

## Paying back for Nature's Services: Our way



Bio-diversity by definition expresses the variability among the various living organisms. Many believe that bio-diversity is important simply because it has myriads of colors, structures, forms and functions. The quality and quantity of the bio-diversity of the nation, defines for many, if the country is truly "green". But have we ever thought of biodiversity from lens of economics?

For example, do we know that honeybees generate more than USD 200 million annually in Switzerland and that too without any investment? This valuation of services provided by the bees is over and above the cost of honey. It is based on the valuation of the agricultural production resulting from pollination by bees. UNEP's research called 'The Economics of Ecosystem and Bio-diversity (TEEB)' has

**By Rajendra Shende**  
Chairman TERRE Policy Centre

revealed that total economic value of insect pollination globally is about USD 150 billion, almost equivalent to the GDP of Sri Lanka and Myanmar together<sup>1</sup>. TEEB attempts to measure the dollar values of ecosystem-services to create awareness of real meaning of bio-diversity.

Recently, I came across amazing and invaluable services provided by one of the 3 million species living amidst the coral reefs deep in the oceans. The specie is called Ecteinascidia turbinate, which when fully grown is 2 centimeters long and weigh less than 15 grams. Their blood contains a microscopic element; chemically named ET-743, which is the most effective anti-cancer drug, used as last resort.

*Continued on page 2*

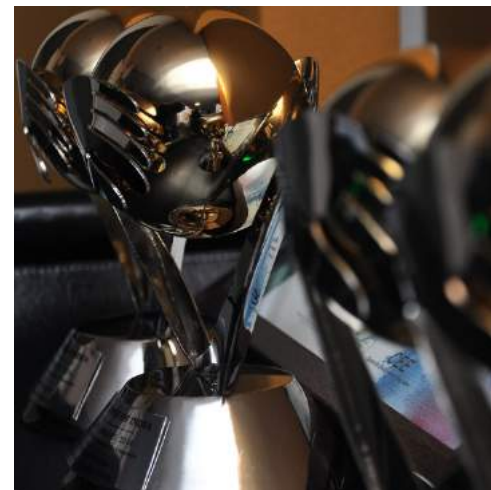
**7<sup>th</sup> JSW - THE TIMES OF INDIA**  
**EARTH CARE AWARDS-2016**  
Edition Awards For Excellence In Climate Change Mitigation & Adaptation

*The Earth Care Awards (ECAs) is an initiative in the chain of green awards which highlights locally evolved climate friendly practices in the production and consumption regimes across multiple sectors with special reference to climate change. It recognizes the actions and innovations for climate change mitigation and adaptation by communities, entrepreneurs, large scale industries, and small and medium scale enterprises. The award recognizes, verifies, and promotes the replicable initiatives and interventions on the greenhouse gasses (GHG) emission reduction, natural resource conservation, energy efficiency improvement, development and promotion of innovative eco-friendly alternatives across various sectors of development.*

**APPLICATIONS ARE  
NOW OPEN !!**

Last date for application is the  
**31st of March 2016**

[www.earthcareawards.com](http://www.earthcareawards.com)



## Paying back for Nature's Services: Our way

From page 1 As compared to other less effective last-resort-anti-cancer drugs this one has no side effect at all.

One ounce of the gold, today, costs about USD 1000. One ounce of this microscopic element is valued at USD 56 Million based on the cost to manufacture that drug in the laboratory! That is the value of the services provided by the tiny marine specie. Unfortunately this specie cannot patent its product or process!

All of us payback for the services provided to us, for example to the mobile phone operators, as matter of urgency. How do we, humans, payback the food-provider bees and life-saving services of miniscule marine specie? We produce insecticides in chemical factories to kill those bees. We emit Green House Gases (GHGs) to warm the oceans and acidify them to kill those teeny species. That's how we pay back for their services.

1. As per UN's Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report released on 26 Feb 2016, animal pollination that includes bees, birds, butterflies, beetles and bats is directly responsible for between 5-8% of global agricultural production by volume, amounting to between \$235bn and \$577bn worth of annual output.

## Sustainable Lifestyles and Eco-friendly Households



Dr. Vinitaa Apte addressing Students of SNDT

Dr. Vinitaa Apte President, TERRE Policy Centre was invited to present a talk on Sustainable lifestyles at the SNDT women's University – Home science department. The talk was held in view of National Science Day which is celebrated in India on the 28th of February to mark the discovery of the Raman Effect.

