



# **Mid-term Assessment of CEPF Investment in the Western Ghats Region of the Western Ghats and Sri Lanka Biodiversity Hotspot**

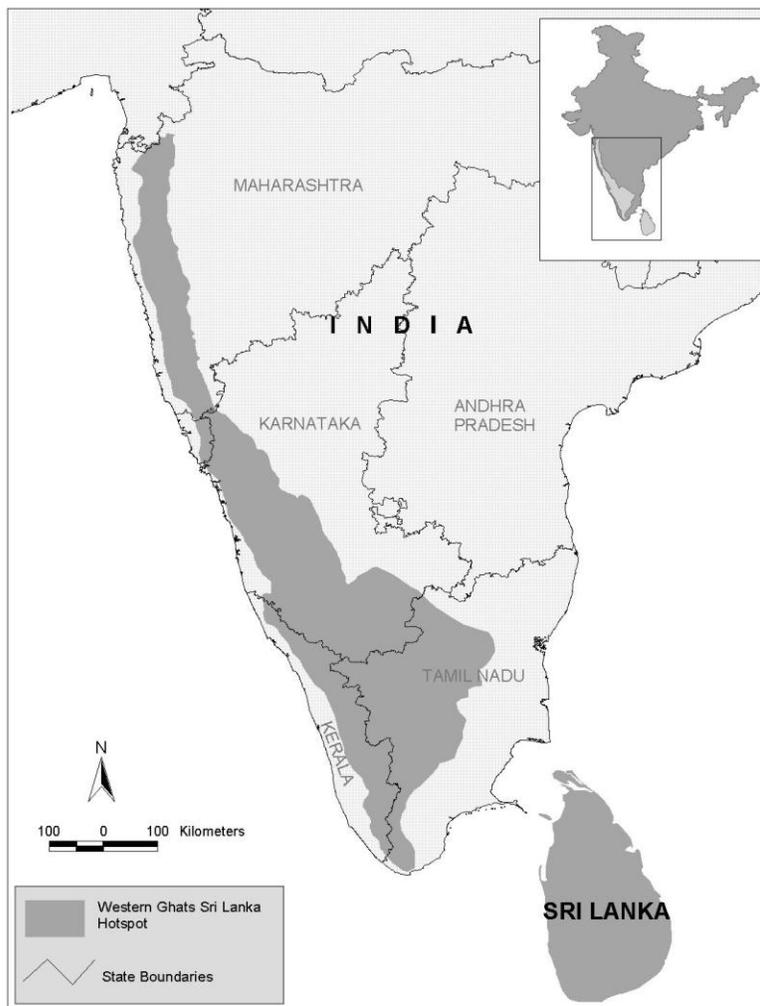
A Special Report  
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## OVERVIEW

The Critical Ecosystem Partnership Fund (CEPF) is a joint initiative of l'Agence Française de Développement (AFD), Conservation International (CI), the Global Environment Facility (GEF), the Government of Japan, the John D. and Catherine T. MacArthur Foundation and the World Bank. CEPF provides strategic assistance to nongovernmental organizations (NGOs), community groups and other civil society partners to help safeguard Earth's biodiversity hotspots: the biologically richest yet most threatened ecosystems. A fundamental goal of CEPF is to ensure that civil society is engaged in biodiversity conservation.

CEPF commenced its investment in the Western Ghats and Sri Lanka Biodiversity Hotspot on May 1, 2008, following the approval of an ecosystem profile<sup>1</sup> developed with stakeholders' input and a funding allocation of \$4.5 million to be awarded over five years. CEPF investment is focused on the Western Ghats Region of the hotspot, comprising parts of Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu states.

**Figure 1. The Western Ghats and Sri Lanka Hotspot**



<sup>1</sup> The ecosystem profile for the Western Ghats region is available on the Web at [http://www.cepf.net/Documents/final.westernghatssrilanka\\_westernghats.ep.pdf](http://www.cepf.net/Documents/final.westernghatssrilanka_westernghats.ep.pdf) (PDF - 1.9 MB)

The Western Ghats Region, which covers an area of 180,000 km<sup>2</sup>, is centered on a range of mountains that runs along the west coast of India. Although the region accounts for less than 6 percent of the national land area, it contains over 30 percent of all plant, fish, herpetofauna, bird and mammal species found in India, including a high proportion of endemic species. The region also hosts a spectacular assemblage of large mammals and is home to some of the most important protected areas in the country. Superimposed on this biological diversity is a rich human diversity, in the form of cultures, ethnic groups and traditional knowledge systems.

This report aims to assess progress towards the goals set out in the ecosystem profile, evaluate gaps in the CEPF grant portfolio and set priorities for the remainder of the five-year investment period. It draws on experience, lessons learned and project reports<sup>2</sup> generated by civil society organizations implementing CEPF grants. In addition, it incorporates the findings of three mid-term assessment workshops, held in Sirsi, Karnataka, on April 4-5, Kotagiri, Tamil Nadu, on April 8-9, and Tirunelveli, Tamil Nadu, on April 15-16, 2011. These workshops were attended by over 120 representatives of CEPF grantees, local government and CEPF's donor partners.

## **THE WESTERN GHATS REGION**

As a result of high variation in latitude, altitude and climate, the Western Ghats supports a wide variety of habitats and, thus, high overall biodiversity. Long periods of isolation from similar habitats elsewhere in the Indian sub-continent have led to the development of high levels of endemism, particularly within the region's moist deciduous and evergreen forests. Among vertebrate groups, amphibians exhibit the highest level of endemism (78 percent of species found in the region are endemic), followed by reptiles (62 percent), fish (53 percent), mammals (12 percent) and birds (4 percent). Of the 4,000 species of flowering plant found in the Western Ghats, 1,500 (38 percent) are endemic. The Western Ghats also contains numerous medicinal plants and important genetic resources, such as the wild relatives of various cereals (rice, barley, etc.), fruits (mango, Garcinia, banana, jackfruit, etc.), and spices (black pepper, cinnamon, cardamom and nutmeg).

In addition to rich biodiversity, the Western Ghats is home to diverse social, religious, and linguistic groups. The high cultural diversity of rituals, customs, and lifestyles has led to the establishment of several religious institutions that strongly influence public opinion and the political decision-making process. The presence of hundreds of sacred groves and sacred landscapes in the region bears testimony to society's commitment to conservation.

Because it is a largely montane area that receives between 2,000 and 8,000 millimeters of annual rainfall within a short span of three to four months, the Western Ghats performs critically important hydrological functions. Over 365 million people live in the six peninsular Indian states that receive most of their water supply from rivers originating in the Western Ghats. Thus, the soils and waters of the region sustain the livelihoods of one person in every 20 on the planet. With the possible exception of Indo-Burma, no other hotspot impacts the lives of so many people.

The irreplaceable biodiversity and ecosystem service values of the Western Ghats are threatened by a variety of human pressures. Only one-third of the region is under natural vegetation, and much of this is degraded. One study estimated that, between 1920 and 1990, 40 percent of the original natural vegetation of the Western Ghats was lost or converted to open/cultivated lands, coffee and tea plantations and hydroelectric reservoirs. Driven by economic development, population growth, and rising demand for power, agricultural commodities and minerals,

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<sup>2</sup> All available final project reports can be downloaded from the CEPF Web site, [www.cepf.net](http://www.cepf.net)

pressures on the region's natural ecosystems are intensifying. If these trends continue unchecked, the remaining forests will become ever more highly fragmented and face the prospect of increasing degradation.

In the face of this gloomy outlook, a ray of hope is cast by the diverse, committed and energetic civil society in the region, ranging from community groups to national NGOs. These organizations have played a critical role in conserving biodiversity and keeping it high on the agenda of national and state governments, despite the pressure for rapid economic growth. Their success is largely due to society's respect for nature, strong democratic traditions, and appropriate institutions and policies. The challenge now is to strengthen conservation efforts in the face of expanding population, increasing demand for natural resources and strong economic growth.

## **CEPF NICHE**

Since 2008, CEPF has been working to engage civil society in biodiversity conservation in the Western Ghats, focusing on the highest priority species, sites and corridors. CEPF investments follow a five-year investment strategy, set out in the ecosystem profile for the region, which was developed in 2003, through analysis of primary and secondary data, consultations with experts, and stakeholder workshops. The preparation of the profile was coordinated by Ashoka Trust for Research in Ecology and Environment (ATREE), in collaboration with the Wildlife Conservation Society (WCS) India Programme and the University of Agricultural Sciences (UAS), Bangalore. Representatives of many of the NGOs, academic institutions and other civil society organizations active in the Western Ghats participated in preparation of the ecosystem profile, to ensure broad input from the conservation community.

The ecosystem profile begins with a description of the biological importance of the Western Ghats, including an analysis of 'conservation outcomes': priorities for conservation at the species, site and landscape scales. It then moves on to provide an overview of the causes of biodiversity loss, describes current institutional frameworks and investments for conservation, and identifies the niche where CEPF investment can provide the greatest incremental value.

The CEPF niche for investment recognizes that, throughout the region, unique habitats rich in biodiversity intersect with a human-dominated landscape. In order to sustain critical ecosystem functions and support viable wildlife populations, it is essential to maintain and restore the integrity of ecosystems at the landscape scale. For this to occur, conservation activities within protected areas need to be strengthened and effective strategies for conserving the substantial biodiversity in the adjoining unprotected areas must be developed. Because these areas face a complex array of threats, biodiversity conservation can only be effective with the active involvement of civil society in protecting and restoring biodiversity in public as well as private lands. In this way, the CEPF niche seeks to capitalize on the tremendous social and human resources of the region, by providing resources to a range of civil society actors who seek to catalyze change and undertake innovative and effective approaches to conservation.

Specifically, the CEPF niche for investment in the Western Ghats is defined as follows: "to provide incremental support to existing protected area efforts and generate momentum for biodiversity conservation around protected areas to enhance habitat connectivity and enable greater civil society participation in conservation efforts".

In line with this niche, the ecosystem profile defines three strategic directions for CEPF investment in the Western Ghats:

1. Enable action by diverse communities and partnerships to ensure conservation of key biodiversity areas and enhance connectivity in the corridors.
2. Improve the conservation of globally threatened species through systematic conservation planning and action.
3. Provide strategic leadership and effective coordination of CEPF investment through a regional implementation team.

To maximize impact and enable synergies among individual projects, 80 of the 126 Key Biodiversity Areas (KBAs) in the region were selected as priority sites for CEPF investment. In addition, 53 'critical links' were defined that provide crucial connectivity between sites or buffer existing sites, based on the distribution of intact forest habitat and presence of unique and threatened ecosystems. The 80 priority sites and 53 critical links are concentrated within five landscape-scale conservation corridors: Periyar-Agasthyamalai; Anamalai; Mysore-Nilgiri; Malnad-Kodagu; and Sahyadri-Konkan. Finally, all 332 globally threatened species found in the Western Ghats were identified as priorities for species-focused conservation actions.

The CEPF ecosystem profile for the Western Ghats Region was approved by the CEPF Donor Council on April 26, 2007, with a total budget allocation of \$4.5 million. Of this amount, \$2.3 million was allocated to Strategic Direction 1, \$1.8 million to Strategic Direction 2 and \$400,000 to Strategic Direction 3. The Donor Council subsequently approved the appointment of ATREE as the Regional Implementation Team (RIT) for the region on November 20, 2007, instructing the Secretariat to finalize the work plan and budget for this important implementation partnership with ATREE and, thus, clearing the way for grant making to begin.

## **COORDINATING CEPF INVESTMENT ON THE GROUND**

ATREE is performing the role of the RIT, and is working closely with the CEPF Secretariat to coordinate and manage CEPF grant making in the Western Ghats Region. ATREE has assembled a dedicated team that draws on the knowledge and experience of senior fellows at the institution, and has established peer review systems to ensure transparency and quality control in the grant making process. ATREE has also introduced the necessary processes to ensure effective management of a small granting mechanism, financial and programmatic risk assessment of individual grants, and compliance with World Bank social and environmental safeguard policies.

The RIT is the steward of the CEPF investment portfolio for the Western Ghats, in close cooperation with the CEPF Secretariat. The RIT maintains close contact with CEPF grantees at each stage of project identification, design and implementation, providing guidance and assistance, where needed. The RIT performs the following key functions:

- Act as an extension service to assist civil society groups in designing, implementing, and replicating successful conservation activities.
- Review all grant applications and manage external reviews with technical experts and advisory committees.
- Award grants up to \$20,000 and decide jointly with the CEPF Secretariat on all other applications.

- Lead the monitoring and evaluation of individual projects using standard tools, site visits, and meetings with grantees, and assist the CEPF Secretariat in portfolio-level monitoring and evaluation.
- Widely communicate CEPF objectives, opportunities to apply for grants, lessons learned, and results.
- Involve the existing regional program of the RIT, CEPF donor and implementing agency representatives, government officials, and other sectors within the hotspot in implementation.
- Ensure effective coordination with the CEPF Secretariat on all aspects of implementation.

ATREE has overcome a number of challenges inherent in working in one of the first regions to adopt the RIT model. ATREE has added significant value to CEPF investment in the Western Ghats, by: (i) reaching out to a wide spectrum of civil society groups and enabling them to access international donor funds, sometimes for the first time; (ii) enhancing the technical quality and relevance to CEPF investment priorities of individual projects, through providing feedback based on a firsthand knowledge of the issues addressed and the capacities of the applicant institution; (iii) guiding the development of a balanced grant portfolio, including by encouraging applicants to work synergistically and eliminate overlaps between projects; and (iv) assisting applicants to negotiate the requirements of the Foreign Contribution Regulation Act (FCRA).

## **IMPACT SUMMARY**

CEPF investment in the Western Ghats Region began in May 2008. Achievements during the first three years of CEPF investment can be summarized as follows:

- Coherent and balanced grants portfolio developed, comprising 51 grants with a total value of \$4.0 million.
- Globally threat assessments undertaken for 1,391 species, as a basis for more effective and better targeted conservation planning and action.
- Species recovery and management plans implemented for 13 priority species, comprising two mammals, four birds and seven plants, including the first successful breeding of the Critically Endangered Indian vulture in captivity.
- Web-based portal on the biodiversity and ecosystem service values of the Western Ghats launched and populated by a growing community of data-holders.
- Three new conservation reserves notified, covering over 40,000 ha and piloting a model for landscapes where human wellbeing and natural ecosystems are inextricably linked.
- Four sacred groves declared in Nilgiris district, recognizing their biodiversity values and cultural significance to local tribal communities.
- Conservation agreements piloted as a conservation tool at three priority sites in the Sahyadri-Konkan Corridor.
- Twelve tea and coffee estates certified, and commitments obtained from major international brands to source supplies from Rainforest Alliance Certified™ farms in the Western Ghats.
- Biodiversity conservation strengthened in over 130,000 ha of KBAs (mostly within protected areas) and over 100,000 ha outside of KBAs (mostly in production landscapes).
- Critical habitat linkages protected between the Sahyadri-Konkan and Malnad-Kodagu Corridors and within the Mysore-Nilgiri and Periyar-Agastyamalai Corridors, reinforcing ecological connectivity at the landscape scale.

- Profile of pressing conservation issues in the Western Ghats raised among decision makers, including through submission of commissioned papers and other contributions to the Western Ghats Ecology Expert Panel.
- Nilgiri Natural History Society launched, as a vehicle to promote interest and involvement in the conservation of the Nilgiri Biosphere Reserve.
- Twenty-seven civil society organizations benefited directly from CEPF investment as grantees, in addition to 19 individual grantees.

## **IMPLEMENTING THE STRATEGY**

The mid-term assessment took place three years into the five-year CEPF investment period in the Western Ghats Region. It was so timed in order to inform the strategic use of the remaining funding allocation, which was due to be committed by the end of 2011. During the first year (May 2008 to April 2009), the focus was on establishing and training the RIT, putting in place systems and processes to review, manage and monitor grants, and promoting CEPF as a grant-making mechanism. As a result, by the end of the first year, no further grants had been awarded, although 18 large grants and 22 small grants, accounting for a large proportion of the total budget allocation, had been selected for funding. During the second year (May 2009 to April 2010), these grants were contracted and new calls for large and small grant applications were issued. During the third year (May 2010 to April 2011), a further two large and eight small grants were awarded, from applications received under the second funding round.

Excluding the RIT grant, at the time of the mid-term assessment (April 2011), no grants had been under implementation for longer than 24 months, 40 grants had been under implementation for between 12 and 24 months, and 10 had been under implementation for less than 12 months. Consequently, although the mid-term assessment evaluated all preliminary results attained to mid-2011, the findings must be considered to constitute only a small portion of the overall impact that CEPF investment in the Western Ghats is expected to have.

