

Periyar Foundation

Annual Report 2005-06

1.1. The Annual Administration Report is for the period 01-04-2005 to 31-03-2006.

1.2. **ABOUT THE ORGANISATION:** Periyar Tiger Reserve is one of the well-known Tiger Reserve in India and the pride of Kerala. An externally aided project called *The India Eco Development Project*, funded by the World Bank and the Global Environment Facility was implemented in the Tiger Reserve from 1996 onwards. The basic objective of the project was to reduce the impact of local people on forests by providing alternate and sustainable employment and involves them in forest protection activities. The project ended on 30.06.2004.

In order to sustain the achievements made under India Eco Development Project beyond the life of the existing project, a public Trust named Periyar Foundation was established. The Headquarters of the Periyar Foundation is Thekkady and the area of operation Periyar Tiger Reserve and adjoining landscapes. The main objective of the Foundation is to support Periyar Tiger Reserve management in biodiversity conservation and community development activities with a landscape perspective.. Being an autonomous organisation, the Foundation has the operational flexibility of a good Non Governmental Organization and controls of Government in supporting Periyar Tiger Reserve.

Periyar Foundation, formed on 27-07-2004, as per G.O.(MS)No. 36/2004/F&WLD ,continued to function during 2004-05, fulfilling the objectives.

In order to expand the activities of the Foundation further and for administrative convenience, the following four divisions were formed.

1. Division of Ecology and Conservation Biology.
2. Division on Socio economic studies.
3. Division of Nature Education and Training
4. Division of Administration and Accounts.

1.3. ACTIVITY PROFILE:

- a) **GENERAL:** During the reporting period one meeting of the Governing Body (on 07-09-2005) and six meetings of the Executive Committee

were held. The following are some of the activities carried out in accordance with the decisions of the afore said bodies in general.

1. The resource mobilisation for the Foundation continued in the form of the collection of Ecodevelopment surcharge from the visitors. An amount of Rs 78 lakhs has been collected during the reporting period.
2. Support was given to procure furniture for the Government Higher Secondary school, Kissumam.
3. Supported the renovation and construction of a computer lab and compound wall for Government Tribal school, Vanchivayal.
4. Financial assistance was given to 15 financially backward families as requested by the Kumily Grama Panchayath for getting the electricity connections.
5. Renovated the Anganvady for tribals at Vanchivayal.
6. Supported the completion works of the infrastructure for the Govt Tribal School, Kumily
7. Help was provided for the Government Primary Health Centre, Kumily for the prevention of cholera.
8. The Foundation is providing camp ration to the staff and watchers engaged for protection in the interior forest areas.
9. Support was provided for the procurement and distribution of the field equipments to the staff and watchers and community who are engaged for protection.
10. Supported to give intensive training the newly recruited forest guards of the Department.
11. Ex gratia payment was given to the family of the Forest watcher of Marayoor who died in an accident per the request from the DFO, Marayoor.

(b) Apart from the above , activities were undertaken by the Divisions in their specific capacity also. The major activities of the **Division of Ecology and Conservation Biology** are furnished below:

1. Coordination of “All India Elephant Census” in the State:

The ECB Division has successfully coordinated the All India Elephant Census carried out during May 2005 in the forest areas of the entire State. As part of conducting the census programme in the existing four Elephant Reserves (ER) in the State *viz.*, 1. Wayanad ER, 2. Nilambur ER, 3. Anaimudy ER and 4. Periyar ER, a series of trainings to the field staff at circle, division and range level have been carried out during March-April 2005. Circle level training was also imparted to the senior forest officers at Wayand, Nilambur, Munnar and Kottayam. The component of the training include collection of data for density estimation of elephants using block count (direct sightings of animals) and transect (dung count) methods, estimation of dung decay rate, elephant population structure and composition, identification and ageing of individual elephants, etc. Furthermore, the ECB Division has also helped the staff in the forest divisions in delineating the entire forest area into the census blocks with appropriate extent and selection of sampling units (30% of the total blocks in the division) for the census. The data thus collected were gathered from all the forest divisions and submitted to Kerala Forest Research Institute, Peechi for further analysis.

