or minor short comings and quality of implementation / execution meets expectations.
- Moderately Satisfactory (MS): There were some short comings and quality of implementation / execution more or less meets expectations.
- Moderately Unsatisfactory (MU): There were significant shortcomings and quality of implementation / execution somewhat lower than expected.
- Unsatisfactory (U): There were major short comings and quality of implementation / execution substantially lower than expected.
- Highly Unsatisfactory (HU): There were severe short comings in quality of implementation / execution.
- Unable to Assess (UA): The available information does not allow an assessment of the quality of implementation / execution.

II.3.5 Environmental and Social Safeguards

The approved environmental and social safeguard plans will be rated according to the following scale.

- Highly satisfactory (HS): There were no short comings and quality of environmental and social safeguard plans design/implementation exceeded expectations.
- Satisfactory (S): There were no or minor short comings and quality of environmental and social safeguard plans design/execution met expectations.
- Moderately Satisfactory (MS): There were some short comings and quality of environmental and social safeguard plans design/implementation more or less met expectations.
- Moderately Unsatisfactory (MU): There were significant shortcomings and quality of environmental and social safeguard plans design/implementation somewhat lower than expected.
- Unsatisfactory (U): There were major short comings and quality of environmental and social safeguard plans design/implementation substantially lower than expected.

- Highly Unsatisfactory (HU): There were severe short comings in quality of environmental and social safeguard plans design/implementation
- Unable to Assess (UA): The available information does not allow an assessment of the quality of environmental and social safeguard plans design/implementation

SECTION III. SCOPE OF WORK, REQUIREMENTS, AND DELIVERABLES

III.1. Spatial Planning for Protected Areas in Response to Climate Change (SPARC)

Estimated Start Date: 07/30/2019

Estimated Completion Date: 08/30/2019

Travel Requirement: No Travel Required

Estimated Budget Range: \$10,000-\$15,000

Project Location: The SPARC project takes place in 83 tropical countries in the 3 target regions (Neotropical, Afro-tropical and Indo-Malayan biogeographic realms).

Project Objective: Provide countries in the Neotropical, Afrotropical and Indo-Malayan biogeographic realms with the assessments and data needed to improve planning, design and management of terrestrial protected areas for climate change resilience.

The project includes the following components:

Component 1: Global data compilation and analysis of protected area vulnerability to climate change.

PIF Outcome 1.1 is now Outcome 2.1, consistent with the split of PIF Component 1 into two parts. PIF Outcome 1.2 is the first Outcome of the new component 1. The other Outcomes of new Component 1 describe the intermediate outcomes achieved in the global model compilation. Global models include global climate models, models of vegetation run at global domains as part of GCMs or Earth System Models, Global Dissimilarity Modeling of CSIRO, global velocity of climate change models and others.

Component 2: Country and multi-country research briefs and action plan

These outcomes describe work formerly included in PIF Component 1 that will be conducted by the regional science teams. This work builds on the assessment of global data sets, but is more specific and targeted, filling data gaps in each region, focusing on highly vulnerable areas and responding to local/regional protected areas context. These outcomes also include preparation of research-to-policy briefs to be presented to

government protected areas agencies and the production of decision support tools for visualization and interactive use of results generated.

Component 3: Monitoring and Evaluation

Based on learning during ProDoc development, the ambitions of this component have been greatly reduced. In-depth analysis of climate change decisions for focal countries or groups of countries will not be attempted, as this was found to be not feasible within the resources available to the project. Instead, low-cost, broad-reach techniques will be used including web portals, trainings and online training materials. More information on the project can be found here:

<https://www.thegef.org/project/spatial-planning-protected-areas-response-climate-change-sparc>

Key Tasks:

1. Based on an approved work plan, the evaluator will conduct a desk review of project documents (i.e. PIF, Project Document, plans related to the Environmental and Social Safeguards [including Gender and Stakeholder Engagement], Work plans, Budgets, Project Inception Report, Quarterly Reports, PIRs, documents with project results, Finalized GEF Focal Area Tracking Tools, policies and guidelines used by the Executing Agency, CI-GEF Evaluation Policy, GEF Evaluation Policy, Project Operational Guidelines, Manuals and Systems, etc.)
2. The evaluator will host a workshop (in person/virtual) with the Executing Agencies to clarify understanding of the objectives and methods of the Terminal Evaluation.
3. The conclusion of the workshop will be summarized in a Terminal Evaluation Zero Report with the following information:
 - a. Identification of the subject of the review, and relevant context
 - b. Purpose of the evaluation: why is the evaluation being conducted at this time, who needs the information and why?
 - c. Objectives of the evaluation: What the evaluation aims to achieve (e.g. assessment of the results of the project, etc.)
 - d. Scope: What aspects of the project will be covered, and not covered, by the evaluation
 - e. Identification and description of the evaluation criteria (including relevance, effectiveness, results, efficiency, and sustainability)
 - f. Key evaluation questions
 - g. Methodology including approach for data collection and analysis, and stakeholder engagement
 - h. Rationale for selection of the methods, and selection of data sources (i.e. sites to be visited, stakeholders to be interviewed)
 - i. System for data management and maintenance of records
 - j. Intended products and reporting procedures
 - k. Potential limitations of the evaluation

4. The evaluator will undertake the evaluation of the project, including any interviews and in- country site visits.
5. Based on the document review and virtual interviews the evaluator will prepare a draft evaluation report following the outline in Annex 1. The report will be shared with the Executing Agencies and the CI-GEF Agency. Each party can provide a management response, documenting questions or comments on the draft evaluation report.
6. The evaluator will incorporate comments and will prepare the final evaluation report. The evaluator will submit a final evaluation report in word and PDF and will include a separate document highlighting where/how comments were incorporated.

Deliverables and Deliverables Schedule:

The successful offeror shall deliver to CI the final Terminal Evaluation Report, in accordance with the outline in II.2. The report is required to be in English Language.

Number	Activity	Responsible	Deliverable	Due Date
1	Establish work plan	Consultant	Approved work plan	TBD
2	Desk review of all relevant project documents	Consultant	Consultants understands project and can deliver an Evaluation Inception Workshop as outlined in Deliverable #3.	To be completed before Evaluation Inception Workshop
3	Host Evaluation Inception workshop with Executing Agencies (virtual/in person)	Consultant	Terminal Evaluation Zero Report	TBD
4	Evaluation of the project via interviews and site visits	Consultant	Draft evaluation report based on outline in Annex 1	TBD
5	Review draft evaluation report	Executing agencies and CI-GEF Agency	Provide comments or questions	TBD
6	Incorporate comments into evaluation report	Consultant	Final Terminal Evaluation Report (word and PDF), including document showing how comments/questions were incorporated	TBD

B. Annex 2: GEF Operational Principles

<http://www.gefweb.org/public/opstrat/ch1.htm>

TEN OPERATIONAL PRINCIPLES FOR DEVELOPMENT AND IMPLEMENTATION OF THE GEF'S WORK PROGRAM

1. For purposes of the financial mechanisms for the implementation of the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, the GEF will **function under the guidance of, and be accountable to, the Conference of the Parties (COPs)**. For purposes of financing activities in the focal area of ozone layer depletion, GEF operational policies will be consistent with those of the Montreal Protocol on Substances that Deplete the Ozone Layer and its amendments.
2. The GEF will provide new, and additional, grant and concessional funding to meet the agreed **incremental costs** of measures to achieve agreed global environmental benefits.
3. The GEF will ensure the **cost-effectiveness** of its activities to maximize global environmental benefits.
4. The GEF will fund projects that are **country-driven** and based on national priorities designed to support sustainable development, as identified within the context of national programs.
5. The GEF will maintain sufficient **flexibility** to respond to changing circumstances, including evolving guidance of the Conference of the Parties and experience gained from monitoring and evaluation activities.
6. GEF projects will provide for **full disclosure** of all non-confidential information.
7. GEF projects will provide for consultation with, and **participation** as appropriate of, the beneficiaries and affected groups of people.
8. GEF projects will conform to the **eligibility** requirements set forth in paragraph 9 of the GEF Instrument.
9. In seeking to maximize global environmental benefits, the GEF will emphasize its **catalytic role** and leverage additional financing from other sources.
10. The GEF will ensure that its programs and projects are **monitored and evaluated** on a regular basis.