### ***Calls for Proposals***

CEPF makes two types of grants: small grants of up to \$20,000 and large grants above that amount. In the Western Ghats, small grants are contracted and managed by ATREE, in its role as the RIT, while large grants are contracted and managed directly by CEPF. Applications for large grants are made in the form of a Letter of Inquiry (LoI), following which shortlisted applicants are invited to submit a full proposal. Small grant applications follow a single-stage process, and applicants are required to complete a simplified proposal form.

CEPF investment in the Western Ghats Region began on May 1, 2008, and will continue for five years until April 30, 2013. As noted above, the first grant was made to ATREE to constitute the RIT for CEPF implementation in the hotspot. This grant was made on a competitive basis, following a request for proposals in 2007. The first call for proposals made during the CEPF investment period was issued in December 1, 2008, with a simultaneous call for large and small grant proposals. In order to ensure a more even distribution of workload for the RIT and technical reviewers, the calls under the second funding round were staggered, with the call for large grant proposals being issued on November 17, 2009, followed by the call for small grant proposals on February 1, 2010. The third call for proposal was made on April 30, 2011, with the objective of addressing investment gaps and opportunities identified during the mid-term assessment. It was a simultaneous call for large and small grant proposals.

Under the first call for proposals, 36 small grant applications were received, of which 22 (61 percent) were awarded. In addition, 59 large grant applications were received, of which 18

(31 percent) were awarded. The success rates for applications under the second funding round were considerably lower, with only 10 out of 73 small grant applications (14 percent) and two out of 30 large grant applications (7 percent) being awarded. The lower success rates under the second round cannot be attributed to less funding being available, because the intention was to award a greater number of grants under this round, had enough applications of sufficient quality been received. Compared with the first call, a larger proportion of applications under the second call were pure research proposals, with no clear application to conservation, and were therefore rejected on the grounds of poor fit with the CEPF investment strategy. Why so few proposals with clear conservation applications, targeted to address specific CEPF investment priorities, were received under the second round is unclear. It may be that many civil society organizations with well developed ideas for conservation projects, in line with the CEPF investment strategy, had submitted them under the first call.

The quality of proposals received under the third call for proposals (made following the mid-term assessment workshops) was notably higher than under previous funding rounds. This improvement can be attributed to the more targeted scope of the call and the RIT's efforts during and after the mid-term assessment workshops to manage expectations of potential applicants about the type of application that was likely to succeed. The success rates were, therefore, a significant improvement over the second round, with nine out of 40 small grant applications (23 percent) and nine out of 16 large grant applications (56 percent) being awarded. The success rates would have been higher still, had the number of grants awarded not been constrained by limited funding availability at the end of the investment program.

#### ***Collaboration with CEPF Donors***

ATREE and the CEPF Secretariat have made efforts to inform and engage regional staff of CEPF's donors regarding the investment portfolio in the Western Ghats. A member of staff from AFD participated in the mid-term assessment, and provided helpful feedback on CEPF implementation. Staff from the World Bank have participated in RIT supervision missions and site visits to individual grants. These interactions have provided valuable opportunities to receive feedback and guidance, particularly on the implementation of the Bank's social safeguard policies. ATREE and CEPF Secretariat staff have visited the World Bank country office in New Delhi and the GEF Operational Focal Point at the Ministry of Environment and Forests, to brief them on CEPF implementation and explore opportunities to align CEPF investments with their programs. One specific opportunity that was identified and realized was a request that some CEPF resources be prioritized for supporting civil-society-led actions that address priorities in the National Tiger Recovery Programme for India.

Other opportunities for collaboration with CEPF donors have arisen through the development and implementation of individual grants. For example, a large grant to IUCN for freshwater Red List assessments complements a very similar project in the Eastern Himalayas funded by the MacArthur Foundation. The two grants allowed a consistent approach to conservation status assessments of freshwater taxa to be implemented in the two areas.

Furthermore, two large grantees, Applied Environmental Research Foundation (AERF) and Foundation for Ecological Research, Advocacy and Learning (FERAL), are receiving complementary support from CI's Conservation Stewards Program. This support is enabling them to draw on experience from other countries with 'conservation agreements': negotiated agreements with local communities that provide concrete, periodic benefits in exchange for specific, measurable conservation commitments.

### ***Portfolio Status***

As of June 30, 2011, a total of 51 grants have been contracted, with a total value of \$4.0 million, equivalent to 88 percent of the total allocation for the Western Ghats (Annex 1). Of this sum, \$3.0 million (76 percent) has been committed to local groups and individuals, with the remainder going to international groups. This reflects the strong, dynamic and widespread local civil society presence in the region. The grants awarded to date have leveraged nearly \$1.7 million in co-financing, including counterpart funding and in-kind contributions.

The grants contracted<sup>3</sup> as of June 30, 2011 comprise 28 under Strategic Direction 1, totaling \$2.1 million; 22 under Strategic Direction 2, totaling \$1.4 million; and a \$400,000 grant under Strategic Direction 3 for the RIT. Based on the initial allocations, around \$160,000 remained available under Strategic Direction 1 and \$370,000 under Strategic Direction 2 (Table 1). Of these funds, \$50,000 was set aside for the final assessment, and the remainder for making grants under the third round.

**Table 1: Status of CEPF grant portfolio in the Western Ghats Region, as of June 30, 2011**

<b>Strategic Direction</b>	<b>Allocation</b>	<b>Active grants</b>	<b>Balance to award</b>
SD1	\$2,300,000	\$2,141,749	\$158,251
SD2	\$1,800,000	\$1,426,738	\$373,262
SD3	\$400,000	\$400,000	\$0
<b>Total</b>	<b>\$4,500,000</b>	<b>\$3,968,487</b>	<b>\$531,513</b>

Including the RIT grant, 21 large grants have been contracted to date, with a total value of \$3.5 million. These grants range in size from \$40,756 to \$499,443, with a mean of \$167,661. Only three grants larger than \$250,000 have been awarded, comprising the RIT grant, a grant to FERAL to pilot an innovative payments for ecosystem services mechanism, and a grant to WCS to improve protected area effectiveness through rigorous monitoring of wildlife populations and threats. The remaining 30 grants that have been contracted are all small grants, and have a total value of \$447,599. These grants range in size from \$3,080 to \$19,925, with a mean of \$14,920.

By the end of the third year of implementation, therefore, the majority of the funding allocation for the Western Ghats had been awarded. There was a good geographical spread of projects throughout the region, with small and large grants in each of the five conservation corridors, although some corridors had a greater concentration of grants than others. There was also a good thematic spread of grants, with every investment priority identified in the ecosystem profile being the focus of grants. Nevertheless, as is described in more detail later in this report, there remained a number of gaps in the CEPF investment portfolio. These were specifically targeted under the third call for proposals, and most of them were addressed to varying degrees.

### ***Portfolio Overview: Strategic Direction 1***

CEPF investment under this strategic direction aims to enable action by diverse communities and partnerships to ensure conservation of key biodiversity areas and enhance connectivity in the corridors. This strategic direction is intended to address and reverse fragmentation and degradation of natural habitats, and thereby enhance ecological connectivity at the landscape scale, which is essential to maintain critical ecosystem functions and viable wildlife populations. The strategy adopted by CEPF has been to make a limited number of targeted investments in the conservation of protected areas, which form the core sites in landscape-scale conservation

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<sup>3</sup> These figures exclude two small grants awarded under the second funding round but not contracted as of June 30, 2011, due to delays in obtaining necessary FCRA clearance.

corridors, through supporting civil society to establish partnerships with state agencies to implement science-based management (Investment Priority 1.3). These investments have been complemented by a larger number of investments in the wider matrix, to enhance connectivity within and between corridors. This is being achieved in two ways: first, by promoting partnerships to identify, evaluate, and advocate for suitable mechanisms that incorporate critical links (biological corridors) into the protected area network (Investment Priority 1.2); and, second, by piloting models of community and private reserves to achieve conservation outcomes at priority sites and critical links in unprotected areas (Investment Priority 1.1).

Investment Priority 1.1 has received the greatest amount of CEPF investment to date, with 16 grants totaling \$1,393,588 (equivalent to 35 percent of awarded funds). These grants have developed and tested a wide variety of innovative approaches to site-based conservation outside of the formal protected area network. Some approaches involve working with private sector companies to introduce more environmentally and socially sustainable management practices on their landholdings and, thereby, improve their ability to deliver ecosystem services and support wildlife populations. For instance, Nature Conservation Foundation (NCF) and Rainforest Alliance are promoting sustainable practices on tea and coffee estates in the Mysore-Nilgiri and Anamalai Corridors, through development of markets for certified products and provision of technical advice to estate managers. Further north, Cheryl Nath is promoting the conservation of native trees in coffee agro-forestry landscapes in the Malnad-Kodagu Corridor.

Other approaches being tested by grantees under Investment Priority 1.1 involve engaging local communities to manage lands that they own or have customary use rights to in ways consistent with biodiversity conservation. Several grantees are making use of recent provisions in the Wildlife Protection Act and the Tribal and Forest Rights Act to secure community rights to forest resources and establish new models of community-based conservation areas. For example, WWF India is piloting two different co-management models (conservation reserve, and community forest resource use area) in the Mysore-Nilgiri and Anamalai Corridors. Other grantees are supporting local communities to implement conservation actions in reserve forests, private forests and other unprotected lands. For instance, Amitha Bachan, has engaged members of the Kadar tribal group in monitoring and protecting populations of hornbills and their nesting trees in Vazhachal Forest Division and surrounding areas in the Anamalai Corridor. Meanwhile, in the Sahyadri-Konkan Corridor, AERF is piloting conservation agreements, described earlier, in private forests surrounding three KBAs. Finally, grantees are revitalizing traditional knowledge and customs to conserve forest fragments within anthropogenic landscapes, such as Keystone Foundation, which is helping local tribal communities to restore sacred groves, establishing natural interpretation centers in local villages, and providing conservation awards to communities to recognize their efforts to conserve biodiversity in the Nilgiri Biosphere Reserve at the heart of the Mysore-Nilgiri Corridor.

One challenge common to all innovative approaches to site-based conservation outside the formal protected area system is securing the necessary funding to sustain pilots and replicate them more widely. The most ambitious project is that led by FERAL in the Periyar-Agasthyamalai Corridor, which is piloting ecosystem service payments to small landholders to incentivize them to restore ecological connectivity between two large forest blocks. An innovative auction system is being developed to establish a fair price for participating landholders, that compensates them for the opportunity costs of conservation, and various avenues are being explored to finance the mechanism in the long-term, including compensatory afforestation payments and contributions from plantation companies in the area.

Compared with the previous priority, Investment Priority 1.2 has received a modest amount of investment to date, with seven grants totaling \$274,876 (7 percent of awarded funds). Conservation reserves, which are managed collaboratively by local communities and the forest department, are being promoted by a number of grantees, as an alternative to state-managed protected area designations (such as wildlife sanctuaries and tiger reserves), because they allow local communities to derive benefits from the sustainable use of natural resources within their boundaries. In Uttara Kannada district, where the Malnad-Kodagu and Sahyadri-Konkan Corridors meet, B. L. Hegde has identified three suitable conservation reserves, and successfully promoted their notification by Karnataka State Forest Department. On the Kerala side of the Periyar-Agastyamalai Corridor, Centre for Environment and Development (CED), has identified four potential conservation reserves, and is promoting their notification by the state forest department.

Another approach adopted by grantees to secure critical habitat linkages is to identify and map them, understand the social context within which they are found, and use these data to promote their protection by the relevant authorities. For instance, Asian Nature Conservation Foundation is developing a GIS database of critical habitat linkages for Asian elephant (*Elephas maximus*) and other mammal species in the Periyar-Agastyamalai Corridor, and promoting it among state agencies as a tool for landscape-scale conservation planning. Elsewhere, Wildlife Trust of India (WTI) is developing plans to secure seven critical habitat corridors for Asian elephant in the Mysore-Nilgiri Corridor, with input from local stakeholders.

To date, Investment Priority 1.3 has received \$473,285 (12 percent of awarded funds) across five grants. While not insubstantial, this amount is only a quarter of the combined investment under Investment Priorities 1.1 and 1.2. This is, in part, a reflection of the challenges that many civil society organizations in India face in partnering with the forest department to promote science-based management and conservation of protected areas. One organization that has been able to do this effectively is WCS, which is implementing a large grant to improve the effectiveness of protected areas in Karnataka through enhanced civil society support and rigorous monitoring of wildlife populations and threats. Other grantees promoting science-based management of priority sites include NCF, which is identifying critical animal crossing points along roads within Anamalai Tiger Reserve and surrounding areas, and formulating recommendations for mitigation measures to reduce road kill. An innovative approach is being adopted by Arulagam in Sathymangalam Tiger Reserve and adjacent areas, whereby local communities are empowered to conduct biological research along the Moyar River, develop conservation micro-plans, and source funding for their implementation from within panchayat (local government) budgets.

### ***Portfolio Overview: Strategic Direction 2***

CEPF investment under this strategic direction aims to improve the conservation of globally threatened species through systematic conservation planning and action. This strategic direction is intended to benefit species threatened with extinction globally, whose conservation would not necessarily be guaranteed by continued efforts to maintain and enhance habitat connectivity within the five conservation corridors. Certain species are known to require targeted conservation action, either because they face specific conservation issues (such as poisoning or human-wildlife conflict) or because they occur in ecosystems not well represented within the protected area network (in particular, wetlands). Other species are simply too poorly known to assume, with any confidence, that their conservation is being addressed by current strategies. These species are priorities for research and assessment, to establish conservation priorities and evaluate their representation within existing conservation areas.

To this end, CEPF has supported work to conserve species requiring targeted action, through the creation and implementation of recovery and management plans for Critically Endangered and Endangered species (Investment Priority 2.2). In parallel, species for which there is an overriding need for information to inform conservation action have been addressed by investments in monitoring and conservation status assessments, with a particular emphasis on lesser-known taxa, such as reptiles and fish (Investment Priority 2.1). The results of these exercises are being used to evaluate the existing protected area network for adequate globally threatened species representation (Investment Priority 2.3), and made available to wider audiences through interdisciplinary efforts to analyze and disseminate biodiversity data (Investment Priority 2.4).

Investment Priority 2.1 has received the second greatest amount of funding of any CEPF investment priority to date, with \$578,978 (15 percent of awarded funds) invested across 11 grants. This reflects the strong emphasis of many civil society groups working in the Western Ghats on systematics, baseline biodiversity assessment and conservation priority setting. The taxonomic groups that have received the most attention under this investment priority are ones for which available data were either very patchy or had never been collated and used to systematically assess global conservation status, such as reptiles, freshwater fish and various invertebrate taxa. The lack of comprehensive status assessments on these groups was previously a major obstacle to addressing their conservation, particularly because they contain higher levels of localized endemism than better studied groups, such as mammals and birds, and are typically less well represented within protected area networks. Some grantees have undertaken comprehensive global Red List assessments of taxonomic groups, including Wildlife Information Liaison Development Society (WILD) for reptiles, and IUCN for freshwater fishes, plants, odonates and mollusks. Other grantees have addressed information gaps on the spatial distribution of lesser known taxa (the so-called ‘Wallacean Shortfall’) through primary field surveys, including the Indian Institute of Science for frogs, snakes and lizards, Rajeev Raghavan for freshwater fish, Devcharan Jathanna for small carnivores, and Manju Siliwal for tarantulas.

To date, CEPF has supported five grants under Investment Priority 2.2, totaling \$240,303 (6 percent of awarded funds). Globally threatened species benefiting from these investments include four species of vultures threatened by poisoning with veterinary drugs, which are targeted by a grant to the Royal Society for the Protection of Birds (RSPB), six plant species threatened by loss of their freshwater swamp habitat, which are targeted by a grant to Snehakunja Trust, and Asian elephant, threatened by human-wildlife conflict, which is targeted by a grant to Prachi Mehta. While these projects are making important contributions to the conservation of the targeted species, only a small proportion of the 203 Critically Endangered and Endangered species identified in the ecosystem profile are benefiting from focused conservation actions, and this investment priority remains a major gap in the grant portfolio.