2. Coordination of All India Programme on “Monitoring of Tigers, Co-predators, Prey and their Habitat” in the State:

The Tiger Monitoring Programme, a National-level agenda jointly organized by Project Tiger Directorate and Wildlife Institute of India, was effectively coordinated in the State by the ECB Division with an active support of the Officers in Periyar Foundation and KFD. As part of conducting the monitoring, series trainings at division-level with all professional qualities were imparted through out the forest divisions in Kerala during January and February 2006. The training components include collection data on carnivores, herbivores (using both direct and indirect methods in line transects), sampling of vegetation structure and composition, characteristic of various layers of vegetation, impact due to various human activities, etc. The materials needed for conducting the census were procured and supplied along the census data-book (in local language) to all the Ranges in the State. Besides this, the census programme held during the period between 20th and 27th February

2006 was monitored by the ECB Division and provided technical support as and when required. In March and April 2006, the data collected from the field in all the forest divisions were gathered and created a database using the software supplied by the Wildlife Institute of India (WII). The data in the prescribed proforma has been sent to WII for further analysis.

3. Ecological Monitoring Programme:

1. Rapid Biodiversity Assessment (RBA) in Goodrical Range of Ranni Forest

Division: The ECB Division successfully organized and carried out a RBA at Goodrical Range of Ranni Forest Division during the month of April 2006. Though the forest areas in Goodrical Range is having exceptional endemic forms and rich in both faunal and floral diversity, there are no scientific information for the effective management of biodiversity in the area. Lack of such scientific knowledge and information on biodiversity and endemism from this region has been felt as a serious gap in conservation efforts taken by KFD. Thus the RBA was envisaged to explore the diversity of flora and fauna, assess the land-use pattern and the threat factors affecting the biodiversity in the region. As part of conducting the RBA, a reconnaissance survey was carried out by the ECB Division with the support from KFD during March 2006 with the help of eminent biologists from the country and developed a detailed methodology for performing the survey. The RBA was held during the period between 2nd and 8th April 2006, with active participation of scientists belonging to faculties of landscape ecology, human ecology, biology, economics and sociology from within and outside State. During the survey, the teams were actively supported by KFD field staff from Periyar Tiger Reserve as well as the Goodrical Range. In May 2006, a report based on the information collected during RBA has been prepared and submitted to the KFD for further management action.

2. Coordination of Tiger Monitoring Programme in PTR: The ECB Division is coordinating the ongoing Tiger Monitoring Programme in PTR since 2004. In order to carry out the work, a separate Tiger Monitoring protocol was specially

designed and the same is being implemented. The protocol was geared up by deploying Tiger Monitoring Teams at Range-level, imparting intensive training to both the field staff at range level and Tiger Monitoring Teams for collecting the information from the field. Techniques such as collection of pugmark and scats, preparation of pugmark impression pad, setting up of camera traps and recording other direct and indirect evidences were included as the components of the training. The data thus collected from the field are being collected and included in the database maintained by the ECB Division and the same is being sent to the Office of the Field Director (Project Tiger) every month. In addition to this, the ECB Division also collects the pugmarks brought from the field and are being periodically analyzed by systematically measuring the parameters used elsewhere in the country for updating the database on tiger distribution in PTR. Periodic reports are submitted to the Officers concerned for future management action.

- 3. Monitoring the Movement Tigers using Camera-traps in PTR:** The ECB Division was using the camera traps for monitoring the movement of tigers and co-predators in selected locations during the period between October 2004 and June 2005 and found the method was highly successful in PTR. During the period, a number of photographs on tiger, leopard, elephant, gaur, sambar, sloth bear, small Indian civet, stripe-necked mongoose, etc were taken and created a digital and manual album for the same. Subsequently, the task of setting up of camera-traps was handed over to the Tiger Monitoring Teams since July 2005 and since then the ECB Division oversees the monitoring programme carried out by the Teams. Projects are being evolved by the ECB Division to procure sufficient equipments (camera-traps) for strengthening the tiger-monitoring programme in PTR.
- 4. Conducting Ecological Impact Assessment of Sabarimala Pilgrimage:** The ecological impacts due to pilgrimage is being carried out every year by the ECB Division since the inception of the SAPP EDC in Sabarimala. During the pilgrim season (December-January), the survey is being carried out (in two phases *viz.*,

during the season and post-season) to monitor the pilgrim management activities of EDCs in *thavalams*, mutual commitments of EDCs and management of PTR, etc. Reports with management strategies are being submitted to PTR management for strengthening and streamlining the programme.

