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Business Sustainability News

International

Wind power capacity grew 20% globally in 2012, figures show

A relative slowdown in new wind turbine construction in China was offset by increases in the US, Germany, India and the UK

By **Damian Carrington**, *guardian.co.uk*,



'Exceptionally strong' US growth ... wind turbines in Rio Vista, California. Photograph: Ken James/Getty

carbon energy future. We're also driving the technology forward with innovative 6MW offshore turbines currently being installed in the North Sea."

The GWEC said market consolidation led to the relative slowdown in China, while "a lapse in policy" caused a similar slowdown in India, but expected Asian dominance of global wind markets to continue.

The record year for installation in the US was driven by a rush to beat an anticipated end to tax credits: 8GW of the total 13GW were installed in the last quarter of 2012. However, the tax credit has since been extended, meaning a dramatic slowdown in the US in 2013 is less likely.

GWEC said the outlook for 2013 in Europe was uncertain due to the eurozone debt crisis, but that the EU's legal commitments and 2020 targets for renewable energy ensured "a degree of stability".

There is very little wind power installed in Africa, but sub-Saharan Africa's first large commercial wind farm came on line in 2012, a 52MW project in Ethiopia. "This is just the beginning of the African market," said Sawyer. "With construction started on over 0.5GW in South Africa, we expect Africa to be a substantial new market, where clean, competitive energy generated with indigenous sources is a priority for economic development."

Solar power reached 100GW installed capacity in 2012 for the first time, according to data from the European Photovoltaic Industry Association (EPIA), up from 71GW in 2011 and just 40GW in 2010. The largest market by far is Europe, with Germany (32GW total) and Italy (16GW) the leaders. But while solar panel connections in Europe fell by 5GW in 2012 compared to the previous year, installations rose by 5GW in the rest of the world, notable China, the US, Japan and India.

Wind power expanded by almost 20% in 2012 around the world to reach a new peak of 282 gigawatts (GW) of total installed capacity, while solar power reached more than 100GW, having more than doubled in two years.

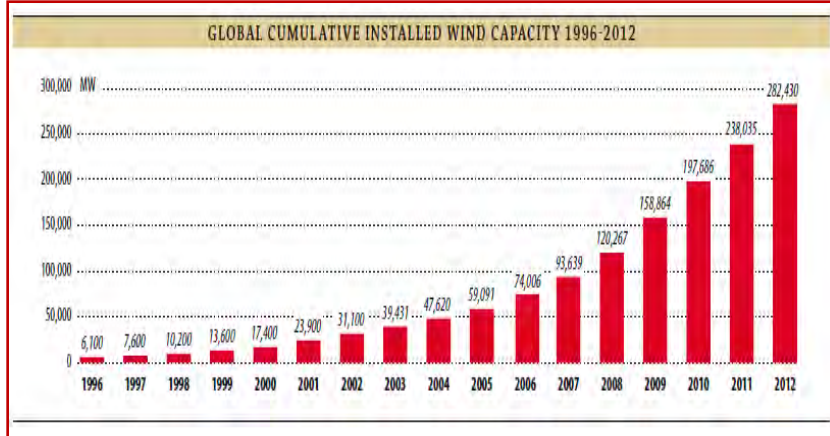
More than 45GW of new wind turbines arrived in 2012, with China and the US leading the way with 13GW each, while Germany, India and the UK were next with about 2GW apiece.

"While China paused for breath, both the US and European markets had exceptionally strong years," said Steve Sawyer, secretary general of the Global Wind Energy Council (GWEC), which produced the statistics. "Asia still led global markets, but with North America a close second, and Europe not far behind."

The UK now ranks sixth in the world for installed wind power, with 8.5GW. In Europe, only Germany (31GW) and Spain (23GW) have more. China leads the world with 77GW installed and the US is second with 60GW.

The UK is by far the world leader in offshore wind deployment, installing 0.85MW in 2012 to bring the total so far to 3GW. Denmark has a total of 0.9GW installed; Belgium is ranked third with 0.4GW.

"We are pleased to be part of this success story," said a spokeswoman for the UK department of energy and climate change. "Wind is an important part of our low-carbon energy future."



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Are smart cities the answer to rising populations?

By **Tim Smedley**, for *guardian.co.uk*

Meeting the twin global challenges of more people and dwindling resources requires dramatic solutions. One answer is to build entirely new "smart cities", using the latest in technology and construction techniques.

The most well-known of this kind of project is Masdar City, which is being build on a spare square mile of desert by Abu Dhabi international airport and due to be completed in 2025 (pushed back from 2016).

The city will be raised metres above a concrete base to maximize its



Self-driving electric cars will be a feature of Masdar City, Abu Dhabi. But is it the answer to rising populations and fewer resources?
Photograph: Kamran Jebreili/AP

exposure to cooling winds, petrol cars banned and replaced by a fleet of self-driving electric cars in specially-built tunnels, and low-energy appliances and insulation mean the city will use only a quarter of the energy of a traditional city its size (an expected 40,000 residents and 50,000 commuters), almost all of which will be provided by a solar farm positioned outside the city limits.

What's not to like? Well, according to some of the world's leading thinkers in urban design and architecture, quite a lot.

Bjarke Ingels, the Danish architect – famous for taking Copenhagen's little mermaid statue to China as part of the 2010 world expo in Shanghai, and founding partner of Bjarke Ingels Group – thinks that Masdar is "not exactly very practical. It's an extreme prestige project that doesn't really work in conventional economical terms."

The price tag for Masdar has been reported as \$22bn (£14bn). "It involves almost a tripling of the infrastructure of a city," says Ingels. "I can't see how an entire extra level of underground streets with self-driving, ultra-expensive cars, is a very feasible proposal for a successful urban model."

The issue urbanists have is not with Masdar per se – home to the already complete Masdar Institute for renewable technology design, and already testing many welcome innovations including new PV-panel designs – but with the idea that new cities can be seen as some sort of solution. "The majority of the cities that will be our cities of the future are already here", continues Ingels. "Cities evolve in gradual increments. Even a city like Shenzhen, that grew from being a fisherman's village 30 years ago to being 40 million people at the last count, is developing on a series of existing conditions."