Compared with the other investment priorities, Investment Priority 2.3 has received the smallest amount of investment to date, with only two grants, totaling \$139,047 (4 percent of awarded funds). One grant, to the University of Delhi, is assessing the coverage of the protected area network with regard to amphibians, and identifying new protected areas to fill gaps in coverage. The second grant, to FERAL, is conducting a gap analysis of the Periyar-Agasthyamalai Corridor for arboreal mammal conservation. In addition to the two grants that have Investment Priority 2.3 as their main focus, several other grants are addressing it as a secondary objective. Nevertheless, it remains the largest thematic gap in the CEPF grant portfolio. Under the first and second calls, very few applicants expressed an interest in addressing the first aspect of the investment priority, related to evaluate the existing protected area network for adequate globally threatened species representation, and none expressed an interest in the second aspect, related to assessing the effectiveness of different types of protected area at conserving biodiversity. For the third call for

proposals, protected area gap analysis was specifically emphasized as a priority but assessment of protected area effectiveness was dropped, in response to feedback from civil society groups that it was very challenging for them to engage with the forest department on this issue.

Investment Priority 2.4 has received \$468,411 (12 percent of awarded funds), spread across three inter-related grants. These comprised large grants to the French Institute of Pondicherry and Strand Life Sciences Ltd to develop an open-access, on-line portal to enable sharing of information on the biodiversity of the Western Ghats and catalyze collaboration among different sections of civil society. These grants were complemented by a small grant to FERAL to generate spatial data layers and build capacity to support conservation planning in the region. In combination, these grants provide a mechanism for sharing the results of CEPF investments, and making them available for use for conservation planning, applied research and advocacy.

### ***Portfolio Overview: Strategic Direction 3***

CEPF investment under this strategic direction is limited to supporting the operations of the RIT. To this end, a single grant of \$400,000 has been made to ATREE, amounting to 10 percent of awarded funds.

## **BIODIVERSITY RESULTS TO DATE**

### ***Globally Threatened Species***

#### **Conservation Status Assessments**

Strategic Direction 2 for CEPF investment in the Western Ghats is to improve the conservation of globally threatened species through systematic conservation planning and action. As discussed earlier, Investment Priority 2.1 (monitor and assess the conservation status of globally threatened species with an emphasis on lesser-known organisms such as reptiles and fish) has received the greatest amount of investment to date, and progress towards this goal has been correspondingly good. The main focus of CEPF investments under this investment priority has been on the two taxonomic groups identified in the ecosystem profile as being particularly in need of updated status assessments, namely reptiles and fish.

A grant to IUCN, implemented in collaboration with Zoo Outreach Organisation (ZOO) and other local partners, enabled conservation status assessments to be undertaken of all freshwater fishes, mollusks and odonates and selected aquatic plants in the Western Ghats, through an extensive process of expert review. The results have been posted on the IUCN Red List website ([www.iucnredlist.org](http://www.iucnredlist.org)) as a freely available dataset on the conservation status, distribution and ecological characteristics of each species. The project has filled a major information gap that was hampering conservation efforts for threatened and endemic freshwater taxa, and preventing their conservation needs being consistently addressed in Environmental Impact Assessment (EIA) and other decision-making processes related to development projects. Prior to the project, only a single freshwater fish species was assessed as globally threatened; under the project, 290 species were evaluated, of which 97 were found to be globally threatened (12 CR, 54 EN and 31 VU). For the other groups, none was included on the Red List previously. Thanks to the project, however, 77 species of mollusks, 171 odonates and 608 plants have now been evaluated, with seven (4 EN, 3 VU), four (4 VU) and 54 (12 CR, 21 EN, 21 VU) being assessed as globally threatened, respectively. The dataset created by the project provides a solid basis for future conservation planning and action, including identification of potential freshwater KBAs, gap analyses of existing protected area networks and conservation legislation for the conservation of freshwater biodiversity, and several such initiatives have been approved for support under the third funding round.

CEPF is also supporting a conservation status assessment of all reptiles in the Western Ghats, through a grant to WILD. In a similar way to freshwater taxa, reptiles were a major information gap prior to the project, with only four globally threatened reptile species being listed for the Western Ghats in the ecosystem profile. As of mid-2011, status assessments had been completed for 245 species, with distributions mapped. The assessments are awaiting consistency checks and peer review, before being posted on the IUCN Red List, where they will be publically available, as a tool for conservationists and managers.

The conservation status assessments described here, although based on analyses of secondary data, were only possible due to the availability of data on distribution, ecology and conservation of the species concerned. In some cases, it was necessary to undertake additional data collection, in order to fill fundamental gaps in information with regard to lesser-known species. Some of this work was undertaken with the support of CEPF grants. For example, small grantee Rajeev Raghavan investigated the status and distribution of little-known fish species across 10 river systems in Kerala, generating baseline data on 83 species and identifying 11 irreplaceable sites for fish conservation. Another important exercise is an on-going project by the Indian Institute of Science, to fill gaps in distributional data on reptiles and amphibians through systematic sampling across the Western Ghats. Midway through the project, the team had generated nearly 3,000 point locality records for close to 150 species of frogs, lizards and snakes, and discovered new populations of several endemic species previously known only from single locations. As well as feeding into the reptile Red List assessment led by WILD, the results of the project will also facilitate protected area gap analyses with respect to threatened and endemic taxa from lesser-known vertebrate groups, thereby contributing to Investment Priority 2.3.

Additional data on lesser-known vertebrates are being generated under a grant to the University of Delhi on the conservation of threatened amphibians. This project includes a component dedicated to rediscovering amphibian species that have not been reliably recorded for many years. As of June 30, 2011, 32 field expeditions had been completed in the Western Ghats, generating important information on a number of data deficient species.

As well as rediscoveries of 'lost' species, CEPF grants have also facilitated the discovery of new species. For instance, small grantee Manju Siliwal discovered a new species of trapdoor spider in Uttara Kannada district of Karnataka. Named after the Sahyadris (a synonym for the Western Ghats), *Tigidia sahyadri* is the first record from India of the genus *Tigidia*, which was previously known only from Madagascar and Mauritius.

### **Creation and Implementation of Species Recovery and Management Plans**

In comparison with Investment Priority 2.1, Investment Priority 2.2 (support efforts to conserve Critically Endangered and Endangered species through the creation and implementation of species recovery and management plans) has received only modest investment to date. Applications for CEPF funding under Strategic Direction 2 were dominated by proposals for research, surveys and assessments, with only a small number proposing direct conservation interventions for threatened species. Feedback from participants at the mid-term assessment workshop indicates that this may reflect many civil society groups' strategic focus on research and a perception that there are limited opportunities for civil society to engage directly in conservation management. Nevertheless, while only a handful of the 203 Critically Endangered and Endangered species identified in the ecosystem profile have been the focus of species recovery and management plans, those initiatives that have been supported have had demonstrable impacts.

RSPB, in partnership with BNHS, implemented a CEPF grant to conserve critically endangered vulture species, threatened by poisoning by the veterinary drug diclofenac. This project reinforced a national vulture recovery plan, and extended efforts to the Western Ghats. The project resulted in a significant increase in awareness among the conservation and veterinary communities about the diclofenac threat to vultures, trialed local level advocacy concerning the threat within designated ‘vulture safe zones’, and made progress with engaging pharmaceutical companies in closing loopholes regarding the use of diclofenac to treat cattle. For the first time, the project established baselines for vulture populations and threats to vultures in the Western Ghats, identifying the main center of population, where future conservation and reintroduction efforts can be focused. To insure against the possible extinction of vulture populations in the wild, the project also supported *ex situ* conservation efforts for white-rumped (*Gyps bengalensis*) and Indian vultures (*G. indicus*) at the Pinjore captive breeding center. By the end of the project, the captive breeding stock was growing faster and more secure than at the beginning, and set to continue improving quite dramatically, having almost doubled productivity in each year. Most notable, was the first successful breeding of Indian vultures in captivity.

Another successful initiative is a project by Snehakunja Trust, which is developing and implementing protocols for restoring populations of six globally threatened plant species through restoration of their freshwater swamp habitats. The species in question comprise one Critically Endangered species (*Syzygium travencoricum*), one Endangered species (*Myristica magnifica*) and four Vulnerable species (*Arenga wightii*, *Gymnacranthera canarica*, *Myristica malabarica* and *Ochreinauclea missionis*). Another species addressed by the project is *Semecarpus kathalekanensis* a highly localized species, endemic to freshwater swamps, which has not been evaluated under the IUCN Red List but would almost certainly qualify as globally threatened. The project is enhancing gene-flow among sub-populations, and hence the long-term viability of these species’ populations, by restoring ecological connectivity along chains of swamps. By forging strong partnerships among communities, the forest department and a local forestry college, the project has successfully established a network a community nurseries for raising swamp species, and undertaken pilot planting of degraded swamps. As of mid-2011, 10,500 seedlings, belonging to 31 species, had been raised and transplanted in three micro-corridors (Kathlekan, Hasolli-Kodgi and Kudgund-Torme) with survival rates averaging 85 percent. Community organizations have been established to implement the project activities and manage the restored freshwater swamps.

Other conservation actions for Critically Endangered and Endangered species implemented during the first three years of the CEPF investment program in the Western Ghats include an initiative by small grantee H. N. Kumara to conserve a newly discovered population of the endemic lion-tailed macaque (*Macaca silenus*) in the Sirsi and Honnavara Forest Divisions of Karnataka’s Uttara Kannada district. This project conducted a detailed study of the feeding ecology of the species, and compared it with patterns of non-timber forest product collection by local communities, in order to develop a management regime that enables the macaque population to recover without threatening local livelihoods. The results of the project are being incorporated into the management plan of the new Aghanashini-Lion-tailed Macaque Conservation Reserve, being established with support from other CEPF grants.

### **Protected Area Gap Analyses**

As discussed previously, 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) has received the lowest amount of funding of any investment priority in the Western Ghats. No significant impacts were recorded during the first three years of CEPF investment in the region, although several initiatives are on-going, including surveys to

shortlist locations for establishment of amphibian sanctuaries to fill gaps in coverage of the protected area network, being undertaken as part of the grant to the University of Delhi. In addition, a number of grants relevant to this investment priority were awarded under the third funding round, including one to ZOO to apply the results of the freshwater and reptile Red Listing exercises to protected area gap analysis.

### **Analysis and Dissemination of Biodiversity Data**

There have been two main results in relation to Investment Priority 2.4 (support interdisciplinary efforts to analyze and disseminate biodiversity data), both involving online media. The first result has been the launch of the Western Ghats Portal ([www.thewesternghats.in](http://www.thewesternghats.in)), web-based portal on the biodiversity and ecosystem service values of the Western Ghats Region, populated and maintained by an active community of data-holding institutions and individuals. The portal addresses a major gap in conservation efforts for the region, namely the need to bring together the vast quantities of data that are held by different stakeholders (often not in the public domain), curate them in standard formats, and make them freely and widely available.

The Western Ghats Portal, which is being developed under CEPF grants to the French Institute of Pondicherry and Strand Life Sciences Ltd, is a keystone of the CEPF grant portfolio. The project leverages Web 2.0 technologies to facilitate a change from the present situation of dispersed, inaccessible and incompatible data sources to a future where core biodiversity and ecosystem service information are widely and freely available. This transformation in data availability will, in turn, facilitate mainstreaming of biodiversity into development sectors (for instance, by improving the quality of Environmental Impact Assessments), empower citizen engagement in development of public policy, and foster citizen science initiatives by amateur naturalists.

Because of the large number of institutions and individuals holding key data on the Western Ghats, the project has required significant investment of time in partnership building and development of principles for data sharing. As of mid-2011, the beta version of the portal had gone live, the first inputs of data had been received, curated and uploaded, and extensive outreach activities were underway to mobilize more contributors and users for the portal. Over the next two years, the functionality of the portal will be increased, more data will be incorporated, and policies for data sharing and sustainability will be put in place.

The launch of the Western Ghats Portal, as a repository for spatial data layers, species lists and information on conservation and development projects, has been complemented by the establishment of a special section within the *Journal of Threatened Taxa* ([www.threatenedtaxa.org](http://www.threatenedtaxa.org)) to publish scientific papers emerging from CEPF projects in the Western Ghats. The journal is a monthly, online, open-access publication, and provides a medium for making technical results on taxonomy, ecology, natural history and conservation from CEPF projects widely, freely and permanently available. In addition, the grantee, WILD, is providing a mentoring service to first-time authors, thereby building capacity and helping them establish a publication record in a peer-reviewed journal. As of June 30, 2011, only three articles from CEPF grantees had been published in the special section, reflecting the small number of grants that had been completed. It is expected that many articles from other grantees will start coming in as more projects are completed.

### **Key Biodiversity Areas**

#### **New/Expanded Protected Areas**

The Western Ghats already has an extensive network of wildlife sanctuaries, national parks and tiger reserves, as a result of a long-standing commitment to biodiversity conservation on the part

of the Government of India. In addition, conflicting land uses and opposition to protected area expansion from local communities and civil society groups mean that opportunities for protected area expansion are limited. For these reasons, the CEPF investment strategy for the Western Ghats contained no explicit goals related to protected area expansion. The ecosystem profile does, however, recognize that the fate of biodiversity and habitat connectivity in the Western Ghats ultimately depends upon finding solutions to overharvesting of forest resources that ensure genuine participation of local communities and address livelihood needs and social and gender equity. To this end, Investment Priority 1.1 (test pilot models of community and private reserves to achieve conservation outcomes at priority sites and critical links in unprotected areas of the Anamalai and Malnad-Kodagu Corridors as well as the Brahmagiri-Nagarhole critical link in the Mysore-Nilgiri Corridor) was formulated. Although the intention of this investment priority is to demonstrate alternative approaches to traditional protected areas, several projects have already delivered results in terms of establishment of new protected areas.

Taking advantage of provisions under the revised Wildlife (Protection) Act of 2006, small grantee B. L. Hegde formulated proposals to designate selected reserve forests in Uttara Kannada district as 'conservation reserves': a category of protected area that provides local communities with a defined role in management and recognizes their rights to access forest resources sustainably. This designation, although a legal category of protected area, has rarely been applied in practice. Consequently, it was a significant step when the Karnataka Government notified three conservation reserves in June 2011: Aghanashini Lion-tailed Macaque Conservation Reserve (29,952 ha); Bedthi Conservation Reserve (5,731 ha); and Hornbill Conservation Reserve (5,250 ha). The successful application of the conservation reserve model in Uttara Kannada district was spearheaded by the Western Ghats Task Force, Karnataka, under the chairmanship of Ananth Hegde Ashisar, who undertook these activities as a main agenda item and provided co-financing via Karnataka Forest Department.

The establishment of pilot conservation reserves is also being promoted in Tamil Nadu by WWF India and in Kerala by small grantee Centre for Environment and Development. Although these initiatives had not reached fruition by mid-2011 due to the complexity of the process, the actions undertaken to date have led to progress and much learning on devolution of forest resource governance. In addition, management structures and funding mechanisms for the pilot conservation reserves notified in Uttara Kannada district will be put in place under a follow-on grant awarded under the third funding round. Collectively, these initiatives are expected to be catalytic in demonstrating the value of conservation reserves as a conservation tool in landscapes where human wellbeing and natural ecosystems are inextricably linked.

A different approach to site-based conservation is being tested in Tamil Nadu's Nilgiris district, under a grant to Keystone Foundation, based on declaration of sacred groves. Sacred groves are of special cultural significance to the Kurumba communities of the Nilgiri Biosphere Reserve but are not necessarily recognized by other stakeholders, resulting in them being degraded. The Keystone team has been working with Kurumba communities to demarcate sacred groves, erect signboards explaining their significance, restore them by planting native tree species, and promote their recognition by the forest department, tea estates and other communities. As of mid-2011, four sacred groves had been declared under the project: Banagudi shola (21 ha); Baviyur (42 ha); Chedikal (22 ha); and Semmanarai (11 ha).

### **Strengthened Management of Production Landscapes**

Also under Investment Priority 1.1, CEPF grantees have been testing models of site-based conservation of biodiversity in production landscapes. Small grantee Cheryl Dwarka Nath has been developing strategies to encourage farmers to conserve native trees within privately owned

coffee estates in the Malnad-Kodagu Corridor. A similar approach was adopted by small grantee Jayant Kulkarni, who has been formulating strategies for incentivizing land owners to maintain forest cover on private land in the Sahyadri-Konkan Corridor. Elsewhere in the Sahyadri-Konkan Corridor, AERF has tested an innovative approach to incentivizing forest conservation on private land through negotiated ‘conservation agreements’, whereby local communities implement conservation actions in return for specified development benefits. As of mid-2011, AERF had negotiated agreements with communities from five different villages at three KBAs for the long-term conservation of forests, comprising 40 ha in the buffer zone of Chandoli National Park, 20 ha in the buffer zone of Koyna Wildlife Sanctuary and 35 ha in private forests adjoining Amboli Reserve Forest.