Furthermore, similar survey was carried out in Goodrickal Range of Ranni Forest Division regarding the ecological impact due to pilgrimage during June 2005 and the report was submitted to the managements of both PTR and Ranni Forest Division.

4. Imparting Training:

- 1. Training on wildlife management and field techniques:** The training was envisaged to improve the scientific skills of field staff and intended to conduct at circle-level. However, the training is provided to the field staff in the Central Circle and Wayanad Wildlife Division and training in the remaining areas would be completed within the current financial year.
- 2. Provided training to all professional group EDCs in PTR:** Trainings on identification of animals and important plants, techniques of using field equipments, various census and monitoring methods, etc were given to the professional group EDCs such as Vidiyal Vana Padukappu Sangam, Ex-vayana bark collectors, PETS in Thekkady and Vallakadavu. Other professional group EDCs will be provided with the training within the current year.
- 3. Training for monitoring weather and setting up of weather equipments:** The data on weather (rainfall, temperature, humidity) is being regularly collected from 10 selected locations of PTR. Training related to collection data and setting up of instruments and their management is given to all the staff in the weather stations. The data is also being collected and regularly updated in the database maintained by the ECB Division.
- 4. Training on Management of Elephants in Kerala:** The work is being initiated to provide training to the field managers to improve their scientific skills in effectively monitoring and managing the elephant population in the State.

5. Support to KFD:

a. Submitted the following project proposals to various funding agencies:

1. Conservation of Asian Elephants (*Elephas maximus*) with special reference to management of elephant population in Periyar Tiger Reserve and adjoining landscapes in peninsular India (project submitted to US Fish and Wildlife Service).
2. Conservation of Tiger (*Panthera tigris*) and its prey base in Periyar Tiger Reserve and adjoining landscapes – Kerala, South India (project submitted to US Fish and Wildlife Service).
3. Status and distribution of lesser cats in Periyar Tiger Reserve (proposal submitted to MoEF, Delhi).
4. Establishment of elephant rehabilitation center at Kottoor, Kerala, India (proposal submitted to US Fish and Wildlife Service).
5. Supporting Biodiversity Conservation Initiatives of Kerala Forest Department in the High Range (proposal submitted Vanishing Herd Foundation (India)).

b. The following project proposals are being initiated:

1. Management of Elephant Population in Idukki Wildlife Sanctuary – Problems and Perspective (project being initiated using funds from Project Elephant).
2. Implementation of Elephant Monitoring Protocol and Creation of a Database for Periyar Elephant Reserve (project being initiated using funds from Project Elephant).

6. Short-term studies/surveys:

The following short-term studies and surveys were conducted and submitted the report to the management of PTR:

1. Human-wildlife conflict in Pamba Valley – An assessment report.
2. Assessment and achievement of eco-development initiatives in selected EDCs of Thekkady region – Solutions for Sustainance.
3. Vidiyal Vana Padukappu Sangam - A baseline study and activity review report.
4. Rapid impact assessment survey of KTDC hotels in Periyar Tiger Reserve.

5. A report on menace and management of plastics in the tourism zone of Periyar Tiger Reserve.
6. Impact Assessment of the Chitra Pournami Festival at Mangaladevi Temple in Periyar Tiger Reserve (carried out every year).
7. Occurrence of African mushi (*Clarias gariepinus*) in Periyar Tiger Reserve - A Report.
8. Management of *Ichoria* species (African Payal) in Periyar Tiger Reserve.
9. A note on importance of grassland in Periyar Tiger Reserve.
10. An estimation of the availability of thatching grass (*Themeda cymbaria*) from the savannah grassland of Periyar Tiger Reserve.
11. Jungle Patrol Programme in Periyar Tiger Reserve – Assessment report.
12. Impact assessment of Bamboo Rafting Programme in Periyar Tiger Reserve.
13. Estimation of gaur and other wild animals in the selected blocks of Thekkady and Vallakadavu Ranges of Periyar Tiger Reserve.
14. Eco-sensitive areas of Meghamalai Reserve Forest – A study Report
15. Eco-sensitive areas of Pachakanam Estate – A study Report
16. Long-term strategies for ecosystem management in Periyar Tiger Reserve.
17. Impact of cattle grazing to the ecosystem with special reference to Cattle Graziers Ecodevelopment Committee in Periyar Tiger Reserve.
18. Study on man-animal conflict and evaluation of control measures in the fringe village Ecodevelopment Committees of Periyar Tiger Reserve.