C. Annex 3: SPARC Project Terminal Evaluation Matrix

Evaluation Questions	Indicators	Sources	Data Collection Method
Evaluation Criteria: Relevance			
Does the project's objective fit within the national environment and development priorities?	Level of coherence between project objective and national policy priorities and strategies, as stated in official documents	National policy documents, such as National Biodiversity Strategy and Action Plan, National Capacity Self-Assessment, etc.	- Desk review - Key Informant interviews
Did the project concept originate from local or national stakeholders, and/or were relevant stakeholders sufficiently involved in project development?	Level of involvement of local and national stakeholders in project origination and development (number of meetings held, project development processes incorporating stakeholder input, etc.)	- Project staff - Local and national stakeholders - Project documents	- Key Informant interviews - Desk review
Does the project objective fit GEF strategic priorities?	Level of coherence between project objective and GEF strategic priorities (including alignment of relevant focal area indicators)	- GEF strategic priority documents for period when project was approved - Current GEF strategic priority documents	Desk review
Was the project linked with and in-line with CI priorities and strategies for the country?	Level of coherence between project objective and design with CI priorities	CI strategic priority documents	Desk review
Does the project's objective support implementation of the Convention on Biological Diversity? Other relevant MEAs?	Linkages between project objective and elements of the CBD, such as key articles and programs of work	- Convention website - National Strategies and Action Plan for each convention	Desk review
Evaluation Criteria: Efficiency			
Is the project cost-effective?	- Quality and adequacy of financial management procedures (in line with CI and partner policies, legislation, and procedures) - Financial delivery rate vs. expected rate	- Project documents - Project staff	- Desk review - Interviews with project staff

Evaluation Questions	Indicators	Sources	Data Collection Method
	Management costs as a percentage of total costs		
Are expenditures in line with international standards and norms?	Cost of project inputs and outputs relative to norms and standards for donor projects in the country or region	- Project documents - Project staff	- Desk review - Interviews with project staff
Is the project implementation approach efficient for delivering the planned project results?	- Adequacy of implementation structure and mechanisms for coordination and communication - Planned and actual level of human resources available - Extent and quality of engagement with relevant partners / partnerships - Quality and adequacy of project monitoring mechanisms (oversight bodies' input, quality and timeliness of reporting, etc.)	- Project documents - National and local stakeholders - Project staff	- Desk review - Interviews with project staff - Key Informant interviews
Was the project implementation delayed? If so, has that affected cost-effectiveness?	- Project milestones in time - Planned results affected by delays - Required project adaptive management measures related to delays	- Project documents - Project staff	- Desk review - Interviews with project staff
What is the contribution of cash and in-kind co-financing to project implementation?	Level of cash and in-kind co-financing relative to expected level	- Project documents - Project staff	- Desk review - Interviews with project staff
To what extent is the project leveraging additional resources?	Amount of resources leveraged relative to project budget	- Project documents - Project staff	- Desk review - Interviews with project staff
Evaluation Criteria: Effectiveness			
Are the project objectives likely to be met? To what extent are they likely to be met?	Level of progress toward project indicator targets relative to expected level at current point of implementation	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
What are the key factors contributing to project success or underachievement?	Level of documentation of and preparation for project risks, assumptions and impact drivers	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
What are the key risks and barriers that remain to achieve the project objective and generate Global Environmental Benefits?	Presence, assessment of, and preparation for expected risks, assumptions and impact drivers	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Are the key assumptions and impact drivers relevant to the achievement of Global Environmental Benefits likely to be met?	Actions undertaken to address key assumptions and target impact drivers	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Evaluation Criteria: Results			
Have the planned outputs been produced? Have they contributed to the project outcomes and objectives?	- Level of project implementation progress relative to expected level at current stage of implementation - Existence of logical linkages between project outputs and outcomes/impacts	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Are the anticipated outcomes likely to be achieved? Are the outcomes likely to contribute to the achievement of the project objective?	Existence of logical linkages between project outcomes and impacts	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Are impact level results likely to be achieved? Are the likely to be at the scale sufficient to be considered Global Environmental Benefits?	- Environmental indicators - Level of progress through the project's Theory of Change	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Evaluation Criteria: Sustainability			
To what extent are project results likely to be dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project	- Financial requirements for maintenance of project benefits - Level of expected financial resources available to support maintenance of project benefits	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
results once the GEF assistance ends?	Potential for additional financial resources to support maintenance of project benefits		
Do relevant stakeholders have or are likely to achieve an adequate level of “ownership” of results, to have the interest in ensuring that project benefits are maintained?	Level of initiative and engagement of relevant stakeholders in project activities and results	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Do relevant stakeholders have the necessary technical capacity to ensure that project benefits are maintained?	Level of technical capacity of relevant stakeholders relative to level required to sustain project benefits	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
To what extent are the project results dependent on socio-political factors?	Existence of socio-political risks to project benefits	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
To what extent are the project results dependent on issues relating to institutional frameworks and governance?	Existence of institutional and governance risks to project benefits	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits?	Existence of environmental risks to project benefits	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Cross-cutting Issues			
Did the project take incorporate gender mainstreaming or equality, as relevant?	Level of appropriate engagement and attention to gender-relevant aspects of the project	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review
Does the project appropriately mainstream climate change aspects?	Extent to which potential climate change impacts have been adequately considered in the generation of project results, and potential future climate impacts mitigated	- Project documents - Project staff - Project stakeholders	- Key Informant interviews - Desk review

D. Annex 4: Interview Guide

I. Overall Terminal Evaluation Scope Questions

Overview: The questions under each topic area are intended to assist in focusing discussion to ensure consistent topic coverage and to structure data collection, and are not intended as verbatim questions to be posed to interviewees. When using the interview guide, the interviewer should be sure to target questions at a level appropriate to the interviewee. The interview guide is one of multiple tools for gathering evaluative evidence, to complement evidence collected through document reviews and other data collection methods; in other words, the interview guide does not cover all evaluative questions relevant to the evaluation.

Key

Bold = GEF Evaluation Criteria

Italic = GEF Operational Principles

I. PLANNING / PRE-IMPLEMENTATION

A. **Relevance**

- i. Did the project's objectives fit within the priorities of the local government and local communities?
- ii. Did the project's objectives fit within national priorities?
- iii. Did the project's objectives fit GEF strategic priorities?
- iv. Did the project's objectives support implementation of the relevant multi-lateral environmental agreement?