The key result with regard to strengthened management of production landscapes has been the expansion of certification of tea and coffee estates in the Western Ghats. This work is being spearheaded by complementary grants to Rainforest Alliance and NCF, with the former focusing on development of markets for sustainable commodities from India, and the latter concentrating on adapting the global Sustainable Agriculture Network (SAN) Standard to the local context, and providing technical support to estates wishing to apply for certification.

Market development has been particularly successful with regard to tea. Two major tea brands (Tetley and Unilever) are already sourcing and marketing teas from Rainforest Alliance Certified™ farms in the Western Ghats, with one more major tea packer committed but not yet public. With regard to coffee, one international luxury brand is exploring sourcing certified coffee from the Western Ghats, and one Indian coffee brand is exploring marketing it domestically.

The growing market for certified commodities from the Western Ghats has created conditions under which NCF has been able to engage with tea and coffee estates to conduct diagnostic audits and provide training in sustainable agricultural practices that place environmental and conservation considerations firmly within the core business practices of estates. This is having impacts on biodiversity conservation, through such practices as protection of native vegetation, establishment of wildlife corridors across plantations, reduced pollution of aquatic habitats, and restoration of riparian habitat. The incentive of gaining access to markets for certified commodities is also causing estates to ensure fair treatment and good conditions for workers, invest in good occupational health and maintain good relations with local communities. As of June 2011, 12 tea and coffee estates (covering a total of 12,839 ha) had been audited and certified under the project, and other estates were actively working towards certification.

### **Strengthened Management of Protected Areas**

Although the majority of CEPF investments in site-based conservation of KBAs have been in piloting alternative approaches to traditional protected areas, several large grants have been awarded under Investment Priority 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). One of the key developments has been initiation of a WCS-led project to improve management effectiveness of protected areas in Karnataka through enhanced civil society support and rigorous monitoring. By mid-2011, systematic monitoring of wildlife populations and conservation threats had been conducted in nine protected areas and their neighboring reserve forests, generating data that were used to provide management inputs to protected area wardens and their field staff. Specific improvements to management were recorded across 110,000 ha of Sharavathi Wildlife Sanctuary and 41,900 ha in reserve forests surrounding the wildlife sanctuary.

A different approach to strengthening management effectiveness of protected areas has been adopted within the newly established Sathyamangalam Tiger Reserve in Tamil Nadu. Arulagam has conducted a community-based planning exercise for the conservation of natural resources along the Moyar River, resulting in the formulation of panchayat-level micro-plans, identifying conservation actions for key species and habitats, and integrating them into local institutional mechanisms and budgets. As of mid-2011, the final micro-plans had been endorsed and the first actions had been implemented. One specific result reported was an agreement with local farmers to refrain from summertime cultivation of 28 ha of floodplain habitat that had been leased to them, because this was identified as the prime driver of human-elephant conflict within the protected area.

### *Conservation Corridors*

#### **Protection of Critical Links**

Some of the most significant biological results of CEPF investment in the Western Ghats to date have been in relation to the protection of critical links among KBAs, thereby reinforcing ecological connectivity at the landscape scale. These results relate to Investment Priority 1.2 (promote partnerships to identify, evaluate, and advocate for suitable mechanisms that incorporate critical links (biological corridors) into the protected area network in the Periyar-Agastyamalai, Mysore-Nilgiri and Malnad-Kodagu Corridors). Reviewing the geographical distribution of results from north to south, ecological connectivity has been reinforced: between the Sahyadri-Konkan and Malnad-Kodagu Corridors; within the Mysore-Nilgiri Corridor; and within the Periyar-Agastyamalai Corridor. These results are reviewed in turn.

The Sahyadri-Konkan and Malnad-Kodagu Corridors meet in Uttara Kannada district in north-western Karnataka. The district has the highest forest cover and lowest human population density in southern India. However, the protected area network in the district is restricted to the north and south, with a large gap of unprotected forest in between. The establishment of three conservation reserves, described earlier, has gone a long way to bridging this gap, and conferring greater protection against railroads, hydropower dams and other incompatible developments that threatened to fragment ecological connectivity across the district.

Within the Mysore-Nilgiri Corridor, WTI has prepared conservation plans to secure seven identified elephant corridors. Surveys and ground-truthing have been undertaken to map each corridor, investigate patterns of elephant movement and human-elephant conflict, and understand local perceptions towards wildlife conservation. Bottlenecks have been identified, and plans developed to re-establish or consolidate habitat connectivity, with participation for local landholders, forest department staff and other key stakeholders. Twenty-eight signboards have also been fixed along roads passing through the corridors, in order to warn drivers about the movement of elephants and reduce collisions. The plans developed under the project will be used by WTI and the relevant state forest departments to consolidate the seven critical links and, thereby, reduce human-elephant conflict.

Within the Periyar-Agastyamalai Corridor, FERAL has been working to reinforce ecological connectivity across the Shencottah Gap, and thereby re-establish a habitat corridor between Periyar and Kalakkad-Mundunthurai Tiger Reserves capable of facilitating movement by tiger (*Panthera tigris*), Asian elephant and other large mammals. The project is based upon the application of ecological science to identify optimal designs for a habitat corridor, followed by the application of cutting-edge environmental economics to develop incentives for land owners to restore links in the corridor. Using an iterative selection process, using species and habitat surrogates, overlaid with a cost layer, a minimal network design has been constructed. The next

step will be to undertake environmental ‘auctions’, where small landowners will have the opportunity to bid to undertake specified management actions (such as enrichment planting with native species, restoration of riparian corridors, removal of fences, etc.) in exchange for financial packages. An auction methodology, tailored to the local context, has been developed, and mock auctions have been conducted to refine the approach and train landowners in the process. The first round of actual auctions will take place towards the end of 2011, after which restoration of the corridor will commence.

## **SOCIOECONOMIC RESULTS TO DATE**

Delivering socioeconomic benefits to local communities is integral to many CEPF projects. Several CEPF grantees are assisting communities to introduce more sustainable natural resource management practices. For instance, Snehakunja Trust has helped villagers install fuel-efficient ovens and NTFP driers, in order to reduce pressures on forest from fuel wood collection. Under the same project, the grantee has established Village Forest Committees in two villages, in order to facilitate community participation in efforts to manage and restore freshwater swamps. Among other activities, these committees have identified and cultivated 12 tree species highly valued by local people, and distributed over 1,500 seedlings among target villages. Similarly, Arulagam has helped 12 villages develop plans for the sustainable harvest of fodder, NTFPs and fuel wood from forests along the Moyar River, and integrate them into panchayat budgets. This is the first time that community-based planning for sustainable natural resource management has taken place in these villages, and also the first time that stakeholders such as the Electricity Board and the Special Task Force have participated in such a process in Tamil Nadu.

Grantees are also helping tribal communities take advantage of provisions under the Tribal and Forest Rights Act to secure stronger legal recognition of their traditional rights to land and forest resources. In Nilgiris district, Keystone Foundation has established an NGO forum to raise issues related to the Tribal and Forest Rights Act with the district authorities, and helped tribal communities advocate for recognition of their ancestral domains. At the village level, the grantee has supported mapping of ancestral domains and traditional NTFP collection areas for community rights claims in five villages, and facilitated mapping of ancestral domains and submission of individual claims in a sixth village.

A similar approach is being followed by WWF India in Kerala’s Vazhachal Forest Division, where the Kadar tribal group is being assisted to set up a Community Forest Resource Use Area, under community rights. As of mid-2011, resource collection areas had been mapped for fish resources and various NTFPs, these had been integrated into the Vana Samrakshana Samiti (Joint Forest Management Committee) micro plans, and fire-break maintenance and fire protection activities under these plans were on-going. To assess and understand the impact of resource collection as well as protection measures, a group of Kadars is being trained to monitor their forest resources. This includes training the community on vegetation analysis, presence/absence surveys, transects and regeneration of NTFPs.

As discussed earlier, CEPF grantees are also providing communities with direct financial incentives in exchange for conservation actions on their part, under the framework of various innovative agreements and mechanisms.

In addition to providing direct economic benefits, CEPF grantees are also empowering local communities to respond to development trends and pressures that affect their wellbeing. For instance, Environics Trust is assisting communities impacted by faulty EIAs and approvals for development projects respond to issues of non-compliance, environmental damages and claims

for compensation. As of mid-2011, support had been provided to over 10 affected communities, and notable successes were recorded in two cases, both in Goa. In the first case, the environmental clearance for an iron ore mine was withdrawn by the Ministry of Environment and Forests, after the proponent was found to have concealed information about environmental impacts. In the second case, an iron ore and manganese ore mine was halted on procedural grounds. As well as helping mitigate negative impacts on local livelihoods and biodiversity, these achievements have established important legal precedence, and sent out a signal to developers about the need to ensure higher standards in the EIA process.

Projects working with local communities, especially those involving scheduled tribes, require significant up-front investment in trust building, consent seeking and capacity strengthening. In addition, projects introducing alternative livelihoods or other forms of economic innovation usually require some time to show results. Consequently, most projects are not expected to begin demonstrating quantifiable socioeconomic results until the beginning of 2012 onwards.

## **ENABLING CONDITION RESULTS TO DATE**

### ***Policy Improvement and Implementation***

Few CEPF grants in the Western Ghats have an explicit focus on policy advocacy or capacity building of government institutions for policy implementation. The RSPB project on vulture conservation included a dedicated advocacy component related to veterinary use of diclofenac but the main focus of this component became the private sector not policy makers at national and state levels. Another project with an explicit focus on policy improvement is one led by Equitable Tourism Options (EQUATIONS), which seeks to influence local government policy towards nature-based tourism development through conducting participatory action research on the impacts of tourism development in the vicinity of Mudumalai Tiger Reserve. As of mid-2011, the research component was on-going, and multi-stakeholder dialogues leading to new regulatory or management measures were planned for later in the year.

Several CEPF grantees have engaged with the Western Ghats Ecology Expert Panel (WGEEP), constituted by the Ministry of Ecology and Forests in 2010, under the chairmanship of Professor Madhav Gadgil. The purpose of the panel is to identify solutions for more equitable and sustainable development in the Western Ghats, including through the identification of 'Environmentally Sensitive Areas' and the formulation of policy recommendations. Several grantees were commissioned to write papers for the panel, as contributions to its report, and drew on experience from CEPF projects. These included: a paper by E. Somanathan of the Indian Statistical Institute (partner on the FERAL project piloting conservation auctions) entitled *Incentive-Based Approaches to Nature Conservation*; a paper by Ritwick Dutta and R. Sreedhar of Environics Trust entitled *A Framework for EIA Reforms in the Western Ghats*; and a paper by EQUATIONS entitled *Tourism in Forest Areas of Western Ghats*.

### ***Public Awareness Raising***

Public awareness raising has not been an explicit focus of CEPF grant making in the Western Ghats. Nevertheless, several grants feature awareness raising activities, as a means of disseminating information or building constituencies of support for conservation objectives. Under the Keystone Foundation grant, an integrated program of outreach activities has been implemented to increase awareness about good practices for conservation of biodiversity and sustainable use of natural resources. Over two years, 15 programs on conservation themes have been held at the Bee Museum in Ooty, reaching hundreds of participants from diverse backgrounds. Two nature interpretation centers have been established (one at Mudumalai Tiger Reserve and one at Longwood Shola in Kotagiri) as a site for nature camps and experiential

learning for local schools. Four village conservation centers have been established within the Nilgiri Biosphere Reserve, to hold regular trainings and conservation awareness programs for tribal communities in neighboring villages. In addition, village elders have been encouraged to act as community naturalists, passing on their knowledge about medicinal plants, wildlife and NTFPs to the young generation, who typically leave the village to study. Finally, a documentary film and book are in the pipeline, telling the story of the interdependencies between the Nilgiri Biosphere Reserve and the lives of local tribal communities. Due to its indigenous nature, the outreach program has been able to incorporate local issues and knowledge, making conservation messages relevant to the community. Indeed, the village conservation centers have become hubs of grassroots self-organization. For example, in Appankapu village, NTFP harvesters have formed a self-help group to promote sustainable harvesting practices and nursery raising.

### ***Civil Society Capacity Building and Involvement***

CEPF places a strong emphasis on engaging and strengthening the capacity of civil society to conserve biodiversity. While only a portion of grants have a direct focus on capacity building, all of them provide opportunities for building the capacity of civil society, as individuals, organizations or networks. As of June 2011, 27 civil society organizations (23 local and four international) and 19 individuals (all local) had been directly involved in implementing conservation projects as CEPF grantees. CEPF is tracking the impacts of its investments on local organizations by using the Civil Society Organizational Capacity Tracking Tool. The results from the 18 groups to have completed this self-assessment tool indicate that delivery is the biggest capacity gap facing local civil society organizations in the Western Ghats, followed by human resources and financial resources.

In addition to capacity building of CEPF grantees, some projects are building civil society capacity more widely. Some grantees are investing in organizational capacity. For example, AERF has strengthened the capacity of a network of local civil society organizations in the Sahyadri-Konkan Corridor in private forest conservation, ecosystem services, tree identification, seed collection and nursery establishment. Other grantees are investing in the capacity of individuals. For example, WCS has trained 21 forest department staff, 67 students and 88 civil society volunteers in systematic wildlife surveys through field workshops. The trainees have undertaken over 5,000 km of transect walks, and have shown keen interest in becoming involved in the monitoring of large mammal populations on a long-term basis. Similarly, IUCN has formed a professional network of 20 specialists on the freshwater biodiversity of the Western Ghats. The network members have received training in Red List assessment methodology, and have the skills to keep the Red List assessments of freshwater species up to date.

Finally, Keystone Foundation has catalyzed the establishment of a new civil society organization, to provide an umbrella for groups and individuals interested in the biodiversity of the Nilgiri Biosphere Reserve. This organization, the Nilgiri Natural History Society was launched in February 2010, by the Union Minister of Environment and Forests, Mr Jairam Ramesh. Since then, the membership of the society has steadily built up, and stood at 123 in June 2011.

## **PROGRESS TOWARDS LONG-TERM CONSERVATION GOALS**

Because biodiversity hotspots are, by definition, the biologically richest and most threatened terrestrial ecoregions on the planet, the scale of the conservation challenge in these places is, on average, greater than elsewhere. Also, in most hotspots, conservation efforts are constrained by limitations in government and civil society capacity, unsupportive political environments, and limited or unreliable funding. Therefore, conservation in the biodiversity hotspots is a long-term endeavor, requiring the combined efforts of many actors over long periods, to achieve the systematic changes necessary to reverse entrenched processes of biodiversity loss.

In order to better evaluate and focus its contributions to long-term, collaborative conservation efforts, CEPF has developed, and is in the process of testing, five long-term conservation goals for the regions where it invests. These goals are an expression of five key conditions that must be met in order for conservation efforts to meet with enduring success:

1. Global conservation priorities (i.e., globally threatened species, KBAs and conservation corridors) and best practices for their management are identified, documented, disseminated and used by public sector, civil society and donor agencies to guide their support for conservation in the region.
2. Local and national civil society groups dedicated to conserving global conservation priorities collectively possess sufficient organizational and technical capacity to be effective advocates for, and agents of, conservation and sustainable development for at least the next 10 years.
3. Adequate and continual financial resources are available to address conservation of global priorities for at least the next 10 years.
4. Public policies, the capacity to implement these, and the systems of governance in each individual country are supportive of the conservation of global biodiversity.
5. Mechanisms exist to identify and respond to emerging conservation issues.

The attainment of all five goals would not necessarily mean that biodiversity was no longer threatened but only that government, civil society and donors, collectively, were able to respond effectively to all present threats and any potential future threats that could reasonably be expected to arise. Assessment of progress towards these goals can help identify areas most in need of additional investment from CEPF.

Participants at the mid-term assessment workshops were asked to assess progress towards five criteria under each of the five goals, either using the suggested indicators or defining new ones, tailored to the context of the Western Ghats; the synthesized results are presented in Annex 4. To enable assessment of trends over the first three years of the CEPF investment phase, participants were asked to assess progress towards each criterion at two points in time: 2008 and 2011.

There was broad consensus that three years was quite a short period over which to observe significant change with regard to the long-term goals, and that more progress would be expected by the end of the five-year investment period. Nevertheless, it was notable that significant changes were observed with regard to five of the 25 criteria, and in all cases, these were positive. Specifically, under Goal 1 (conservation priorities), significant progress was observed with regard to global Red List assessments, with comprehensive assessments being completed for fishes, mollusks, odonates and aquatic plants, and also with regard to identification of KBAs, with potential KBAs for freshwater taxa being identified across the Western Ghats for the first time; in both cases, these improvements were directly attributable to CEPF grants.

