

# REEF

(**R**AMDEOBABA COLLEGE **E**NGINEERS FOR  
**E**NVIRONMENT **F**ORUM)

An environment club  
Of  
SHRI RAMDEOBABA COLLEGE OF ENGINEERING  
AND MANAGEMENT

ANNUAL REPORT 2013-14



**ENGINEERS WITH A MISSION: TOWARDS A  
SUSTAINABLE ENVIRONMENT**

Reporting period – 1<sup>st</sup> May 2013 to 30<sup>th</sup> April 2014

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## Report Credits

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**Photo credits:** Dr. (Ms.) Deepshikha Mehra, Sneha Gupta, Komal Saraf, and Sahil Dalvi

**Cover Photo:** Taken by Sahil Dalvi in Tadoba-Andhari Tiger Reserve, Chandrapur, Maharashtra

# PRELUDE



With increasing climate change sustainable use of environment has become an issue that the world has started to wake up to. However, nations for long have been talking about sustainable use of the environment but the action at the ground level has always fallen short of the goals. The short fall reflected the struggle between development and conservation where technology and its use was always blamed for destroying the environment. Thus, it became apparent that change has to be brought. Youth have to be involved in protection of environment. Consequently, environmental conservation found its way into value education at the school and college level. It is now expected that educational institutions will play an important role in grooming students (especially engineers) to be environmentally friendly so as to ensure development of sustainable and eco-friendly technologies. Thus, 'engineers with a mission towards a sustainable environment' became the motto with which REEF (Ramdeobaba college Engineers for Environment Forum) was created on 25<sup>th</sup> January 2012. RCOEM is one among the few colleges in the Central Indian region to initiate such as activity. REEF is a step by RCOEM to contribute constructively to its social responsibilities.

It has been more than two years that REEF has been taking up various activities to sensitize engineers towards environment. This annual report documents various activities undertaken by REEF in 2013-14 to conserve environment. It also enumerates the future course of action that would be taken to continue this effort.