B. *Incremental cost*

- i. Did the project create environmental benefits that would not have otherwise taken place?
- ii. Does the project area represent an example of a globally significant environmental resource?

C. *Country-drivenness / Participation*

- i. How did the project concept originate?
- ii. How did the project stakeholders contribute to the project development?
- iii. Do local and national government stakeholders support the objectives of the project?
- iv. Do the local communities support the objectives of the project?
- v. Are the project objectives in conflict with any national level policies?

D. Monitoring and Evaluation Plan / Design (*M&E*)

- i. Were monitoring and reporting roles clearly defined?
- ii. Was there either an environmental or socio-economic baseline of data collected before the project began?

II. MANAGEMENT / OVERSIGHT

A. Project management

- i. What were the implementation arrangements?
- ii. Was the management effective?
- iii. Were workplans prepared as required to achieve the anticipated outputs on the required timeframes?
- iv. Did the project develop and leverage the necessary and appropriate partnerships with direct and tangential stakeholders?
- v. Were there any particular challenges with the management process?
- vi. If there was a steering or oversight body, did it meet as planned and provide the anticipated input and support to project management?
- vii. Were risks adequately assessed during implementation?
- viii. Did assumptions made during project design hold true?
- ix. Were assessed risks adequately dealt with?
- x. Was the level of communication and support from the implementing agency adequate and appropriate?

B. *Flexibility*

- i. Did the project have to undertake any adaptive management measures based on feedback received from the M&E process?
- ii. Were there other ways in which the project demonstrated flexibility?
- iii. Were there any challenges faced in this area?

C. **Efficiency** (*cost-effectiveness*)

- i. Was the project cost-effective?
- ii. Were expenditures in line with international standards and norms?
- iii. Was the project implementation delayed?
- iv. If so, did that affect cost-effectiveness?
- v. What was the contribution of cash and in-kind co-financing to project implementation?
- vi. To what extent did the project leverage additional resources?

D. Financial Management

- i. Was the project financing (from the GEF and other partners) at the level foreseen in the project document?
- ii. Were there any problems with disbursements between implementing and executing agencies?
- iii. Were financial audits conducted with the regularity and rigor required by the implementing agency?
- iv. Was financial reporting regularly completed at the required standards and level of detail?
- v. Did the project face any particular financial challenges such as unforeseen tax liabilities, management costs, or currency devaluation?

E. Co-financing (*catalytic role*)

- i. Was the in-kind co-financing received at the level anticipated in the project document?

- ii. Was the cash co-financing received at the level anticipated in the project document?
- iii. Did the project receive any additional unanticipated cash support after approval?
- iv. Did the project receive any additional unanticipated in-kind support after approval?

F. Monitoring and Evaluation (M&E)

- i. Project implementation M&E
 - a. Was the M&E plan adequate and implemented sufficiently to allow the project to recognize and address challenges?
 - b. Were any unplanned M&E measures undertaken to meet unforeseen shortcomings?
 - c. Was there a mid-term evaluation?
 - d. How were project reporting and monitoring tools used to support adaptive management?
- ii. Environmental and socio-economic monitoring
 - a. Did the project implement a monitoring system, or leverage a system already in place, for environmental monitoring?
 - b. What are the environmental or socio-economic monitoring mechanisms?
 - c. Have any community-based monitoring mechanisms been used?
 - d. Is there a long-term M&E component to track environmental changes?
 - e. If so, what provisions have been made to ensure this is carried out?

E. Full disclosure

- i. Did the project meet this requirement?
- ii. Did the project face any challenges in this area?

III. ACTIVITIES / IMPLEMENTATION

A. Effectiveness

- i. How have the stated project objectives been met?
- ii. To what extent have the project objectives been met?
- iii. What were the key factors that contributed to project success or underachievement?
- iv. Can positive key factors be replicated in other situations, and could negative key factors have been anticipated?

B. Stakeholder involvement and public awareness (*participation*)

- i. What were the achievements in this area?
- ii. What were the challenges in this area?
- iii. How did stakeholder involvement and public awareness contribute to the achievement of project objectives?

IV. RESULTS

A. Outputs

- i. Did the project achieve the planned outputs?
 - ii. Did the outputs contribute to the project outcomes and objectives?
 - B. Outcomes
 - i. Were the anticipated outcomes achieved?
 - ii. Were the outcomes relevant to the planned project impacts?
 - C. Impacts
 - i. Was there a logical flow of inputs and activities to outputs, from outputs to outcomes, and then to impacts?
 - ii. Did the project achieve its anticipated/planned impacts?
 - iii. Why or why not?
 - iv. If impacts were achieved, were they at a scale sufficient to be considered Global Environmental Benefits?
 - v. If impacts or Global Environmental Benefits have not yet been achieved, are the conditions (enabling environment) in place so that they are likely to eventually be achieved?
 - D. Replication strategy, and documented replication or scaling-up (*catalytic role*)
 - i. Did the project have a replication plan?
 - ii. Was the replication plan “passive” or “active”?
 - iii. Is there evidence that replication or scaling-up occurred within the country?
 - iv. Did replication or scaling-up occur in other countries?
- V. LESSONS LEARNED
 - A. What were the key lessons learned in each project stage?
 - B. In retrospect, would the project participants have done anything differently?
- VI. **SUSTAINABILITY**
 - A. Financial
 - i. To what extent are the project results dependent on continued financial support?
 - ii. What is the likelihood that any required financial resources will be available to sustain the project results once the GEF assistance ends?
 - iii. Was the project successful in identifying and leveraging co-financing?
 - iv. What are the key financial risks to sustainability?
 - B. Socio-Political
 - i. To what extent are the project results dependent on socio-political factors?
 - ii. What is the likelihood that the level of stakeholder ownership will allow for the project results to be sustained?
 - iii. Is there sufficient public/stakeholder awareness in support of the long-term objectives of the project?
 - iv. What are the key socio-political risks to sustainability?
 - C. Institutions and Governance
 - i. To what extent are the project results dependent on issues relating to institutional frameworks and governance?

- ii. What is the likelihood that institutional and technical achievements, legal frameworks, policies and governance structures and processes will allow for the project results to be sustained?
 - iii. Are the required systems for accountability and transparency and the required technical know-how in place?
 - iv. What are the key institutional and governance risks to sustainability?
- D. Ecological
- i. Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits?

II. SPARC Terminal Evaluation Key Informant Questionnaire

Spatial Planning for Protected Areas in Response to Climate Change - SPARC (Global)

Terminal Evaluation Draft Interview Guide

Thank you for taking the time to participate in this interview in order to provide input for the terminal evaluation of the **SPARC** project.

The project was carried out from mid-2016 to late 2019. The project is implemented by Conservation International which is the GEF agency responsible for oversight. The project was funded with \$1.81 million dollars in funding from the Global Environment Facility, with \$3.66 million in co-financing from the implementing agencies and other partners.