Under Goal 2 (civil society capacity), significant progress was observed with regard to human resources, and management systems and strategic planning. Participants considered that civil society, collectively, had attained a higher level of technical competence over the last three years, and that operational capacity and management structures had gradually improved for NGOs (although not for community groups). These improvements were partly attributed to new funding sources becoming available for civil society, such as CEPF.

Finally, under Goal 5 (responsiveness to emerging issues), a significant improvement was observed with regard to discussion of conservation issues in the public sphere, accompanied by greater attention being paid to them by politicians. It was noted that public debate of conservation issues does not necessarily influence public policy but there are examples of this happening. These improvements were not directly attributable to investments by CEPF.

In spite of improvements in these areas, overall, there is still a long way to go before the long-term conservation goals for the Western Ghats are met. Of the 25 criteria assessed, only three of them were considered by participants in the mid-term assessment to have been fully met in 2011: legal environment for civil society (laws exist that allow for civil society to engage in the public policy-making and implementation process); education and training (domestic programs exist that produce trained environmental managers at secondary, undergraduate, and advanced academic levels); and public sphere (conservation issues are regularly discussed in the public sphere, and these discussions influence public policy). Of the remaining criteria, 12 were assessed as partially met and 10 were assessed as not met.

## **UPDATE OF CEPF INVESTMENT STRATEGY**

The ecosystem profile for the Western Ghats Region of the Western Ghats and Sri Lanka Hotspot was approved in 2007, based upon consultations that took place in 2003. Over the intervening eight years, there have been significant changes with regard to level of knowledge on biodiversity in the region, as well as to the actual status of certain species, sites and corridors, and the threats facing them. Participants at the mid-term assessment workshops were asked to review the CEPF investment strategy, particularly the investment priorities and the priority species, sites and corridors, to confirm that they were still high priorities for investment and to identify opportunities to respond to newly recognized or emergent issues. Throughout this exercise, the emphasis was on being conservative, and not adding to the list of CEPF priorities except in cases of the utmost urgency.

### ***Priority Species***

The ecosystem profile recognizes all 332 globally threatened species found in the Western Ghats as priorities for species-focused conservation action under Strategic Direction 2, although Investment Priority 2.2 is restricted to the 203 Critically Endangered and Endangered species. It was recognized that it was unrealistic for the available CEPF funding to support conservation action for anything more than a small proportion of the 332 globally threatened species in the region, and that there was a need to develop a more focused list of priorities prior to any future reinvestment in the region by CEPF. However, no attempt to prepare such a list was made during the mid-term assessment.

Of the 332 priority species identified in the ecosystem profile, 14 are no longer considered priorities for CEPF investment. Blackbuck (*Antelope cervicapra*), Eurasian otter (*Lutra lutra*), Travancore flying squirrel (*Petinomys fuscocapillus*), grizzled giant squirrel (*Ratufa macroura*) and spot-billed pelican (*Pelecanus philippensis*) have been reassessed from Vulnerable to Near Threatened. Bare-bellied hedgehog (*Hemiechinus nuditris*), brown palm civet (*Paradoxurus*

*jerdoni*), Malabar giant squirrel (*Ratufa indica*) and lesser kestrel (*Falco naumanni*) have been reassessed from Vulnerable to Least Concern. Wroughton's free-tailed bat (*Otomops wroughtoni*) short-webbed frog (*Fejervarya brevipalmata*) and cave catfish (*Horaglanis krishnai*) have all been reassessed as Data Deficient. Finally, Western Ghats populations of slender loris (*Loris tardigradus*) have been placed in grey slender loris (*L. lydekkerianus*), which is assessed as Least Concern. None of these species are the sole focus of species-focused CEPF grants, although brown palm civet, grizzled giant squirrel and Malabar giant squirrel are covered by small grants that address the conservation of a suite of species. In most cases, these reassessments are due to changes in information on the species (sometimes in parts of their ranges outside the Western Ghats), and not due to improvements in their status resulting from conservation action.

There are also a large number of globally threatened species in the Western Ghats that were either assessed as low risk or not evaluated at all when the ecosystem profile was prepared in 2003. This is particularly the case for freshwater taxa, for which the first comprehensive Red List assessment was only completed in 2011, under a CEPF grant. In any future revision of the ecosystem profile, these species would need to be included as species outcomes, and evaluated as potential species-level priorities for CEPF investment. Such an analysis was outside of the scope of the mid-term assessment, however.

### ***Priority Sites***

The ecosystem profile prioritizes 80 KBAs for site-based conservation action, and sets a target for all of these KBAs to have new or strengthened protection and management guided by a sustainable management plan. It was widely recognized during the mid-term assessment that this target is not realistic. In the first place, the funding allocation for the Western Ghats was too small to support the necessary work at this number of sites, and deliver on all the other targets in the logframe. In the second place, half of the priority sites are protected areas, where only a handful of civil society organizations have sufficiently strong relationships with the forest department to engage with the management planning process or promote improvements to management effectiveness. Workshop participants suggested that any future phases of CEPF investment focus outside protected areas, where civil society organizations have more latitude to innovate new conservation approaches, and there is a pressing need to secure and enhance ecological connectivity at the landscape scale. In addition, from a freshwater perspective, traditional protected areas are often not a suitable means of conservation, due to the high level of connectivity of many aquatic systems, whereas integrated basin management and maintenance of environmental flows may be more effective tools, which also provide greater opportunities to engage civil society. It was also suggested that a further prioritization of geographical priorities be undertaken prior to any future investment phase. Such an exercise was not attempted during the mid-term assessment, and no changes to the list of priority sites were made.

### ***Priority Corridors***

The ecosystem profile identifies five conservation corridors in the Western Ghats, all of which are eligible for CEPF investment. Based upon the discussions at the mid-term assessment workshops, it was agreed that these five corridors were all still high priorities for investment, and that they all provided significant opportunities to engage civil society in conservation. No changes to the list of priority corridors were made during the assessment.

### ***Investment Priorities***

The ecosystem profile defined eight thematic priorities for CEPF investment (termed 'investment priorities'), grouped into three 'strategic directions'. During the mid-term assessment workshops, the existing CEPF grant portfolio was reviewed, and participants were asked to identify gaps in the portfolio and specific opportunities for follow-on investments to build on and consolidate the

results of CEPF-supported work to date. Based upon these discussions, specific topics were identified as priorities for additional support under each investment priority, and these formed the basis of the call for proposals.

Under Investment Priority 1.1 (test pilot models of community and private reserves to achieve conservation outcomes at priority sites and critical links in unprotected areas of the Sahyadri-Konkan, Malnad-Kodagu, Mysore-Nilgiri and Anamalai Corridors), the following topics were prioritized for support:

- (i) develop and pilot conservation strategies for managing and restoring forests on private land in important ecological links, particularly between Sahyadri Tiger Reserve and Anshi-Dandeli Tiger Reserve, and in the Cardamom Hills;
- (ii) develop and support implementation of management plans for conservation reserves and community reserves designated through CEPF projects;
- (iii) explore and test opportunities for leveraging financial support for conservation, community and private reserves from public and private sector sources, with a particular emphasis on financial incentives for local communities to manage natural ecosystems sustainably.

Under Investment Priority 1.2 (promote partnerships to identify, evaluate, and advocate for suitable mechanisms that incorporate critical links (biological corridors) into the protected area network in the Periyar-Agasthyamalai, Mysore-Nilgiri and Malnad-Kodagu Corridors), the following topics were prioritized for support:

- (i) develop criteria and protocols for defining biological corridors, and use them to develop landscape-scale conservation strategies with broad ownership among government and civil society;
- (ii) pilot economic incentive mechanisms to encourage landholders to restore, enhance and preserve ecological connectivity on private lands;
- (iii) promote partnerships that empower civil society to identify and respond rapidly to threats to ecological connectivity arising from development projects (mining, energy, transport, etc.), including by promoting public participation in the Environmental Impact Assessment process.

Under Investment Priority 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), the following topics were prioritized for support:

- (i) build networks of local ‘conservation leaders’ who can take responsibility for ecological monitoring of priority sites after the end of CEPF funding;
- (ii) strengthen informal networks among civil society organizations to help them find a common voice on key conservation issues and facilitate engagement with forest departments and the proposed Western Ghats Authority;
- (iii) build capacity of civil society and government institutions to collect and analyze spatially explicit quantitative data for monitoring and assessment of biodiversity information.

Under Investment Priority 2.1 (monitor and assess the conservation status of globally threatened species with an emphasis on lesser-known organisms such as reptiles and fish), the following topic was prioritized for support:

- (i) ensure that species assessed as globally threatened under CEPF projects receive strengthened legal protection through upgrade or inclusion on the Wildlife Protection Act of India.

Under Investment Priority 2.2 (support efforts to conserve Critically Endangered and Endangered species through the creation and implementation of species recovery and management plans), the following topics were prioritized for support:

- (i) develop and implement conservation management plans for Alliance for Zero Extinction Sites (i.e. irreplaceable sites for the conservation of Critically Endangered and Endangered species; including ones identified during recent Red List assessments);
- (ii) consolidate efforts to conserve Critically Endangered and Endangered vulture species in situ.

Under 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), the following topic was prioritized for support:

- (i) evaluate the existing protected area network in one or more corridors for adequate globally threatened species representation, drawing on the results of CEPF projects and closely engaging the relevant forest department(s).

Under IP 2.4 (support interdisciplinary efforts to analyze and disseminate biodiversity data), the following topics were prioritized for support (in order to complement the Western Ghats Portal, the main activity supported under this investment priority):

- (i) produce local-language materials and use them to disseminate the results of on-going and completed CEPF projects among local communities, forest departments and other key stakeholders;
- (ii) develop networks of environmental journalists and use them to disseminate information on biodiversity conservation through the popular media.

## **CONCLUSION**

Thanks to strategic coordination by the RIT and inputs from review committee members and a large number of peer reviewers, a balanced, coherent portfolio of grants has been developed, which realizes the vision set out in the ecosystem profile. Although, in terms of investment, the portfolio was 88 percent complete after three years of CEPF implementation, delays in RIT start up and contracting grants meant that most grants were only between one and two years into implementation. Consequently, the conservation results to date documented during the mid-term assessment are more indicative of the *types* of impact the CEPF investment phase in the Western Ghats will have, than of the *scale* of impact.

In this regard, preliminary results over the first three years indicate that CEPF has good potential as a mechanism for catalyzing innovation, by forging partnerships among civil society, government and private sector and local communities, and piloting alternative solutions to biodiversity loss, rural poverty and food security. Of particular note are those grants that link

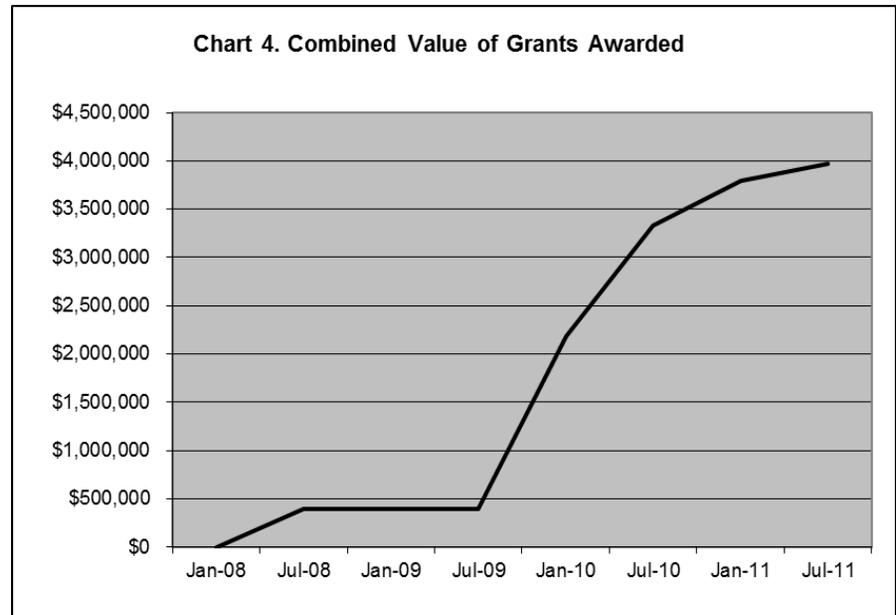
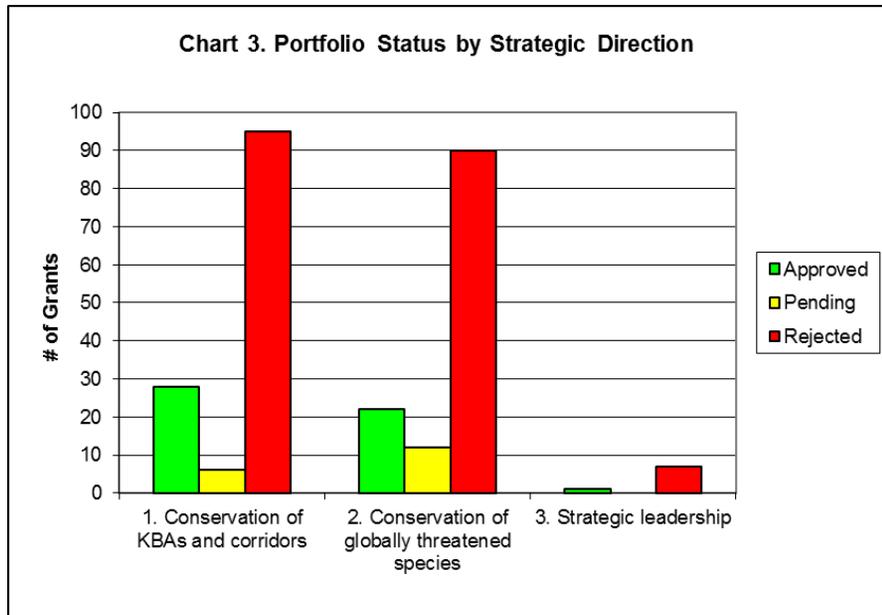
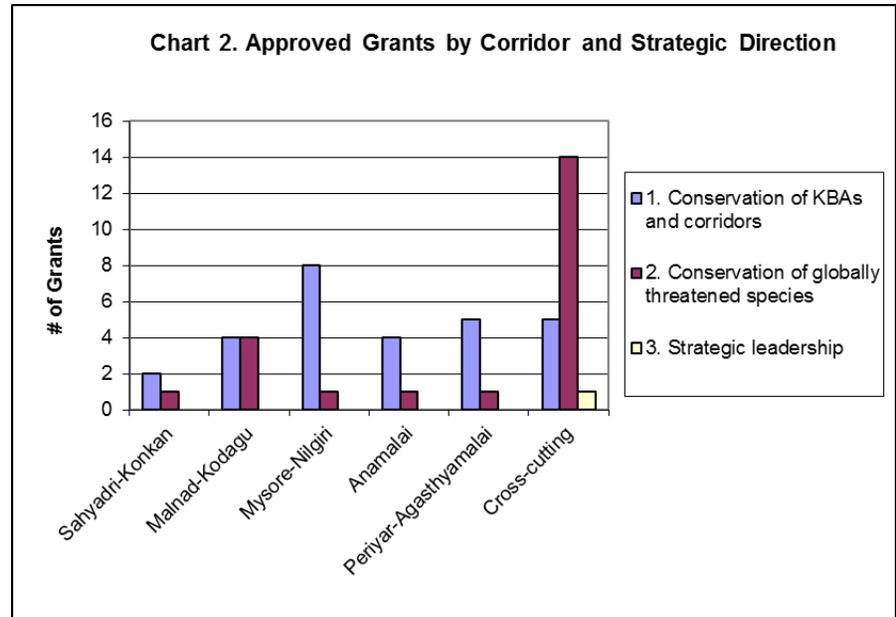
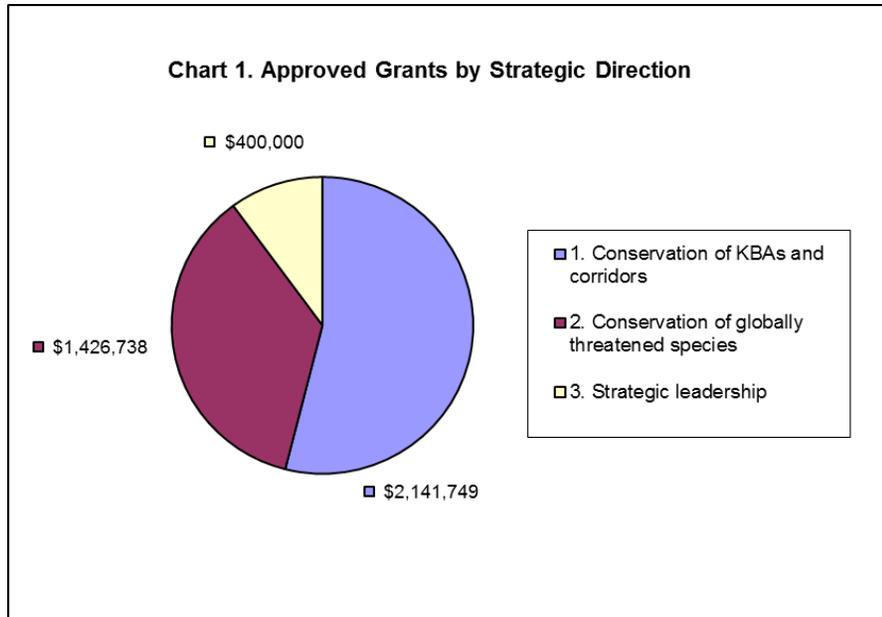
biodiversity with livelihoods, through piloting innovative, pro-poor financing mechanisms for forest conservation, such as conservation agreements and conservation auctions, and through establishing value chains for agricultural commodities sustainably produced in forest landscapes. Experience from many CEPF grants is relevant to the implementation of various national policy directions, including the National Rural Livelihoods Mission, the National Green India Mission and the Mahatma Gandhi National Rural Employment Guarantee Act. During the final two years of the investment phase, grantees will be encouraged and supported to disseminate relevant experience and integrate their approaches into relevant policies, particularly at local levels.