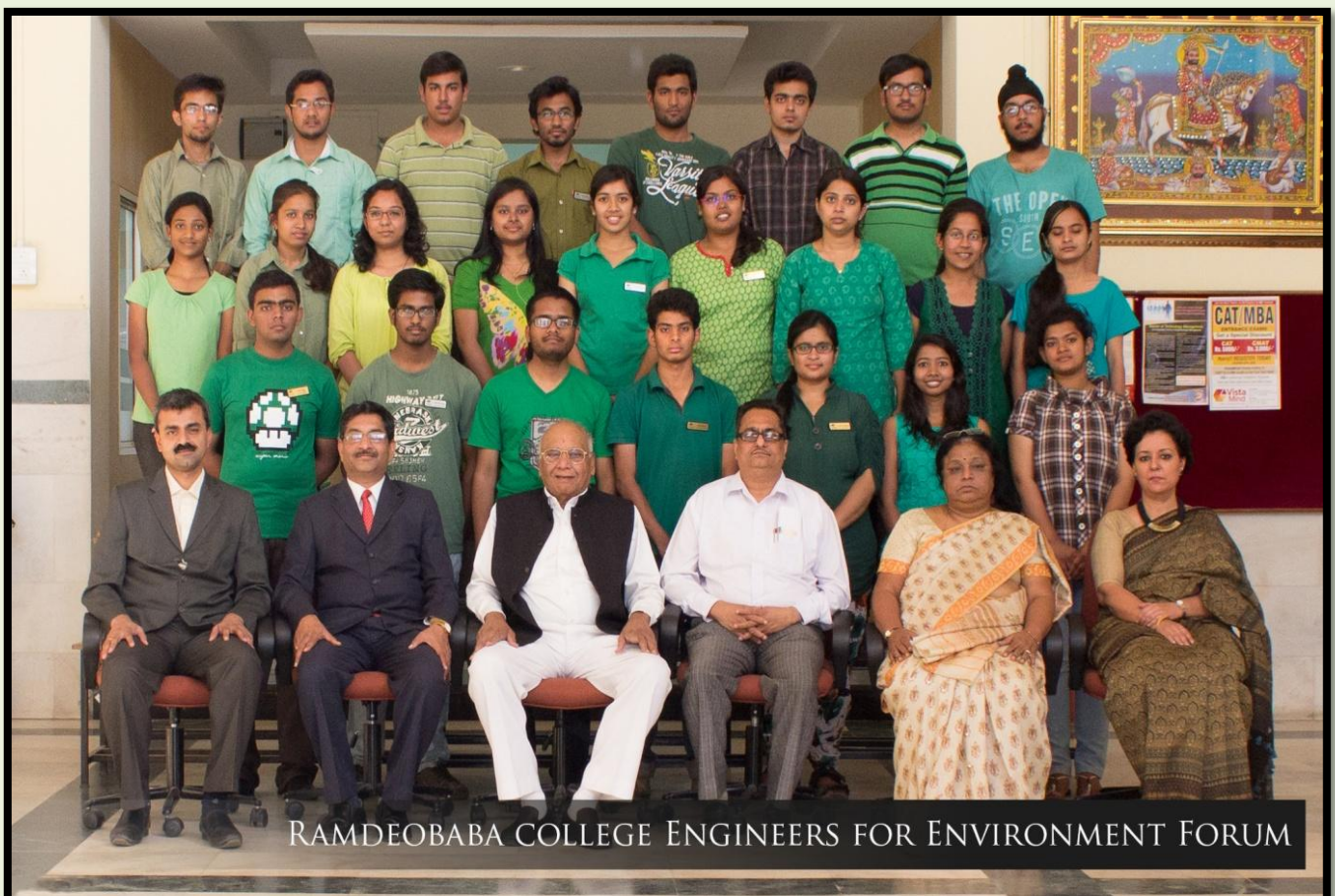
Dr. V.S. Deshpande  
PRINCIPAL

# OBJECTIVES OF REEF

REEF has the following short and long-term objectives:

1. To create awareness and take up various activities for the conservation of various aspects of the environment.
2. To establish active association with various organizations working for environmental conservation.
3. To take up various activities for underprivileged children and in the process initiate and ingrain the value of environmental conservation.
4. To encourage the development and execution of ideas on role of technology for protection of environment.

## GREEN AMBASSADORS (REEF)



# Green Ambassadors (REEF Members)

REEF is hosted by Department of Humanities, RCOEM

**Mentor faculty and founder** : Dr. Deepshikha Mehra, Ph.D. in  
Environmental Economics

## Core members (Golden Core) (2013-14)

:Supriya Kawadkar (8<sup>th</sup> Sem, EC)  
Komal Saraf (6<sup>th</sup> Sem, CSE),  
Sneha Gupta (6<sup>th</sup> Sem, IT),  
Pratik Gupta (6<sup>th</sup> Sem, EN)  
Juhi Garg (6<sup>th</sup> Sem, EC)  
Sahil Dalvi (4<sup>th</sup> Sem, EN)

## Sub-core members (Silver Core) (2013-14)

Vallabha Turkar (6<sup>th</sup> Sem, EC)  
Sudeep Banerjee (4<sup>th</sup> Sem, EP)  
Aaditya Somani (4<sup>th</sup> Sem, EN)

**General members (2013-14)** : There are 16 general members

## REEF Active Alumni

Vatsalya Mathur (EC, 2013)  
Hamza Shakir (EC, 2013)

## REEF Alumni

: Sarang Puri (IND, 2012),  
Pranjall Chaturvedi (CIV, 2012)  
Vinay Chawla (IT, 2012)  
Apoorv Munshi (IT, 2012)  
Karishma Manwani (EP, 2013)

# REEF INSTALLATION



*Dr. V. H. Asudani motivating the students to take up environment conservation*



*The chief Guest Shri Govindlal Agarwal lighting the traditional lamp*



*Green Ambassador – Pratik Gupta giving a lecture*

The new core team of REEF was installed on 18<sup>th</sup> October 2014. The occasion witnessed the august presence of the College's General Secretary - Shri Govindlal Agrawal, Head of Department of Humanities - Dr. V H Asudani, and Dean of Training and Placement - Prof. Anupam Kher. The ceremony began with the traditional lamp lightning and Neem sapling plantation by the guests. Dr. Deepshikha Mehra, mentor faculty of REEF introduced the new core and sub-core green ambassadors of REEF who were presented with certificates and

badges. Green Ambassador Sahil Dalvi received the award for ‘Most Promising Green Ambassador’ at the hands of the guests. The annual report of REEF was then presented by Green Ambassadors – Sneha Gupta, Juhi Garg, Sahil Dalvi, and Sudip Banerjee. It was followed by a presentation on “Eco-Sensitivity as a new employability skill for engineers” by Green Ambassador Pratik Gupta which bundled out more employment avenues for the engineering stream. This was followed by a lecture from all the three guests who focussed on how engineers are contributing towards the environment and to carry on the good work done by REEF. The Dean - Training and Placement highlighted the skills that companies are seeking in engineers of our college.

