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## FOCUS ON YOUTH POWER

## Young India: Promise of future

The year ahead is undoubtedly the year of our ancient but young country, INDIA. For decades we have plodded, tip toed and tried to make an impact and have shied away from the immense possibilities that we have. The New year is of a New India, unleashing its Potential energy into a Kinetic one, creating, innovating,



discovering, and re-emerging in this world as a leader, with clarity of thought and purpose, unknown in the past.

A country where respect will be earned by the young and age alone will not symbolize wisdom and knowledge. The young will wear their skills, values, knowledge, drive and passion on their sleeves. They will rewrite the new protocols and show the way forward. The incubation is happening in the schools that Ecotrail addresses as I write this. We all must take notice and give the young their place in the sun.

I am confident that the environmental challenges we have created will also

resonate with the young minds and they will seek radical and seemingly obvious solutions. The issue is are we willing to accept this. The concept "choti muh badi baat" an idiom in Hindi, responsible for neutralizing millions of ideas in the past, dissuading the young from expressing and fear of being told to shut up only because of age or gender, is no more a part of India's discourse. We need to nurture this young, give them space, respect their feelings, be a mentor to them if they want it and channelize their enthusiasm for greater good. And you can be assured India will be sailing.

The environmental challenges are growing. Climate change is the single biggest issue that will urgently need the tech savvy youth of India and the world to bring back on track. Much of the change will come from changing our behavior and attitude towards the environment. The animal and plant species threatened or endangered is growing. The sad part of it is we have not even discovered many who are on the brink because of the rampant decimation of forest, extensive air and water pollution and soil abuse every hour of the day. Environment is in peril not only because of man's insensitivity but his sense of greed propelling him for selfish gains at the cost of humankind itself.

The incubators of the future- schools across the globe, have to rewrite how to rewire the young, how to prepare them for the challenges which will be very different from the ones that we faced and which they will have to encounter and overcome.



## Happy 2015

Dear Readers

ECOTRAIL wishes you and your loved ones a very Happy New Year with blessings for good health, more knowledge and green action. The year also adds new glory to ECOTRAIL- we are now 8 pages and growing!

The year 2015 will focus on two very basic but fundamental elements of nature and should give you a cue for eco action for your schools. The two key issues are LIGHT without which the planet earth may not be what it is today and the much neglected but a singular contributor to our existence the humble SOIL.

We focus on these in this issue as well as on an endangered species the Lion Tailed Macaque. It is fighting a battle and we would want you all to pitch in. Read the coverage of some interesting thematic camps being conducted by Trailblazers such as the CAS, Group 4, Economics module, Environment and Heritage camp for schools across India. We also cover a Model United Nations and a Sustainability conference held at two of the country's premiere international schools. Do write in with your green initiatives for 2015 and we will be delighted to publish.

**Ranjan Biswas**  
Editor

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## On the Brink....

The Lion-tailed Macaque, *Macaca silenus* also known as Wanderoo is listed as an endangered species in the IUCN Red List. It is endemic to the Western Ghats in southwestern India in the states of Karnataka, Kerala and Tamil Nadu.

Although the species has a relatively wide range, its area of occupancy is small and severely fragmented.

The total wild population is estimated to be less than 4,000 individuals, made up of 47 isolated subpopulations in seven different locations. There are estimated to be less than 2,500 mature individuals. Mainly arboreal, this species prefers the upper canopy of tropical evergreen rainforest. They are frugivorous/insectivorous.



Image Courtesy: Vinu Urs

In the wild females first give birth at about 80 months and have an inter-birth period of about 34.3 months. The generation length is approximately 13 years.

The major threat to this species today is habitat fragmentation. In the past, habitat loss was due mainly to timber harvest and the creation of exotic plantations such as tea, eucalyptus and coffee. Habitat degradation seems to be the biggest threat to its conservation. Certain features of the reproductive biology and ecology of this species such as large inter-birth periods, seasonal resource availability, and female competition for mating opportunities, combine to make it rare in the wild.