Alongside positive indications about the potential of CEPF as a catalyst for innovation, particularly in production landscapes outside protected areas, the results of the mid-term assessment also reveal that CEPF is having important impacts with regard to enhancing the information base for conservation and sustainable development planning, enhancing access to information, and promoting collaboration among civil society groups. In this regard, the initiation of the Western Ghats Portal, as a central repository of information relevant to the Western Ghats' environment, is a very significant development and one whose momentum is expected to build over the next two years.

With the participation of stakeholders, remaining gaps in the CEPF investment portfolio were identified during the mid-term assessment, along with opportunities to consolidate and build upon results during the first three years. These became the basis for the third call for proposals, announced on April 30, 2011, and the grants made under it will complete a well rounded portfolio that engages a broad spectrum of civil society partners, and demonstrates proof of concept of various innovative approaches, while delivering measurable conservation impacts on the ground.

The focus for the remainder of the CEPF investment phase will shift from grant making to grant implementation, and measurement, documentation and communication of impacts. CEPF investment in the Western Ghats can be expected to make a major contribution to conserving the region's unique biodiversity at species, site and landscape scales, through enhancing the availability and accessibility of biodiversity data, developing alternative solutions to conservation issues that provide opportunities for participation and benefit sharing for local people, and improving the condition of selected sites, critical habitat linkages and species populations.

**Annex 1 – CEPF Investment in the Western Ghats Region as of June 30, 2011**



## Annex 2 – Update of the Logical Framework for CEPF Investment in the Western Ghats Region

Objective	Targets	Progress
<p>Conserve and manage globally important biodiversity by strengthening the involvement and effectiveness of NGOs and other sectors of civil society in biodiversity conservation in the Western Ghats and Sri Lanka Biodiversity Hotspot: Western Ghats Region.</p>	<p>NGOs and civil society actors, including the private sector, actively participate in conservation programs guided by the CEPF ecosystem profile for the Western Ghats Region.</p> <p>Alliances and networks among civil society groups formed to avoid duplication of effort and maximize impact in support of the CEPF ecosystem profile for the Western Ghats Region.</p> <p>Development plans or policies influenced to accommodate biodiversity.</p> <p>80 key biodiversity areas have new or strengthened protection and management guided by a sustainable management plan.</p>	<p>To date, 46 civil society grantees have been awarded CEPF grants (including ATREE as the RIT). Of these, 4 are international organizations, 23 are local organizations and 19 (all small grantees) are individuals.</p> <p>5 alliances and networks have been forged:</p> <ul style="list-style-type: none"> <li>(i) The University of Delhi has formed a network of amphibian experts for the Western Ghats;</li> <li>(ii) Environics Trust has created a website called Western Ghats EIA Watch to network stakeholders to monitor and engage in the environmental approval process for development projects;</li> <li>(iii) Keystone Foundation has founded the Nilgiri Natural History Society to network and exchange information among organizations and individuals with interests in the Nilgiri Biosphere Reserve;</li> <li>(iv) Rainforest Alliance and Nature Conservation Foundation have fostered an alliance for setting standards for sustainably produced coffee and tea;</li> <li>(v) IUCN’s Freshwater Biodiversity Unit, through its local partner Zoo Outreach Organization, has created a network of freshwater biodiversity experts to update the IUCN Red List of Threatened Species.</li> </ul> <p>Commissioned papers have been submitted to the Western Ghats Ecology Expert panel, sharing experience from 3 CEPF projects.</p> <p>Management has been strengthened at 9 KBAs: Nagarhole; Bandipur; Bhadra; Kudremukh; Mookambika; Sharavati; Someshwara; Anshi; and Dandeli.</p>

Intermediate Outcomes	Intermediate Indicators	Progress
<p><b>Outcome 1:</b> Action by diverse communities and partnerships enabled to ensure conservation of key biodiversity areas and to enhance connectivity in the target corridors</p> <p>\$2,300,000</p>	<p>Percent of targeted protected areas with strengthened protection and management.</p> <p>Percent of projects outside protected areas that introduce and/or strengthen biodiversity in management practices</p> <p>Percent of projects that enable stewardship of biodiversity and ecosystem services by Indigenous and local communities in focus areas.</p> <p>Number of hectares of key biodiversity areas with strengthened protection and management.</p> <p>Number of hectares in newly established or expanded protected areas.</p> <p>Partnerships (including with state agencies) established to implement progressive science-based management, conservation and monitoring of priority sites.</p>	<p>Management has been strengthened at 9 protected areas, equivalent to 100 percent of those targeted to date: Nagarhole NP; Bandipur NP; Bhadra TR; Kudremukh WLS; Mookambika WLS; Sharavati WLS; Someshwara WLS; Anshi NP; &amp; Dandeli WLS.</p> <p>6 projects, equivalent to 23 percent of the 26 projects located outside protected areas, have integrated biodiversity conservation into management practices of production landscapes, including tea and coffee estates, reserve forests, and private forests.</p> <p>16 grants, equivalent to 31 percent of the 51 grants made to date, have begun to enable stewardship of biodiversity and ecosystem services by local communities.</p> <p>133,910 ha have strengthened protection and management spread across 10 KBAs: Amboli; Chandoli WLS; Dandeli WLS; Indira Gandhi WLS; Koyna WLS; Kotagiri - Longwood Shola; Parambikulam WLS; Satyamangalam FD; Sharavathi WLS; and Vazhachal FD.</p> <p>41,029 ha have been designated as protected areas: (i) Aghanashini Lion-tailed Macaque Conservation Reserve (29,952 ha); (ii) Bedthi Conservation Reserve (5,731 ha); (iii) Hornbill Conservation Reserve (5,250 ha); (iv) 4 sacred groves (totaling 96 ha).</p> <p>2 grantees (Wildlife Conservation Society and Amitha Bachan) have established partnerships with the forest department to implement biodiversity monitoring.</p>

<p><b>Outcome 2:</b> Conserve globally threatened species and habitats through systematic conservation planning and action</p> <p>\$1,800,000</p>	<p>Percent of targeted areas with strengthened protection and management.</p> <p>Number of hectares of key biodiversity areas with strengthened protection and management.</p> <p>Number of hectares in newly established or expanded protected areas.</p> <p>The status and distribution of globally threatened plant species investigated and results applied to planning, management, awareness raising and/or outreach.</p>	<p>Management has been strengthened at 9 KBAs, equivalent to 11 percent of the 80 targeted sites: Nagarhole; Bandipur; Bhadra; Kudremukh; Mookambika; Sharavati; Someshwara; Anshi; and Dandeli.</p> <p>133,910 ha have strengthened protection and management spread across 10 KBAs: Amboli; Chandoli WLS; Dandeli WLS; Indira Gandhi WLS; Koyna WLS; Kotagiri - Longwood Shola; Parambikulam WLS; Satyamangalam FD; Sharavathi WLS; and Vazhachal FD.</p> <p>41,029 ha have been designated as protected areas: (i) Aghanashini Lion-tailed Macaque Conservation Reserve (29,952 ha); (ii) Bedthi Conservation Reserve (5,731 ha); (iii) Hornbill Conservation Reserve (5,250 ha); (iv) 4 sacred groves (totaling 96 ha).</p> <p>Global threat assessments undertaken for 1,391 species, comprising 290 freshwater fishes, 77 mollusks, 171 odonates, 608 aquatic plants and 245 reptiles.</p>
<p><b>Outcome 3:</b> A regional implementation team effectively coordinates the CEPF investment in the Western Ghats Region.</p> <p>\$400,000</p>	<p>Number of groups receiving grants that achieve a satisfactory score on final performance scorecard.</p> <p>RIT performance in fulfilling the approved terms of reference.</p>	<p>Site visits have been conducted to 27 grantees (18 large and 9 small), 26 of which (96 percent) received a performance rating of “Met Targets” or higher.</p> <p>The RIT grant has 23 deliverables, spread across 9 components. As of June 30, 2011, progress towards 17 of these deliverables (74 percent) was either on target or ahead of target. Deliverables where progress was behind target were those related to site visits to grants and communication of results to forest departments and other stakeholders.</p>
<p><b>Strategic Funding Summary</b></p>	<p><b>Amount</b></p>	
<p><b>Total Budget Amount</b></p>	<p><b>\$4,500,000</b></p>	

### **Annex 3 – List of CEPF Approved Grants, as of June 30, 2011**

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

#### **Revitalizing the Indigenous Farming System to Enhance the Ecological and Livelihood Security in Anamalai Corridor of Western Ghats, Southern India**

Revitalize the capacity of tribal farmers for traditional farming, maintaining on-farm crop diversity and practicing sustainable harvesting of non-timber forest products harvest, and thereby improve the quality of critical habitats for biodiversity within the Palni Hills in the Anamalai Corridor.

Funding: \$16,338

Grant Term: 09/09 - 07/11

Grantee: ACT India Foundation

#### **Regeneration of Traditionally Used Indigenous Species to Reduce Pressure on the Mudumalai Tiger Reserve**

Create a nursery of traditionally used species such as various medicinal plants and tubers and provide saplings to the numerous tribal families and settlements along the edge of the critical tiger habitat of Gudalur Division near Mudumalai. Help tribal communities retain their traditional resource base while reducing pressure on tiger habitat.

Funding: \$14,997

Grant Term: 10/09 - 07/11

Grantee: Action for Community Organisation, Rehabilitation and Development

#### **Community-Based Conservation and Monitoring of Great Hornbills and Malabar Pied Hornbills and their Habitats of the Anamalai Part of Southern Western Ghats, India Through Empowering the Endemic “Kadar” Tribe**

Develop a long-term conservation strategy for hornbills and their habitat with the support of the Kadar tribe by assessing availability of hornbill nesting trees, nest characteristics, habitat details and threat factors. Activities include strengthening of ongoing participatory conservation activity in the Vazhachal forest division with the support of the Forest Department, the Kadar tribe and its community groups.

Funding: \$10,000

Grant Term: 09/09 - 10/10

Grantee: Amitha Bachan

#### **Critical Links: Forging Community-Civil Society Partnerships to Enhance Connectivity in the Sahyadri-Konkan Corridor**

Enhance ecological connectivity in the Sahyadri-Konkan Corridor by establishing a network of nongovernmental organizations to jointly develop and implement a plan of action for restoring connectivity, and use the “conservation agreements” approach to develop and implement innovative models for community-based conservation that create a steady stream of benefits for local people at Koyna and Chandoli wildlife sanctuaries and Amboli Reserve Forest.

Funding: \$155,510

Grant Term: 11/09 - 07/12

Grantee: Applied Environmental Research Foundation

**Building a Grassroots Constituency to Conserve the River Moyar in the Mysore-Nilgiri Corridor**

Build a constituency for conservation of riverine habitats along the River Moyar among local communities and create a basis for incorporating biodiversity values into local development planning by identifying and training local partners at the grassroots level, training and providing them with firsthand experience of biodiversity and socio-economic studies, and assisting them to develop “micro-plans” for conservation action.

Funding: \$40,756

Grant Term: 11/09 - 11/11

Grantee: Arulagam

**Identifying Critical Areas for a Landscape-Level Wildlife Corridor in Uttara Kannada District (Northern Part of Malnad-Kodagu Corridor to Sahyadri-Konkan Corridor) of Central Western Ghats**

Assess and advance conservation strategies for priority areas in the northern part of Malnad-Kodagu Corridor. Compile and analyze research results from the landscape over the years, including baseline ecological and diversity status data for Aghanashini and Bedthi river valleys. Take advantage of available legal options to propose appropriate management designations, such as conservation reserve.

Funding: \$9,900

Grant Term: 09/09 - 01/11

Grantee: B. L. Hegde

**Conservation of the Periyar-Agasthyamalai Corridor in the Southern Western Ghats: Knowledge Generation, Dissemination of Information and Capacity Building for Key Stakeholders**

Facilitate the long-term conservation of biodiversity in the Periyar-Agasthyamalai Corridor, by completing a GIS-based database on critical habitat links in the corridor, placing it into the public domain in a variety of accessible formats, and using this information base to implement programs of capacity building for state forest department staff and awareness raising among other key stakeholders.

Funding: \$79,998

Grant Term: 01/10 - 12/11

Grantee: Asian Nature Conservation Foundation

**Identifying Potential Areas as Conservation Reserves in Agasthyamalai Biosphere Reserve**

Funding: \$16,700

Develop criteria for the establishment of conservation reserves in the reserve forests of Agasthyamalai Biosphere Reserve and delineate and map potential conservation reserves.

Promote and strengthen partnerships and mechanisms for the management of biological corridors within and outside protected area networks in the biosphere reserve.

Grant Term: 09/09 - 11/10

Grantee: Centre for Environment and Development

**Conserving Native Trees in the Coffee Agroforestry Landscape of Kodagu**

Identify strategies to enable farmers to conserve native trees within privately owned coffee estates in Kodagu that harbor a high diversity of tree species, despite economic and legal constraints.

Produce scientific articles and develop linkages among stakeholders.

Funding: \$9,979

Grant Term: 10/09 - 08/10

Grantee: Cheryl Dwarka Nath

**Empowering Local Communities and Civil Society Organizations in Using Environmental Impact Assessment Process as a Conservation Tool in the Western Ghats**

Empower local communities and civil society groups in the Western Ghats to address the negative environmental impacts of development projects by strengthening their capacity to engage in the EIA process; monitoring and challenging EIA reports; conducting alternative “Citizens’ EIAs”; responding to issues of urgent concern for communities and groups impacted by faulty EIAs; and establishing a network of interested groups.

Funding: \$90,620

Grant Term: 10/09 - 05/13

Grantee: Environics Trust

**Community-Based Partnerships for Impact Assessment and Regulation of Tourism in Western Ghats**

Address the threats that unregulated tourism development poses to natural ecosystems within the Mysore-Nilgiri Corridor by researching environmental impacts and promoting appropriate regulatory and management measures to mitigate negative effects. Build capacity to assess tourism impacts at the grassroots level, including by establishing community-based Tourism Impact Assessment Cells at two pilot sites and disseminating results to a wide range of stakeholders.

Funding: \$50,000

Grant Term: 01/10 - 12/12

Grantee: Equitable Tourism Options

**Bridging the Shencottah Gap: How Payments for Ecosystem Services Can Restore Biodiversity outside Protected Areas in India**

Catalyze payments for ecosystem services mechanisms to strengthen ecological connectivity across the Shencottah Gap within the Periyar-Agasthyamalai Corridor. Identify critical linkages for wildlife movement across the gap, and then target payments to private landholders and community groups to restore, enhance and secure wildlife habitats within them. Monitor the effectiveness of these mechanisms, leverage funding to ensure sustainability and promote replication elsewhere.

Funding: \$499,443

Grant Term: 10/09 - 09/12

Grantee: Foundation for Ecological Research, Advocacy and Learning

**Promotion of Organic Farming through Introduction of Analog Forestry Concept in Kollegal Forest District**

Explore the possibilities of initiating Analog Forestry, a system of forest management that combines the values of local forest biodiversity with organic crop cultivation, in Kollegal Forest District. Activities include providing an overview of the causes of the biodiversity loss and current situation in the project area, including human-wildlife conflict and threats from chemical farming.