## ACTIVITIES UNDERTAKEN BY REEF

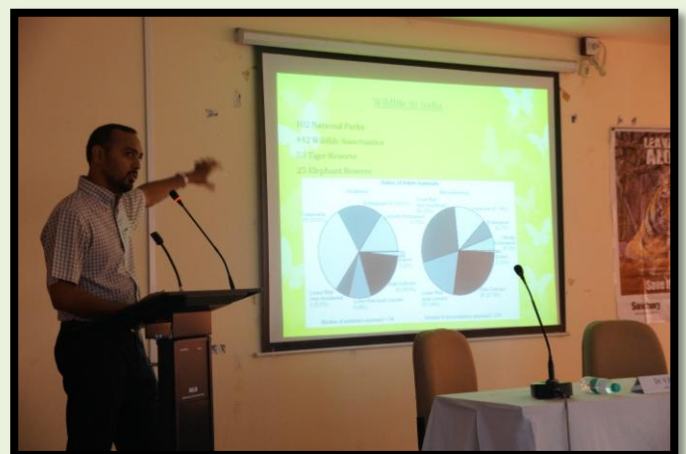
After the sensitization Year (2012-2013), 2013-2014 was another year full of different activities undertaken by REEF to achieve its objectives. REEF started with many large projects this year in different domains.

## ENVIRONMENT AWARENESS CREATION

### GLOBAL TIGER DAY with SANCTUARY ASIA



*Students with REEFians after a nature walk in Raj Bhavan*



*Dr. Bahar Baviskar speaking on issues related to wildlife conservation on GTD*

REEF, in association with 'Sanctuary Asia' celebrated Global Tiger Day on 29<sup>th</sup> July, 2013. It carried out various awareness activities as a part of the 'Leave Me Alone' campaign for an entire week from 22<sup>nd</sup> to 29<sup>th</sup> July 2013:

- 1) REEF put up banners in the college canteen and in various other places in Nagpur like the Maharajbagh zoo.
- 2) Petitions were signed from almost a thousand people from all over Nagpur showing their support for the conservation of tigers.
- 3) REEF organised a guest lecture by Dr. Bahar Bhaviskar from WILDCER on 29<sup>th</sup> July, 2013 where he spoke to the students about his work with wild animals and suggested steps for the layman to help in wildlife conservation.
- 4) A documentary called 'The Truth about Tigers' was also screened during the guest lecture.
- 5) REEF members created a five minutes speech on the importance of tiger conservation and the rationale of the Leave Me Alone campaign. It was aired on All India Radio- Nagpur on 26<sup>th</sup> July 2013 and 29<sup>th</sup> July 2013 to spread awareness among the common people on how they can contribute to the cause.



*Students of RCOEM writing messages on environment on college canteen*



*Kalyani from Sec B of 5<sup>th</sup> Sem of EN taken part of debate*

- 6) A nature walk was organised in Raj Bhavan, Nagpur. Students from different colleges and schools participated in it.
- 7) A flex was put up in the college canteen and messages were written by college students and teachers regarding the conservation issues



of tigers and why they felt that this umbrella specie should be conserved.

8) A debate and talk was organised in Electronics Department on 24<sup>th</sup> July, 2013 and 25<sup>th</sup> July, 2013 for 3<sup>rd</sup> Year students on the topics 'Tigers vs. Tourism' and 'Tigers vs. Tribal' which centred around the current scenario of man-animal conflict that is being faced in the country.

## **SOCIAL OUTREACH**

REEF after bringing tremendous progress in their work in and around the city, aims to extend its work and get in touch with more number of people. REEF has started doing it through college notice boards and the social media. It is creating awareness among a large number of people regarding environment through the reef.rcoem facebook page as well as another of its facebook pages called 'Environment@Zero Mile' which serves as a platform for discussion on environment related issues and their possible solutions and other aspects of environment.