## STRIDES IN SCIENCE



### Flycatcher named after NUS prof

It's been 17 years, and a certain species of flycatcher can finally chirp in relief at being named. Spotted on several occasions since 1997 in Sulawesi, the flycatcher was last month named *Muscicapa sodhii*, in honour of the late NUS (National University of Singapore) conservation biologist Professor Navjot Sodhi.

The Latin name which the bird was christened with pays tribute to the significant contributions Prof Sodhi bestowed upon the scientific community during his long and illustrious career. An avid ornithologist, the late professor was instrumental in elucidating the effects of habitat disturbance on biodiversity. His research served as the basis for understanding the ecology of Southeast

Asian forests and offered indispensable information for conservation planners. Prof Sodhi passed away in 2011. Assistant Professor Frank Rheindt from the NUS Department of Biological Sciences is one of the authors of the research paper describing *Muscicapa sodhii*. The paper was published in PLOS ONE in November 2014.

*Muscicapa sodhii*, also known as the Sulawesi Streaked Flycatcher, features a distinctively mottled throat, as well as shorter wings, a more-strongly hooked bill and shorter tail when compared against similar flycatchers. Its genetics and song further mark it from other flycatchers, setting it apart as a new species.

### Beetle species named after Sir Attenborough

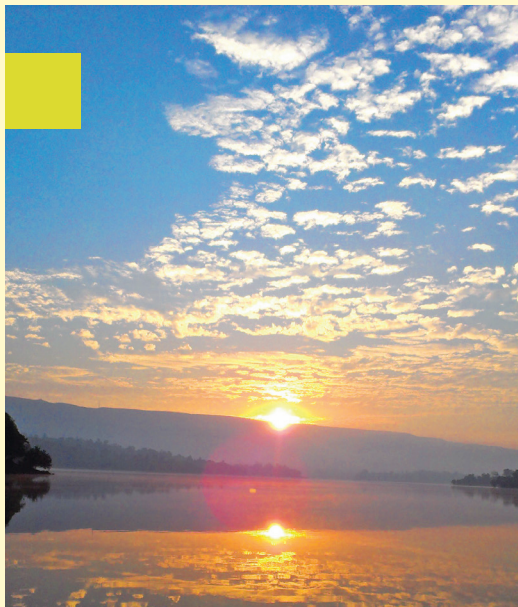
The tropical islands of Java, Bali and Lombok are popular tourist destinations, but remnants of their original rain forests still harbor a largely unexplored insect fauna. Dr. Alexander Riedel and his Indonesian colleagues went to the woods and searched the leaf litter for a group of beetles, the weevil genus *Trigonopterus*.

Only one out of 99 species was in their museum collections before. The other 98 had never been seen by a human eye before. It was also a challenge to find suitable names for so many new species. Some could be based on their respective localities; others were named by the Indonesian numbers one to twelve; however, the easiest choice was to name one for Sir David Attenborough (i.e. *Trigonopterus attenboroughi*) in recognition of his outstanding documentaries on natural history.

### World Wetlands Day 02 February 2015

World Wetland Day marks the signing of the Convention on Wetlands, called the Ramsar Convention, on 2 February 1971, in the Iranian city of Ramsar on the shores of the Caspian Sea. The Ramsar Convention is a global intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. It is the only global treaty to focus on one single ecosystem.





## On a Light Note

Light! Can we touch it or feel it? We can't but we eat light! Read on... Know more about this fascinating aspect of nature we take for granted and is now being given its due by the United Nations which is celebrating 2015 as the Year of Light and light based technologies.

The perception of Light is different to different people and even to animals. The artist's imagination and perception of light is different from that of a quantum Physicist. But we all agree that it is light which has enabled us to explore, understand and develop ourselves. Light essentially is an electromagnetic wave amongst many other cosmic waves. The waves visible to the human eye range from the narrow band of 700nm red colour to 400nm which is perceived by the human eye as violet colour. The combined effect of this range of radiation appears as white light to the human eye. Nm is the unit called nanometer where 1nm is a billionth of a meter.

