



## All in the Green: The Advent of Green Economy

The colour of money is green, and now, so is the Economy.

Green Economy is one in which the growth and income are driven by environmentally friendly economic activities which reduce emissions and lower carbon footprints.

UNEP has an initiative called GEI (Green Economy Initiative), which encourages such activities by providing advisory assistance and partnerships.

Here are a few initiatives endorsed by GEI.

### Woodlot Management in Tanzania

Makete is a district in Western part of Tanzania, Africa. There the local people mainly depend on forest, woodland and grassland resources for their livelihood. Not to mention, that these resources are also crucial for crucial for maintaining watersheds and protecting environment of the region.

Unsustainable land use, coupled with climate change factors, has resulted into serious ecological damage, limiting the productiv-



WOMEN WORKING IN A WOODLOT IN TANZANIA  
(Source: [www.flickr.com](http://www.flickr.com))

ity of the Makete. The Tanzanian authorities have decided to mitigate this risk to developmental efforts.

With the help of local communities, small areas of land, called woodlots, are being improved. These woodlots serve as a source of timber which in turn is a source of income for the locals. Management practices, complete with harvesting and marketing protocols, have been put in place. These allow for better revenues as well as better soil and water management. The efforts have also provided employment opportunities for women in land preparation, woodlot management and market-

ing. As of 2009-10, there was a 64% increase in council revenue for the Makete district due to this programme.

### Waste Management in Republic of Korea

With time, population increases and so do its needs. Subsequently, the waste generation also rises due to use of consumer goods, but there are limited means to deal with it using traditional methods. The recent initiative, by the Korean Government, called "Extended Producer Responsibility" (EPR) system is aiming to control the waste problem.

EPR requires manufacturers and importers to

recycle a certain amount of the waste generated from use of their products. This has resulted in environmental as well as economic benefits as the practice has encouraged generation of energy from waste, simultaneously creating new job opportunities in waste management. CO2 emissions have been considerably reduced, so has land filling and incineration of waste. The success is exemplified by the fact that Korea's Landfill Gas Recovery Project, which allowed the country to reduce its oil imports by 530, 000 barrels in 2009.

### Rural ecological infrastructure in India

More than 30 million families reached per year in more than 600 districts. This is the kind of outreach of the NREGA (National Rural Employment Guarantee Act), implemented by Ministry of Rural Development in India. The emphasis is placed on labour-intensive work, prohibiting the deployment of middle entities like contractors and machinery.

Contd. on Page 2

### In the News

**The world starts new year with a hope to get International Treaty on Mercury**

**Keep track of latest news on environmental issues on our website**

### Guest Column

Our Guest Column for this issue is a drawing contributed by Sunil Garud, a Mumbai based Graphic Designer. His paintings and art often use inspirations from nature. We have here one such piece from his collection.

Sunil's achievements include Silver at the New York Festival in 2007 and Silver at Indian Outdoor Awards in 2007, among many others.



## From the Chairman's Desk

### New year surprises from USA



For last two decades USA was a favorite punch-bag for the rest of the world, when it came to Climate Change.

'A Country that has just about 4 percent of the world population emits hugely shameful 25 percent of the global anthropogenic carbon dioxide emission', goes one of the heavy punches. Two decades of blows and thumps made it difficult for the super-

the way to meet that target. The most bullying student in the class is now graduating with flying colors when the toppers in the class have failed!

The amount of carbon dioxide being released into the atmosphere in the U.S. has fallen dramatically to its lowest level in 20 years! Energy related CO2 emissions of USA – which account for the 98 percent of its total emissions for the first four months of 2012 fell to about 1992 levels.

The reason? The natural gas or shale gas produced by controversial fracking process is replacing coal in the power



A FRACKING SITE IN USA  
(Source: rt.com)

power to face international to navigate the international meetings on climate change and other environmental issues.

Not any more.

The Kyoto Protocol stipulated that by end of 2012, the emission reductions by the developed countries should be about 5% less than the emissions in 1992. All those developed countries that accepted the legally binding reductions miserably failed to achieve this collectively but USA is now on

plants. Coupled with it, energy efficiency initiatives, use of bio fuels is driving the change. But Natural gas is the main game changer.

Associated risks of collateral damage to aquifers, land degradation, accidental release of methane loom large over this good news. But then the technology could help in leveraging this surprising development as transition strategy to address climate change in rest of the century.