## **EDUCATION TRIP TO KEOLADEO NATIONAL PARK** **- DECEMBER 2013**



*REEFians (current students and alumni at Bharatpur)*

Green Ambassadors of REEF along with REEF Alumni and Mentor Faculty - Dr. Deepshikha Mehra went on an education/field trip to Keoladeo National Park or Keoladeo Ghana National Park formerly known as the Bharatpur Bird Sanctuary in Bharatpur, Rajasthan. The

field trip was from 16<sup>th</sup> to 23<sup>rd</sup> December 2013. Bharatpur Sanctuary is home to over 230 bird species and is known to host many migratory birds in the winters. It is also a World Heritage Site. REEF members identified 111 bird species, photographed them, and walked for over 35 kms to cover various areas of the park. Some rare birds like the Saras crane, Crested Serpent Eagle and others were a treat to REEFians as bird lovers. The trip also included a day trip to Agra and Fatehpur Sikri. It was a very successful trip in terms of the ability of REEFians to identify birds, their habitat, and migratory pattern.

## **EDUCATION TRIP TO TADOBA-ANDHARI TIGER RESERVE – 20<sup>TH</sup> TO 23<sup>RD</sup> FEBRUARY 2014**

New members of REEF were taken on this exposure trip where they learnt various aspects about wildlife conservation. The members and mentor faculty also clicked wildlife photographs which were sent for “The Tadoba Inheritance Photography contest” organized by international organization - Sanctuary Asia and Government of Maharashtra. Many bird species were spotted along with wild animals like the barking deer, wild dogs etc. The highlight of the trip was a rare sighting of a tigress hunting wild dogs. This rare moment was captured on camera by the REEFians.



## **FIELD TRIPS IN AND AROUND THE CITY**



REEF members continue to conduct various field trips in and around Nagpur and identify a large number of bird species. They have even added to the existing count of bird species of the city which is a great achievement for REEF. REEFians conduct these bird watching sessions with great enthusiasm and therefore are able to learn a lot from it and add up to their experience. REEFians were the first to spot and photograph Amur Falcon. The photograph was uploaded on to the database maintained on [nagpurbirds.org](http://nagpurbirds.org). They also spotted the bird “Forest Wagtail” which is another rare sighting. The growing list of birds in Nagpur is indication to researchers and conservationists world over of the rich biodiversity of Nagpur, and REEF is proud to contribute to that list.

## **LECTURE BY SARPMITRA**

REEF members participated in a self-organized workshop conducted by the Virdarbha Sarpamitra Samiti. The guest lecturers of the occasion were Mr. Kaushik Pande and Mr. Gaurang Waiker (a RCOEM alumni). The reason of this workshop was to create awareness regarding reptiles like snakes which are considered to be extremely dangerous and thus are hated the most by humans. Sarpamitra told REEFians about the snake species found in the region and all the

necessary information about the same. A question and answer session took place after the presentation, thus clearing all the doubts REEFians had. They were guided regarding the perils snakes face today.



*REEFians with Mr. Kaushik Pande and Mr. Gaurang Waiker of Sarpmitra at Shri Ramdeobaba Temple*

## ENVIRONMENTAL CONSERVATIONS ACTIVITIES

### 27<sup>TH</sup> MAHARASHTRA PAKSHI MITRA SAMMELAN



*REEFians at the 27<sup>th</sup> Pakshimitra Samelan*

A state level birders' meet organized by Society for Wildlife Conservation, Education and Research (Wild-CER) was held on 4<sup>th</sup> and

5<sup>th</sup> January 2014 at Hislop College, Nagpur. REEF volunteers assisted in organizing the event which witnessed the participation of eminent bird watchers from all over Maharashtra. The event facilitated the interaction of REEF members with the experts in the field of bird conservation.

## **PAPER RECYCLING PROJECT**



*Recycled note books that were distributed to differently-abled children*

REEF members did a small paper recycling project in the college by recycling the unused pages from the assignment notebooks submitted by the students. The pages were compiled together to make new notebooks which was distributed to the orphans and mentally challenged children. REEF members had planned this activity because it incorporated both community service as well as recycling of paper.

## **NYLON THREAD (NYLON MANJHA) REMOVAL PROJECT**

REEF members took the initiative of removing the nylon threads used in kites from the trees in Raj Bhavan premises after the festival of kites - *Makar Sankrant*. Nylon thread causes severe injuries to birds which are fatal most of the times. Thus, the task aimed at

conservation of bird species in Raj Bhavan, which is a biodiversity hotspot.

## **BIRD HOUSES**

Encouraged by the success of two bird houses installed earlier, REEF members are in the process of constructing new bird houses. They have proven to be helpful in the conservation of various bird species that find various lamp posts in college to make nests. The members demonstrated the use of their engineering skills for this task.