Light has astounded and amazed artists, musician's, biologists, poets and man in general. Scientists have been at work trying to understand Light, for now over 300 years, however they are yet nowhere near understanding its complex role in our lives. Light travels at amazing speeds and mathematicians quickly made "light year" as a measuring unit along with astronomers. A light year is the distance traveled by light in one year. It is now a fundamental Physical constant. By measuring the various wavelengths of the electromagnetic waves astronomers are able to help us identify the starry skies. It takes nearly 8 minutes for the rays of sun to reach the earth. This light from the sun creates all the food required by the world of plants by photosynthesis. Plants in turn provide the food on our table. Light – plants– process of photosynthesis – energy for plants to grow – we eat plants, fruits and vegetables – QED we eat light.

So what exactly is light? We may not be out of place to say Light is a powerful energy. It moves in waves or a straight line in the form of small particles we call photons. These photons are the energy we are talking about. Every morning we wake up and see the world because of the wonders of Light. Light is a serious subject for all scientists but on a lighter note; Light is made up of VIBGYOR. Unravel the word and find your world! -Editor

## Soil Needs You

Soil is one critical element on which almost all life depends and yet so little is known or understood about this sea of soil. It's important we begin to focus on soil seriously before we are buried underneath it only to become soil again. Soil is not muck beneath our feet. I often hear parents and teachers alike say don't sit on mud, it is dirty!! Often parents reprimand their children for playing in the mud. The contrary is true but I will not veer there.

Soil is essentially the giver of life. Its soil on which we grow all our food and it is the soils that make our homes and it is the soil which we will all end up into. Soils are essential to our ecosystems, playing a key role in the carbon cycle, storing and filtering water, and improving resilience to floods and droughts. Soil is also the largest pool of organic carbon, which is essential for mitigating and adapting to climate change.

Sad but true the giver of life is so neglected that it never forms a part of any discussion or discourse, even in the so called world of environmentalists.

*Tigers, Rhinos and Lions find favour  
Air and water too  
But the Soil on which we depend  
Is forgotten  
And remembered by but a few!*

Soil is under threat from acidification, salination, deforestation, erosion, desertification, overgrazing, construction activity and pollution from heavy metals and radiation. So what exactly is soil? Soil is a complex mixture of four primary components: water, air, granular rocks, minerals and the living creatures including their decaying bodies. Scientists are still unraveling the complex but key world of the soil. It is our largest reservoir of Biodiversity, containing almost one-third of all living organisms but only 1% of them have been identified! Even less is known about their interrelationships. One tea spoon of soil contains billions of microbes as well as thousands of species of viruses, bacteria, and protozoans to earthworms. And all of it is threatened... The world's leading soil scientist Ronald Amundson has researched findings that state an unambiguous 31 different soil

types are now effectively extinct because of converting land for agriculture and urban land use. And another 508 soil series are endangered just across USA alone. The message is clear. If we don't take care of our precious soil it won't take care of us.  
.....continued on page 7



## Vibrant Kutch



'Vibrant Kutch' camp for St. Gregorios School was conceptualised with an objective of creating a better understanding of history, culture, environment and the rich heritage of Gujarat. The eager students explored the recently declared UNESCO World Heritage site, Rani ki Vav and later the Modhera Sun Temple to study its unique architecture. They identified varieties of birds in Thol Bird Sanctuary. Their curiosity on dinosaurs was satiated by visiting the Indroda Nature Park. The Sabarmati Ashram, where Mahatma Gandhi lived impressed the students immensely. They learnt his way of life and his teachings. Not to miss out on the leisure time, the students enjoyed plenty of fun activities and gujarati cuisine.