Adam Greenfield, founder and managing director of New York urban technology company Urbanscale, and working on the book *The City is Here For You to Use*, agrees with Ingels. "Instead of building smart cities, we need to ... help cities do what they already do," he says. "To remain supple enough in our technological and budgetary commitments that we can respond."

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Innovative Startup Tackles US Food Waste

By *SustainableBusiness.com News*

An innovative startup company, FoodStar, wants to do something about the fact that a staggering 52% of the food grown or raised on US farms winds up in landfills.

Fruits and vegetables often don't even make it to supermarket shelves because retailers think people will reject them if they aren't cosmetically perfect.



But what if it cost 80% less than the typical price?

FoodStar is counting on the assumption that people wouldn't care if an apple isn't completely red or is perfectly shaped if they can get fresh produce at a great price.

Therefore, the company organizes "flash" sales with supermarket produce departments for foods that don't quite meet aesthetic requirements or

are nearing the end of its shelf life. Shoppers sign up at Foodstar's website to be notified about these sales.

Any unsold produce that's left after a flash sale goes to composting facilities rather than landfills.

FoodStar is testing the concept with apples at a local grocery chain, Andronico's Community Market, in Northern California. Although the apples are nutritionally fine, they are one "quality" level below those typically bought by retailers.

The apples are displayed in a separate bin with a sign that says: "By intercepting food that would normally add to farmers' expenses, together we are putting more money into growers pockets and offering great deals on product to our customers."

In the first two weeks, two tons of apples sold.

It's a win-win - supermarkets benefit from more traffic and the ability to offer deals to customers. Farmers can harvest more of their crop and America wastes less food.

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Battery-powered intercity trains possible, says government study

By **Peter Walker**, for *guardian.co.uk*

If for some an intercity express will always resemble an oversized toy then this is perhaps just one stage further towards an extravagant childhood dream: a battery-powered train capable of travelling 600 miles on a single charge.



Research indicated battery-powered trains could travel up to 600 miles on a single charge if fuel costs and environmental issues required it. Photograph: Dual Aspect/Alamy

Such a technology is now possible, if not immediately likely to pull into a local station, according to government-commissioned research. The study was ordered by the Department for Transport with the significantly more serious purpose of examining ways trains could run on difficult-to-electrify lines if fossil fuel prices and environmental worries make diesel power too expensive.

The experts, working on behalf of the Transport Research Laboratory, looked into two options, the first of which would see a relatively small battery – still weighing up to two tonnes – with a shorter range, which would be mechanically swapped at stations.

The other notion was seen as more feasible: a single, eight-tonne battery, which could propel a train service for around 600 miles at a time, using a super capacitor or flywheel for the varying power requirements of the route.

Using digital models of real, if shorter, rail trips – Stratford-upon-Avon to Birmingham, for example – the experts were able to model how such a train could run. The conclusion – battery power is “a feasible option for providing electric traction on parts of the rail network where full route electrification is not viable”.

The big caveat, one known all too well by owners of electric cars, is the lifespan of the hugely expensive battery, with the eight-tonne rail version anticipated to cost around £0.5m a piece. While a diesel train would cost around £160,000 a year to run on a daily 600-mile service, the battery version would be more than £240,000 a year, of which £150,000 alone would be set aside for battery replacement.

Diesel prices would need to more than double for battery-only trains to become viable, said John Molyneux from the rail arm of the Lloyd’s Register group, who led the report.

“I don’t think we’ll see these trains in my lifetime,” he said. “But they may eventually come, out of necessity rather than of choice. It would be because of fuel prices and the environment.”

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Tips:

Sustainability is the minimum condition that the planet needs to continue to maintain all life and systems in the future. Being a responsible citizen of this world we must strive to protect the nature, environment, natural resources. So that the generations to come are not deprived of the gifts of nature and may lead a good life. These tips are just an effort to remind everybody and request that please do everything possible for sustainability.

1. About two trees are saved by using hundred reams of recycled paper and more than a tonne of GHG emissions is averted! Therefore, always use recycled paper and print both sides wherever possible.
2. Buy recyclable; and biodegradable products for our office and home. Right from the cups we buy, to the washing detergent should aid our sustainability efforts.
3. The rooms in homes and offices must be designed and furnished so that there is sufficient daylight and need not to put on lights and lamps.
4. Block any fire place that is not in use so that the inner temperature is not affected by the temperature outside.
5. While using frozen food, plan ahead and defrost food naturally instead of using the microwave.
6. Avoid opening the oven door too often – each time we open the oven the internal temperature drops. Also, make sure to close the door as soon as the meal is taken out to check it.
7. Always cook food with the lids on pots and pans. Everything heats up quicker this way.
8. Never leave electric blankets on for long periods. Electric blankets should be used to warm our bed and then switched off once we get in.
9. Electric blankets should be checked regularly for wear or damage. If there is any signs of damage, or if an electric blanket is more than five years old, have it checked by the manufacturer or their service center.
10. The sockets and plugs are mostly of two types i.e. 5 Amp and 15 Amp. These should never be overloaded by using extensions.

Carbon fat cats are killing the emissions trading mouse

By **Damian Carrington**, for *guardian.co.uk*

What is the most important climate change policy issue in Europe right now? By a wide margin it is the broken emissions trading scheme, because it should be the biggest and best way of cutting carbon emissions.

The idea of a cap-and-trade scheme is that the cap shrinks, requiring a progressive reduction in carbon emissions. Meanwhile the trade means that the cuts in emissions take place where they are cheapest, meaning the maximum benefit for the least cost.

That's the admirable theory. In practice, two factors have left the EU ETS in ruins, with a price – today about €4.50 – far below the €20 where it will even start to have an effect. The first is industrial-scale lobbying from the vested interests which has led to vast windfalls being handed to many companies in the energy-intensive sector (but not the energy sector itself). The second is the global recession, which has reduced the already-inflated demand that the companies projected.

The ETS has no mechanism to make sensible, automatic adjustments to compensate for unexpected falls – or rises – in demand. So a battle is now taking place in Brussels to try to patch up the ETS, by deferring the release of 900m permits, each for a tonne of carbon, for five or so years.

