CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Foundation for Ecological Research, Advocacy and Learning
Project Title:	Thematic training on GIS and remote sensing for conservation research and planning.
Date of Report:	30st June 2014
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CEPF Region: Entire Western Ghats

Strategic Direction:
Strategic Direction No.: 1 Enable action by diverse communities and partnerships to ensure conservation of key biodiversity areas and enhance connectivity in the corridors Investment Priority No:. 1.3 Support civil society to establish partnerships with state agencies to implement science-based management and conservation of priority sites in the Mysore-Nilgiri corridor

Call Topic (s): (i) build networks of local stakeholders who can take responsibility for ecological monitoring of priority sites beyond the end of CEPF funding.

(ii) conduct targeted research on ecosystem services and ecological flows to inform policy with regard to restoration of highly threatened ecosystems (grasslands, wetlands, Myristica swamps, etc.)

Grant Amount: $19,916.00

Project Dates: 1st April 2013 to 31st Jan, 2015

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

Foundation for Ecological Research, Advocacy and Learning (FERAL) - main partner responsible for design and conducting the workshops, project administration and delivery of intended outputs.

French Institute of Pondicherry (IFP) - introducing the Western Ghats Portal during the workshops through presentations and hands on exercises. Hosted part of the Landscape Ecology workshop and covered the theoretical discussions.

Salim Ali Centre for Ornithology and Natural History (SACON) - teamed up and hosted a workshop on landscape ecology.

Indian Institute of Science Education and Research (IISER - Pune) - hosted the workshop at Pune making it possible to reach out to the conservation and research community in the northern Western Ghats.

Ashoka Trust for Research in Ecology and the Environment (ATREE) - provided inputs for the workshop on applications of R.

Conservation Impacts

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

The project has trained over a hundred professionals and researchers active in the field of conservation and ecology in the Western Ghats in the use of spatially explicit tools. Materials prepared for the workshops are available on-line and include tutorials, quizzes and sample datasets. Earlier projects supported by the CEPF WG Small Grants contributed substantially to the collation of datasets1. Additionally, FERAL was supported by the French Institute under a sub-grant for the ongoing biodiversity portal project supported under the CEPF large grants. Moving on from basic use of GIS and remote sensing, this tranche of courses dealt with applications in spatial analysis, landscape ecology and processing large datasets for hydrology and land-cover mapping and change.

This project is being followed up by a multi-institutional project which will offer short accredited courses in quantitative techniques required by researchers and practitioners in wildlife sciences and conservation.

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

The project has exceeded the targets set in terms of numbers of students and institutions covered as well as the range of topics that were taught and discussed.

1. Sixty eight persons attended five five-day workshops (see Appendix A & C) and an additional 20 persons attended a one-day introductory workshop held as part of the SCCS event.
2. Topics covered (after consultation with participants and experts) were: a) introductory GIS using Quantum GIS, b) introduction to spatial statistics using R and QGIS, c) introduction to landscape ecology using FRAGSTATS and QGIS, d) Applications of R in hydrology and remote sensing (see Appendix B).
   Online resources for the training in terms of tutorials, quizzes, reading materials and exercises have been created on a course management system - Moodle. These modules have been revised and fine-tuned both by experts and the students.
3. A group has been created on the Western Ghats Portal to further support these workshop and act as a resource for interested persons:

   Link:
   http://indiabiodiversity.org/group/themes_for_geospatial_applications_in_conservation/show

Please provide the following information where relevant:

Hectares Protected: Not applicable

Species Conserved: Not applicable

Corridors Created:
Not applicable.

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<http://www.cepf.net/Documents/Small%20Grants%20Final%20Reports/Final_FERAL_spatial_decision_support_Bhalla.pdf>
<http://www.cepf.net/SiteCollectionDocuments/western_ghats/FinalReport_FERAL_ConservationPlanning.pdf>

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

The project owes its success to the support provided by the host institutions in facilitating the workshops and covering substantial costs of organising the events.
The interactions with other institutes has helped form new partnerships and collaborations which are being formalised through collaborative project proposals.

Were there any unexpected impacts (positive or negative)?