## Royal Trail

Rajasthan, the land of Maharajas and the tigers is where American International School, Chennai visited with Trailblazers. The objective was to provide students an opportunity to follow the Tiger trails of Ranthambore and investigate India's glorious past from the monuments and forts of Jaipur and Ranthambore. The programme was designed to cover activities that would enhance observational skills, team building spirit




## Week Without Walls

American School of Bombay along with TRAILBLAZERS went on a field trip to Matheran. The camp covered team building and creative activities. Students started the day with yoga and later were enthralled with various adventure activities. The evening activities organized by teachers proved to be very fruitful as the children worked together in their groups and formulated strategies to win. Students understood the importance of trust, coordination, timing and planning. Next day, they did a social study project and interviewed shopkeepers in Matheran to understand their various modules of business. They

did water study and assessed physical, chemical and biological parameters of Matheran reservoir. Students cooked delicious chappatis and were judged by their teachers. Trek to nearby points introduced them to flora and fauna. Students were amazed to see biodegradable waste used for producing energy. The non sooty flame impressed the children and the teachers too. They visited the local school and had student interaction. Children shared their school life, routine, hardships in Matheran and learnt local games from them. The shopping stint in the market buying chikkis and souvenirs was a hit.



among the students, environmental awareness, knowledge about Indian wildlife and heritage. The camp covered visits to forest, forts and museums bringing forth the importance of wildlife, heritage sites, their conservation, history, architecture and art of the region. Students were also introduced to the art of block printing and had an opportunity to try their hand at the craft. The visit to Ranthambore National

Park was an amazing experience. From tiger to crocodiles and tree pies, the sightings and the stunning landscape left an indelible impression on the young minds. The camp also offered students a unique opportunity to meet and interact with local school children. The games, songs and activities done together offered students an enjoyable intercultural learning experience 

## Strawberry Hills

Strawberry Country – Mahabaleshwar was a unique experience to an inquisitive group of children who went to explore this unique hill station due to its varied land-forms. Besides visiting the strawberry farm and knowing more about the fruit and its products, students also got an opportunity to visit the honey processing unit and observe the contours of the terrain. It was a truly enriching learning experience.



## Heritage Camp

The word Goa conjures up images of sandy beaches, sun, parties and endless fun! The prestigious Heritage Club of La Martiniere School, however decided to explore Goa's exquisite and vibrant history and culture. Trailblazers has been conceptualising their Heritage Club trips for the past 10 years and Goa was just the perfect choice! Besides the famous churches, museums, forts, the visit to the Western Ghats - a heritage site as well as a Biodiversity hot-spot combined with local culture, cuisine, flora and fauna, gave a completely different perspective of Goa to the students. It was a great learning experience for the young members of the Heritage Club. Trailblazer's constant endeavour has been to innovate outdoor programmes for schools in conjunction with their curriculum thus ensuring success.



## Adventure Camp

The students of South City International School experienced an educational tour outside of West Bengal for the first time. It was also their first visit to Uttarakhand for adventure activities. They liked every moment of the programme starting with rock climbing to river rafting on the Ganga. The teacher accompanying the trip, Ms. Sejal Arora was enthralled by the scenic beauty of the hills and loved the treks. She gave a big thumbs up to Trailblazers in her feedback!



