

CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	
Project Title:	Opportunities for establishing informal conservation arrangements in the Periyar-Agasthyamalai Corridor of the southern Western Ghats
Date of Report:	31 st May 2011
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CEPF Region: Periyar-Agasthyamalai Corridor, Southern Western Ghats

Strategic Direction: 1 Enable action by diverse communities and partnerships to ensure conservation of key biodiversity areas and enhance connectivity in the corridors

Grant Amount: USD 16,122

Project Dates: 01 August 2009 to 31 May 2011

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

Dakshin Foundation, Bangalore provided office space and assistance with logistics and permissions. Other Dakshin staff also visited the field site at their own expense, were present during some of the interviews and meetings, and provided advisory support and assistance with policy analysis.

Conservation Impacts

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

This project aligned with Strategic Direction 1 of the CEPF, i.e., enable action by diverse communities and partnerships to ensure the conservation of key biodiversity areas and enhance connectivity in the corridors.

This project is among the first attempts that look at practical conservation solutions for landscapes lying proximate to but outside the formal protected area network. The project focused on human modified areas in the Ranni Forest Division within the Periyar-Agasthyamalai landscape in the southern Western Ghats which has been identified as a critical link under the CEPF assessment. Opportunities for informal conservation in the region were evaluated from multiple perspectives: a) Identification of ground realities and challenges relating to conservation in the region, b) Discussion of key conservation interventions with local landowners and their willingness to conserve (particularly with respect to increasing/ maintaining native tree cover to enhance connectivity), and, c) Identification of preferences of landowners in terms of institutional partners and development related linkages that currently exist within the area. The results of this project are not only relevant for the Ranni Forest Division and surrounding areas. The sites that were surveyed are migrant settlements occupied by the poor and the landless during the a period of severe food shortage post Independence. These sites are part of a wider network of

sites which are found in many forest fringe areas in the Western Ghats that are important for biodiversity conservation primarily due to their proximity to forests. Although it is important to underscore the relevance of context and place specificity in the context of conservation, some of the lessons from these evaluations can be of value to other settler pockets in the Western Ghats.

As an output of this project, an awareness handbook (Appendix 1) for modified and forest-fringe landscapes of the southern Western Ghats has been prepared. Initially, although a brief awareness brochure was envisaged, a number of participants including local administrators, officials, bureaucrats, and key informants requested a detailed document on conservation in modified landscapes. Being a politically aware and literate community, their interest is not limited to the operational aspects of conservation interventions; participants also expressed a desire to understand these approaches within a wider political and socioeconomic context. 'Balancing human needs and ecological function in forest fringe and modified landscapes of the southern Western Ghats' was prepared for this purpose. It is hoped that this handbook will provide an introduction to landscape level planning incorporating biodiversity and ecosystem services, as well as make people aware of the need for planning interventions that are socially just and equitable and ecologically appropriate.

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

The Ranni Forest Division situated within the Periyar Agasthyamalai Corridor has extensive forests, and modified landscapes including forest and cash crop plantations, and home gardens. This project focused on identifying challenges to sustainability as well as choices for conservation in human-modified landscapes bordering the forest division. A detailed version of this report is appended as Appendix 2. A summary of challenges and conservation choices are outlined below:

Review of the ground situation and policy related challenges

The forest fringe landscape under consideration comprises settler colonies which became a typical feature of many forested districts in the Western Ghats (post Independence). Although derived from different regional, caste and community denominations, a unique settler identity and livelihood ethic emerged, fostered by common experiences and obstacles which they surmounted as a group (e.g. abject poverty during the initial years, conflict with wildlife, etc.). The Forest Department which emerged as the custodian of these lands following colonial rule also implemented far reaching forest related legislation which was protectionist in scope, and decades after their arrival in the area, a number of settler families are yet to receive title deeds to their lands. Much of this revolves around the issue of encroachments (in addition to allotted lands) which is contested both by the local people and the Forest Department. Surveys in this landscape indicate that uncertainty over property rights have resulted in wariness of conservation schemes, especially those which promote the maintenance of native tree cover. From an ecological perspective, a significant challenge in the region relates to the preservation of native vegetation within individual plots of land. In a marginalised region already troubled by land tenure related issues, restrictions such as those imposed by the Kerala Preservation of Trees Act, have been viewed by local people as unfair and have resulted in a negative attitude to tree planting.

