

April - May 2015

# ECOTRAIL



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## FOCUS ON ENVIRONMENT

### The Little Boy - El Nino

After the heat and dust of summer the onset of monsoon is harbinger of new life, rejuvenation, joy and wonder. There is a feeling amongst the weathermen/women and climatologists that the monsoon this year over the Indian subcontinent may be affected by the El Nino (The Little Boy) effect.

El Nino and La Nina are opposite phases of what climate scientists often refer to as ENSO cycle or the El Nino Southern Oscillation cycle. It describes the fluctuations in temperature between the oceans and the atmosphere in the east central Equatorial Pacific (approximately between the International date line and 120 degrees west).



La Nina is sometimes referred to as the cold phase of ENSO and El Nino as the warm phase of ENSO. These deviations from normal surface temperatures can have large scale impacts not only on ocean process and life forms but also on global weather and climate. It happens when warm water in the

Pacific Ocean interacts with the atmosphere, causing various weather events around the world, from droughts to floods.

If El Nino takes place it will impact the Indian economy, the agriculture, the stock market and the cycle of economic down turn. Of course it all depends on how severe its brunt is. It can impact for a season or in some cases for a few years.

We for a change hope and pray that the El Nino will miss the boat and ensure the path of growth and prosperity for India. This then brings us back to the month of June and July where the monsoon showers us with the elixir of life-Water.

Many of the climate change phenomena is because of our lack of understanding the science, but great efforts are on to be more accurate on our weather predictions, as it will help mankind to better prepare itself from the vagaries of nature. We must also reflect on our actions to ensure that the planet earth has a sustainable future.

As our Prime Minister Shri Narendra Modi said in his speech to the students of one of the finest global university "Fudan University" in Shanghai, that the environmental problems are created by human so too its solutions will have to be found by humans.

In the month of June we celebrate the World Environment day (5th June) and not far from it the 1st week of July is celebrated as Vanmahotsav (Tree plantation festival). We urge all schools to take up the task of re greening the Earth with trees that are indigenous and request the Nature clubs and Conservation clubs to celebrate the year as the year of Planet Earth.



## Summer Time

Dear Reader,

A year has flown by as we get ready for our next issue which will be the 1st Anniversary issue of Ecotrail in its new avatar! Ecotrail has become a must read for hundreds of Principals, teachers, parents and students. We are indeed delighted to see it being put up on notice boards in Schools and even in Principal's office! I wish all Principals, teachers, parents and dear children a happy, successful and safe academic year.

This issue highlights the plight of vanishing cultures of India, an alarming reduction of this magnificent species because of our random use of diclofenac. The environment continues to be source of concern as the brunt of the impact will be felt by gen next in many ways, the most significant being our insatiable consumption. Familiarize yourself with the significance of World Environment Day which is celebrated on the 5th of June and the recently declared International Yoga Day which falls on 21st June.

Enjoy reading about Trailblazer's diverse outbound education camps across India and most important contribute to our special Anniversary issue with photos, snippets, happenings on the theme of environment!

**Ranjan Biswas**  
Editor

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# On the Brink....

The Indian vulture or *Gyps indicus*, formerly fairly common, is now classified as Critically Endangered on the IUCN Red List.

It is found in natural as well as human-modified landscapes and feeds mostly on carrion, preferring rocky outcrops for nesting. These majestic giants that once cruised over rural, semi-urban and urban habitats are hardly visible now.

It has suffered serious declines since the late 1990s, losing as much as 97% of their population. The unnaturally high death toll was thought to be caused by a fatal virus, but research has revealed that vultures are suffering from kidney failure following the consumption of dead cattle that had previously been treated with the anti-inflammatory drug, diclofenac.

The decline is already being felt by humans, as rotting carcasses remain untouched, posing a health hazard, and encouraging feral dog populations which carry rabies.



Image Courtesy: Yann

Vanishing vultures is also a grave concern for the Parsi community that relies on it for disposal of their dead.

The Indian Government announced its support for a ban on the veterinary use of diclofenac and instead promote meloxicam which was found safe for vultures.

Captive-breeding has started however vultures are long lived and slow in breeding. It is hoped that captive-bred birds will be released to the wild when the environment is completely clear of diclofenac.

## STRIDES IN SCIENCE



They do not log in to Facebook or Twitter, but dolphins do, in fact, form highly complex and dynamic networks of friends, a new research has found.