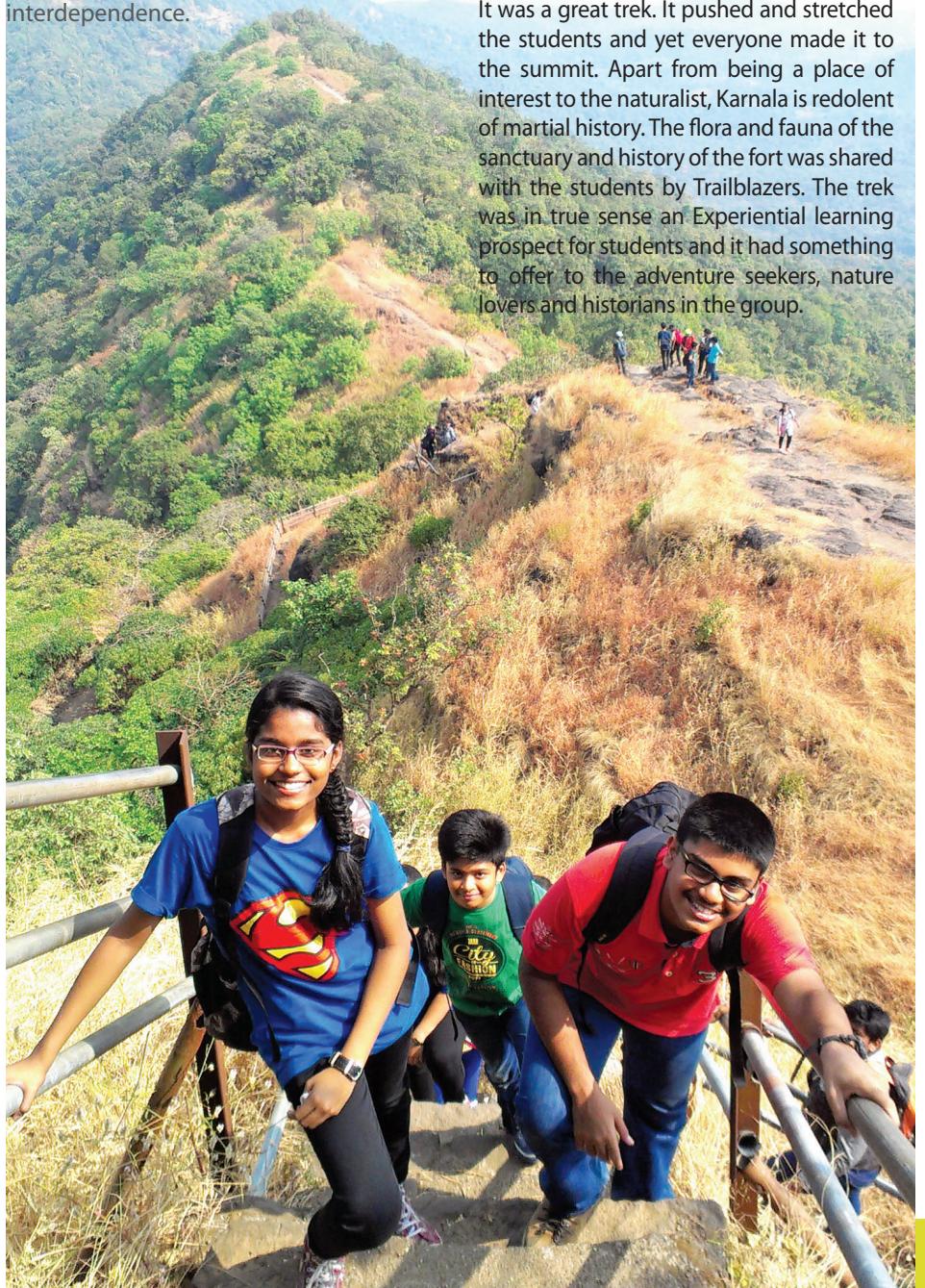
Students participated with great zeal and also enjoyed staying in tents. They loved the campsite and relished the local cuisine. The bird watching session while trekking was great as they spotted babblers, barbets and more. Their experience was shared at the school assembly and they urged other students to join in for future such trips.



## Trek Easy



An excited group of 7-8 year olds of Nahar International School went on an enjoyable hike in Sanjay Gandhi National Park. The curious bunch were enthralled by the butterfly garden and the various flora around. The hike was easy but challenging enough for the little ones. It focused on bonding with nature. Nature games played with the children simplified the concepts of natural resources and their interdependence.



## Fort Trek

It was a mixture of joy and thrill, experienced by the students and teachers of North Point School who participated in Trailblazers Trek to Karnala fort. Away from the commercial buzz of Mumbai and a day in the silent hills of Sahyadris, the trek was a unique experience for the students and teachers.