Funding: \$3,080

Grant Term: 10/09 - 03/11

Grantee: G. Krishna Prasad

**Capacity Building of Forest Dependent Communities through Organic Farming in Dandeli Wildlife Sanctuary of North Kanara District, Karnataka, India**

Identify major native species threatened by intensive chemical agriculture on selected farms in and around Dandeli Wildlife Sanctuary and assess the positive effect of organic farming on endemic biodiversity. Project also aims to document indigenous agricultural knowledge in

reducing the effect of chemicals on flora and fauna, while promoting organic farming with active participation of stakeholders and minimizing the use of inorganic inputs to crops.

Funding: \$9,040

Grant Term: 12/09 - 01/11

Grantee: Ganapati Bhat

### **Study of Distribution, Status and Dynamics of Private and Group Private Forests in Sahyadri-Konkan Corridor in Southern Maharashtra**

Form partnerships for protection of private and group private forests in the Sahyadri-Konkan to help maintain tree cover on group private forests, thereby enhancing biodiversity in priority sites and assisting in consolidation of corridors. Activities also include analyzing policy issues and making recommendations that will help to protect tree cover on private forests.

Funding: \$12,879

Grant Term: 09/09 - 06/11

Grantee: Jayant Kulkarni

### **Hill Biodiversity and Indigenous People: The God of Small Ecosystems**

Channel local interest in the biodiversity of the Nilgiri Biosphere Reserve toward addressing conservation issues through establishing a Nilgiri Natural History Society, implementing activities through the society with direct conservation benefits to local communities (including conservation awards, protection of sacred groves, nature interpretation sites and conservation villages) and developing a hub for outreach, training and extension in biodiversity conservation.

Funding: \$199,845

Grant Term: 10/09 - 09/11

Grantee: Keystone Foundation

### **Hill Wetlands in the Nilgiri Biosphere Reserve: A People's Conservation Initiative**

Preserve special habitats of three hill wetlands (Tarnadmund, Bison Swamp and Nedugula) of Nilgiris district, highlight their special status, and bring to the forefront lesser known wetland species and their importance in conservation programs, through implementing sustainable management plans with stakeholder communities for the protection and monitoring of these landscapes which today are fragmented and disregarded.

Funding: \$19,702

Grant Term: 04/11 - 06/12

Grantee: Keystone Foundation

### **Opportunities for Establishing Informal Conservation Arrangements in the Periyar-Agasthyamalai Corridor of the Southern Western Ghats**

Identify potential mechanisms and sites for informal biodiversity conservation arrangements in Ranni Forest Division in Periyar-Agasthyamalai Corridor. Develop, using an integrated approach involving ecological, socio-cultural and policy-level filters, a set of mechanisms that identify sites of ecological importance and long-term, socio-ecological persistence. Conduct a review of policies governing land use and develop a template for awareness generation in the area.

Funding: \$16,122

Grant Term: 08/09 - 05/11

Grantee: Meera Anna Oommen

### **Investigating Congruence between Biodiversity and Ecosystem Services across Production Landscapes in the Mysore-Nilgiri Landscape Corridor in the Western Ghats**

Assess patterns of and congruence between biodiversity (birds) and ecosystem services (carbon storage) outside protected areas in Kodagu. Document impacts on ecosystem services by land-use

intensification for increased economic returns, and provide a quantitative understanding of biodiversity and economic aspects for planning private reserve models on private lands, as well as state-supported models on public lands.

Funding: \$15,455

Grant Term: 10/09 - 12/10

Grantee: M. O. Anand

**Identification of Critical Crossing Points of Animals Along the Road in and Around Anamalai Tiger Reserve and to Suggest Relevant Mitigation Measures to Minimize Road Mortality**

Identify and implement mitigation measures to reduce the road mortality of endangered fauna in Anamalai Tiger Reserve, resulting from increasing tourism development, and contribute to the knowledge on the effects of traffic and road construction on forest animal movements.

Funding: \$17,532

Grant Term: 04/11 - 03/12

Grantee: Nature Conservation Foundation

**Fostering Sustainable Agriculture Practices for Conservation of Tropical Biodiversity in Plantation Landscapes of Western Ghats**

Demonstrate a market-based approach to enhancing ecological connectivity while safeguarding agricultural production by introducing the Rainforest Alliance's "Sustainable Agriculture Standard" into tea and coffee estates in the Anamalai and Mysore-Nilgiri Corridors, raising awareness and promoting adoption of sustainable agricultural practices, and developing a set of local indicators that adapts the Sustainable Agriculture Standard to the context of the Western Ghats.

Funding: \$200,000

Grant Term: 10/09 - 12/11

Grantees: Nature Conservation Foundation (\$115,300 grant), Rainforest Alliance (\$84,700 grant)

**Grassland and Shola Research and Restoration of the Palni Hills**

Evaluate the status of and restore three high altitude patches of forest land in the Palni Hills, presently occupied by invasive monocultures of eucalyptus and wattle, to create habitat for native biodiversity, especially Nilgiri tahr, while demonstrating to hill communities that restoration can provide vital resources and income. Research and identify suitable pioneer native species that can replace invasive wattle.

Funding: \$19,465

Grant Term: 09/09 - 01/11

Grantee: Palni Hills Conservation Council

**Motivating the Local Communities through Documentary Movie Campaign to Evolve Long-term Conservation Strategies in the Community and Private Reserves and Achieve Conservation Outcomes at Unprotected Sites in Malnad-Kodagu Corridor**

Identify and evaluate the community-induced threats to biodiversity sites in Malnad-Kodagu Corridor. Suggest locally adaptable threat mitigation mechanisms in a documentary film and promote protection of biodiversity sites from major landscape level threats, like proposed mega and mini hydroelectric projects, through screenings among local communities and different stakeholders.

Funding: \$19,729

Grant Term: 05/11 - 11/11

Grantee: Samvada

**Improving Protected Area Effectiveness through Enhanced Civil Society Support and Rigorous Monitoring of Wildlife Populations and Conservation Threats**

Carry out rigorous scientific monitoring to assess the status of several species and levels of conservation threats in the Sahyadri-Konkan, Malnad-Kodagu and Mysore-Nilgiri Corridors within Karnataka State. Involve and train civil society groups and the state forest department to enhance their technical capability to monitor and manage these areas in addition to providing critical management inputs.

Funding: \$350,000

Grant Term: 09/09 - 08/12

Grantee: Wildlife Conservation Society

**Assessing the Status and Distribution of Large Mammals in Highway and Its Environs, Southern Western Ghats**

Identify eco-sensitive and potential corridors and contiguity within and with adjacent landscapes in Highway and its environs. Develop plausible science-based management mechanisms with support of data on large mammal movement patterns, species-habitat interactions and threats. Disseminate results and findings to local stakeholders and the Forest Department through a series of workshops.

Funding: \$19,779

Grant Term: 04/11 - 10/12

Grantee: Wildlife Information Liaison Development Society

**Conservation Plan for Securing Selected Elephant Corridors in Southern Western Ghats**

Facilitate the conservation of critical elephant corridors within the Mysore-Nilgiri Corridor by evaluating the current status of each corridor, assessing local communities' dependence on them, monitoring usage by elephants and other animals and preparing plans for securing them. Fix signage along each corridor to inform people about their importance, advise them how to minimize impacts on elephants and warn drivers.

Funding: \$45,000

Grant Term: 12/09 - 05/11

Grantee: Wildlife Trust of India

**Communities and Critical Corridors: Maintaining Landscape Connectivity in the Southern Western Ghats through Collaborative Approaches**

Take advantage of recent legislative changes to secure community rights to forest resources and establish new models of community-based conservation areas covering 30,000 ha. Facilitate the formal establishment of these areas, and strengthen the local institutions necessary to manage them. Develop participatory resource use, management and monitoring plans for the areas, as well as alternative livelihood options for local people.

Funding: \$199,980

Grant Term: 07/10 - 06/13

Grantee: World Wide Fund for Nature - India

***Strategic Direction 2: Improve the conservation of globally threatened species through systematic conservation planning and action***

**Ecological and Anthropogenic Correlates of Large Carnivore Occupancy in the Sahyadri-Konkan Corridor**

Quantify the ecological and anthropogenic correlates of occupancy for tigers, leopards, dholes and sloth bears in the Sahyadri-Konkan Corridor to generate a scientifically rigorous estimate of species distribution. Activities include identifying habitat variables underlying occupancy and

critical sites for interventions, disseminating the results of the research to various stakeholders and supporting efforts to conserve threatened species through management plans.

Funding: \$19,721

Grant Term: 08/09 - 07/11

Grantee: Advait Edgaonkar

### **Ecology and Conservation of Small Carnivores in the Western Ghats**

Address a critical knowledge gap by investigating the biology and ecology of cryptic and elusive small carnivore species endemic to the region. Investigate aspects of the species' biology and ecology and construct a model to predict and understand current patterns of persistence and identify areas for species-based conservation while substantially building and engaging local capacity and stakeholders toward site-based conservation.

Funding: \$17,260

Grant Term: 01/10 - 12/11

Grantee: Devcharan Jathanna

### **Gap Analysis of the Periyar-Agasthyamalai Landscape for Arboreal Mammal Conservation**

Identify forests outside the protected area network in the Periyar-Agasthyamalai Corridor that are crucial for conservation of threatened arboreal mammals. Assess the existing Protected Areas for adequate representation of these species, while also determining current distribution of arboreal mammals in this landscape. Use information generated to formulate site specific conservation and management plans for these threatened species.

Funding: \$19,047

Grant Term: 08/11 - 07/12

Grantee: Foundation for Ecological Research, Advocacy and Learning

### **Spatial decision support for conservation planning in the Western Ghats**

Build a spatial data set to support decisions made on the conservation of ecologically sensitive areas and ecosystem services by the Western Ghats Panel. Available information from CEPF partners and publicly available data sets will be compiled, analyzed and shared under an appropriate Creative Commons license. Research priorities of the collaborating institutions will guide the data collection efforts to facilitate publications in peer reviewed journals.

Funding: \$19,925

Grant Term: 09/10 - 04/11

Grantee: Foundation for Ecological Research, Advocacy and Learning

### **Western Ghats Biodiversity Open Collaborative Information System**

Create an open-access, web-based portal on the biodiversity and ecosystem service values of the Western Ghats, populated and maintained by an active community of data-holders. Leverage Web 2.0 technologies to facilitate a transformation in data availability that facilitates mainstreaming of biodiversity into development sectors, empowers citizen engagement in public policy development, and fosters citizen science initiatives by amateur naturalists.

Funding: \$448,486

Grant Term: 11/10 - 06/13

Grantees: French Institute of Pondicherry (\$241,303 grant), Strand Life Sciences Pvt. Ltd. (\$207,183 grant)

**Development of Conservation Strategy for a Newly Discovered Lion-Tailed Macaque Population in Sirsi-Honnava, Western Ghats: Understanding of the Impact of Non-Timber Forest Product Collection on the Lion-Tailed Macaques**

Study the impact of non-timber forest product collection on the feeding ecology of a newly discovered population of the Endangered lion-tailed macaque, an endemic primate restricted in its distribution to certain forest pockets in the Western Ghats. Help formulate a conservation action plan for this newly discovered and, possibly, largest population, which is confined to unprotected forests under intense pressure.

Funding: \$13,550

Grant Term: 08/09 - 04/11

Grantee: H. N. Kumara

**Addressing the “Wallacean Shortfall” for Small Vertebrates in the Western Ghats Across Space and Time**

Address the “Wallacean shortfall” (i.e. the lack data on the geographic distribution of taxa) with respect to key reptile and amphibian species in the Western Ghats through systematic field assessments of poorly known taxa, predictive distribution modeling, producing field guides, and feeding the results into other conservation planning and priority-setting exercises.

Funding: \$149,716

Grant Term: 10/09 - 03/13

Grantee: Indian Institute of Science

**Freshwater Biodiversity Assessments in the Western Ghats: Fishes, Molluscs, Odonates, and Plants**

Provide essential information for guiding decisions on the conservation and sustainable management of freshwater biodiversity in the Western Ghats by assimilating data on the distribution, conservation status and livelihood values of fishes, mollusks, odonates and aquatic plants, using them to define priority areas for conservation and best practices for management, and linking the results to conservation and sustainable development planning.

Funding: \$179,756

Grant Term: 11/09 - 09/11

Grantee: International Union for Conservation of Nature and Natural Resources

**Evaluation of Aquatic Insect Diversity in Natural Water-Filled Tree Holes and Their Artificial Analogues in a Tropical Forest of Western Ghats**

Perform a much-needed scientific evaluation on the dynamics of the canopy-aquatic insects and other fauna of natural tree holes (phytotelmata) and their artificial analogues. Project explores how insects in tree holes are active colonizers trapped in a risky, mostly ephemeral habitat and along with other fauna play a significant role in the ecosystem functioning in the forest canopy.

Funding: \$9,628

Grant Term: 09/09 - 11/10

Grantee: K. S. Anoop Das

**Bat Communities in the Western Ghats: Status, Ecology and Conservation**

Quantify and characterize spatial variation in bat communities, and develop echo-location call libraries for bats in priority conservation areas in the Western Ghats. Contribute to an enhanced recognition of the biological value of this unstudied taxonomic group, and evaluate the efficacy of the current protected area network for bat conservation in the region.

Funding: \$15,740

Grant Term: 12/09 - 01/11

Grantee: Mahesh Sankaran

**Tarantula (Araneae: Theraphosidae) Spider Diversity, Distribution and Habitat-Use: A study on Protected Area Adequacy and Conservation Planning at a Landscape Level in the Western Ghats of Uttara Kannada District, Karnataka**

Document the diversity, distribution and habitat use of theraphosid species of tarantula spiders in various land-use categories in the Uttara Kannada district to help in population assessments of Indian theraphosid spiders of the region, creating awareness among local citizens about the importance of conserving tarantulas and improving conservation efforts for these poorly known but globally threatened taxa.

Funding: \$8,770

Grant Term: 09/09 - 10/10

Grantee: Manju Siliwal

**Cinnamon Plant Resources of the Central Western Ghats: Impact Assessment, Livelihood Issues and Conservation through a Participatory Approach**

Assess the impact of harvesting *Cinnamomum malabattrum* and *C. riparium* and related livelihood issues, prospects for green-labeling and promotion of the sustainable harvest and multiplication of species in agro-forestry systems through participatory approaches. Outcomes expected include knowledge of cinnamon regeneration status, level of disturbance and impact on regeneration, sustainable harvesting methods and importance of resources to the family income.

Funding: \$12,000

Grant Term: 09/09 - 07/11

Grantee: Narasimha Hegde

**Assessing Biodiversity Value of Production Landscapes and Non-protected Forests on Sky Islands by Establishing Occurrence of Cryptic, Threatened Birds**

Investigate how threatened and endemic bird species use remnant forest patches in shola habitats on sky islands that have been fragmented and disconnected by the formation of commercial plantations from a century ago. Provide species lists to private land-holders to increase awareness and value of their landscapes.

Funding: \$19,524

Grant Term: 02/11 - 01/12

Grantee: National Institute of Advanced Studies

**Pilot Study for Mitigation of Human-Elephant Conflict in Affected Areas of Northern Karnataka and Southern Maharashtra, India**

Address the issue of conservation of the Endangered Asian elephant in the fragmented landscape of northern Karnataka and southern Maharashtra by involving local communities in conflict mitigation along with the Forest Department. Identify and implement activities that will motivate local communities, create social awareness and strengthen the efforts of the Forest Department toward elephant conservation.

Funding: \$14,800

Grant Term: 10/09 - 10/11

Grantee: Prachi Mehta

**An Investigation into the Taxonomy of Malabar Civet (*Viverra civettina*)**

Examine the taxonomic status and validity of Malabar civet (*Viverra civettina*), a Critically Endangered species that is endemic to the Western Ghats. Determine whether Malabar Civet is a valid species, and use results to inform conservation and management decisions.

Funding: \$12,123

Grant Term: 02/10 - 07/11

Grantee: R. Nandini

**Status of Freshwater Fishes in the Kerala Region of the Western Ghats Hotspot: Determining Distribution, Abundance and Threats to Data Deficient Species from 10 Major River Systems**

Assess the status of data deficient freshwater fish from 10 major rivers of Kerala as they remain one of the most poorly studied and documented taxa in the Western Ghats. Project will generate baseline information to help in systematic conservation planning and action, as well as monitoring and assessing the conservation status of globally threatened species of fish.