## Dolphins too have social networks

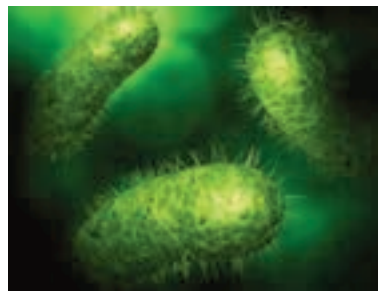
Surveys conducted along the Indian River Lagoon, an estuary located on Florida's east coast, over a six and a half year period revealed that individual bottlenose dolphins exhibited both preference and avoidance behavior - so just like humans, they have dolphins they like and associate with and ones they avoid. "One of the more unique aspects of our study was the discovery that the physical dimensions of the habitat, the long, narrow lagoon system itself, influenced the spatial and temporal dynamics of dolphin association patterns," said Elizabeth Murdoch Titcomb, research biologist at Harbor Branch Oceanographic Institute at Florida Atlantic University.

Communities that occupy the narrowest stretches of the Indian River Lagoon have the most compact social networks, similar to humans who live in small towns and have fewer people with whom to interact," Titcomb noted. Through intensive photo-ID surveys the researchers were able to learn about the association patterns as well as movement behaviour and habitat preferences of some 200 individual dolphins. In addition to providing a unique glimpse into dolphin societies, this novel study provides insights on how dolphins organize themselves, who they interact with and who they avoid, as well as when and where.

## Discovery of 'missing link'

Scientists have discovered a "missing link" between the two main life-forms on earth which could help to explain the evolution of organisms with complex cells like those found in all animals including humans. Until now the division between the simple cells of microbes such as bacteria from the more complicated cells of animals and plants has been so abrupt and absolute that it was difficult to see how one could have evolved from the other. However, researchers have now found a new microbial species that sits between the two branches of life. "We've identified an organism that seems to represent a very, very distant cousin of ours and in doing so it tells us something about our own dark past,"

said Thijs Ettema of Uppsala University. It is believed that life on earth originated more than about 3.5bn years ago but about 2bn years ago it began to evolve into two broad branches - the "prokaryotes", such as the simple cells of bacteria, and the "eukaryotes" with complex cells containing a nucleus and other intricate internal structures. However in a study published in the journal Nature, the researchers found a new organism with the genes of both groups. It was found in sediment samples retrieved from the seabed about 10km away from



a volcanic hydrothermal vent called Loki's Castle situated in the mid-Atlantic between Greenland and Norway at a depth of 2,352 metres.



# Design Thinking: an Innovative learning model

## What is Design Thinking?

Design thinking is a mindset.

Thinking like a designer can transform the way you approach the world when imagining and creating new solutions for the future: it's about being aware of the world around you, believing that you play a role in shaping that world, and taking action toward a more desirable future. Design Thinking gives you faith in your creative abilities and a process to take action through when faced with a difficult challenge.

## It's Human-Centered.

Design Thinking begins by understanding the needs and motivations of people—in this case, the students, teachers, parents, staff and administrators who make up your everyday world. You talk with these people, you listen to them, and you consider how best to help them do good work. Design Thinking begins from this place of deep empathy and builds on the power of these empathetic questions and insights.

## It's Collaborative.

Design Thinking requires conversation, critique and all-out teamwork. And that's something that might be a bit of a shift, because despite the fact that educators are surrounded by people all day long, teaching remains an often solitary profession. Still, addressing complex (or even not-so-complex) challenges benefits significantly from the views of multiple perspectives, and others' creativity bolstering your own.

## It's Experimental.

Design Thinking creates a real space to try something new. It gives you permission to fail and to learn from your mistakes, because you come up with new ideas, get feedback on them, then iterate. Given the range of needs your students have, your work will never be finished or "solved." It is always in progress. Yet there is an underlying expectation that educators must strive for perfection, that they may not make mistakes, that they should always be flawless role models. This kind of expectation makes it hard to take risks. It limits the possibilities to create

more radical change. But educators need to experiment, too, and Design Thinking is all about learning by doing.