Dr. Apte spoke on the value and importance of Sustainable lifestyles in the light of current debates on Climate Change and environmental deterioration. "As home science students and future home-makers, women form a very large part of environmental discourse. Being heavy consumers of energy for their daily chores, women should be more responsible and try and adopt sustainable lifestyles" ad-

vised Dr. Apte while addressing a rather keen audience.

Awareness of renewable sources of energy, biogas, effective waste management techniques and minimum energy utilisation was demonstrated to the students. Globalization, she said "has made consumers powerful actors in our world economy.

Our daily choices as consumers affect the lives of workers in distant places and the way people live. Sustainable consumption means buying goods and services that do not harm the environment, society, and the economy." This was indeed an informative presentation and was well received by all the students of the SNDT Home Science department.

## Workshop on Climate and Clean Air Coalition to reduce short lived climate pollutants in Panvel City



With the collaboration of Panvel Municipal Council, TERRE Policy Centre and CCAC organized a workshop on solid waste assessment of Panvel on 17th Feb, 2016. The main objective of the workshop was to analyze & implement the assessment for the current scenario of solid waste in Panvel city. Dr. Vinitaa Apte, president of TERRE Policy Centre spoke about TERRE's work in diverse fields of protection & conservation of the environment. Mr. Khaade, CEO, Panvel city was the main guest of the event.

Starting with the present condition of solid waste in Panvel city, one of the participants

and stakeholder revealed the unawareness among the people of Panvel city about segregation of the waste. Followed by a talk by Mr. Girish Kandalgaokar, president of Vivam solid waste management pvt. ltd. guide about the company's prominent work on waste management in different societies, residential zones in Pune.

Also the information about self developed equipments from waste to energy was given.

Mumbai based solid waste management Sampoon (E)arth Ltd's Mr. Chintan also spoke the audience about the current scenario of Mumbai's waste management. Involvement of the women in the

sector & increase their employability was the main objective of the organization.

The stakeholders were truly inspired by the workshop & positive towards the future planning of the assessment of the solid waste.

NUMBER OF MONTH

30

Over 30% of the world's plants are found in the wetlands.





## TERRE YuCon - International Youth Conference on Biodiversity, Water, Climate Change and Sustainable Energy



*The esteemed Jury Panel keenly listening to the presentations*

TERRE Policy Centre along with MIT-SOM College Pune organised a youth conference on Biodiversity, Water, Climate Change and Sustainable Energy. The focus of the conference was to bring together the youth in an effort to combat Climate Change.

The Jury panel consisted of eminent experts in the fields of Environment and Sustainable

Energy.

Dr. Ruchi Pant- Programme Officer energy and environment programme UNDP, Ms. Karuna Singh- Country Director Earth Day Network, and Dr. Ram Boojh -Programme Specialist Environment and Natural Heritage UNESCO, were the experts judging the participants.

“Students these days have young and innovative ideas to combat issues concerning climate change and environmental degradation. This conference acts as an outlet for these young minds to put their ideas out and have them judged by experts” Said Dr. Vinitaa Apte, President TERRE Policy Centre.

It is indeed a great platform for participants to present their research and study on mentioned subjects to the experts of the respective fields.

The conference culminated in the discovery of various research projects and outcomes. TERRE Policy Centre aims to take these projects forward and get as many young ideas on board.



*Ms. Karuna Singh handing out the Certificates of Participation*



*A student presenting her poster presentation*

## A Ray of Hope for residents of Murhakharab



Murhakharab, a totally isolated settlement of around 35 families of Dhangar caste are privileged by the presence of basic facilities like electricity, road & water. Surprisingly the village is just a mile far from the township of Lavasa.

TATA motors with TERRE Policy Centre lit a ray of hope in

the otherwise darkness filled lives of the locals, by distributing solar lights among the poor families of the village. The residents had been struggling for the light for a long time and all the daily activities were being performed in kerosene light.

The donated solar LED lights of 3 watts are sufficient to spread light into the hut. Many household works can be easily practiced in the sufficient light of the lamp.

These lamps have indeed proven to be a great benefactor for women of the house, children etc. ● ● ●

## Light for brilliance

Savitribai Phule Vasatigrubh (a hostel) is situated in Panshet near Khanapur village run by Awakening Jagriti, an NGO. It is around 40 km away from Pune, hosting approximately 70 students from 5th to 12th standard.

In July 2014, the electricity of the orphanage was cut down due to a dispute between the MSEB & local irrigation department. As a result, they incurred a bill of INR 6,00,000 electricity



Dr. Vinitaa Apte being felicitated by a student bill, which was obviously very difficult for them to pay. Since then the students have been struggling for light to complete certain activities after sunset. TERRE Policy Centre along with members of Awakening Jagriti visited the hostel to donate our solar lamps to each student. We do hope these light a glimmer of hope for years to come.