The terminal evaluation is a required part of the project monitoring and evaluation plan. The evaluation framework is based on the internationally accepted five main evaluation criteria for the evaluation of development interventions, which are: **relevance, efficiency, effectiveness, impact, and sustainability**. The project strategic results framework, with expected indicators and targets, represents the primary foundational element for assessing project results (progress toward the expected outcomes and objective) and effectiveness.

Further information about the objective and scope of the terminal evaluation is contained in the evaluation Terms of Reference, which are available on request.

Any information you provide will be confidential, and will only be used in the context of the evaluation in non-identifiable ways.

If you would like to refresh your memory about the project, summary information is included as an **appendix** to this interview guide. In addition, information about the project (including a link to the full project document) can be found in the website of the Global Environment Facility, here:

<https://www.thegef.org/project/spatial-planning-protected-areas-response-climate-change-sparc>

1. Please briefly describe your professional position, and involvement with the project?

Relevance

Relevance of the objective: The project document states the project objective as “Provide countries in the Neotropical, Afrotropical and Indo-Malayan biogeographic realms with the assessments and data needed to improve planning, design and management of terrestrial protected areas for climate change resilience”

2. How you see the relevance of the SPARC project’s objective in the wider global context of biodiversity conservation and climate change? What is the importance of the project, broadly speaking?

Efficiency

3. Was the approach taken under the project the “least cost” approach for achieving the expected results?

4. Are there any lessons on the efficiency of the project’s implementation approach?

5. What was the project’s partnership approach? How was coordination between all the partners managed? Was this a good approach?

6. Were there any major adaptive management decisions that came up, where something that was originally expected to be feasible had to be done differently? What was the effect of those changes in direction on expected project results?

Results

7. What were your expectations about what the project would accomplish when the project first started? Were those expectations met?

8. How would you characterize the significance of the results from the SPARC project for biodiversity conservation?

9. An effort like the SPARC project depends greatly on the availability and quality of data. What is your level of confidence about the results of the SPARC project, in relation to the quality of the initial data inputs? In other words, how do we know this was not a situation of “garbage in, garbage out”?

10. What are/were the biggest gaps in data necessary for the types of insights the project was aiming to achieve?

11. Were there any issues of data format compatibility bringing large datasets together? How were these addressed or overcome?

12. Do you feel the SPARC project has provided definitive insights on the potential influence of climate change on protected area systems? Is there any risk of overconfidence, or “false precision” in the project results? Even if the project results are based on the best currently available data, how much do we not know when trying to make these types of projections? Is the geographic scale of the project results appropriate, considering the many unknowns?

Effectiveness

13. What were some of the key factors contributing to the project’s success (or underachievement)?

14. Were the project’s initial assumptions in relation to achieving the objective the correct ones?

15. Who is the intended audience of the project outputs such as the various knowledge products and platforms? Do you believe the project has succeeded in reaching that intended audience?

16. Although the project produced the national briefing summaries and made sure those were disseminated to the target countries, how do we know this information will actually be incorporated in national protected area system planning? Is there any other communication channel or method the project could have used to more directly integrate the findings from the project into national planning processes?

Sustainability

17. What do you believe are the most significant risks (if any) to the sustainability of the project results?

18. Does sustaining the benefits from the project require additional financial resources? (i.e. what arrangements are in place for the continued dissemination and uptake of the project findings?)

19. What should be the next steps?

Cross-cutting

20. Gender mainstreaming: Are you aware of any aspects of the project that specifically addressed gender mainstreaming? How is gender mainstreaming relevant within the scope of the project?

Lessons

21. What are the key lessons from the project experience? What was done well? What could have been done differently?

22. Do you have any other comments or feedback about the project that you would like to add? What other questions should I have asked? What question have you been waiting for me to ask?

E. Annex 5: Rating Scales

Progress towards results: use the following rating scale	
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as “good practice”.
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Moderately Satisfactory (S)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.
Moderately Unsatisfactory (MU)	Project is expected to achieve its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.
Adaptive management AND Management Arrangements: use the following rating scale	
Highly Satisfactory (HS)	The project has no shortcomings and can be presented as “good practice”.
Satisfactory (S)	The project has minor shortcomings.
Moderately Satisfactory (S)	The project has moderate shortcomings.
Moderately Unsatisfactory (MU)	The project has significant shortcomings.
Unsatisfactory (U)	The project has major shortcomings.
Highly Unsatisfactory (HU)	The project has severe shortcomings.
Sustainability: use the following rating scale	
Likely (L)	There are no or negligible risks that affect this dimension of sustainability/linkages
Moderately Likely (ML)	There are moderate risks that affect this dimension of sustainability/linkages
Moderately Unlikely (MU)	There are significant risks that affect this dimension of sustainability/linkages
Unlikely (U)	There are severe risks that affect this dimension of sustainability
Impact	
Significant (S)	By project completion project directly contributed to scientifically documented large scale impacts.
Minimal (M)	By project completion project directly contributed to anecdotal and/or relatively small site-specific impacts.
Negligible (N)	By project completion project no direct contribution of project to impacts.

F. Annex 6: Key Informants Interviewed

The following people were interviewed as key stakeholders for the evaluation.

SPARC Core Team

1. Lee Hannah – Project Principal Investigator: lhannah@conservation.org
2. Patrick Roehrdanz – Project Manager/Scientist: proehrdanz@conservation.org
3. Vlasova Gonzalez – Financial Manager: vgonzalez@conservation.org

Project Principal Investigators

1. Guy Midgley – Stellenbosch University: gfmidgley@gmail.com; gfmidgley@sun.ac.za
2. Wendy Foden – South Africa National Parks (SANParks): Wendy.Foden@sanparks.org; fodenw@gmail.com
3. Jon Lovett – Leeds University: J.Lovett@leeds.ac.uk
4. Richard Corlett – Xishuangbanna Tropical Botanical Gardens: corlett@xtbg.org.cn
5. Pablo Marquet – Universidad Pontifica Catolica de Chile: pmarquet@bio.puc.cl

Decision Support Team

1. Yongyut Trisurat – Kasetsart University, Bangkok Thailand: fforyyt@ku.ac.th
2. Ezequiel Fabiano – University of Namibia: efabiano@unam.na