## It's Optimistic.

Design Thinking is the fundamental belief that we all can create change—no matter how big a problem, how little time or how small a budget. No matter what constraints exist around you, designing can be an enjoyable process. In short, Design Thinking is the confidence that new, better things are possible and that you can make them happen. And that kind of optimism is well-needed in education. Classrooms and schools across the world are facing design challenges every single day, from integrating technology to increasing parent involvement to improving daily schedules. Wherever they fall on the spectrum of scale, the challenges educators are confronted with are real, complex and varied. As such, they require new perspectives, new tools, and new approaches. **Design Thinking is one of them.**

### PHASES



#### DISCOVERY



**I have a challenge.  
How do I approach it?**

Discovery builds a solid foundation for your ideas. Creating meaningful solutions for students, parents, teachers, colleagues and administrators begins with a deep understanding for their needs. Discovery means opening up to new opportunities, and getting inspired to create new ideas. With the right preparation, this can be eye-opening and will give you a good understanding of your design challenge.



#### INTERPRETATION



**I learned something.  
How do I interpret it?**

Interpretation transforms your stories into meaningful insights. Observations, field visits, or just a simple conversation can be great inspiration—but finding meaning in that and turning it into actionable opportunities for design is not an easy task. It involves storytelling, as well as sorting and condensing thoughts until you've found a compelling point of view and clear direction for ideation.



#### IDEATION



**I see an opportunity.  
What do I create?**

Ideation means generating lots of ideas. Brainstorming encourages you to think expansively and without constraints. It's often the wildest ideas that spark visionary thoughts. With careful preparation and a clear set of rules, a brainstorm session can yield hundreds of fresh ideas.



#### EXPERIMENTATION



**I have an idea.  
How do I build it?**

Experimentation brings your ideas to life. Building prototypes means making ideas tangible, learning while building them, and sharing them with other people. Even with early and rough prototypes, you can receive a direct response and learn how to further improve and refine an idea.



#### EVOLUTION



**I tried something new.  
How do I evolve it?**

Evolution is the development of your concept over time. It involves planning next steps, communicating the idea to people who can help you realize it, and documenting the process. Change often happens over time, and reminders of even subtle signs of progress are important.



## Camp Terra Firma



The students of Class 9 of an international school were enriched with our adventure and history camp to Uttarakhand and Agra. The highlights were the stay at a scenic tented campsite, river rafting on Ganga as well as watching the stunning Taj Mahal and the exquisite Agra fort.



## Tiger Trail

This was an ideal outdoor experience for a group of curious and enthusiastic grade 5 and 6 students. The program focussed on wildlife, adventure and history. Various activities and visits were planned to achieve the objective of the outdoor programme. They visited the Taj Mahal and were mesmerized by its beauty and its ornate inlay work. History on this fascinating symbol of love was shared with the students. After the visit to this magnificent mausoleum, it was time to see the majestic tiger in Corbett National Park. Besides information on the park and its dwindling tree cover, the students explored the forest by jeep safaris. Spotted deer, Sambhar and barking deer welcomed the students! It was a visual treat for bird lovers with sightings of great and oriental pied hornbills; the common and pied kingfishers; bulbuls and babblers. It was exciting to see the tiger's pugmarks, scratch marks on the trees and scats. The climax of the safari was seeing a herd of elephants and a male tusker from close quarters. The students had the opportunity to do various adventure activities to overcome their fears and foster team spirit. All in all it was an enthralling and enriching experience with memories of this trip etched in their minds forever.



## Misty Mountain Trail



“Adventurous experiences out-of-doors are perceived to kindle the enthusiasm of the young, to develop their concern for others, for their community and for the environment. Such experiences provide the means of self-discovery, self-expression and enjoyment which are at once both stimulating and fulfilling” – Unknown

It thus emerges that, for young people and adults alike, Outdoor Adventure is perceived as a vehicle for building values and ideals, for developing creativity and for widening physical and spiritual horizons. A unique combination of Adventure combined with a visit to the historical town of Agra was designed for an international school. It was one of the most memorable camps with a group of awesome Grade 11 students to the Himalayas !!

Besides staying away from their comfort zone and doing challenges which

some of them have never done before, the camp atmosphere gives a unique opportunity to bond the students amongst themselves and with their teachers. Trekking, Rappelling, Valley crossing, Rafting, Bridge Slithering, River crossing were some of the activities that the children participated in. The visit to the Agra Fort and the mesmerizing symbol of love and also one of the wonders of the world – Taj Mahal ignited the curiosity in the children about its architecture and the efforts by the Government to preserve this monument. I am sure this Outbound programme has created life time memories for these children.

And I always feel that should we always teach our children with books? Let them look at the mountains and the stars up above. Let them look at the beauty of the waters and the trees and flowers on earth. They will then begin to think, and to think is the beginning of a real education.