When the energy and industry committee of the European parliament voted in January against the back-loading of permits, the carbon price crashed to €2.80. That was a non-binding vote but

on Tuesday the environment committee will give its view, which must be positive if the initiative is to progress.

Coal-dependent Poland is opposed while the UK has argued for even more permits – 1.2bn – to be deferred. Europe's manufacturing powerhouse, Germany, may well be the key but it is striking that the nation that leads in so many environmental areas is seriously dragging its feet on this issue.

Why? A new report from carbon trading think tank Sandbag and Friends of the Earth Germany (Bund) gives a reason: just 10 German companies are €1.2bn better off thanks to the windfall brought by the spare "hot air" permits. Germany's manufacturing sector as a whole has accrued spare carbon allowances equivalent to the annual emissions of Austria.

Bund's Tina Löffelsend says: "While German industry dines out on spare carbon allowances, the economics minister Phillip Rösler continues to block the reform of the EU ETS. Chancellor Merkel must step in to break this stalemate."

The sums involved are staggering. Steelmakers are the cream of the carbon fat cat crop, with ArcelorMittal potentially having raked in €314m for free between 2008-2011, according to the report. ThyssenKrupp is in second, with €190m, and Salzgitter in third, with €175m. ArcelorMittal had over double the number of permits it actually needed.

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Oasis or Mirage? An Ambitious Model for Sustainable Desert Agriculture

By *SustainableBusiness.com News*

By 2050, an estimated 9.3 billion people will share the planet, putting even more strain on fresh water supplies, food production systems and the electric grid.

At the same time, desertification and shrinking forests are accelerating as a result of climate change.

The Sahara Forest Project, an ambitious venture backed by companies from Qatar and Norway, hopes to address both concerns.

The organization just finished its first pilot installation of a system that uses solar technologies to create fresh water, grow crops, generate electricity, and even grow trees for re-vegetation efforts in arid climates.

The idea is to offer a model that can scale up around the world, easing water supply and food production challenges faced by communities in dry and desert climates.

Here's part of their mission statement:

"In the same way that the extractive use of resources has contributed to the loss of natural vegetation, the Sahara Forest Project proposes to use restorative practices to establish vegetation in arid areas and reverse the trend of desertification. This process of restorative growth will be catalyzed by combining already existing and proven environmental technologies, such as the evaporation of saltwater to create cooling and distilled fresh water (i.e. in a saltwater cooled greenhouse) and solar thermal energy technologies. The technological combination in The Sahara Forest Project is designed to utilize what we have enough of to produce what we need more of, using deserts, saltwater and CO2 to produce food, freshwater and energy."

Readily available technologies are being used in the Qatar pilot, which spans about 2.5 acres.



The facility runs off traditional solar PV arrays, while concentrated solar is used to superheat steam that's piped through a series of on-site greenhouses for climate control.

Seawater figures heavily in the system design. As it flows through the greenhouse, it is mixed with hot desert air, which both cools and humidifies the environment, creating optimal growing conditions.

Outside the greenhouses, the seawater is used in evaporators that create humidity for sheltered trees, local vegetation, crops and livestock feed, and bioenergy feedstocks such as algae naturally adapted to salt water. Evaporation pools at the end of the system collect the salt for other potential uses.

"Our message is that it is possible to design solutions that are good for the environment, good for social development and that have long-term economic sustainability," says Joakim Hague, CEO of the Sahara Forest Project.

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Making the business case for sustainable food

By Bruce Cogill, Jessica Fanzo and Tim Lang, for *guardian.co.uk*

Food choices often represent trade-offs. From the consumer to the producer, risks are weighed and decisions made every day – a process that requires information, context and often luck. Yet the challenges of an increasing population, nutrition-related chronic diseases, poverty, volatile food price markets, inequity, urbanisation, market integration, habitat loss, resource depletion and persistent hunger mean we need more than partial information to make the best food choices.



If people eat more fruit and veg and less processed food, there will be an increase in agricultural jobs. Photograph: Jacob Maentz/Corbis

So how do we get a more complete picture to help inform our decisions on nutrients, foods and diet? Looking at diets in terms of their long-term sustainability is an option. We need to go beyond considering a diet as simply a way to place nutrients in our bodies.

Sustainable diets are characterised by low environmental impacts, contributions to food and nutrition security, as well as healthy lives for present and future generations. They respect ecosystems and are culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; and optimise the use of natural and human resources. They consider biodiversity of crops and varieties of foods – similar to the diversification of an investment portfolio. They are about options for our future.

Demand for nutritious food is increasing. We are aware that 9 billion people will need to be fed every day by 2050 – without causing additional resource depletion and damage on our planet. Every day that goes by we are witnessing population growth coinciding with more poorly nourished people. The stunted child, the overweight adolescent, the hidden hunger of micronutrient deficient mothers who may also be overweight are all manifestations of the phenomenon of the triple burden of malnutrition: undernutrition, hidden hunger and obesity.

This triple burden of malnutrition affects our world economy – from demand of high-fat, high-sugar foods to increased healthcare costs. Worsening diet-related chronic disease and overnutrition has led to an array of initiatives. Examples include the Danish “fat tax” and restrictions on soft drinks in New York City. These efforts are attempting to address the very real transfer of health costs to the health sector of changing diets and lifestyles.

Research is yielding clues regarding as to what sustainable diets are and how can they be encouraged. The understanding of sustainable

diets is as relevant to the challenges of undernutrition as it is with dietary transition and nutrition-related chronic diseases linked closely to overweight and obesity.

Sustainable diets represent a move away from focusing on single nutrients and foods as a basis for good nutrition towards studying food systems in a comprehensive sustainable manner. It is possible that a greater emphasis on food systems that embrace the sustainable diet concept will reap nutritional and livelihood benefits for small farmers, food manufacturers and consumers across the globe.

We are already seeing efforts on the part of some governments and regulatory authorities to examine the carbon and water costs of foods and to adjust pricing policies and dietary guidelines for a more sustainable future. Sustainable food systems must also intelligently manage the diminishing natural resources we have.

It is also about the choices we make as individuals and consumers to assess the trade-offs in terms of cost, acceptability, nutrition and minimising the risk of nutrition-related chronic diseases. Food marketers and distribution systems will gain a better understanding of the needs of consumers and the environment and promote a healthier more sustainable food system.