Human-wildlife conflict is another defining feature of this forest-fringe landscape. In the agricultural landscape, crop damage by wild boar, elephants, giant squirrels, flying squirrels porcupines and bonnet macaques have been reported and has resulted in selective cultivation of a few crops. The highest degree of crop depredation is attributed to wild boar which is known to travel the furthest distance from forests into agricultural landscapes. During the survey, many

farmers were critical of the tedious compensation procedure where crop loss had to be verified by both the Forest Department and the Krishi Office and the compensation received was in many cases reportedly less than the amount spent on procuring it.

Pilgrimage related activities have escalated in the region over the past few years. The areas in and around Ranni Forest Division, particularly routes within the Gudarakal Range are used extensively during the Sabarimala pilgrim season. However, as a pilgrimage that involves millions of devotees, there are extensive and ecological impacts, including extensive pollution of the upper catchment of the Pampa River from human waste, degradation around the temple complex, major approach routes, grasslands and reservoirs such as Pampa and Kakki. There has also been reports of ingestion of food and plastic waste by wild mammals such as elephants, wildboar, sambar, primates, etc. and elephant deaths have also been reported in this connection. Keeping these concerns in mind, a larger framework for ecological sustainability of the pilgrimage has to be devised considering the enormity of the situation. The expansion of the Sabarimala pilgrimage and associated business opportunities have acted as a catalyst for further demands of development of other smaller pilgrim centres in the region which need to be evaluated both from ecological as well as livelihood related perspectives.

A number of external drivers of landscape transformation have been identified as problematic for the region. Agricultural subsidies, market intervention by the government, promotion of exports and international trade agreements have been identified to be instrumental in the development of plantation crop markets, particularly rubber. Although the forward looking land policies of the erstwhile kingdom of Travancore and the new state of Kerala brought about land reform and equity, they also encouraged extensive conversion forest and agricultural land to plantations especially rubber. More recently in the 1980s, rubber has also been planted with funding from schemes such as the Western Ghats Development Programme. In the recent rubber boom, it has to be noted that in the southern Western Ghats, agricultural lands (as opposed to forest) are being replaced by rubber plantations. While the contribution of this plantation crop to the economy and livelihoods continues to be significant to the study area as well as to the state of Kerala, as exotic monocultures their benefits to biodiversity conservation are limited, and presents high risks from price fluctuations and threats to food security. On the flip side, it has been speculated that the role of revenues from rubber in arresting conversion of private lands to residential properties and this need to be explored in detail.

Mechanisms and potential sites

Discussions with private landowners (close to 500 households, details and summary stats are reported in Appendix 2) were carried out to identify their preferences for potential multiple use arrangements that are typically associated with biodiversity conservation and the maintenance of ecosystem services. These included activities such as planting trees or protecting small parcels of land along the lines of payments based schemes, other income generation activities such as bee-keeping, medicinal plant conservation, organic farming, etc. and recently introduced schemes such as insurance against crop-raiding which seems to be finding support in some parts of the world. When compared across the entire group, the largest number of landowners expressed an interest in protecting small parcels of land. There was also a reasonable amount of support for protection of existing trees and planting trees on a payments basis. However, preference to these options (land and tree protection) was almost always expressed along with a clarification that it would be ideal only if accompanied by guarantees of protection of land ownership in the future. Local landholders also expressed an interest in learning more about insurance programs related to crop degradation. In addition, during questionnaire trials a number of key informants suggested linking health insurance benefits in lieu of provision of ecosystem services and biodiversity protection. Although in our knowledge, there are very few experiments related to personal healthcare and other benefits (and their corresponding institutional and other linkages), this was explored as an option since the suggestion came from within the community. As a marginalised and backward area with respect to infrastructure and facilities, there was

widespread support for these options. Among additional income generation activities, local people were in favour of familiar activities such as bee-keeping and medicinal plant cultivation which were carried out by some on a subsistence basis. The success of the NREGS initiative could also be reflective of an interest in wage generation tie ups which were suggested as an option.

An evaluation of preferred institutional arrangements was also carried out. Landholders were also requested to list their preferred partnerships with already existing groups, networks and departments. Among all partnerships, there was overwhelming support for the Kudumbashree (women's self help groups) project which has been a successfully adopted model in this part of Kerala, followed by the Panchayat, NREGS, a new collective or the VSS. In an area where agricultural and livelihood related distress have resulted in desperate measures such illegal arrack brewing (which in turn impacts family incomes), schemes like Kudumbashree have helped women tide over these crises by making them more financially independent. The positive impacts of Kudumbashree in this area is not just restricted to poverty alleviation and but also in social inclusion and making women politically aware and empowered. A number of women and women's groups interviewed in the region expressed an active interest in income generation activities related to sustainable management of landscapes. The convergence between Kudumbashree activities and those of the National Rural Employment Generation Scheme (NREGS) has had a positive impact in the Ranni region. There has also been plans to link NREGS with large scale social forestry initiatives like '*Haritha Keralam*' (Green Kerala Scheme) as well as calls for modification of permissible lists of NREGS works for implementation of the Forest Rights Act. The scope for linking NREGS with landscape afforestation programmes and specific schemes (e.g. *Vazhiyorathanal Padhati* - Road-side planting of shade trees initiative) is very much present and is already being explored. In the Ranni FD, it was noted that the VSS was active in some areas and was receptive to discussions about sustainability in modified landscapes. The fact that most VSS office holders are local representatives, seems to play an important role in buffering interactions with the Forest Department.