Funding: \$16,995

Grant Term: 09/09 - 10/11

Grantee: Rajeev Raghavan

**Identifying Historic and Present Connectedness in the Unique Montane “Sky-Island” Ecosystem in the Western Ghats**

Examine connectedness and the effects of anthropogenic isolation, as well as historical geographic isolation, on populations of the endemic white-bellied shortwing using microsatellite and mtDNA markers from different “sky-islands,” including 22 CEPF priority sites. Sky-island refers to shola forests fragments on mountain tops isolated by anthropogenic forces.

Funding: \$17,820

Grant Term: 08/09 - 01/12

Grantee: Robin Vijayan

**Averting the Extinction of Critically Endangered Vultures in the Western Ghats**

Avert the extinction of Critically Endangered vultures in the Western Ghats through a combination of in situ conservation measures and ex situ conservation breeding. Establish the size, status and threat situation of vulture populations in the Western Ghats, expand a captive breeding program aimed at providing birds for reintroduction and advocate for key policy responses at national and state levels.

Funding: \$99,957

Grant Term: 01/10 - 06/11

Grantee: Royal Society for the Protection of Birds

**Linking Fragmented Fresh-water Swamps through the Restoration of Micro-Corridors in Central Western Ghats**

Enhance ecological connectivity within the Malnad-Kodagu Corridor and increase the genetic viability of populations of five globally threatened plant species by demonstrating approaches for restoring fragmented networks freshwater swamps. To this end, develop techniques for planning and undertaking habitat restoration, pilot them within selected micro-corridors and build capacity among grassroots institutions to sustain habitat restoration efforts into the long term.

Funding: \$99,996

Grant Term: 01/10 - 04/13

Grantee: Snehakunja Trust

**Western Ghats Network of Protected Areas for Threatened Amphibians**

Synthesize available information and use it to prepare reference materials and plans to guide amphibian conservation efforts. Produce a comprehensive guide to the taxonomy, ecology and conservation of Western Ghats amphibians, and a national plan for their management. Map sites in critical need of protection to avoid further amphibian extinctions and advocate for the establishment of a dedicated amphibian sanctuary.

Funding: \$120,000

Grant Term: 10/09 - 09/12

Grantee: University of Delhi

**Enhancing Knowledge about the Conservation Status of Globally Threatened Species in the Western Ghats, with a Particular Emphasis on Reptiles**

Assess the global conservation status of all 265 reptile species found in the Western Ghats, compile detailed information on each species and make the results freely available through the IUCN Red List site and other online portals. Solicit and publish articles on Western Ghats biodiversity in an open-access, peer-reviewed journal, provide tutoring to authors and disseminate widely among key stakeholders.

Funding: \$111,925

Grant Term: 10/09 - 12/11

Grantee: Wildlife Information Liaison Development Society

***Strategic Direction 3: Provide strategic leadership and effective coordination of CEPF investment through a regional implementation team***

**CEPF Regional Implementation Team in the Western Ghats**

Provide strategic leadership and local knowledge to build a broad constituency of civil society groups working across institutional and geographic boundaries toward achieving the conservation goals described in the ecosystem profile for this region. Major functions include assisting civil society groups in designing, implementing, and replicating successful conservation activities; reviewing all grant applications; and awarding small grants.

Funding: \$400,000

Grant Term: 05/08 - 04/13

Grantee: Ashoka Trust for Research in Ecology and the Environment

#### Annex 4 – Progress towards Long-term Goals for CEPF Investment in the Western Ghats

##### Goal 1: Conservation priorities

Criterion	2008		2011		Notes
i. <b>Globally threatened species.</b> Comprehensive global threat assessments conducted for all terrestrial vertebrates, vascular plants and at least selected freshwater taxa.	X	Not met		Not met	In 2008, only mammals, birds and amphibians had been comprehensively assessed. By 2011, assessments for reptiles and four major freshwater taxa (fish, mollusks, odonates and aquatic plants) had been completed under CEPF grants. The major gap that remains is terrestrial plants: only 332 plants assessed – less than 10% of total. Another gap is freshwater crabs.
		Partially met	X	Partially met	
		Fully met		Fully met	
ii. <b>Key Biodiversity Areas.</b> KBAs identified, covering, at minimum, terrestrial, freshwater and coastal ecosystems.	X	Not met		Not met	In 2008, terrestrial KBAs had been documented during the profiling process, although gaps remained: (1) Gujarat; and (2) Maharashtra part of Sahyadri-Konkan corridor (especially around Harishchandragarh WLS and Bhimashankar WLS). In 2011, freshwater KBAs will be identified under CEPF grants. There is still no broad acceptance of KBAs among civil society and the forest department, nor of the criteria used to define them
		Partially met	X	Partially met	
		Fully met		Fully met	
iii. <b>Conservation corridors.</b> Conservation corridors identified in all parts of the region where contiguous natural habitats extend over scales greater than individual sites, and refined using recent land cover data.		Not met		Not met	In 2008, five conservation corridors had been defined under the profiling process but they were not specifically recognized by government. This remains the case today. There is a need for agreement on criteria/protocols for defining corridors (which should be based on multiple conservation targets), and for these to be used to refine the five corridors.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
iv. <b>Conservation plans.</b> Global conservation priorities incorporated into national or regional conservation plans or strategies developed with the participation of multiple stakeholders.	X	Not met	X	Not met	A National Biodiversity Strategy and Action Plan has been drafted but not adopted or implemented. No conservation plan or strategy for the Western Ghats has yet been defined, although one may come out of the Western Ghats Ecology Expert Panel (WGEEP) process. This process is government endorsed and has broad public consultation.
		Partially met		Partially met	
		Fully met		Fully met	
v. <b>Management best practices.</b> Best practices for managing global conservation priorities (e.g., sustainable livelihoods projects, participatory approaches to park management, invasive species control, etc.) are introduced, institutionalized, and sustained at priority KBAs and corridors.	X	Not met	X	Not met	Good practices are in place at 10 to 20% of priority KBAs. A few protected areas have good-practice co-management arrangements, such as Eco-Development Committees. However, financial sustainability is an issue, and most co-management structures that were established have ceased functioning. Good practice approaches for community reserves and conservation in production landscapes have been piloted at a few sites outside protected areas.
		Partially met		Partially met	
		Fully met		Fully met	

## Goal 2: Civil society capacity

Criterion	2008		2011		Notes
i. <b>Human resources.</b> Local and national civil society groups collectively possess technical competencies of critical importance to conservation.	X	Not Met		Not met	Civil society, collectively, has attained a higher level of technical competence between 2008 and 2011. However, civil society groups involved in conservation are still few in number, many groups need more technical expertise, many technical staff are on short-term contracts due to funding constraints, and capacity building is diluted by staff turnover. Policies and knowledge about conservation have not been disseminated to communities.
		Partially met	X	Partially met	
		Fully met		Fully met	
ii. <b>Management systems and strategic planning.</b> Local and national civil society groups collectively possess sufficient institutional and operational capacity and structures to raise funds for conservation and to ensure the efficient management of conservation projects and strategies.	X	Not Met		Not met	Operational capacity and management structures are gradually improving for NGOs but not for community groups. Between 2008 and 2011, the number of proposals generated by NGOs increased, due to new funding sources, such as CEPF. However, there remain major challenges to raising long-term funding, especially at local levels, and, even with funding, many groups struggle to deliver conservation outputs effectively. There remain few examples of communities self organizing and engaging in conservation.
		Partially met	X	Partially met	
		Fully met		Fully met	
iii. <b>Partnerships.</b> Effective mechanisms exist for conservation-focused civil society groups to work in partnership with one another, and through networks with local communities, governments, the private sector, donors, and other important stakeholders, in pursuit of common objectives.		Not met		Not met	In 2008, some informal civil society networks (e.g. Save the Western Ghats movement) existed among NGOs. By 2011, new cooperation mechanisms had begun to emerge (e.g. the Western Ghats Portal), and were moving towards more formal partnerships. There are major barriers to building partnerships, including territoriality and reluctance to share data. There is a need for greater networking and data sharing, and for strengthening of links between NGOs and communities.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
iv. <b>Financial resources.</b> Local civil society organizations have access to long-term funding sources to maintain the conservation results achieved via CEPF grants and/or other initiatives, through access to new donor funds, conservation enterprises, memberships, endowments, and/or other funding mechanisms.	X	Not met	X	Not met	Availability of financial resources improved slightly between 2008 and 2011 due to the availability of grant funding from CEPF but it remains limited. Small, local groups face severe financial challenges, and need capacity building in fundraising. Project funding is generally only available for up to three years, which is a major barrier to long-term planning and delivery. There is a need for longer-term, program funding.
		Partially met		Partially met	
		Fully met		Fully met	
v. <b>Transboundary cooperation.</b> In multi-country hotspots, mechanisms exist for collaboration across political boundaries at site, corridor and/or national scales. (Note: the Western Ghats and Sri Lanka Hotspot spans India and Sri Lanka).	X	Not met	X	Not met	Within India, transboundary cooperation does occur between neighboring states, and mechanisms exist to promote cooperation at this scale (e.g. the WGEEP). Between India and Sri Lanka, few, if any, mechanisms for transboundary cooperation exist; all attempts at cooperation have made little progress.
		Partially met		Partially met	
		Fully met		Fully met	

### Goal 3: Sustainable financing

Criterion	2008		2011		Notes
i. <b>Public sector funding.</b> Public sector agencies responsible for conservation in the region have a continued public fund allocation or revenue-generating ability to operate effectively.		Not met		Not met	Since 2008, new sources of public sector funding for conservation have become available, such as CAMPA and Green India Mission. However, these are being released slowly. The government still perceives forests as a low-income resource and does not invest in them sufficiently. Most public-sector funding for conservation is invested in staff costs and infrastructure, with little for operational management.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
ii. <b>Civil society funding.</b> Civil society organizations engaged in conservation in the region have access to sufficient funding to continue their work at current levels.	X	Not met	X	Not met	Since 2008, there has been an increase in funding for research. However, few funding sources dedicated to conservation are available, and these are mainly for short-term projects. Many smaller NGOs have very limited funded, while a few larger, mainly urban, NGOs secure the majority of funds. FCRA regulations are a major barrier to accessing foreign funds. Between 2008 and 2011, changes to the direct tax code and the FCRA have made it more difficult for civil society to access funding. More philanthropic funding and endowment funds are needed.
		Partially met		Partially met	
		Fully met		Fully met	
iii. <b>Donor funding.</b> Donors other than CEPF have committed to providing sufficient funds to address global conservation priorities in the region.		Not met		Not met	Other than CEPF, there are no other major funding agencies supporting biodiversity conservation at the landscape scale in the Western Ghats. Few donor agencies make long-term commitments, causing discontinuity in long-term conservation efforts on the ground.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
iv. <b>Livelihood alternatives.</b> Local stakeholders affecting the conservation of biodiversity in the region have economic alternatives to unsustainable exploitation of natural resources.	X	Not met	X	Not met	More funding opportunities for alternative livelihoods for local communities have emerged since 2008, most notably the National Rural Employment Guarantee Act. However, only at a small proportion of CEPF priority site have local communities adopted alternatives to unsustainable exploitation of natural resources.
		Partially met		Partially met	
		Fully met		Fully met	
v. <b>Long-term mechanisms.</b> Financing mechanisms (e.g., trust funds, revenue from the sale of carbon credits, etc.) exist and are of sufficient size to yield continuous long-term returns for at least the next 10 years.	X	Not met	X	Not met	The potential of carbon financing to support forest conservation has not yet been realized. Most carbon offset funding is being targeted at clean energy not avoided deforestation. Revenue from tourism to protected areas is not being channeled towards conservation efforts.
		Partially met		Partially met	
		Fully met		Fully met	

#### Goal 4: Enabling environment

Criterion	2008		2011		Notes
i. <b>Legal environment for conservation.</b> Laws exist that provide incentives for desirable conservation behavior and disincentives against undesirable behavior.		Not met		Not met	There has been no significant change in the legal environment for conservation between 2008 and 2011. Adherence to Multilateral Environmental Agreements is fairly good, and these are reflected in national laws. Strong national conservation laws exist, although these mainly focus on disincentives (sanctions) for undesirable behavior. Some laws (e.g. Forest Rights Act) create positive incentives.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
ii. <b>Legal environment for civil society.</b> Laws exist that allow for civil society to engage in the public policy-making and implementation process.		Not met		Not met	The Right To Information Act and other laws create opportunities for civil society to influence policy making and implementation. Many civil society groups do take advantage of these opportunities and participate. New opportunities will be created with the establishment of the National Green Tribunal in 2011. There is a trend of increasing control of NGOs by government.
		Partially met		Partially met	
	X	Fully met	X	Fully met	
iii. <b>Education and training.</b> Domestic programs exist that produce trained environmental managers at secondary, undergraduate, and advanced academic levels.		Not met		Not met	There are about 10 training programs in India on environmental management and ecology exist but few are of high quality. Lack of employment opportunities is a disincentive to students following these courses. Almost 100% of senior leadership positions in conservation agencies are staffed by Indian nationals.
		Partially met		Partially met	
	X	Fully met	X	Fully met	
iv. <b>Transparency.</b> Relevant public sector agencies use participatory, accountable, and publicly reviewable process to make decisions regarding use of land and natural resources.		Not met		Not met	Frameworks exist for public participation in development decision making. However, public consultation does not always take place as mandated and, where it does, decision making is typically opaque. Protected area managers are generally not open to civil society input regarding management decisions.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
v. <b>Enforcement.</b> Designated authorities are clearly mandated to manage the protected area system(s) in the region and conserve biodiversity outside of them, and are empowered to implement the enforcement continuum of education, prevention, interdiction, arrest, and prosecution.	X	Not met	X	Not met	Designated authorities (the Ministry of Environment and Forests at the national level and the Forest Department at state levels) have a clear mandate to manage the protected area system. However, these agencies are constrained by insufficient, under-resourced, under-trained and unmotivated staff. Most protected areas have demarcated boundaries but regular enforcement patrolling does not always occur.
		Partially met		Partially met	
		Fully met		Fully met	

### Goal 5: Responsiveness to emerging issues

Criterion	2008		2011		Notes
i. <b>Biodiversity monitoring.</b> Nationwide or region-wide systems are in place to monitor status and trends of the components of biodiversity.		Not met		Not met	Between 2008 and 2011, there has been a qualitative increase in the resolution of baseline data but no increase in coverage. Population monitoring is in place for a small number of charismatic large mammals (tiger, elephant, etc.) across the region; for other species, monitoring is patchy or non-existent. Some permanent vegetation plots are in place to enable long-term monitoring of habitat condition but these are limited in scale. There is a need for more community involvement in monitoring, standard protocols, and inclusion of more threatened species.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
ii. <b>Threats monitoring.</b> Nationwide or region-wide systems are in place to monitor status and trends of threats to biodiversity.	X	Not met	X	Not met	Monitoring of wildlife trade, invasive species and changing land-use patterns is taking place on a small scale and short-term. One exception is the daily fire monitoring being conducted by Tamil Nadu Forest Department. Monitoring of proximate threats within protected areas in Karnataka has been initiated under a CEPF grant.
		Partially met		Partially met	
		Fully met		Fully met	
iii. <b>Ecosystem services monitoring.</b> Nationwide or region-wide systems are in place to monitor status and trends of ecosystem services.	X	Not met	X	Not met	This remains an emerging field in India and needs more attention. There have been isolated studies, such as on coffee pollination and groundwater recharge but no long-term monitoring at scale. There is a need to establish programs to value and monitor climate, water, pollination and provisioning services of forests and other natural habitats.
		Partially met		Partially met	
		Fully met		Fully met	
iv. <b>Adaptive management.</b> Conservation organizations and protected area management authorities demonstrate the ability to respond promptly to emerging issues.		Not met		Not met	Some conservation organizations began working on emerging issues over the period 2008 to 2011. Adaptive management often takes place in protected areas that have charismatic species.
	X	Partially met	X	Partially met	
		Fully met		Fully met	
v. <b>Public sphere.</b> Conservation issues are regularly discussed in the public sphere, and these discussions influence public policy.		Not met		Not met	Between 2008 and 2011 there has been an increase in public debate of conservation issues in the media, which is highlighting these issues and sensitizing the general public to them. Politicians are also paying more attention to conservation issues. Public debate of conservation issues rarely influences public policy but there are examples of this happening, such as the cancellation of Athirapally dam (2001) and the moratorium on Bt brinjal (2009).
	X	Partially met		Partially met	
		Fully met	X	Fully met	