**Rajendra Shende**  
Chairman, TERRE

## All in the Green: The Advent of Green Economy

### Contd from Page 1

The secondary objective to strengthen rural natural resource management is achieved by rural works that address causes of drought, deforestation and soil erosion, thus restoring the natural capital base on which rural livelihoods depends. Water conservation accounts for about half of the total projects supported under NREGA. NREGA promotes inclusive growth and the restoration of ecological infrastructure, while having a strong impact on empowerment of poor or marginalized groups.

### Feed-in tariffs in Kenya

FIT or feed-in tariff is a policy instrument implemented in Kenya that makes it mandatory for energy companies or "utilities" responsible for operating the national grid to purchase electricity from renewable energy sources at a pre-determined price. This is sufficiently attractive to stimulate new investment in the renewables sector. This ensures a guaranteed market and attractive returns on investment for producers of renewable energy from sources such as solar, wind, geothermal.

With this policy, Kenya has taken a critically important step in development of renewable energy generation, while keeping in mind the important economic, environmental and social policy objectives. The policy ensures reduction in GHG

emission, reduction in dependence on imported fossil fuels and enhances economic com-



INSTALLING A SOLAR SET-UP  
IN CHINA

(Source: www.treebugger.com)

petitiveness and job creation. It is expected that FIT could stimulate generation of 1300MW of electricity generation capacity, which would directly contribute to the energy security concerns of the country.

### Renewable Energy in China

China's Renewable Energy Law, passed in 2005, offers a variety of financial incentives, such as a national fund to foster renewable energy development, discounted lending and tax preferences for renewable energy projects, and a requirement that power grid operators purchase resources from registered renewable energy producers. The combination of investments and policy incentives has encouraged major advances in the development of both wind power and solar power

With an output of about US\$ 17 billion an estimated 1.5 million have been employed in the renewable sector as of 2009.

Source: www.unep.org/greeneconomy

Get ready to make some Eco-Resolutions in 2013

Campaign by TERRE: Coming Soon!

[Click here to visit our website for more details](#)





## The Road Ahead: TERRE in 2013

2012 was a busy year at TERRE Policy Centre, as indicated in our last issue of News-letTERRE. We hope that 2013 would not only be equally busy but more impactful too.

Here are the some glimpses of our overall plans for 2013:

### Food Security

#### Western Ghats Sustainability Project

Conservation of the Western Ghats is directly linked to the Indian monsoon and hence to food availability. Western Ghats got a place in UNESCO's World Natural Heritage Sites list in 2012. In accordance with the same TERRE has been active in promoting community efforts in Western Ghats, Maharashtra (India) with an aim to promote conservations.

Our focus for 2013 will be leveraging the inscription of the sites for sustainable development of local communities by kicking off several initiatives and programme. We strongly believe that engaging local communities for nature and BD conservation is possible if it is linked to their livelihood.

### Cold Chain Management

Preventing the wastage of the perishable food and preserving the nutrients requires effective supply chain and cold chain management. India needs to enhance its efforts in making refrigeration and cooling technologies more efficient for these purposes. TERRE would be launching major initiative through stakeholders' conference that would address food security, Ozone friendly and climate friendly technologies in cold chain.

### Rivulet Restoration

The buzz at TERRE about Rivulet-'Kamandalu'- restoration started in 2010, to bring back to life this tributary of River Krishna originating in the Western Ghats of India. Kamandalu that flows through the town of Rahimatpur which used the water from it for its livelihood for ages, is now being used as a dumping ground for the town's waste, since the tap -water started supplying water from River Krishna. Work for restoration, cleaning, bioremediation of water (treatment using micro-organisms) was started which gave encouraging results. In



VOLUNTEERS AT RIVER CLEAN-UP IN RAHIMATPUR

2013, TERRE is working towards making the water from the rivulet sustainably usable by the region

### Energy Security

#### Energy Efficiency and renewable energy actions by engaging youth

TERRE has conducted a preliminary study about energy consumption in activities where youth are engaged. .

Keeping in mind that if the energy consuming activities related to youth are aimed to make more efficient and sourced from renewable energy, not only their carbon footprint will be reduced but also their mind will be groomed for the similar actions in their future life. Apart from creating 'new

energy society' TERRE will also potentially influence the mass of students to lead a more energy efficient lifestyle.

### Quick action on Climate Change

TERRE will be partner in Climate and Clean Air Coalition (CCAC) promoted by UNEP. Reducing emissions from biomass burning, use of non-HFCs and low GWP refrigerants and methane provides quick results to mitigate climate change. TERRE will dedicate itself to those efforts though pilot and awareness activities.

Eco Resolutions, CSR Training for the Small and Medium Industries, Training in Renewable energy, Advisory services to the private sector and academics, demonstration projects in rural area on renewable energy, micro-grids, developing policy papers in food security, energy security, environmental crime will be some of the other projects that are being undertaken.