## Winding Valley Trail

The camp winding valley was an ideal occasion for students to bond with each other, with their teachers and also explore, discover and learn. Many group and individual activities including yoga, cooking challenge, nature trail, trekking were part of the itinerary for the enthusiastic students. The underlying objective of all the activities was to enforce the core values of the school.

The adventure activities at camp helped promote active learning among young students through direct personal experience and offered excitement, fun and adventure within a framework of safety. Interaction with local school students was an eye opening experience for the international school students. Cultural event, intellectual discussion and games were highlight of the interaction programme.

Students were taken on a beautiful trek to the highest point. Long walks in the lap of nature was the essence of this activity. The trek through the thick reserved forest was enriching for the students and the view from the summit was spectacular.

A variety of team games and activities were played that kept the students not only engaged, entertained but also helped



enhance their team building, leadership and problem solving qualities. The chapatti and rangoli challenge helped to introduce students to Indian culture and lifestyle when nature trail introduced them to local

vegetation and fauna. In addition to being a fun and adventure programme, this camp has sure been a learning curve for the young campers. The Trailblazers Team received great appreciations from the school.

## Camp River Rocks



For many young people, life is cluttered with gadgets and little or no contact with the natural environment. They may never have seen the stars unimpeded by the glare of sodium lights. For many city based students, a school camp will be their only experience of life outside the city. Trailblazers along with teachers meticulously planned the programme to give the students the best outdoor experience. Adventure in the Himalayas - the mecca of all adventure activities; history and heritage at Delhi, the capital city with historic wonders and Agra, the land of the symbol of love were some of the highlights of the camp.

The campsite located on the pristine silver sand river beach of Alaknanda, the tents overlooking the river, the chirping birds and the majestic mountains all offered a jaw dropping experience for the otherwise tech savvy city students.

Nearly everything is a game at our camp! Activities which included trekking, rock climbing, jumaring, bridge slithering and white water rafting provided the energetic students an opportunity to challenge themselves and learn from their experiences. The activities also provided an excellent platform for team bonding.

Visit to Delhi and Agra exposed student to the rich history and heritage of the subcontinent. The best of both world were presented to the students.

The camp offered students a memorable outdoor experience- an opportunity for personal development, to bond with friends and nature and develop a deeper understanding of the history of our country.

The exciting trip came to an end and students joined their parents at Mumbai airport and drove back home happy. Everyone was missing the camp and wanted to go back.

The Himalayan adventure camp with Trailblazers was sure an unforgettable experience for students and teachers. A source of confidence building, fun and adventure for the students, the camp is sure to last in their minds for years to come.





# World Environment Day



Dream Big, dream to be the king of the world, dream to reach Mars, dream to be happy forever. These and many more billions of dreams lie on the cusp of possibility. Our civilization's dream story is just unfolding and almost all can and will be met. After all we are dreaming of hope. This civilization that has colonized the Earth is the HOPE civilization. However we are taking our only home, the planet Earth, to the brink and then ironically calling an Earth Summit of all the world's leaders to draw up a road map to show how to consume less and save it.

We are 7 billion of us and growing.....

By 2050, if current consumption and production patterns remain the same and with a rising population expected to reach 9.6 billion, we will need three planets to sustain our ways of living and consumption says the UNEP United Nations Environment Programme. We live in a consumerist world and to top it all we are a wasteful society.

Constantly consuming without pondering over the consequences of it on our finite natural resources, is truly mind boggling. Every act of ours leaves behind a carbon footprint. Landfills are required to put our wastes aside and we continue to want more.

The United Nation recognizes this global concern and celebrates 5th June world over as the World Environment Day. It is a day when all 7 billion of us collectively need to think how our actions will make a positive contribution to the life of this planet. Sustainable life style is the thought that we need to work on.

Many pointers indicate that the future of humans will be increasingly difficult, so also there are refreshing stories of alternate life style, best out of waste and harnessing of solar energy, drip water irrigation, path breaking discoveries in various fields - all to ensure that the planet Earth is saved forever. Reduce, Reuse and Recycle must be the mantra. This

June and from now on let's consume less, let's waste less, let's recycle, reuse lot more. If the planet has to continue to host us we must act in unison to Consume with Care.

Our hope lies in young dynamic minds working on new concepts to ensure Earth remains safe from overuse. I am certain all schools are incubating and creating this new generation of scientists, thinkers and disciplined humans who will ensure that we not only survive but also make sure all other species too live, procreate and grow to heal the world.