7. Paper Published:

- a. Status and distribution of birds in Periyar Tiger Reserve, Kerala, India (published in Journal of Indian Forester in 2004)
- b. New records of birds in Periyar Tiger Reserve (a short note published in Journal of Bombay Natural History Society in 2006).
- c. Conservation of tiger (*Panthera tigris*) and its habitats – Experiences of co-existence of people and Protected Area from Periyar Tiger Reserve, Kerala, India (paper is in press Journal of Indian Forester).

8. Other Publications:

- a. Two articles in the *Sahajeevanam*, a News Letter of Periyar Foundation
 1. Elephants of Periyar
 2. Habitat utilization of larger mammals in PTR
- b. Handbook on mammals of Periyar Tiger Reserve (is under review)

9. Guidance given:

The following personal, who visited PTR for their study purpose, were given guidance by ECB Division:

1. The officer-trainees from WII during March 2006
2. The research scholars from Indian Institute of Science for working on elephants in PTR since 2004.
3. Mr. Animon from an abroad University, who had done his Ph.D on Eco-tourism and Community Participations in PTR during 2004-05
4. Mr. Sanjay from an abroad University is being given guidance to work on Ecodevelopment in PTR during 2006.
5. Mr. Ramesh, a PG student from AVC College was given co-guidance to work on 'Population, habitat use and prey selection of tiger (*Panthera tigris*) in Periyar Tiger Reserve, Thekkady, Kerala' during the period between December 2005 and April 2006.
6. Mr. Jayasurya, Research Scholar from WII who works on the 3rd phase of Monitoring of Tigers, Co-predators, Prey and their Habitat since May 2006.

10. Input to Ecodevelopment Committees: Apart from conducting a short-term studies and surveys for specific EDCs, the members in ECB Division attended various meetings held for reviewing the activities of EDCs such as Ex-vayana bark collectors, Tribal Trekkers, PETS in Vallakadavu and Thekkady, Vidiyal Vana Padukappu Sangam, Kurishumala, Spring Valley, Chottupara, SAPP (Pudussery Tavalam), Mullayar, Angel Valley, Ezhukumannu, Arattukayam, Azhuthamuni and Firewood and Thatching Grass during 2006-07. Technical suggestions were offered during the

meeting. All the Executive Committee meetings held at Thekkady during 2006-07 were also attended by the ECB Division.

Apart from the above, interviews in media like Television and Dailies were given on specific management issues. The training programmes conducted in Bandipur National Park for elephant and tiger census programmes were also attended. The members in the ECB Division facilitated as resource persons to the Departmental Visitors and VIPs. Extended necessary expertise to the officers at various level in KFD as and when required.

c) The significant contributions of the **Division of Socio economic studies** during the reporting period may be summarised as follows:

1. Support to Eco Development Committees: The support to EDCs range from preparing and revisiting microplans, facilitating implementation of the microplans and monitoring by conducting financial auditing of EDCs, preparing case studies etc.

2. Cost-benefit analysis: The boating operated by Kerala Forest Department and Kerala Tourism Development Corporation is the main tourist attraction at Thekkady. There is wide disparity between the boat charges of these agencies. The KFD boat operation has been running into cumulative losses. In this backdrop as a rationale to propose a price-hike, the Division conducted a cost-benefit analysis of the boat operation of KFD.

3. Project Monitoring: The division has undertaken preliminary technical feasibility studies and concurrent and terminal evaluation of the projects.

4. Development of Library: The division contributed for the procurement and maintenance of a library of 500 relevant books and 15 journals.