The group started with great energy and all were confident to finish the trek in record speed. But slowly, as we came across stretches of steep climbs, slippery rocks and loose mud students began to realize that the way to fort is more challenging than they expected. The scenic track sweeping through the heart of the sanctuary providing a rich experience of the flora and fauna of the forest was enough to keep the students active. Most of the route was shaded and protected from the hot sun, and the silence and beauty of nature was as always, energizing!

It was a great trek. It pushed and stretched the students and yet everyone made it to the summit. Apart from being a place of interest to the naturalist, Karnala is redolent of martial history. The flora and fauna of the sanctuary and history of the fort was shared with the students by Trailblazers. The trek was in true sense an Experiential learning prospect for students and it had something to offer to the adventure seekers, nature lovers and historians in the group.

# TRAILBLAZERS ECONOMICS MODULE FOR SCHOOLS



## The Module

Trailblazers has conceptualized a unique Economics Module for Schools across India entitled MONOPOLY.

This special course which combines various elements of fundamental economics coupled with hands on experience, site visits, workshops and expert talks, helps students understand the complex but interesting subject of Economics.

Students of Adamas International School, Aditya Birla World Academy, Chirec Public School and many other schools from across India have been enriched by this inimitable course addressing grades 10 to 12 and IB, IGCSE students.

*"This was truly one of the most well organized study tour I have ever been on. On behalf of the students, and the Social Sciences faculty, a heartfelt Thank you to all, specially Ms. Meena, Mr. Pankaj and Mr. Biswas. A heartfelt thanks from all of us for a very well researched Study Tour" -Vandana Kulkarni, Activities Coordinator - Senior School, Aditya Birla World Academy.*

To participate in our Economics module email us on [trailblazers@vsnl.com](mailto:trailblazers@vsnl.com)



# Save, Sustain, Survive

The Dhirubhai Ambani International School organised a spectacular Sustainability Conference "Save, Sustain and Survive-3S" at their ultra-modern school in Mumbai. International schools across India as well as from USA, Middle East, Pakistan participated. Ranjan Biswas, M.D. Trailblazers Adventure Travel Pvt Ltd and Trustee Trailblazers Foundation was invited as the Keynote Speaker. The highly motivating



and to the point speech extolled the young audience to seek and arrive at solutions through their various sessions and take the developmental agenda

not as an enemy of the environment but as a part of challenge to ensure equitable distribution of resource and money amongst its varied stake holders. To say development will not impact the environment is trying to cover the truth, the questions are difficult to answer as the solutions are not clear, economically feasible or cannot be executed on a mass scale to benefit all, today. But who knows the very clever and motivated students may have the solutions. The speech was

more focused on eliciting answers from the bright young minds participating. For every question addressed at the students there were hundreds whose hands were up, eager to answer, probe the question or seek solutions. The school and its faculty stood out as usual in their very professional approach and conduct of the event. Famed naturalist Sunjoy Monga conducted an informative nature trail the following day.

# Model United Nations




One of the exceptional international schools located in Lonavala is the Cathedral Vidya School. Situated in the bowl of Sahyadri it is home to over 200 resident students. The school which undertakes, both the IGCSE and IB curriculum, played host to a distinguished group of schools from Pune, Lonavala and Mumbai besides other cities of India. The remarkable Model United

Nations (CIMUN) was inaugurated by its dynamic Principal Lt. Col. Y. H. V. S. Prasad. Enterprising young Nihar Dalal , Secretary General, opened the session.

Ranjan Biswas M.D. Trailblazers Adventure Travel Pvt Ltd and Trustee Trailblazers Foundation addressed MUN as the Keynote speaker on the relevance of UN and its roles. The speech covered broad areas of success

and some failures of the UN and its urgent need to change and be more inclusive of the rising group of nations who are now taking center stage due to their growing



economies. It also outlined its challenges. This year's CIMUN covered various topics including one on sports which was interesting as it is not an area where the UN is seen as showing leadership, when in fact it should be, considering it is sports that touches the heart of the youth and can be a transformative activity for the UN. 