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Italian Town Runs Solely On Wind, Sells the Rest

By *SustainableBusiness.com News*

A small town in rural Italy is proving that renewable energy doesn't have to be big to be important.

Just four turbines provide all the power needed to run Tocco Da Casauria and then some.

As you look beyond the town, filled with cobblestone streets, you see the mountains and the wind turbines. Because of the windy conditions there, the 3000 people who live there get all the electricity they need and even make a profit, which supports the school and town services such as street-cleaning and cutting the grass.

Actually, the turbines produce a third more energy than the town needs, which is sold to Italy's grid at a profit of about 170,000 euros.

And that's reduced local taxes a lot.



"We're demonstrating what is possible with wind. It's something others could follow, whether it's with wind, solar power or other types of renewable energy. Italy and the world can learn from this, Mayor Riziero Zaccagnini told *BBC News*. "There is a simple lesson here about sustainability."

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Shifting conditions open doors for sustainability-driven profits

By Aaron Tilley



The business case for integrating sustainability into a company's business model only seems to keep getting better.

That's the finding from a new report out today from MIT Sloan Management Review and the Boston Consulting Group. In their survey of 2,600 executives from around the globe, they find that

nearly half of the respondents changed their business models in the past year in the face of sustainability opportunities. And 37 percent of executives reported profits from their sustainability efforts -- a 23 percent increase from last year's count.

Growing consumer demand for sustainable products -- and companies looking for lower energy use as energy costs increase -- is driving much of this change.

To illustrate how this shift is occurring, the report draws on the experiences of big corporate players that took the survey, including AT&T, Campbell Soup's, Dell, Intel, Kimberly-Clark, PepsiCo, Sprint, Timberland, UPS and Zipcar. These companies -- which have changed their business models and profited from sustainability efforts -- are dubbed "Sustainability-Driven Innovators" in the report and made up 23 percent of the respondents.

"Sustainability-Driven Innovators see the opportunity differently than do companies that haven't gleaned sustainability's financial rewards," said David Kiron, executive editor at MIT SMR and a coauthor of the report. "They don't dwell on it as a cost issue. They focus on how their efforts can increase market share, boost energy efficiency and build competitive advantage."

Among these innovators, 54 percent have developed a business model that makes the case for sustainability -- while just 34 percent of the overall 2,600 respondents had done so.

"You always create a business case," said Sprint CEO Dan Hesse in the report. "But you may need to use criteria with a longer time horizon. But as long as the return is positive, you can do it knowing it's in shareholder interests."

Hesse points to the company's investment in solar power as an example of a payback over a longer time horizon.

Sprint also invests in making its phone easy to disassemble, allowing consumers to recycle waste and refurbish phones.

"It's important companies balance long term more sustainable business strategies with profitable revenue," said Sprint spokeswoman Marci VerBrugge-Rhind. "Ultimately these innovative solutions can take longer to pay off but have a better return on investment, and they mitigate a company's footprint."

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Zero-carbon home 'dithering' is threatening UK housing industry

Construction industry leaders say efficiency regulation delays are preventing building of new homes and deterring investment

By **Fiona Harvey**, guardian.co.uk,



The delays are believed to be caused by disagreements within the coalition over how strong the new efficiency rules should be.

Photograph: Roger Bamber / Alamy/Alamy

Government dithering over proposed higher standards for energy efficiency in new homes is threatening the building of tens of thousands of houses this year, exacerbating the UK's housing crisis and deterring new investment, industry leaders have warned.

As part of a timetable to ensure all new homes are zero carbon from 2016, "uplift" to current energy efficiency standards was supposed to be introduced this April. But those regulations have been delayed until the autumn, causing uncertainty in the construction industry as builders wait to see whether the government adheres to its proposals for tighter regulations. Companies also fear the sums they have invested in new equipment and training will be wasted if ministers fail to keep their pledges on making all new homes zero-carbon from 2016.

The delays are believed to be owing to disagreements within the coalition over how strong the new efficiency rules should be, with fears that they may be watered down so far as to render them meaningless.

Andrew Warren, director of the Association for the Conservation of Energy, said companies and investors were growing increasingly concerned about the silence from government. "Companies have been going to the City to get investment, to enable them to meet the targets, do the training they need and create jobs, and they were doing so based on the timetable set out. If it doesn't happen on time, companies are vulnerable," he said. "This is the real world and I'm getting bored of explaining this to ministers. Business will waste time and money unless government delivers."

He pointed out that the government's response to a consultation carried out early last year on the planned changes had still not been published, leaving businesses further in the dark.

The call for a clear response from government was repeated by Ed Balls, shadow chancellor, in a letter to Eric Pickles, secretary of state for communities and local government, warning that the lack of clarity was preventing the building of new homes.

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What's the cost of cheap clothing?

By Marc Gunther

Sadly, today's guest post from my friend Marcus Chung is timely. The New York Times reported this morning on another factory fire in Bangladesh, this one killing seven women. Is this the price we must pay for cheap clothes? Marcus thinks not -- although he's just 36, he has worked for about a decade on corporate responsibility issues in the apparel industry, doing stints at Gap and Talbot's. I've gotten to know Marcus as a fellow board member at Net Impact, a nonprofit organization of students and young professionals who want to use their business skills to make the world more just and sustainable. That's exactly what Marcus, a Wesleyan grad with a UC Berkeley MBA, is doing in his current job, consulting for a global retailer of children's clothing. Here's his report from Bangladesh.



From the moment you arrive at the Dhaka airport, it's clear the apparel industry is vital to Bangladesh's economy. Airport walls are lined with posters advertising local garment manufacturers, textile mills, and trims suppliers. Apparel accounts for between 70 and 80 percent of exports, so it's no surprise that almost everyone on my flight from Hong Kong to Dhaka declared their profession as 'buyer' or 'sourcing' when clearing through immigration.

I visited Dhaka on behalf of a client to get a better understanding of the CSR challenges, trends, and opportunities that large apparel brands face in sourcing from Bangladeshi garment factories. Following November 2012's tragic Tazreen Fashions factory fire that claimed the lives of more than 100 workers, there is renewed focus on how the industry can promote better factory working conditions. Tazreen was just the latest in a string of Bangladeshi garment factories that burned to the ground, but it also was the country's most devastating in terms of lives lost.