G. Annex 7: Documents Reviewed

- GEF Project Information Form (PIF)
- GEF Project Preparation Grant (PPG) Document
- GEF Secretariat Project Review Sheet, April 29, 2014
- CI-GEF Project Document “Spatial Planning for Protected Areas in Response to Climate Change – SPARC, Global”, October 23, 2015 and November 27, 2015
- GEF Request for CEO Approval for “Spatial Planning for Protected Areas in Response to Climate Change (SPARC)”, October 1, 2015
- Internal Grant Agreement between the CI-GEF Project Agency and The Betty and Gordon Moore Center for Science (MCS) for “Spatial Planning for Protected Areas in Response to Climate Change (SPARC)”, April 5, 2016
- Conservation International Project Summary Brochure: “Spatial Planning for Protected Areas in Response to Climate Change (SPARC)”
- GEF Project Information Management System (PIMS): Spatial Planning for Protected Areas in Response to Climate Change (SPARC), GEF ID #5810, at <https://www.thegef.org/project/spatial-planning-protected-areas-response-climate-change-sparc>, as accessed June 20, 2019.
- SPARC Project co-financing data, provided by the SPARC team as of September 9, 2019.
- “SPARC Contact List” for key individual participants in SPARC project, August 23, 2019.
- CI-GEF Project Agency annual financial audit reports (including coverage of the SPARC project) for fiscal years 2016, 2017, and 2018 (FY 2019 audit report not available as of the terminal evaluation data collection period).
- SPARC Project financial management records, as provided by the project team, including quarterly financial reports covering the project period, a summary indicating total planned and revised expenditures by component, and a list of procurement items over \$10,000 USD.
- Report of the Inception Meeting and Workshop for the GEF funded project: “Spatial Planning for Protected Areas in Response to Climate Change (SPARC), April 11-16 and April 27, 2016”
- SPARC Project Inception Meeting and Workshop presentations, April 2016
- SPARC Project Annual Work Plans for 2016, 2017, 2018, 2019
- SPARC Project Annual Project Implementation Reports (PIRs) for 2017, 2018, 2019
- SPARC Project Quarterly Reports, 2016-2019
- SPARC Project Science Advisory Panel meeting minutes and associated documentation
- Regional synthesis meeting documents for Africa, Asia, and Neotropics regional synthesis meetings, including agenda, participant list, and associated presentations
- Annotated summary of SPARC project outreach meetings for 2019, including locations, dates, participants, and summary bullets
- SPARC Year 2 and 3 Engagement Tracker_gender.xlsx
- Miscellaneous SPARC project presentations (.pptx files), including presentations to CBD COP, CBD SBSTTA, GEF Assembly, and other external audiences
- SPARC Project Country “Research to Policy Briefs” for 36 countries and six multi-country groupings
- SPARC Project Methods Manual
- List of peer-reviewed scientific publications produced as a results of the SPARC project, and corresponding published and draft manuscripts
- GEF Tracking Tool: “CI-GEF indicator tracker CEPF_SPARC_07.31.2018.xlsx” and “CI-GEF indicator tracker CEPF_SPARC_10.26.2018.xlsx”

- Web-based media: “2019 07 31 12 04 GIS@CI webinar SPARC and Resilience Atlas” at Youtube.com, as accessed September 26, 2019.
- Website: <https://www.sparc-website.org>, as accessed September 26, 2019.
- Website: <https://www.resilienceatlas.org>, as accessed September 26, 2019.
- CI-GEF Project Agency Monitoring and Evaluation Policy for GEF-Funded Projects, Version 02, March 2016
- GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects, April 11, 2017.
- The GEF Evaluation Policy 2019, May 2019.
- GEF IEO, 2009. “OPS4 Progress Toward Impact, Fourth Overall Performance Study of the GEF, The ROtI Handbook, Towards Enhancing the Impacts of Environmental Projects,” August 2009.
- Hannah, et al., 2002. “Conservation of Biodiversity in a Changing Climate,” *Conservation Biology*, pp. 264-268, Vol. 16, No. 1, February 2002.

H. Annex 8: SPARC Project Results Framework Assessed Level of Indicator Target Achievement

Results Framework Assessment Key

<i>Green = Achievement Likely / Achieved / Exceeded</i>	<i>Yellow = Partially Achieved / Achievement Uncertain</i>	<i>Red = Achievement Unlikely</i>	<i>Gray = Not applicable</i>
---	--	-----------------------------------	------------------------------

OBJECTIVE INDICATORS	END OF YEAR INDICATOR STATUS	PROGRESS RATING	COMMENTS/JUSTIFICATION	TE Assessment
Indicator a: Number of plans governing national protected areas systems integrating the effects of climate change on species and ecosystem targets	Potential protected areas action as a result of SPARC engagement efforts in Angola, Liberia, Thailand, Indonesia (West Papua), Colombia, Ecuador, Peru, Chile	Completed / Achieved	SPARC has conducted preliminary outreach to identify countries that are actively planning for protected areas as well as other conservation planning research programs in each region. This work will continue in FY19.	This objective level indicator did not include a target, either for achievement by project completion, or ex-post. There is no evidence that any national protected area plans or strategies have incorporated findings from the SPARC project, though this was not expected by project completion, and the project made progress toward this long-term outcome. There has been some particularly promising initial dialogue in a few countries, include Angola, Thailand, Peru, West Papua (Indonesia), Namibia, and South Africa. Additional efforts will be required for the long-term achievement of this outcome.
Indicator b: Number of policies or regulations integrating research-to-policy brief recommendations.	None	Completed / Achieved	Research-to-policy briefs scheduled for delivery to 36 countries in FY19.	The project produced 26 national research-to-policy briefs, and multiple decision-support tools.

OBJECTIVE INDICATORS	END OF YEAR INDICATOR STATUS	PROGRESS RATING	COMMENTS/JUSTIFICATION	TE Assessment
				There is no evidence that policies or regulations integrating the SPARC project findings have been produced as yet, though this was not expected within the lifetime of the SPARC project. This is a long-term project objective indicator.
Indicator c: Number of opportunities identified to reduce loss of species or ecosystem representation in protected areas due to climate change.	14 focal regions identified.	Completed / Achieved	Focal areas within each region have been defined based on preliminary results and expert discussion during the regional assessment kickoff meetings.	This objective level indicator did not include a target, and therefore the level of achievement cannot be assessed. The project did identify 14 focal sub-regions within the three major regions of focus. This indicator is not clearly defined.
Indicator d: Number of protected areas agency staff trained in and implementing climate change decision support tools.	None	Completed / Achieved	Decision support system development is ongoing with several co-design activities with potential users/stakeholders planned in FY19	This objective level indicator did not include a target, and the project has not reported on the number of protected areas agency staff trained. Evidence collected during the terminal evaluation indicated that the project did not hold substantive trainings for protected areas staff on the use of the decision-support tools. Some basic initial training exercises were conducted

OBJECTIVE INDICATORS	END OF YEAR INDICATOR STATUS	PROGRESS RATING	COMMENTS/JUSTIFICATION	TE Assessment
				during the project outreach meetings in each region. Project participants identified the need for additional ongoing training and capacity development for target audiences as one of the ongoing needs at the end of the project.

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
Component 1: Global data compilation and analysis of protected area vulnerability to climate change					
Outcome 1.1.: Information on species range shifts and ecosystem change made available for regional assessments. Outcome indicator 1.1.: Species and ecosystem change databases and geospatial data available to regional assessment teams	Methods for assessing species and ecosystem change in response to climate exist, but data is scattered in global or sub-continental studies not readily available for regional analyses. Many lines of evidence remain unavailable to country level assessments as they are too expensive or too difficult to extract from massive global datasets.	Data on species and ecosystem change is available for regional analysis from a spectrum of methods; including species distribution models, climate vulnerable traits assessment, novel and disappearing climates, velocity of climate change, Dynamic Global Vegetation Models and Generalized Dissimilarity Modeling (GDM). Data are comparable across regions. Data from large global datasets are extracted and made available for regional assessment. Methods for interpreting surrogates	Completed in FY17 with ongoing refinements with additional or improved information from the regional assessments. Models have been produced 80,000+ vascular plant species; 9500+ bird species; 4500+ mammal species; 4000+ reptile species; 2500+	Much of this activity was completed in FY17. However, with the launch of the regional assessments we have received additional improved data with which we have refined the models of species and ecosystem change. This process of refinement will continue as the model results and recommendations are vetted by the experts that comprise the regional assessment teams. All datasets and/or products have been made available to the regional assessments and all products were created with reproducible methods and workflows to allow for the process of iteration and refinement in the regional assessments.	Exceeded. Concur with self-assessment. Achievement of this result was necessary for the secondary project step of the regional assessments. The results framework indicator target does not specify the number of species to be used in modeling, but the project document states: "Up to 5,000 species will be modeled, including 3,000 or more plants and 2,000 threatened or

