CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Foundation for Ecological Research Advocacy and Learning (FERAL)
Project Title:	Gap analysis of the Periyar- Agastyamalai landscape for arboreal mammal conservation.
Date of Report:	
Report Author and Contact Information	H. S Sushma Foundation for Ecological Research Advocacy and Learning (FERAL) Mailing address: 170/3, Tiruchittramabalam road, Morattandi, Auroville Post, Vanur taluk, Villupuram district, Tamil Nadu – 605 101, India.170/3 Tel: +91413 2671566 Fax: +91413 2671567 E-mail: sushma@feralindia.org

CEPF Region: Western Ghats (Periyar-Agasthyamalai Corridor)

Strategic Direction:

CEPF Strategic Direction 2 - Improve the conservation of globally threatened species through systematic conservation planning and action.

Investment priority 2.3 - Evaluate the existing protected area network for adequate globally threatened species representation and assess effectiveness of protected area types in biodiversity conservation

Grant Amount: \$ 19,046.50

Project Dates: August 2011 to February 2013

Implementation Partners for this Project (please explain the level of involvement for each partner):

None

Conservation Impacts

Please explain/describe how your project has contributed to the implementation of the CEPF ecosystem profile.

The Periyar - Agasthymalai landscape has been identified by the CEPF as a high priority site for biodiversity conservation. This landscape with an area of ~ 5758 km2 is known for its endemic flora and fauna. Given the vast extent of natural forests, the Periyar - Agasthyamalai landscape potentially supports viable populations of the globally threatened arboreal mammals such as the lion-tailed macaque (*Macaca silenus*), Nilgiri langur (*Semnopithecus johnii*), the grizzled giant squirrel (*Ratufa macroura*). In addition to these threatened species, other diurnal arboreal mammals that occur in this landscape are the bonnet macaque (*Macaca radiata*), tufted gray langur (*Semnopithecus priam*) and the Indian giant squirrel (*Ratufa indica*). The present project primarily aimed to assess arboreal mammal distribution in the Periyar-Agasthymalai landscape of the southern Western Ghats with respect to the existing network of Protected Areas (PA) and

thereby prioritize sites outside the PA network for conservation of this guild. A 'site' is broadly defined as an existing administrative unit such as a Reserved Forest and / or a Forest Range. Many sites within the landscape lacked recent information on occurrence of these species and surveys were carried out in sites which lacked information. Current distribution of these arboreal mammals were determined based on existing information and information generated through field surveys. To this end, the project identified key areas within the landscape for arboreal mammal conservation. Additionally the project has formulated site — specific conservation recommendations for these species based on discussion and inputs from the managers and scientists working in the landscape.

Please summarize the overall results/impact of your project against the expected results detailed in the approved proposal.

1.) Current distribution on arboreal mammals in Periyar - Agasthyamalai landscape

In order to determine current distribution of arboreal mammals, a detailed review of existing information such as published literature, census reports, project reports and unpublished information with other researchers was carried out. Information was collated and sites which lacked information on occurrence were surveyed. Surveys were carried out in Srvilliputhur grizzled giant squirrel sanctuary, Kanyakumari Wildlife Sanctuary in Tamilnadu and in Kerala, sureveys were carried out surveys in Ranni Forest Division, Trivandrum Forest Division, Shendurney, Neyyar and Peppara Wildlife Sanctuaries. These point occurrences were used in a rigorous modelling framework using maximum likelihood method and the potential distibution of arboreal mammals in the landscape was determined. (See report appended for more details).

2.) Report on key limiting factors determining the current distribution

Information on this has been provided in the main consolidated report enclosed in the appendix. This includes the results and discussion regarding the current distribution of arboreal mammals in the landscape. (See report appended for more details)

3.) A gap analysis report for arboreal mammals in the Periyar-Agastyamalai Corridor, identification of important forests for these species and an assessment of existing PAs for adequate presence of these globally threatened mammals. (See report appended for more details)

Based on the distribution, sites within the landscape were prioritized using 'Zonation' tool for landscape-level conservation of these species. A large extent of high priority sites for arboreal mammals occur outside the existing network of PA's (See report appended for more details).

- 4.) A draft of site specific recommendations drawn for arboreal mammal conservation to feed into the management plan and
- 5.) a workshop to consult with key stakeholders for their comment, suggestions and inputs on the draft recommendations.

A working draft of site specific recommendations was prepared and presented during the consultative workshop held in Trivandrum on 25-Feb-2013. Managers and scientists working in the landscape attended the workshop. Based on their inputs sites specific recommendations were finalised and this has been presented in the detailed final report enclosed.

Please provide the following information where relevant:

Hectares Protected: N/A

Species Conserved: N/A

Corridors Created: N/A

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

Regarding challenges, during the initial stages, the project faced numerous setbacks. There was a delay in obtaining permission to carry out surveys and the project did not have enough manpower to cover the entire landscape. However, the PI and a student who joined the project towards a later stage of the project completed field surveys.