Western mass-market apparel retailers source from Bangladesh because they can get a solid product at a competitive price. The apparel industry cannot ignore a fundamental commercial reality: Bangladesh has a ready supply of very capable garment factories that are filled with inexpensive labor. It's not realistic (*or probably advisable—MG*) for companies to simply stop sourcing from the country. Therefore, the industry must do a better job of sourcing in a responsible manner that protects the rights of workers and includes basic commitments to a safe and healthy work environment.

A multitude of challenges

Over the years, I've heard many hypotheses about why fire safety continues to challenge so many Bangladeshi factory managers. Some cite an ineffective, corrupt government that does not enforce its own building code regulations. Others believe factory middle managers, myopically focused on production output, lack the ability or understanding to support fire safety practices with workers. Many believe pressure from Western brands to achieve low-cost goods

encourages subversion of basic health and safety standards. I've heard people claim the root cause is a basic lack of infrastructure: old, multi-story buildings with poor electrical wiring; unreliable power supply (I cannot count the number of times the power went out during my visit) that causes short-circuits; and dusty, flammable materials lying dangerously close to unprotected electrical outlets. I spoke with one CSR leader who lamented a general lack of civil society and a culture where officials will agree to make improvements, but never follow through.

Photo of Dhaka, Bangladesh provided by Aaron Gekoski via Shutterstock.

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Obama gives Congress climate ultimatum: back me, or I go it alone

President vows to push for new technologies and carbon taxes 'to protect future generations'

Reuters, guardian.co.uk



President Barack Obama promised to do more in his second term to address climate change. Photograph: T.J. Kirkpatrick/Corbis

President Barack Obama on Tuesday gave Congress an ultimatum on climate change: craft a plan to slash greenhouse gas emissions and adapt to the dangers of a warming world, or the White House will go it alone.

"If Congress won't act soon to protect future generations, I will," Obama said in his State of the Union address. "I will direct my cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy."

Congress should consider putting a price on climate-warming carbon emissions, Obama said, briefly nodding to his failed, first-term plan to confront climate change. Republican opposition means the president's best chance to confront the issue will mean flexing executive power.

He vowed to push for more and cheaper solar and wind energy, and pledged to cut red tape to encourage more drilling for domestic natural gas, which he said had driven down fuel prices in the United States.

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Asia Pulp & Paper commits to end Indonesian rainforest destruction

By BusinessGreen Staff



Asia Pulp & Paper (APP), the company at the center of a decades-long campaign against its logging activities, committed to end all deforestation of natural forests on Tuesday.

The company published a new "Forest Conservation Policy" on Tuesday committing it to end development of all natural forested areas, including peat forests, improve its peatland management to reduce greenhouse gas emissions, and work more closely with local communities and other stakeholders.

Crucially, the stated strategy applies to all APP operations and all of its suppliers, as well as "all future expansion" and "any Indonesian fibre utilised by APP's mills elsewhere, including China." In addition, the new strategy will be subject to a series of independent assessments.

APP has in the past published a series of environmental commitments that have been dismissed as "greenwashing" by campaigners, but Greenpeace, which has led many of the protests against the company, welcomed the new strategy.

"We commend APP for making this commitment to end deforestation," said Bustar Maitar, head of Greenpeace's Forest Campaign in Indonesia, adding that the NGO would now be monitoring its progress closely to ensure the commitments are honored. "If APP fully implements its new policies it will mark a dramatic change in direction, after years of deforestation in Indonesia."

Photo of deforestation in Indonesia provided by Aidenvironment via Wikimedia Commons.

Possible to run a business without destroying habitat

Maitar's comments were echoed by Scott Poynton, the executive director of TFT, a nonprofit supply chain consultancy that advised APP on the new strategy.

"APP's commitments are far-reaching," he said. "There is of course a lot of work to be done to implement the policy in its entirety, particularly on the social and community engagement front where

conflicts between the company and communities remain. But that work is underway, as are the tactics TFT will use to monitor and transparently report their progress.

"APP's commitments show other producers worldwide -- whether they sell pulp and paper, palm oil, soy or beef -- that it is possible to run a business without destroying humanity's habitat."

APP's commitment represents a major victory for Greenpeace, which has launched a series of high profile campaigns against the company over its logging of rainforested regions in southeast Asia.

The NGO secured a series of victories in recent years, which saw more than 100 companies boycott APP products, including Adidas, Kraft, Mattel, Hasbro, Nestlé, Carrefour, Staples and Unilever.

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Walmart, BMW lead for on-site renewable energy generation

By Sustainable Business News

Every quarter, the U.S. Environmental Protection Agency updates its Green Power rankings for U.S. businesses and communities making investments in clean, renewable energy.

One list we watch closely is the one that follows on-site generation, because it reflects direct investments, not just purchases of renewable energy credits (RECs).

Considering all its rooftop solar investments, it shouldn't surprise you much that Wal-Mart Stores tops the latest ranking. It now uses 174.8 million kilowatt-hours (kWh) of renewable energy at its U.S. stores, generated by a combination of biogas, solar and wind.

That's just one percent of its annual energy consumption, though.

The No. 2 company on the EPA list, BMW Manufacturing, actually gets an impressive 38 percent of the electricity it needs from on-site renewable generation sources (70.8 million kWh). It relies on biogas.

Coca-Cola Refreshments is third (47.5 million kWh, or 6 percent), followed by the U.S. Air Force (37 million kWh, which is less than one percent) and Kohl's Department Stores (36.5 million kWh, or two percent).



Kohl's actually leads the EPA's separate list of Top 20 Retailers. Between on-site resources and REC purchases, it sources 105 percent of the electricity it needs from renewable energy (1.5 billion kWh).

Yet again, Intel leads the National Top 50 -- a position it has held since 2008. The giant high-tech company uses 3.1 billion kWh of green power annually, according to the EPA data. For perspective, the combined clean power consumption the organizations on this list is about 17 billion kWh annually.

Photo of solar panels on top of a Walmart store provided by Walmart.