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
		such as GDM and velocity of climate change are available and ready for application in conservation planning software.	amphibian species; 2000+ insect species.		climate vulnerable vertebrates.” In fact, the project was able to model more than 20 times this number, mainly due to the use of the BIEN plant database. However, this does not mean that the project modeling drew on extensive data about each species included – for the plant data, it was found that approximately 36% of the plant species had five records, when the project ideally needed 10 or more records for effective modeling. Nonetheless, on the whole the project was able to significantly exceed the expected number of species to be modeled.
Outcome 1.2.: Conservation planning methods allowing regional	Conservation planning algorithms, including Network Flow, Marxan and	Network Flow, Marxan and Zonation conservation planning software are tested for application at	Completed in FY17 with ongoing refinements	Conservation planning approaches were evaluated throughout the course of FY17. Standardized workflows that can effectively	Achieved. Concur with self-assessment. The project was able to

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
assessment of representation losses resulting from species range shifts and ecosystem changes developed and readily available. Outcome indicator 1.2.: Method for regional conservation planning for climate change available to regional assessment teams.	Zonation exist for optimizing representation of species and ecosystems in protected areas. All have been tested for protected areas planning for climate change at national or sub- national scales, but none have been applied or tested at continental scales.	continental scales for regional assessment. The best performing methods are adapted specifically for regional assessments, or hybrid or novel methods that outperform existing methods developed and made available. The conservation planning software can assess loss of species and ecosystem representation and generate recommendations for siting of new protected areas to minimize representation loss.	with additional or improved information from the regional assessments.	incorporate both species and ecosystems current distributions as well as their potential range shifts under climate change have been developed using Zonation software (https://github.com/cbig/zonation-core/releases/download/4.0.0/zonation_manual_v4_0.pdf) and through Network Flow analysis – for which algorithms have been developed in-house for this project. Example workflows and outputs of both methods of spatial prioritization have been presented to the project science advisory panel as well as the regional assessment workshops. Importantly, as conservation planning relies heavily on local context and priorities, both methods are sufficiently flexible to assimilate expert validated local information. As a methodological advancement, refined algorithms that capture the principles of Network Flow analysis, but that reduce the computational resources required have been developed and successfully deployed on a regional scale. A description of the revised method and a demonstration of its application in spatial prioritization in response to climate change is currently in preparation for publication.	develop methodological advancements, and these are in the process of being published in peer-reviewed scientific journals.

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
Outcome 1.3.: Regional assessment teams have coarse scale information needed to understand priority areas for protected areas system planning to counteract loss of representation due to climate change. Outcome indicator 1.3.: Regional maps of high-risk areas available.	Diverse methods exist to assess where to site protected areas to compensate for climate change. Results of these competing methods are not systematically compared, and level of agreement between methods is unknown. Identification of areas at risk according to multiple methods is impossible.	Preliminary, coarse scale conservation planning is available for the three regional assessments. The coarse-scale results are based on multiple lines of evidence concerning species and ecosystem change, and on conservation planning software tested for climate change. Systematic combination and comparison allows quantifying level of agreement between methods for the first time. Preliminary identification of areas most at risk is available, allowing the three regional assessment teams to focus resources on taxa and geographies especially important in each region.	A total of 14 focal areas determined for three regions	Focal areas as determined by preliminary assessments based on multiple dimensions of projected climate change impact on species and ecosystem were defined at each regional kickoff meeting in Q1 of FY18 and revised following the SPARC PI meeting in January 2019. Focal areas represented areas not only of high risk/vulnerability but also opportunity due to scope for conservation action and ongoing PA expansion initiatives. SPARC focal areas within each region include (but are not necessarily limited to): Asia Tropics: - Thailand & adjoining nations - New Guinea/PNG - Nepal/India/Bhutan/Bangladesh - Island of Borneo Afrotropics: - Liberia/W. Africa - Angola and KAZA - South Africa - Kenya/Uganda/Tanzania Neotropics: - Tropical Andes - Guyana Shield - Cerrado	Achieved. Concur with self-assessment. The project produced six regional briefs, with coarse-scale maps identifying priority conservation areas, and analyzing transboundary conservation needs and opportunities: - Asia: Borneo; and Peninsular Asia - Afrotropics: East Africa (Kenya, Uganda, Tanzania; and West Africa (Guinea-Bissau, Guinea, Sierra Leone, Liberia, Cote D'Ivoire) - Neotropics: Northern Andes; and Southern Andes

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
				• Eastern Chaco • Central Chile • Mesoamerica	
Component 2: Regional fine scale assessment and research-to-policy briefs					
Outcome 2.1.: Regional assessments produced by teams of leading scientists from each of the three regions Outcome indicator 2.1.: Regional assessment results available and published in the peer-review literature.	Country and occasionally multi-country assessments of climate change impacts on protected areas are available. No continental-scale assessments are available for the tropics. Inefficiencies in assessment mount as country-level assessments duplicate regional analyses critical for context. Inefficiency in protected areas actions for climate change resilience mount as some countries have no assessment and some have country-level assessment with incomplete context. Data available in the region isn't always effectively applied, because regional	Regional assessments are available, providing context that enables efficient country-level assessments and actions. All countries have regional protected areas context and country-specific assessment of species and ecosystem change. Efficient country assessments result as regional assessments provide context that does not have to be repeated by every country. Efficient country actions result because there are no missing or incomplete country assessments of species and ecosystem change. A spectrum of evidence, from physical surrogates to species models to ecosystem simulations are available to all countries in the region. Data from large global datasets and expensive modeling efforts are available in simple GIS	3 Regional assessment teams launched. 19 SPARC-supported projects were completed.	Analysis in each region is completed and results were reviewed and presented to stakeholders in three synthesis workshops that occurred in Q3 FY19. January 14-16 – Cape Town (Afrotropics) March 4-6 – Bangkok (Asia Tropics) April 4-6 – Santiago (Neotropics) Final results were synthesized into regional reports and country-specific research to policy briefs. High level findings have been submitted a forthcoming special issue of Science Advances which aims to come out in advance of the COP in Chile later this year. SPARC supported projects with manuscripts either published or in draft include: Coldrey and Turpie in prep. Climate Change Vulnerability Assessment of tropical protected areas Fajardo et al. GCM Compare R, submitted.	Achieved. Concur with self-assessment. As stated, regional synthesis workshops have been held for each region, and it is expected that results relating fine-scale findings from each region will be published. As indicated under Outcome 1.3 above, regional policy briefs have been produced.