Please do initiate and hold activities in your school, college or neighborhood to spread this message. It would go a long way in conservation action. And do not forget to inform us as we will be happy to publish them in our next Anniversary issue. Every action counts. Become the agents of change!

Good Luck! - *Editor*



World Environment Day 2015  
**Seven Billion Dreams.  
 One Planet.  
 Consume with Care.**  
 June 5

World Environment Day for the first time invited designers around the world to create the official logo. Koonam Kandiyil Shibin from India won the competition with an inspiring design that best expressed this year's theme – Seven Billion Dreams. One Planet. Consume with Care. The new logo shows the planet with different resource elements classified in colours – water, soil, air, and flora and fauna. The digit '7' represents 7 billion people. The main idea is that because of the 7 billion people, the earth is swallowing a part of itself like Pacman. It indicates that we have no other resources to take except what we already have, hence the need to consume with care.



# Trailblazers Summer Camp




It was something the girls were looking forward to. The Trailblazers Summer Camp to Maharashtra's queen of hill stations and its cultural capital. All geared up and ready to explore, these 85 students from grade 6 to 10, set off on an exciting journey in the mid of May with their sunhats, shades and sunscreen!



The first evening visit to a renowned zoological park was thrilling and enriching. It was encouraging to see the girls interested in the collection of reptiles including snakes, birds & turtles whereas usually this sight would have evinced shrieks from them! The Trailblazers team of expert zoologists shared interesting information and were able to make the students appreciate the uniqueness of reptiles.

A visit to the museum was mesmerising as the students glanced at the rare coin and arms collection of the Peshwas and Maratha Sardars. Situated at a height of 2100 feet above sea level, the temples on Parvati hill are the oldest heritage structures in Pune and reminiscent of the Peshwa dynasty. The setting sun was a beautiful sight to these youngsters as they were used to only seeing it behind the tall concrete structures and

dusty skies! As the trip continued they were excited to set their feet on the red soils of Maharashtra's favourite Hill station. Known for strawberries, stunning views, pleasant weather, jams and squashes, the students enjoyed adventure activities to test their physical endurance.

Appreciating the scenic Tableland and the valleys below, the students enjoyed a short hike to the rocky plateau. Interspersed with visits to honey centre they enjoyed the mountain viewpoints. The hills, their tranquility, the activities, the adventure, the visits and the interactions with locals offered great summer camp memories to these young people who collected experiences which easily brought about Learning for Life. 

## Trailblazers Water Study Module for Schools

Trailblazers conceptualized a project focused field trip for a leading Mumbai based IB school to the lower ranges of the Western Ghats. As part of their IB assessment, Geography students were assigned to undertake an intensive River Study Project. They had to take on an extensive field study to collect primary data for the project which formed part of their assessment. Trailblazers was assigned the task to lead the students on this field study. It was a challenge for Trailblazers to find the right river that met the entire requirement of the project. Safety was a major criteria for Trailblazers who evaluated several

rivulets and rivers flowing down from the higher ranges of Western Ghats and finally narrowed on one.

A calm and slow flowing stretch the river was selected for the project. Under the guidance of their subject teachers from school and Trailblazers expertise, the students collected high-quality river profile data for the project. They analysed bed load and also successfully GPS logged the sites from where data was collected. The field work also provided students an opportunity to experience Geography in reality.