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Why sustainability is a team sport

By Marc Gunther



One of the great virtues of market capitalism is that power is widely dispersed -- among consumers, corporate executives, investors and regulators. Lots of people get lots of votes that collectively shape

business, and that's good. But decentralization creates a daunting problem for anyone who cares about corporate sustainability: It's terribly hard to get things done.

In conversations today at the GreenBiz Forum in New York, people who could be described as powerful---executives with big titles (vice chairman, vice president, CEO) at big institutions (NASDAQ, McDonald's and Ingram Barge, America's biggest barge company) -- all lamented the limits on their influence over what their companies do, let alone how their industries change.

This is why sustainability has to be a team sport. Very few people -- or companies -- can do much on their own.

Take Bob Langert, vice president for corporate responsibility at McDonald's, who is one of the most respected sustainability executives in the U.S. He's got credibility inside Mickey D's and with NGO partners. But to get anything done, he's got to win over thousands of owner-operators of McDonald's stores, as well as a diverse set of suppliers and, in some instances, the tens of millions of people who eat there every day.

"We are the world's largest small business," Langert said. The overwhelming majority of McDonald's outlets are "owned and operated by independent business people," he said. "They have a lot of power in our system. That means we can't dictate from on high. I challenge people to show me a company that's more democratic than McDonald's."

So Langert functions as a salesman for sustainability insider the McDonald's empire, an inside agitator, if you will. Last year his CEO gave him something valuable -- a full afternoon to make the case for sustainability to the company's top execs. He brought in executives from other companies, including Unilever and Coca-Cola, as well as business-friendly NGOs.

McDonald's execs choose No. 1 sustainability goal

One question they were asked: If you were in charge at McDonald's and could do one thing, what would it be? "Use your size and leverage to make beef more sustainable" emerged as the answer. So the company has begun to dig into its beef supply chain, to better understand its environmental impact, which is itself no easy task.

"We buy beef from people who make patties," Bob explained. "They buy it from the slaughter house. They buy it from the feedlots. They buy it from a broker. They buy it from the calf producers." But that's not an excuse. Dealing with the beef supply chain is "our No. 1 priority," he said.

Skeptics -- and you can count me among them, for now -- will ask: Will McDonald's push hard to reduce the environmental footprint of beef? Can it even be done? [See my story at YaleEnvironment360, Should Environmentalist Just Say No to Eating Beef?]

Bob's track record at McDonald's provides reason to be optimistic. The company has enough buying power to change industries, once it gets its own, er, ducks lined up. As Mark Bittman, who is no fan of the chain, wrote last year:

When, in 1999, McDonald's requested that its suppliers give caged hens 72 square inches of space instead of 48 (72 is still smaller than a piece of 8x10 paper), not a single factory-farmed hen in the country was being raised with 72 inches of space. Yet the entire supply chain was converted in just 18 months, and 72 square inches is now effectively the industry standard.

Last year, McDonald's required its pork suppliers to phase out gestation crates for sows. Long ago, it set animal welfare standards for beef. Even earlier, McDonald's committed to buying all of its fish from fisheries certified by the Marine Stewardship Council.

Now Bob would like to do more to win support from consumers. "We're not going to have a successful sustainability effort unless the consumer is engaged," he said. To that end, McDonald's has just rolled out a Marine Stewardship Council eco-label that it is attaching to its Filet-O-Fish sandwiches. It's the first national restaurant chain to do so, and the hope is that consumers will reward the company by driving up fish sales. We'll see.

Image of Thai soccer team provided by Rnoid/Shutterstock

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France's simple step to save energy: Shut off the lights

By Sustainable Business News

It's pretty amazing to think about how much energy can be saved by such a simple, common-sense measure: By requiring shops and offices to turn off their lights at night, France will save the energy it takes to power 750,000 homes.

Effective July 1, all nonresidential buildings must shut off their lights an hour after the last worker leaves or by 1 a.m. each morning. They can't turn them on again until 7 a.m. or just before they open.

Major tourist attractions are exempt, like the 20,000 flashing bulbs on the Eiffel Tower, which are already turned off each night for a period of time, and public displays, such as Christmas tree decorations at the Champs-Elysees.

Besides savings on energy and emissions, France wants to pioneer addressing light pollution. Environmental minister Delphine Batho hopes the ban will reduce the negative impact that artificial lights have on ecosystems and wildlife, as well as on human sleep patterns.

Night lighting can "cause significant disruptions on ecosystems by changing communication between species, migrations, reproduction cycles or even the prey-predator relationships," she told The New York Times.

The law is one of many measures the new government is implementing to increase energy efficiency and renewables. The country, which for so long has been held up as a model for relying on nuclear is moving away from that and toward renewable energy. The French government also wants to ban natural gas fracking.

Photo of office building provided by leungchopan via Shutterstock.

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How Wells Fargo puts corporate, employee values into action

By Krista Van Tassel



One hot Saturday in April 2012, in California's Central Valley farm country, I found myself on a rooftop installing a solar electric system for a family of agricultural workers. My fellow installers were bankers from two Wells Fargo branches in the Fresno area.

Farm country? Solar? Bankers?

That same month, Wells Fargo released a set of environmental commitments — to be achieved by 2020 — that include reducing the company's environmental impact, financing the transition to a greener economy and encouraging stronger and more sustainable communities. One of the beneficiaries of our community and philanthropy commitment was GRID Alternatives, a California-based nonprofit that installs solar electric systems for low-income families. This was one of its clients, the Martinez family, and we had come to pitch in.

Many large companies spend a lot of time finding and organizing appropriate corporate volunteer activities. The most effective engagement programs are ones that both inspire large numbers of team members and demonstrate the company's values and priorities to a broader audience.

With more than 265,000 team members serving one in three households in the United States, Wells Fargo is focused on leading positive change through an integrated approach to sustainability that starts with its team members. Through our Green Team Program, our employees take the lead in finding projects that speak to them. A Wells Fargo Green Team member first introduced us to GRID Alternatives in 2005 and in a similar fashion our Green Team in Milwaukee, Wis., has forged a partnership with Growing Power, a local nonprofit focused on sustainable urban agriculture and youth education. Our Puget Sound Green Team works with Seattle University on its community farming and food bank initiative.