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
	priorities are unknown. The best regional expertise is not applied to interpretation of results due to reliance on national and in-house resources.	format for use in country assessments. Data in the region is effectively applied to geographies and taxa most critical to climate change resilience because regional priorities are known. The best expert opinion in the region informs interpretation of the best available regional and global evidence.		Arias papers Ben Freeman papers Bonebrake, Climate change impacts on the conservation of Asian butterflies Feng et al. 2019 Moore's law for global biodiversity in Review Enquist et al 2019 The commonness of rarity, submitted Science Advances Hannah et al. Effect of systematic protected areas planning for climate change on avoiding extinction risk, submitted Science Advances	
Outcome 2.2. Research-to-policy briefs prepared and presented to government protected areas agencies Outcome indicator 2.2.: Number of multi-national and country research-to-policy briefs presented to protected areas agency staff	Relevant regional research is unavailable to most policymakers and technical decision makers in the tropics. Ad hoc studies at national or sub-regional level appear in the peer review literature. Published research takes several years to be peer-reviewed and published, resulting in research	Protected areas policymakers and technical decision makers have access to systematic information on climate change and priorities for climate change response. The research is peer-review journal caliber, but reaches protected areas agency staff directly, without lengthy review and publication delays. Priority geographies for multi-national collaboration on protected areas adaptation	6 multi-national reports are completed and 36 research to policy briefs are completed.	Research to policy briefs were produced following the conclusion of the regional synthesis workshops. The design and format of the policy briefs will be defined in parallel with the co-design of the decision support system so that the most essential information for PA planning and policy is conveyed. Delivery and outreach of policy briefs is commenced primarily during the period May-July of 2019 with a total of 12 meetings/workshops involving decision makers representing 15 countries to discuss the project findings and review the policy briefs.	Achieved. Concur with self-assessment. As of the TE, the project had produced 6 multi-national research-to-policy briefs, and 36 national research-to-policy briefs. In addition, stakeholder outreach meetings and workshops were held to disseminate these

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
	results being dated by the time they are available. The findings of published research do not systematically address the needs of protected areas staff for multi-taxa solutions using multiple lines of evidence and the latest climate models. Headquarters protected areas planners sometimes access the peer-review literature, but often do not. Field-level protected areas managers seldom access peer-review climate impact literature.	directly reach relevant staff in the form of research-to-policy briefs. This puts state-of-the-science research immediately into the hands of policy and decision makers. The research results are interpreted in regional context and for policymakers and technical staff rather than for academic research audiences of journals, making it immediately more relevant for actual agency policy and planning, and management decisions.		Many policy briefs were further refined based on feedback from this stakeholder engagement.	outputs to target audiences, and increase uptake. Evidence indicates that much work remains to actually integrate project results in national conservation planning.
Outcome 2.3. Decision support tools for visualization and interactive use of research results Outcome indicator 2.3.: Decision	Protected areas agencies in the tropics lack interactive tools for climate change decision making. This is a particular limitation for systematic planning	A decision support tool allows policymakers and planners to query climate change and protected areas research results. This interactive tool will allow exploration of multiple options and decision consequences on a mid-	Decision support platform consisting of three pillars completed: 1) SPARC Visualizer interactive data viewer; 2) GCM CompareR web	Throughout FY18 the core project team sought input with regard to the essential elements of an effective decision support system. The consensus was that there is indeed a need for such a system, but the specific features identified as most needed varied widely among different constituencies. Seeking additional	Achieved. Concur with self-assessment. The decision-support tools indicated have been developed and published, but much work remains to support the uptake

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
support tools developed and disseminated.	of species and ecosystem representation in protected areas for climate change, because each decision about placement of a new protected area affects all subsequent decisions. Without the ability to explore species and ecosystem movements, policymakers and planners are unable to explore options that might offer greater political feasibility or social benefit.	level laptop computer. The species and ecosystem representation improvements from designation of possible new protected areas can be assessed and alternatives explored. Where there is sufficient natural habitat for protected areas expansion, this tool will help define design options both for current representation and for representation as climate changes. Policymakers and technical staff will make better-informed decisions about new protected areas and will be more likely to factor climate change into those decisions.	application; 3) BIEN R Package and species range viewer.	input, we leveraged GEF networks and distributed an invitation to potential stakeholder to participate in both the co-design platform and the testing/refinement phase once a functional prototype has been developed. We convened a stakeholder co-design workshop that took place in November of 2018 in Santa Barbara. Participants who served in roles that bridge science and policy from seven different countries (Mexico, Brazil, Indonesia, Nepal, Thailand, South Africa, Liberia) contributed to the identification of key elements that should be included in the platform and also identified potential use cases that may require specific means of interacting with the data. We have entered into a contract with a web development firm to build interactive functionality into existing CI geo information platforms. Ultimately, the project has produced the following key elements of the eventual decision support platform: 1) BIEN R package – allows users to query consolidated species observation data as well as range models; 2) GCM CompareR – allows users to explore the range of GCM projections for their region of interest 4) ‘SPARC visualizer’ which allows the	and future use of these tools by potential stakeholders, including additional outreach and training activities. The portion of the indicator target stating the expected outcome, <i>“Policymakers and technical staff will make better-informed decisions about new protected areas and will be more likely to factor climate change into those decisions”</i> has not yet been achieved, though it was not expected that this would be achieved as of project completion.

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
				user to explore different levels of conservation action and potential co-benefits (e.g. carbon storage). The SPARC Visualizer appears as part of Conservation International's Resilience Atlas (www.resilienceatlas.org) which serves as an online data portal for Conservation International spatial products. The SPARC Visualizer built the additional functionality that allows a user to explore different thresholds of priority and/or conservation action, analyze quickly with user defined domains, and generate a PDF report of the session. As the SPARC Visualizer is housed within the Resilience Atlas which is supported by other projects as well, it is likely that the platform will be maintained and improved upon in the months and years to come (certainly beyond the funding life of SPARC). This also provides an opportunity view SPARC results in context with other GEF-funded projects. The SPARC Visualizer is accessible here: www.resilienceatlas.org/map The BIEN R package is described here: https://cran.r-project.org/web/packages/BIEN/index.html	

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
				The BIEN/SPARC range model data portal is here: www.biendata.org GCM CompareR can be accessed here: http://www.ecoinformatica.net/GCMcompareR.html	
Component 3: Monitoring and Evaluation					
Outcome 3.1. Participatory M&E framework and an informative and proactive feedback mechanism integrated into all levels of project cycle management. Outcome indicator 3.1.: Monitoring plan completed and reflected in data compilation and regional assessment work plans.	Leading regional scientists work independently of one another, moving knowledge of climate change, impacts on biodiversity and consequences for protected areas ahead incrementally. Knowledge in climate change science such as from regional climate models is slowly adopted by climate change biologists, and in turn information on species and ecosystem movements are slowly adopted by conservation planners. Dissemination across	Leading regional scientists work together, using an active monitoring framework to help move knowledge ahead synthetically. Knowledge links across disciplines is actively sought out and connections facilitated by the monitoring framework. An integrated work plan allows advances in climate science, climate change biology and protected areas planning to advance in coordination. Scientists will work directly with one another across disciplines, short-circuiting the usual information dissemination through the literature.	Project monitoring plan completed and agreed to during project inception meeting in FY17. All deliverables and outcomes are considered when developing and confirming regional assessment workplans.	Project monitoring plan and integrated was developed collaboratively at the project inception workshop and subsequently confirmed by the project steering committee. Project scientists have been dedicated to identifying state-of-the-science approaches to advance the science of integrated protected areas planning and produce the best possible recommendations for siting protected areas under scenarios of climate change.	Achieved. Concur with self-assessment. The project monitoring and evaluation framework and plan was adequately designed and implemented. The project functioned as a well-integrated cohesive global research program, with areas of focused regional work.