Activity	% favourable responses
Protecting parcels of land	23.5
Any insurance scheme	17.8
Bee keeping	10.8
Wage generation tie-ups	10.2
Any income generation activity	8.7
Compensation for crop loss	7.3
Insurance for crop loss	7.3
Medicinal plant cultivation	6.6
Ecotourism	3.7
Planting/ protecting forest trees	3
Planting trees for use	0.6
Organic farming	0.3
Certification of farm products	0.1

N = 1024

Preferred partners	Number of responses
Kudumbashree	328
Panchayat	180
NREGS	171
New Collective	160
VSS	84
Other collectives	50
Forest Department	47
Agriculture Departn	33
SHGs	13

N = 1066

Please note that the above two tables are simple summaries that give a general picture. Actual interventions for different groups will be supported by standardisation and detailed multivariate analyses. GIS based mapping of some of these aspects is now being attempted (not part of the outcomes of the CEPF project). The scope for multiple interventions in the same area is being explored by continuing discussions. Additionally, many of the approaches suggested have their own advantages and drawbacks which should be understood by local level planners and the communities themselves before they are offered up as solutions. The social and ecological consequences of some currently operational conservation interventions have been outlined in an awareness manual for local level planners, bureaucrats and interested members of the lay public.

Awareness handbook

A detailed awareness handbook (Appendix 1) titled, 'Balancing human needs and ecological function in forest fringe and modified landscapes of the southern Western Ghats' has been prepared. This document emerged from a series of discussions with landowners, community leaders, local government officials and bureaucrats, with whom potential multiple use arrangements for forest fringe areas were discussed. While most participants of the interviews were familiar with the benefits derived from forests and natural resources, many individuals expressed an interest in understanding the dynamics of human-modified landscapes in greater detail. During the course of our discussions, it was also communicated to the author that a simple document introducing landscape level planning incorporating biodiversity conservation and ecosystem services, and outlining some of the pros and cons of proposed interventions with potential for human welfare would be welcome. Being a politically aware and literate community, this interest was not limited to the operational aspects of conservation interventions, participants also expressed a desire to understand these approaches within a wider political ecological context. Therefore, in addition to providing an overview of ecological aspects, this handbook also hopes to inform interested parties about the various interventions that are currently being adopted in different parts of the developing tropics and their linkages with development. The handbook is not a step by step guide on designing interventions, nor does it promote any one approach, rather its intent is to provide decision-makers with information on the key features of each of these interventions, some of the contexts in which they have been effective (or not) and the potential benefits and pitfalls. It is hoped that this handbook will provide a set of decision support tools for managers involved in landscape level planning and management.

Stakeholder dialogue

Settlers with small landholdings form the primary constituency for potential conservation measures. Our survey reveals that this stakeholder group is organised under various political and religious factions, self help and micro-finance groups. In the Seethathode Panchayat where detailed household interviews were held, we decided against holding a single formal meeting of

all stakeholders under the Panchayat as the recent elections resulted in severe factionalism and frictions between the current representatives and their predecessors. In lieu of a single stakeholder dialogue, we instead initiated discussions with the representatives of various stakeholders groups. From these discussions the three most promising groups identified for potential linkages include the Vana Samrakshana Samitis (VSS), the Kudumbashree (self help groups for women) and National Rural Employment Guarantee Scheme (NREGS). Although the project term is over, further discussions for actual interventions will be carried forward over the next few years.

Please provide the following information where relevant:

Hectares Protected: NA
Species Conserved: NA
Corridors Created: NA

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

This was a short-term project with limited objectives. Since the project was of an exploratory nature, the objectives listed in the previous section were easier to achieve. One of the challenges which this researcher faced related to discussions with landholders and plantation owners who cultivated rubber. Discussing alternate conservation interventions when rubber prices were at their highest did not seem very attractive to a section of the population.