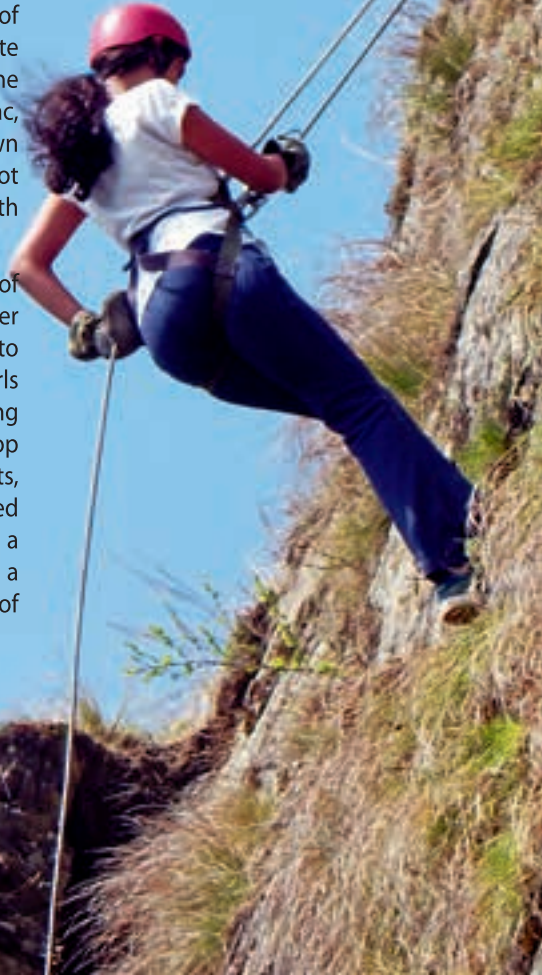
# EVS and Adventure Camp

It was time to fly from the hot and humid climates of the Maximum city to cool and serene environs of valley of Viraat. Students were welcomed by the locally made refreshing Rhododendron juice. They loved the tented accommodation and its surrounding natural beauty. A variety of adventure activities enthralled them. Treks through the forest took them to carpets of wild daisies, Oaks, Pines, Berberis, Deodars and Rubus.

They interacted with villagers on the way and were amazed by the earthquake proof houses built from wood, cow dung, white clay, and flat stones overlapping on the slanted roof. During the overnight bivouac, they learnt to pitch tents and cook their own meal. It was an experience of adjusting not only with their fellow classmates but with weather too.

Students were spellbound by the cascade of water falling down from a height of 30 meter high. The surrounding mist created due to waterfall and its droplets looked like pearls falling from heaven above. After exploring the place, students were given time to shop local goods like Buransh juice, walnuts, and warm clothes. Students also enjoyed the local delicacy momos while taking a break from shopping. They did not miss a single opportunity to capture the beauty of Himalayas with their lens.

This camp also combined their Environment Science (EVS) project wherein students got an opportunity to be field scientists! They conducted various experiments on the Yamuna, under the expertise of Trailblazers staff. They were then given an overview of the flora of the Himalayan region and were assisted in preparation of a Herbarium. The students created an informative journal out of these activities for their school project..



**9-10MAY - WORLD MIGRATORY BIRD DAY**

**21MAY - WORLD DAY FOR CULTURAL DIVERSITY FOR DIALOGUE AND DEVELOPMENT**

**22 MAY - INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY**

**29 MAY - INTERNATIONAL DAY OF UN PEACEKEEPERS**

**1 JUNE - GLOBAL DAY OF PARENTS**

**5 JUNE - WORLD ENVIRONMENT DAY**

**8 JUNE - WORLD OCEANS DAY**

**14 JUNE - WORLD BLOOD DONOR DAY**

**17 JUNE - WORLD DAY TO COMBAT DESERTIFICATION AND DROUGHT**

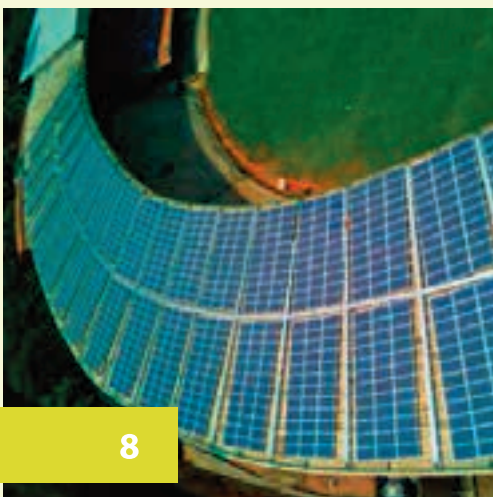
**21 JUNE - INTERNATIONAL DAY OF YOGA**



June 21 was declared as the International Day of Yoga by the UN last year. Yoga, which originated in India, aims to transform the body and mind. The declaration came after the call for the adoption by PM Narendra Modi.



## First Solar Powered Green Cricket Stadium



The Chinnaswamy cricket stadium in Bengaluru has become the first cricket venue in the country to have a rooftop solar power plant. The roof top installation by Karnataka State Cricket Association (KSCA) is a novel initiative executed for the first time at any stadium in the country and probably also the first cricket stadium in the world to have such facility, Karnataka State Cricket Association said. The plant is designed to generate 5.90 lakh units per year, equivalent to powering 200 AEH (All Electric Homes) households using three KW power annually and also saving about 600 tons of carbon dioxide emissions annually.

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