OUTCOMES TARGETS / INDICATORS	BASELINE	END OF PROJECT INDICATOR TARGET	END OF YEAR INDICATOR STATUS	PIR SELF ASSESSMENT	TE ASSESSMENT
	disciplines is largely through the published literature.				
Outcome 3.2. Adaptive implementation of scenario modeling Outcome indicator 3.2.: Number of adaptations to regional assessments based on learning from other regions.	Protected area and country-level studies of climate change slowly accumulate to provide a picture of regional effects and opportunities for protected areas adaptations in the three tropical regions. Cross-regional learning occurs through the literature and at professional congresses.	Scientists in the three major tropical regions systematically learn from one another. Regional assessments adapt based on experience and transmit those lessons to other regions. Knowledge mapping and adaptive management provide information about improvements that can be implemented as the project progresses. Sharing of insights across regions speeds regional learning.	3 Regional assessments launched in Q1 of FY18 and concluded in Q3 of FY19. Knowledge sharing among regions has continued to remain strong as project has progressed	Coordination among the three regional assessments is centralized and is largely the responsibility of the core management team. The three regions will produce a similar core set of products and standardized recommendations. That said, the three assessments are distinct endeavors as each region offers unique opportunities as well as challenges. Communication among the regional PIs is frequent and lessons learned are quickly assimilated; e.g. through immediate feedback and modification to meeting format as the kickoff meetings progressed. Perhaps the most illustrative example of cross-region knowledge sharing is the individual projects financed within region that contribute to outputs in all three regions, namely 1) GENs analysis (Asia); 2) Global protected area vulnerability analysis (Africa); 3) Network flow algorithm and GCM evaluation (Neotropics).	Achieved. Concur with self-assessment. The SPARC project operated at multiple levels, with cross-region information sharing and learning. The project results in each region were informed by the work done throughout the project as a whole, based on the global-level coordination of the project management.

I. Annex 9. Publications in Preparation Resulting from SPARC

Final results were synthesized into regional reports and country-specific research to policy briefs. High level findings have been submitted to a forthcoming special issue of *Science Advances* which aims to come out in advance of the COP in Chile later this year. We fully anticipate additional papers summarizing aspects of the regional assessments will be submitted over the next 6-12 months.

SPARC supported projects with manuscripts either published or in draft include:

1. Coldrey and Turpie 2019 Climate Change Vulnerability Assessment of tropical protected areas, in prep.
2. Fajardo J., Corcoran D., Roehrdanz P., et al. GCM CompareR, accepted *Methods in Ecology and Evolution*
3. Arias et al. 2019. Present-day and future climate in the Neotropics according to CMIP5 models. Submitted *International Journal of Climatology*.
4. Freeman B., Roehrdanz P. et al. 2019. Modeling endangered mammal species distributions and forest connectivity across the humid Upper Guinea lowland rainforest of West Africa. *Biodiversity and Conservation* 28:3 671-685.
5. Camera-Leret et al. 2019. The Manokwari Declaration *Forest and Society* 3:1.
<http://dx.doi.org/10.24259/fs.v3i1.6067>
6. Bonebrake, et al. 2019. Climate change impacts on the conservation of Asian butterflies, in prep.
7. Feng X., Enquist B., Hannah L., Roehrdanz P., Lovett J., et al. 2019. Moore's law for global biodiversity, in review, *Science*.
8. Enquist et al. 2019 The commonness of rarity. Submitted *Science Advances*.
9. Hannah L., Roehrdanz P., Marquet P., Enquist B, Midgley G. et al. 2019 Effect of systematic protected areas planning for climate change on avoiding extinction risk. Submitted, *Science Advances*.
10. Merow et al. 2019 Species modeling workflow for tropical plants. In prep.
11. Maitner, B. S. et al. The BIEN R package: A tool to access the Botanical Information and Ecology Network (BIEN) database. *Methods in Ecology and Evolution* 9, 373–379 (2018).
12. Villavicencio et al. 2019. Assessing the Causes Behind the Late Quaternary Extinction of Horses in South America Using Species Distribution Models. *Frontiers in Ecology and Evolution*, 27 June 2019
13. Camara-Leret R, Schuitman A., Roehrdanz P, et al. 2019 Climate change impacts New Guinea's biocultural heritage. In revision, *Science Advances*.

J. Annex 10. Number of Participants per Meeting

SPARC Engagement Tracker Year 2			
	<u>Males</u>	<u>Females</u>	
<u>Meetings/Workshops</u>			
Asia Kickoff Meeting	25	10	
Africa Kickoff Meeting	18	15	
Neotropics Kickoff Meeting	22	5	
Tucson Methods Meeting	6	1	
Kew Methods Meeting	5	4	
	76	35	32%
<u>Grants/Employment Benefits</u>			
Asia	2	3	
Africa	9	6	
Neotropics	4	3	
Leeds	1	2	
CI	2	3	
Consultancies	2	1	
Arizona	1	0	
	21	18	46%
<u>Outreach Events</u>			
Kew Seminar	5	8	
Adaptation Futures Side Event	28	35	
Side Event GEF Assembly	15	15	
Side Event CBD SBSTTA	12	13	
PI Corlett Seminar Denmark	13	13	
PI Corlett Seminar Hong Kong	30	30	
PI Corlett Workshop Laos	5	10	
PI Corlett Workshop XTBG	30	30	
PI Corlett Grad Student Training	15	15	
PI Corlett Workshop Chiang Mai	50	50	
PI Corlett Workshop w/ Government Officials	5	15	
	208	234	53%
<u>Science Advisory Panel</u>	4	2	33%
TOTAL	309	289	48%

SPARC Engagement Tracker Year 3			
	<u>Males</u>	<u>Females</u>	
<u>Meetings/Workshops</u>			
Asia Synthesis Meeting	15	14	
Africa Synthesis Meeting	16	11	
Neotropics Synthesis Meeting	13	9	
Elephant Futures (Kenya)	4	5	
Elephant Futures (Santa Barbara)	5	4	
Angola Workshop #1	6	4	
Angola Workshop #2	8	6	
Zimbabwe Workshop	5	3	
Kenya-Uganda Workshop	14	10	
Liberia Workshop	11	6	
Chile Workshop	13	9	
Ecuador Workshop	15	13	
Peru Workshop	9	12	
Thailand Workshop	TBC	TBC	Will occur August 1
Decision Support Co-Design (Santa Barbara)	6	2	
	140	108	44%
<u>Grants/Employment Benefits</u>			
Asia	2	3	
Africa	9	7	
Neotropics	4	3	
Leeds	1	2	
CI	2	4	
Consultancies	2	2	
Arizona	1	0	
	21	21	
<u>Outreach Events</u>			
PI Foden Presentation to SSNA	75	75	
Species on the Move Conference	30	30	
PI Corlett Presentation in Bangkok	50	50	
PI Corlett Presentation to Tropical Ecology Asssoc.	50	50	
	205	205	50%
<u>Science Advisory Panel</u>	4	2	33%
TOTAL	370	336	48%