Making employee engagement count

Wells Fargo employees have been volunteering with GRID Alternatives since 2005, getting on the roof to learn new skills, build stronger working relationships with their teammates, and be involved in their communities. Volunteers over the years have included Chief Administrative Officer and Senior Executive Vice President Pat Callahan and Executive Vice President David Weber. Wells Fargo also provided GRID with an initial \$600,000 in grants to support both its solar installation program and its workforce development efforts. In September 2012, Wells Fargo announced a five-year, \$2 million commitment to help the organization take its model national.

The expansion was kicked off with installations for 12 low-income families in a Habitat for Humanity development outside of Denver with help from more than 30 local Wells Fargo employee volunteers. Abdelati and Malika Moumen were one of the families that received a solar electric system. Immigrants from Morocco, they have made huge personal sacrifices to

help their three children succeed in the United States. Their daughter, Fatimah, a business student at University of Colorado, Denver, spoke during the launch event about the value of opportunity and the impact the modest savings from their system will have on their lives and their community. For the Wells Fargo volunteers, who got to work on the roof with Fatimah and her brother, Zackaria, the experience was tremendously rewarding.

Often, as with GRID Alternatives, the most popular and effective employee-initiated projects become integrated into our wider employee engagement program. With GRID Alternatives, we were easily able to plug into the nonprofit's existing volunteer model to expand both our Green Teams and environmental volunteer opportunities across California. GRID projects are some of the most popular volunteer events that our teams host, and we leverage the organization's annual Solarthon blitz-build events throughout California to launch new Green Teams, or use them as an opportunity to help existing Green Teams with recruitment.

What makes this model successful is that GRID hosts a predictable program for our volunteers. It is not easy to manage large-scale volunteer opportunities, but GRID does this quite well by offering a standard schedule for the day and pre-event training so that everyone arrives ready to start work and the work ends on time and as expected. As a corporate volunteer partner, we appreciate that approach as it makes it easy for us to promote this work to our busy Green Team leaders.

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Carbon Cap Drops 45% Under RGGI: Northeast Cap-and-Trade

By *SustainableBusiness.com News*

Northeastern and Mid-Atlantic states reached an agreement to significantly cut carbon emissions from power plants under their cap-and-trade program, the Regional Greenhouse Gas Initiative (RGGI).

They are cutting the "cap" by 45%, which means power plants can emit 90 million tons a year, down from the current 165 million tons a year.

That will bring in \$2.2 billion in revenue to the region by 2020, most of which goes to increasing energy efficiency and renewable energy.

In Massachusetts, for example, the program will generate \$350 million through 2020, which will mostly be used to help businesses and residences become more energy efficient. The state leads the US on energy efficiency programs.

"This agreement means lower greenhouse gas emissions for the region and increased growth and opportunity in our clean energy economy, a major driver of job creation here in Massachusetts," says Governor Patrick. "It is also a strong statement that this region, which comprises nearly 20 percent of the national economy, is serious about being stewards of our environment and addressing climate change."

Massachusetts, Connecticut, Delaware, Maine, Maryland, New Hampshire, New York, Rhode Island and Vermont participate in RGGI, a collaborative effort to limit power plant carbon emissions. Funds are generated when power plant operators buy "allowances" to emit carbon and are used to ramp efficiency and clean energy.

After successfully cutting emissions during the first three years, the states agreed to cut the cap significantly because the 165 million allowances greatly exceeded the demand of 91 million.

This is due to the decline in natural gas prices, which has supplanted coal use in power plants; lower electric demand because of energy efficiency measures, a slowdown in the economy, and atypical weather patterns.

As a result, allowance prices have dropped to the "floor" price of \$1.93 per ton and, without a change, the current cap will not help further to reduce emissions.

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Nicholas Stern: 'I got it wrong on climate change – it's far, far worse'

By Heather Stewart and Larry Elliott, for *The Observer*

Lord Stern, author of the government-commissioned review on climate change that became the reference work for politicians and green



Lord Stern now believes he should have been more 'blunt' about threat to economies from temperature rises. Photograph: Sarah Lee for the Guardian

campaigners, now says he underestimated the risks, and should have been more "blunt" about the threat posed to the economy by rising temperatures.

In an interview at the World Economic Forum in Davos, Stern, who is now a crossbench peer, said: "Looking back, I underestimated the risks. The planet and the atmosphere seem to be absorbing less carbon than we expected, and emissions are rising pretty strongly. Some of the effects are coming through more quickly than we thought then."

The Stern review, published in 2006, pointed to a 75% chance that global temperatures would rise by between two and three degrees above the long-term average; he now believes we are "on track for something like four". Had he known the way the situation would evolve, he says, "I think I would have been a bit more blunt. I would have been much more strong about the risks of a four- or five-degree rise."

He said some countries, including China, had now started to grasp the seriousness of the risks, but governments should now act forcefully to shift their economies towards less energy-intensive, more environmentally sustainable technologies.

"This is potentially so dangerous that we have to act strongly. Do we want to play Russian roulette with two bullets or one? These risks for many people are existential."

Stern said he backed the UK's Climate Change Act, which commits the government to ambitious carbon reduction targets. But he called for increased investment in greening the economy, saying: "It's a very exciting growth story."

David Cameron made much of his environmental credentials before the 2010 election, travelling to the Arctic to highlight his commitment to tackling global warming. But the coalition's commitment to green policies has recently been questioned, amid scepticism among Tory backbenchers about the benefits of wind power, and the chancellor's enthusiasm for exploiting Britain's shale gas reserves.

Stern's comments came as Jim Yong Kim, the new president of the World Bank, also at Davos, gave a grave warning about the risk of conflicts over natural resources should the forecast of a four-degree global increase above the historical average prove accurate.

"There will be water and food fights everywhere," Kim said as he pledged to make tackling climate change a priority of his five-year term.

Kim said action was needed to create a carbon market, eliminate fossil-fuel subsidies and "green" the world's 100 megacities, which are responsible for 60 to 70% of global emissions.

He added that the 2012 droughts in the US, which pushed up the price of wheat and maize, had led to the world's poor eating less. For the first time, the bank president said, extreme weather had been attributed to man-made climate change. "People are starting to connect the dots. If they start to forget, I am there to remind them.