Though not relevant for the completed project, from the perspective of long term future objectives for the region in general, a few very significant issues need mention. The first is the level and extent of human wildlife conflict (in this case, extensive crop damage especially by wild boar, significant damage by elephants, giant squirrels, bonnet macaques and porcupines) which seems to have been under-reported and may have to be dealt with as a stand-alone issue over the long-term. Native tree preservation in the region is also a contentious issue and has to be dealt with changes in policy and implementation. Finally, the impacts of small-scale interventions have the potential to be negated/ impacted by large scale drivers of landscape transformation. In this area, these drivers include trade agreements and pricing of plantation commodities, particularly rubber and also the increasing trend of conversion of agricultural land for residential properties.

Were there any unexpected impacts (positive or negative)?

Though open to new projects and initiatives, a number of questions were raised regarding the intentions and involvement of outside funding/agencies such as CEPF. It is uncertain if this is a positive or negative impact, or an impact at all in any way.

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.

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

As the success of most conservation projects are contingent on community buy-in, political ecological evaluations relating to conservation interventions are extremely significant. However, the relationship between political, economic and social factors with environment still remain a poorly explored aspect of conservation projects. In this project, it was possible to explore a number of these factors.

Due to the short duration of the project, it was not possible to undertake detailed surveys in Konni and Achenkovil. Surveys of these two additional forest divisions (although not promised as outcomes) was envisaged.

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

During the initial stages of the project, some survey methodologies were experimented with research assistants having a background in wildlife conservation. However, we felt that this would not be viewed very favourably by the community who perceived researchers to be biased and could translate to inaccurate data. Therefore, to reduce this type of bias during the surveys, the investigator was assisted in the work by individuals (with prior census experience) selected from within the local community. These individuals assisted in obtaining data especially at the household level. Their prior knowledge and familiarity with the system translated into greater access to the community as a whole for the investigator and was sometimes critical in obtaining some of the information which was of a sensitive nature. All participants (including land owners and key informants) were informed of the nature of the project with the help of a flier that was developed in the local language (Malayalam, Appendix 3). Prior consent was obtained and this was an important aspect of the project which was greatly appreciated by officials and community members.

Other lessons learned relevant to conservation community:

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
Dakshin Foundation	A	\$ 1500	Contributed additional staff times, office space, logistics support, support for consumables, etc. DF's trustees made two visits to the field site at the expense of DF, assisted with the procurement of Forest Department permits, development of survey methodologies and

			policy analysis.

***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.

Many of the policy and conservation-related challenges that have been identified for the study area find resonance with other forest fringe landscapes in the Western Ghats. These include agricultural distress, protracted human-wildlife conflict, uncertain land tenure and persistent marginalisation and poverty among settler populations. Native tree preservation in private lands bordering protected areas is another bone of contention that has been identified as problematic across the region. The results from this study suggests that although there are common challenges, the extent and interplay of these problems may vary across sites. The design of interventions therefore needs to be context and place specific.

Within moderate additional effort, the awareness handbook that has been developed could be adapted for distribution in other areas in the Western Ghats as well.

This exercise also filled an important gap relating to our understanding of political ecological aspects of biodiversity conservation in the region. Although the project itself was of an exploratory nature, sufficient groundwork has been carried out under this project to enable actual interventions in the near future. As a follow up to this work, this investigator is exploring options for working with local landholders and institutions for designing conservation projects.

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.

Safeguards were not triggered.

As mentioned before, supporting information was provided and prior consent was obtained from interviewees. No action was required or initiated.

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			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 natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.	NO			
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 1 below.	NO			

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

Additional Comments/Recommendations

From the perspective of long term future objectives and interventions for the region, a few very significant issues need mention. The first is the level and extent of human wildlife conflict (in this case, extensive crop damage especially by wild boar, significant damage by elephants, giant squirrels, bonnet macaques and porcupines) which seems to have been under-reported and may have to be dealt with as a stand-alone issue over the long-term. Native tree preservation in the region is also a contentious issue and has to be dealt with changes in policy and implementation. Finally, the impacts of small-scale interventions have the potential to be negated/ impacted by large scale drivers of landscape transformation. In this area, these drivers include trade agreements and pricing of plantation commodities, particularly rubber and also the increasing trend of conversion of agricultural land for residential properties. Rubber cultivation needs to be evaluated from multiple perspectives: its contrasting roles as a major livelihood earner and that of an exotic with reduced levels of biodiversity.

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.

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List of Appendices

Appendix 1: Awareness handbook

Appendix 2: Detailed report

Appendix 3: Flier outlining project objectives and consent (Malayalam)