Despite the setbacks, all but one site (Konni Forest Division in Kerala) were surveyed for arboreal mammals. Key sites for arboreal mammal conservation were identified and maps of each sites showing high priority sites has been provided in detailed report. This project was also the first to report presence of the endangered lion-tailed macaque troop from Punalur Forest Division. The consultative workshop was successful and was attended by almost all the managers of Kerala Forest Department working in the landscape. However, managers from Tamilnadu Forest Department were not able to attend the workshop. The workshop wassucessful in terms of interactions with the Forest Department officials which were positive. There were forthcoming in providing inputs during the workshop.

Were there any unexpected impacts (positive or negative)? None

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community.

As with most other taxa, information on arboreal mammals in some of the sites were poorly known especially outside the Protected Area network. Specific details on their occurrence were not available. In almost all areas baseline information on population estimates were not available. Establishing baseline population estimates on these species would be crucial for their conservation especially in sites closer to the Shencottah gap as this a critical corridor for arboreal mammals in the landscape. What this project has achieved is to establish information on their distribution within the landscape and identify sites which require to be protected. As the next step, establishing baseline population estimates of the study species would be required as this is going to be crucial for long-term population monitoring.

Project Design Process: (aspects of the project design that contributed to its success/shortcomings)

The project adopted a straightforward and replicable design and analysis. Since the project was primarily goal driven, an adaptive approach was used in order to minimize efforts. After the initial review and collation of existing information, surveys were carried out systematically in sites which required information. Sites where arboreal mammal sightings were poor, were surveyed at least 3 times and at other sites surveys were stopped once information on arboreal mammal was obtained. This way resources were allocated judiciously in order to maximize information obtained with minimum effort. Distribution of arboreal mammals and prioritization of the landscape for conservation were determined through an objective framework of modeling approach.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)

Apart from delay in permits and shortage of manpower, the project did not face any other setbacks or shortcomings.

Other lessons learned relevant to conservation community:

None

ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes
FERAL	A	Rs 60,000	In kind - office space, vehicle, field station and equipment
Kerala Forest Department	А	Rs 25,000	In kind - meeting hall for the consultative workshop

^{*}Additional funding should be reported using the following categories:

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

Sustainability/Replicability

Summarize the success or challenge in achieving planned sustainability or replicability of project components or results.

The project employed a replicable design in order to generate information for the gap analysis. The method can be employed elsewhere in the Western Ghats where there is lacuna of information for arboreal mammals and to prioritize sites based on their current distribution. For example, the project used information generated through the ongoing CEPF large grant project (Bridging the Shencottah Gap) to FERAL, in order to identify areas that needed to be surveyed thereby minimizing efforts and also used these points in species distribution modeling. The results of the study indicated a break in the distribution of the endangered lion-tailed macaque around the Shencottah gap thereby contributing information to the CEPF large grant project in order to prioritize ongoing conservation efforts at the Shencottah gap. However, what is really crucial for long term conservation is generation of baseline information on population estimates which right now is not available for many sites not just in the study area but also elsewhere in the Western Ghats. The results from the present project could facilitate future planning and investing of resources judiciously in order to establish baseline population estimates of arboreal mammals.

Summarize any unplanned sustainability or replicability achieved. None

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.

Not applicable

Performance Tracking Report Addendum

CEPF Global Targets

(Enter Grant Term)

Provide a numerical amount and brief description of the results achieved by your grant.

Please respond to only those questions that are relevant to your project.

Project Results	Is this question relevant?	If yes, provide your numerical response for results achieved during the annual period.	Provide your numerical response for project from inception of CEPF support to date.	Describe the principal results achieved from August 2011 to February 2013. (Attach annexes if necessary)
Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.	NO			Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one.
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	NO			Please also include name of the protected area. If more than one, please include the number of hectares strengthened for each one.
3. Did your project strengthen biodiversity conservation and/or	NO			

natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.			
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	NO		
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	NO		

If you answered yes to question 5, please complete the following table.

Table 1. Socioeconomic Benefits to Target Communities

Please complete this table if your project provided concrete socioeconomic benefits to local communities. List the name of each community in column one. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes. In the bottom row, provide the totals of the Xs for each column.

Name of Community	Community Characteristics	Nature of Socioeconomic Benefit
	S u b s i s t u b s s i s t u b s s i s t u b s s t t u s / n o u uniti es falli ng belo where s s s s s s s s s s s s s s s s s s	ncreased Income due to: Name

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Total												

If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit:

Information Sharing and CEPF Policy

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

Please include your full contact details below:

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Additional Comments/Recommendations

None

List of Appendices:

1) Final Technical Report (http://www.feralindia.org/drupal/content/gap-analysis-periyar-agasthyamalai-landscape-arboreal-mammal-conservation)