## Earth Day Network Sheher Green Karo Campaign



TERRE Policy Centre proudly launches the Sheher Green Karo campaign in Collaboration with Earth Day Network. We encourage all of you to get in touch with our office and do your part.

Plant a tree, stop using plastic or save water. Take a pledge and be part of a sustainable society.



## QUESTION OF THE MONTH

27 February is celebrated as

1. International Polar Bear Day
2. International Wetland Day
3. World Earth Day
4. World Tiger Day



If you know the answer, send in your entry to us at [info@terrepolicycentre.com](mailto:info@terrepolicycentre.com)

WINNER OF LAST MONTH'S QUIZ

Mr. Nilkanth Palve  
([nilkanthpalve@gmail.com](mailto:nilkanthpalve@gmail.com))



# The TRUTH ABOUT FRESHWATER

**WITHOUT WETLANDS**  
THIS COULD HAPPEN TO YOUR LAKE

**Wetlands** – such as marshes and ponds – help filter our water so we have clean and healthy water sources, like rivers and lakes.

These wetlands provide habitat for thousands of species of plants and animals including fish, shellfish, mammals and birds.

## WETLANDS = HABITAT



## THE IMPACT

When we lose wetlands, it affects our water, which supports:

Drinking water



Tourism



Wildlife



Swimming



Fishing



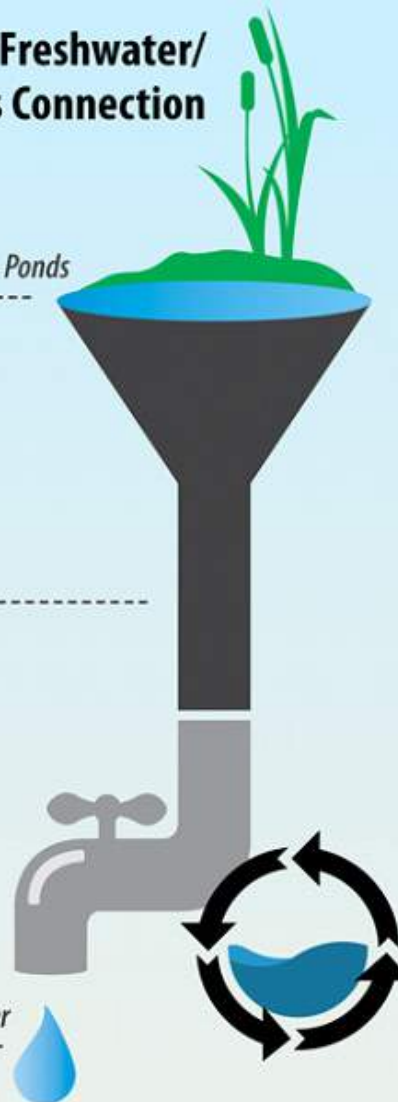
Property values

## The Freshwater/Wetlands Connection

Marshes + Ponds

Filter

Our Water



## ➤ The Solution

There are many things you can do to help!

1. Learn about the importance of wetlands.
2. Get active with us.
3. Share this information with others!



Only if we work together can we ensure that future generations will have the freshwater they need.



## NEWS NETWORK



### Antarctic ice sheet is more vulnerable to carbon dioxide than expected

Results from a new climate reconstruction of how Antarctica's ice sheets responded during the last period when atmospheric carbon dioxide reached levels like those expected to occur in about 30 years, plus sediment core findings reported in a companion paper, suggest that the ice sheets are more vulnerable to rising atmospheric carbon dioxide than previously thought.

<https://www.sciencedaily.com/releases/2016/02/160222155615.htm>



Scientists have found that a surprising organism may sometimes be present when coral reefs undergo devastating bleaching events: a form of herpes virus. In a recent paper in the journal *Frontiers in Microbiology*, researchers from Oregon State University describe how, while they were studying corals on Australia's Great Barrier Reef, a bleaching event began to take place.

<http://news.discovery.com/earth/oceans/bleached-corals-may-have-herpes-160217.htm>



### Global initiative introduces first proposal to reduce airplane pollution

Governments proposed for the first time on Monday to reduce climate pollution from airplanes, plugging one of the biggest loopholes in last December's landmark Paris agreement. The global initiative was a first attempt to halt carbon emissions from air travel – one of the fastest growing sources of climate pollution.

<http://www.theguardian.com/world/2016/feb/08/airplane-pollution-emissions-new-global-standards>

## There is so much "Selfie"-ishness these days that.....