5. Annual Budget: Annual financial forecast was prepared by the Division.

6. Impart training and net working: Support was provided for other divisions for technical support and net working on behalf of the Foundation.

d) **Nature Education and Training Division** had conducted/ coordinated the following programmes during the reporting period:

1. Prepared a proposal for environmental education activities in and around Periyar Tiger Reserve and submitted to the Ministry of Environment and Forests, Govt of India for funding.

2. Provided technical support to Kumily Grama Panchayath to prepare a proposal for Solid Waste Management and submitted to Clean Kerala Mission.
3. Conducted stake holder workshop and made a survey with leading scientist regarding Sewage Management problems of Kumily and adjacent areas and submitted report.
4. Collaborated with Forest Department staff, EDC members and other faculties in the Foundation for the successful conduct and co-ordination of Nature Education Camps, paid camps and other extension programmes.
5. Co-ordinated extension programmes in different parts of Periyar Tiger Reserve in connection with Environmentally significant occasions like wildlife week celebrations, World Environment Day, World Forestry Day.
6. Extended technical support to EDCs as per the request of the officials concerned.
7. Conducted and implemented various public awareness campaigns like Plastic eradication programmes in and around the Park.
8. Initiated out reach programmes of Periyar Foundation (eg. Career Training) for general public .
9. Initiated special summer vacation camp for EDC nature club members (Kilikkoottam)
10. Conducted Wildlife film show programme in VSS of Goodrical range. Provided technical support for the formation of nature clubs in Goodrical Range area. Conducted extension programme to NSS volunteers camp at Ranny Forest Division.
11. Provided technical support for the revival of EDC nature club activities.
12. Co-ordinated training programmes at various levels during the reporting period as follows:

Name of training	Target group	Number of trainings	Number of trainees
Capacity building training programmes	PETS EDC (5 batches)	5	66
	Department Staff (2 batches)	2	99
	Boat drivers of KFD & KTDC	2	31
Ecodevelopment training programmes for EDC members	SAPP EDC (23 batches)	23	590
Ecodevelopment training programmes for other Forest Divisions	1. Staff EDC members from Aralam WLS (3 batches)	3	51
	2. Staff and EDC members of Silent Valley National Park.	1	28
	3. Staff and EDC members from	6	102

	from Peechi WLS (6 batches)		
	4. Staff and EDC members from Neyyar WLS	1	9
	5. Staff and EDC members from Peppara WLS	1	9
	6. Staff and EDC members from Corbett National Park	1	23
	7. Forestry college trainees	2	88
	8. Wildlife Wardens and their staff- Northern circle	1	16
	9. Wildlife Wardens and their staff- Southern circle	1	30
	10. Facilitators fro AHADS	2	102
Management- term paper exercise	Officer trainees from Wildlife Institute of India	1	23
Total		51	1267

e) Future Programmes :

Some of the future programmes already planned for the next year are follows:

1. Rapid Biodiversity Assessment of the Goodrical Range and the follow up actions.
2. All India Training Workshop for Veterinary officers.
3. Crime investigation and undercover operations training programme for Range Officers and front line staff of the KFD.
4. Preparation of Management Plan for Mangalavanam.
5. Intensive Capacity Building Training Programmes for TH EDC, TT EDC and for village EDC members

f) Improvement of Community Based Ecotourism Programmes and Modernisation of Interpretation of Periyar Tiger Reserve with the financial support of Tourism Department, Government of Kerala :

Periyar Foundation has undertaken two programmes with the financial support of Department of Tourism. The improvement of Community based ecotourism programmes Phase II (Expansion of Bamboo Grove) is completed. A third phase is envisaged for the further expansion of the facilities of Bamboo Grove to make it a self sustaining centre of experiential learning to conduct training programmes so that a sizable income can be generated for the livelihood support of PETS EDC.

Modernisation of Interpretation programme is still in progress. The designing and conceptualisation part is completed. The short animation films on evolution and zoo morphology are completed. The landscape interpretation structures are yet to be erected along with the seating arrangements with granites.

g) The audited accounts of the Foundation for the Financial Year 2005-06:

The audited accounts for the financial year 2005-06 are appended.