To keep abreast with the latest at TERRE Policy Centre,



God has cared for these trees, saved them from drought, disease, avalanches, and a thousand tempests and floods. But he cannot save them from fools.

John Muir

### Quick Question

The following pollutant is not contained in vehicular exhaust emissions:

- Lead
- Ammonia
- Carbon monoxide
- Particulate matter

Send in your entry to us at [terrepolicycentre@gmail.com](mailto:terrepolicycentre@gmail.com) before 28th January 2013

### Last Issue's Answer:

Both, Sheep Skin and Panda Excrement can be used for making paper

### Quick Answers

Saurabh Patwardhan  
(Symantec, Pune)



Let's Talk Numbers

**31.6 x 10<sup>9</sup>**

is the amount of global CO<sub>2</sub> emissions, in Metric Tonnes, due to combustion of Fossil Fuels.

(Source: IEA, 2011 figures)

Reader's Speak

I read the NewsleTERRE with great interest Firstly, what an interesting way to come up with the name.

Some of the points were very interesting, such as 39 sites in western ghats being inscribed as heritage sites. They should definitely be worth visiting for me personally. Many of the eco resolutions too were very interesting. The cartoons were excellent.

My first suggestion for improvement is to highlight all the important things. The bullet points could be bolder and in a different color. The layout on the 3rd page was very neat and the same designing style could be used throughout the newsletter. Also, some photographs could be used to support the text matter.

**Manoj Agarwal**

Banking Frontiers, Mumbai

Here come the 'Greenventions': Eco-friendly inventions to watch-out for

**Bedol Water Clock**



You will never need to hunt for batteries for that clock of yours. Bedol has come up with clocks that run on water. All you need is water and a pinch of salt to run these things for 12 to 14 weeks.

([www.bedolwhat'snext.com](http://www.bedolwhat'snext.com))

**The White Goat: Toilet paper maker**



A Japanese company has come up with a way of utilising the waste paper from your everyday office waste-basket.

The 6-foot automated 'White Goat' machine churns out toilet paper from recycled material. No word on the energy efficiency of this setup, but let's hope that the green benefits outweigh the power consumption.

(<http://www.gizmag.com/waste-paper-in-toilet-paper-out/14048/>)

**Vertical farming**

What's new and green with the

idea of building skyscrapers?

Prof. Dickson Despommier's latest version of vertical farming



will change your perception. The Columbia University professor suggests that this is the solution for the ever growing global population and its food security concerns.

The idea is to construct environmentally controlled multi-storied farms which will use mineral rich water in place of soil. Water could also be sourced from constructed water bodies which house fish, whose waste will serve as a nutrient source. Pilot projects have been started in cities like Chicago and Singapore.

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

**Quirky Corky**



Waterproof, self-sufficient and ingenious. This is one intelligent mouse made of cork and piezoelectric materials. The energy to power the mouse comes when pressure is put on the mouse buttons or scroll.

<http://www.corkway.com/>

[about/design/corky-cork-computer-mouse/](http://about/design/corky-cork-computer-mouse/)

**nPower PEG**



PEG or Personal Energy Generator is a great device for people always on the move.

This device generates power from your movement when you walk, run, hike, bike... It can be used for charging mobile phones, MP3 players, GPS devices anywhere, anytime.. Just Move!

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

**Samsung Blue for a Green Earth**



There is more to this phone from Samsung Electronics than cool apps and attractive design.

Apart from having features like an in-built solar charger and CO<sub>2</sub> calculator among others, the real seller is the fact that the phone is made from recycled plastics that reduces fuel consumptions and carbon emissions during manufacturing. Certainly an invention to look out for.

(<http://1800recycling.com/2012/02/samsung-blue-earth-eco-friendly-phone/>)

**What can we do?**

**Keep your freezer full.** It takes less energy to cool a full freezer than an empty one so try and keep it topped up, preferably with home cooked meals stored in reused containers. If your freezer needs filling, add plastic bottles of water to take up the empty space.

**TERRE Policy Centre**

7, Hemdatta Apartments, 38 Mrutyunjay Colony Kothrud, Pune - 411029  
Pandit Ajaokar Scheme, Khandobacha Mal, Bhugaoan, Pune - 411042

For feedback, suggestions and contributions contact us at [terrepolicycentre@gmail.com](mailto:terrepolicycentre@gmail.com)  
[www.terrepolicycentre.org](http://www.terrepolicycentre.org)

Editor NewsleTERRE:  
Neha Patwardhan  
(Programme Leader, TERRE)