*REEFians making bird houses in the Workshop and painting them*

## **RAJ BHAVAN PROJECT**



Raj Bhavan authorities accepted REEF proposal to make a Bird book of Raj Bhavan which act as lungs of Nagpur city. This 50 ha. area is densely forested and has more than 140 species of birds. REEFians, since the commencement of the project, have made 39 field visits to Raj Bhavan which is located in Sadar, Nagpur. The total number of bird species identified in the premises are 84 so far. The project is to continue till March 2015. REEFians have already made an addition of 20 species to a pre-existing list of the area.

## **BIRD BATHS**

In the summers, REEF members installed bird baths in various parts of the college campus. These serve the birds for their need of water in extremely hot weather. This has eventually increased the count of birds on the campus, with rare bird like the Golden Oriole visiting the bird baths. The task of monitoring the bird baths is being carried out by the REEF members on a regular basis with the help of gardening staff of RCOEM.

## **COLLEGE BIRD BOOK**

REEF members are actively involved in bird watching activities in the college campus as well. The bird count and species recorded will be

used as a base for the Bird Book of RCOEM campus. This will help prove RCOEM campus as rich biodiversity area.

## **TREE PLANTATION**

Since REEF works for a clean and green environment, it has been made mandatory for all the REEF members to plant one tree on their birthdays inside the college campus and take care of that tree. Till date 6 trees have been planted and are being taken care of. This is done in order to add to the tree count in the college.



REEF members rescued injured birds this year too. REEFians have constantly been working for their conservation and helping organizations like WILD-CER.





# COMMUNITY SERVICE

## BALGRAM

REEF members regularly visit various shelter homes and orphanages like Balgram and teach children there. They help them in preparing for their exams and act as friends and guide to them. This is an activity that the REEF's Green Ambassadors undertake by finding time from their busy academic activities.

## VISIT TO MASONIC LODGE

Green Ambassadors visited the Masonic Lodge of Nagpur on 29<sup>th</sup> Sept 2013. Masonic Lodge is the largest and oldest NGO of the world and works for community service. REEF members got to know a lot about freemasonry and what freemasons do. The masons at the lodge told REEF members about their contribution to the society by donating things to villages and organizations in need of them. REEF members also got a chance to visit their temple where all the freemasonry



*REEF members and mentor faculty interacting with members of Lodge Trimurti*

ceremonies and rituals are held. It was an eye opener for the REEF members as all their myths about the Society were cleared. REEFians

were witness to a utensil distribution ceremony by the freemasons to an old age home. These freemasons showed true example of selfless being as they do all the community work without any publicity and their only objective is helping humanity. It was a great experience for REEFians and they learnt a lot in terms of application of the same principles in functioning of REEF.

### **Recruitment drive**

REEF conducted a recruitment drive in which more than 90 students of RCOEM applied. Interviews were conducted by senior Green Ambassadors and 32 members were selected. These members were kept on probation period and after the end of the probation period 16 general members were retained in REEF.

## **RESEARCH AND PUBLICATIONS**

REEF member published some of their articles in the local newspapers and college magazines. This activity is not only conducted to achieve the objective of creating awareness but of also enhancing writing skills of REEFians. The articles were published were:

1. Aaditya Somani (EN) "Role of Electronics in Wildlife Conservation" Youth Zone, Hitavada
2. Apurva Bhiwapurkar (EC) "Indian Robin" Youth Zone, Hitavada
3. Sudip Banerjee (Elec) "Asian Brown cloud: another cause of environmental degradation" Youth Zone, Hitavada
4. Sudip Banerjee (Elec) "Engineers with a Mission of Environment conservation" Infinity+, IT magazine, RCOEM.

## FUTURE PROJECTS OF REEF

- To focus on waste-management and undertake activities to conserve urban environment.
- To organize different guest lectures on environmental issues in order to increase public awareness.
- To continue with bird conservation activities – more field trips on bird identification and habitat conservation, install more bird feeders, bird baths and bird houses.
- Take up tree plantation (in and around campus) in order to enhance local biodiversity.
- Continue the association and forge new ties with local organizations involved in environmental conservation.
- To participate in various competition organized on environment
- To continue volunteering for activities undertaken by the Forest Department like Tiger census, Wildlife census, Census of the Great Indian Bustard and Egyptian Vultures, etc.
- To carry on community service by working with the underprivileged students.
- To initiate activities with differently-abled children.
- Paper bags to get rid of use of plastic bags

Dr. (Ms.) Deepshikha Mehra, Mentor Faculty, REEF  
21<sup>th</sup> May 2014