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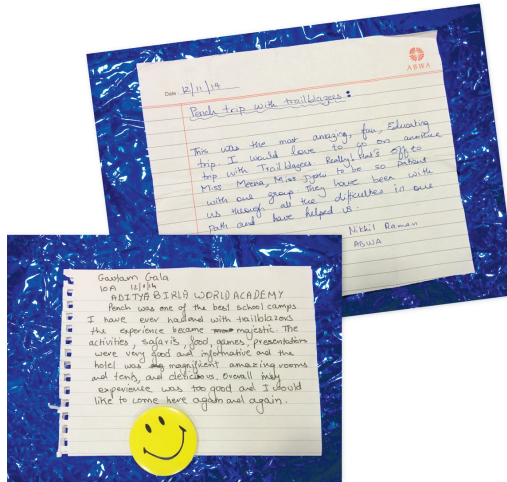
So let's romp in the soil and wallow in wet mud, pause for a moment and care for it as much. It might be a wonderful day for schools to spend some time in their grounds and get messy in the soil, collect samples, take it to the bio lab and under lenses see the wonderful world of our soil. Its fine to swim, it's great to fly

but you really are only safe when your feet have the feel of soft mud and the hard ground beneath. Humble Soil needs your attention.... are we listening??? Spot lighting Soil as humanity's 'silent ally,' the United Nations Food and Agriculture Organization (FAO) has announced 2015 as the International Year of Soils. -Editor



# Global Perspectives

Students and teachers from Aditya Birla World Academy visited Pench with Trailblazers for their IGCSE project. The activities focused on experiential learning to understand social, economic and environment facet of Pench. The camp covered a variety of activities to bring about an understanding of nature. The programme was designed to cover activities that would help them with their Global Perspective, Geography and Environmental studies project. Unique pedagogies including safaris at National park, nature trail guided by an expert in Pench ecosystem and medicinal plants, interactive session with wild life officer and local village people, livelihood of local population, introduction to field study techniques and nature games was covered in the program. The camp had every ingredient that kept students engaged, educated and excited.



## Aprender Español!

Innumerable students from premier schools across India have benefited with an interactive, unique and fun filled experiential Spanish Language Learning Programme.

Spain, known for its splendour and centuries-long history is a big open-air museum for students visiting. The week-long immersive Certified Spanish language learning program in Spain comprises of a class with a distinctly international flavour. It focuses on 20 Spanish Language lessons. Spanish is the second most widely spoken language in the world and the native tongue of 7% of the world's population and the official language of more than 22 countries. Explore Spanish culture, visit the capital city of Madrid and Bernebeu Stadium, home of Real Madrid. Also visit neighbouring Portugal and spend time on pristine Portuguese beaches...learn a new language with Trailblazers.

## Trailblazers Foundation

Sanjay Gandhi National Park is visited by a million people every year. Littering is a major issue affecting it. In an effort to help in cleaning the park, the B. Ed. students of K.J. Somaiya College along with Trailblazers Foundation spent an entire day collecting plastic bottles, wrappers and food plates to heal the park.



## Story Book Calendar

Trailblazers launched a unique Story Book Desk Calendar which traced the organization's 21 years of service to schools in pictures. Trailblazers was started way back in 1994 as a social enterprise with the singular objective of sensitizing students towards the environment and enthusing them into green action.



## Hard Talk with BBC



Stephen Sackur of BBC has a hard talk on ecotourism in India with Ranjan Biswas, Editor of Ecotrail during the World Responsible Tourism Day Conference in London.

## Indian Science Congress

Prime Minister Narendra Modi inaugurated the 102nd Indian Science Congress at Mumbai University and called for greater academic autonomy, focus on research, and need to nurture future generations of scientists. The need of the hour for a sustainable and prosperous country is to put science and technology at the top of our national priority, he said.

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