The extent of support provided by host institutions enabled us to conduct an additional workshop at Pune. This, however was not unexpected as we had been extended similar support earlier.
The number of participants from institutions in north India were unexpected. This included students and faculty from the Aligarh Muslim University, Uttar Pradesh, and the G.B. Pant Institute, Uttarakhand.

1. 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.

1. The wide gap between the need and actual knowledge of spatial tools in the research community engaged in conservation and ecological research remains a major challenge. This is clearly a handicap for conservation action and researchers and will place limits on their ability to study spatially explicit relationships which often define ecological processes. **Serious effort needs to be put into upgrading syllabi and providing short term courses so that students are better equipped to handle spatial analysis.**
2. Given the specialised nature of advanced spatial analysis, there is a need to identify a pool of resource persons along with materials including tutorials, course work and readings. **This is only likely to materialise if it is facilitated by a core team who puts together teaching materials, tutorials, quizzes and data-sets.**
3. The need for on-line and free platforms to facilitate the exchange of ideas and information on specific topics in ecology could not be greater. The availability of features such as those provided by the India Biodiversity and Western Ghats Portal (IBP/WGP) can be used to some extent to meet this need. However the IBP/WGP is primarily a resource for citizen science and naturalists. Researchers require an additional set of tools and facilities which appear to be outside their mandate. These include:
    1. A means of delivering courses through a medium such as Moodle.
    2. A facility such as the Stackoverflow site[2] To facilitate easy question/answers for technical topics.
    3. An online research community to share research ideas and interact such as Research Gate[3] or Linked In[4].
    4. A decentralised network of research institutes specifically designed to share spatially explicit and other relevant datasets.
       Efforts are presently underway to raise funding for a GeoNetwork Opensource[5] based framework for this network.

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

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2 ***http://stackoverflow****.com*

3 *http://www.**researchgate**.ne*t

4 *https://www.**linkedin**.com/*

5 http://geonetwork-opensource.org/

This project followed from earlier efforts to build capacities in the use of spatial tools for conservation research. Having worked with almost all the partner institutes in the past provided a pool of experts for the workshops.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)
The hands on nature of the courses run contributed to its success. No two workshops were identical as topics covered and speed of instruction was governed by the participants. This flexibility helped.

Other lessons learned relevant to conservation community:
Scientific management of protected areas and conservation of the ecosystem services they provide requires that the conservation community is well informed. The widening gap in the tools and datasets used in contemporary research in ecology and those available to conservationists and researchers is a matter of serious concern.

2. 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
IFP, ATREE, FERAL	C	Not known	These agencies have contributed data from years, of work and research to the project and to the WG portal which was used for this project.
IISER Pune	B	Not known	Dealt with the logistic requirements of one workshop and provided facilities and material which would have otherwise increased the costs.
IFP, Strand Life Scinces, ATREE, SACON	B, C	Not known	Contributed as resource persons during workshops conducting and sharing presentations, materials and tutorials with the participants.

***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.
Works initiated in the Western Ghats Portal is expected to build upon this project by providing a roster of experts in the field as well as a mechanism for interested users to interact with them.

Summarize any unplanned sustainability or replicability achieved.

The consensus on the need for a set of syllabi for ecologists was an unplanned outcome of this project. We will now try and extend this consensus and work towards a pool of resource persons, materials, training modules and references so that this can become a reality.

3. 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 to the project.

4. 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 July 1, 2007 to June 30, 2008. (Attach annexes if necessary)
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.	No			
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	No			
3. Did your project strengthen biodiversity conservation and/or natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.	Not known			The project built capacities of researchers in applications of GIS/RS and spatial analysis in ecology. This could be a crucial ingredient in their professions.
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	Not known			
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																	Other
Total																										

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

5. Additional Comments/Recommendations

The project continues to build upon earlier work supported by the ATREE/CEPF Small Grants for the Western Ghats. It is important that a larger pool of resource persons is identified and similar programmes introduced on a wider and, if possible, in a more structured manner across research and teaching institutes across India. Agencies active in North India, in particular, need to be made part of this effort.

6. 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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