"We have to find climate-friendly ways of encouraging economic growth. The good news is we think they exist".

Kim said there would be no solution to climate change without private sector involvement and urged companies to seize the opportunity to make profits: "There is a lot of money to be made in building the technologies and bending the arc of climate change."

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Los Angeles Completing Biggest Retrofit Ever: Converting All Streetlights to LEDs

By *SustainableBusiness.com News*

In the largest street lighting retrofit ever undertaken by a city, Los Angeles is in the process of converting its 210,000 street lights to energy efficient LEDs.

Although the idea of switching the kind of lighting used may seem boring, street lights are responsible for 40% of cities' energy bills, according to Pike Research, ... and therefore, energy consumption.



There are about 35 million streetlights in the US, consuming 1% of all electricity.

"If every city followed the example of Los Angeles and reduced the

electricity used by their streetlights by 50%, it would be equivalent to eliminating over 2.5 of those coal plants per year," says President Clinton. "We would do that while saving taxpayers money. And by doing that, we would also reclaim our night sky."

47 cities in Oregon are embarking on the same project, with Portland starting next month. Dozens of smaller cities in California have completed conversions and San Francisco plans to follow suit, along with Seattle, San Antonio and other cities. Baltimore saves \$2 million a year after replacing 70,000 street lights.

By this June, Los Angeles will have replaced 140,000 energy hog lights with LEDs, and so far they've found even greater energy savings than expected - 63% less energy than high-pressure sodium streetlights.

That already adds up to saving more than \$5.3 million a year, "far exceeding my expectations," says the city engineer in charge, Ed Ebrahimian.

It's been a daunting project, replacing lights that span 4500 miles. The other 70,000 lights will be replaced in the second phase of the project. Los Angeles's street lighting system is the second biggest in the US.

In 2008, Los Angeles spent \$16 million a year to run streetlights. After this project, \$7.5 million will be shaved off that bill.

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Unpaid army of litter vigilantes tackles Britain's tide of rubbish

By Tracy McVeigh, for *The Observer*

Adrian Ablett is a little nervous about starting his new job. After being made redundant last year, the 40-year-old is pleased to have found work again but worried about the effect it might have on his ambition. The self-



Can-man Adrian Ablett in Leicester. He hopes to reach his goal of 100,000 cans this year. Photograph: Andy Hall for the *Observer*

styled "can-man" of Leicester has been keeping himself busy out on the city streets three or four times a week for several hours at a time, picking up other people's rubbish like a 21st-century Womble. "In an ideal world I would do this 24/7," he said. "I genuinely love it and I'm out in all weathers."

He has specialised in aluminium drinks cans, which he removes from pavements, gutters, grass verges, bushes and parks and takes to a recycling centre. Since he began a little under three years ago, he has recycled 62,000 cans. Most were collected when he walked around on foot for several miles, pulling a heavy, modified wheelie bin. Now he has upgraded to a bike and trailer donated by a local bicycle repair shop and he hopes the extra power to his collecting elbow will enable him to reach his goal of 100,000 cans this year.

Ablett is just one of an army of litter vigilantes. Unpaid and unasked, they are ordinary men and women who have simply got so fed up with litter and mess that they have taken it upon themselves to do something about it. Many receive abuse for their trouble and others have run into problems with local councils that can sometimes take umbrage at unauthorised citizen clean-ups.

"The council hate me," said volunteer litter picker Owen Braines, who lives with his wife and three young children near Pool in Cornwall. "They really don't like it. It's such a shame, the lack of empowerment in the community that comes from councils sometimes. Nobody listens to you when you complain so it gets boring – so you roll up your sleeves and get on with it."

"The hardest thing now is that when I clear up a fly tip I have to pay for it as industrial waste when I take it to the council tip. And I do it because it's the right thing to do ecologically. I'm not a lunatic, I just don't think we should be wasting resources. I'm pretty poor but I'm passionate and I'm instilling the right values in my kids."

Britain has a massive rubbish problem; some 30 million tonnes is dropped on our streets every year. Along with dog mess, litter is the most complained about issue to MPs and local authorities, which spend some £500m a year picking it up. Rubbish is not just unsightly, it is a hazard to wildlife and the environment – some supermarket plastic carrier bags will take 500 years to decompose.

A BBC documentary to be broadcast this week talks to some of the hundreds of people who act as litter vigilantes. Meanwhile, websites such as litterheroes.co.uk spring up to reveal the true numbers of "pickers" out there alongside the increasingly popular community litter picks such as Keep Britain Tidy's the Big Tidy Up campaign, which aims to get people

out a few days a year in their local areas for organised rubbish collecting. But many people keep a low profile about their public-spirited clean-up habits because of hostility from others.

"I do get the odd snigger or people laughing at me," said Ablett. "Most of the comments will be positive but you occasionally get a few comments like, 'It's not your job to do that'. Well no, it's not my job, but I enjoy it and it's the right thing to do. I am a real environmentalist and believe we should be recycling, not just dumping our rubbish on the streets. A can that's recycled can be back on a supermarket shelf again inside six weeks and it takes a lot less energy to recycle than to produce a new one. I enjoy doing it. Supermarkets don't care about the amount of packaging and rubbish that they produce, they just want to sell. If everyone did a little bit where they live what a difference that would make. You don't have to get as involved as I do."

In a little lean-to garage space near his bedsit, Ablett keeps the tools of his voluntary trade – high-visibility jackets in green, pink and yellow, and his bike. "I found those sheets when I was out picking," he says, indicating the corrugated plastic roofing. "You'd never believe the things I come across. I found an ATM machine in the bushes last week. Round here it's mostly beer and Coca-Cola cans. I have seen people toss their cans, but I don't ever approach them and say anything – you never know what would happen. I don't get involved like that."

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US Marine Energy Projects Make Progress on Both Coasts

By *SustainableBusiness.com News*

With funding and technical assistance from the Department of Energy (DOE) and landmark permits issued in 2012 by the Federal Energy Regulatory Commission (FERC), four U.S. companies are moving ahead with wave and tidal energy projects, paving the way for the industry to grow.

Many coastal areas in the US have strong wave and tidal

resources and could supply up to 15% of electricity by 2030, says DOE. Since waves, tides and currents have the advantage of being predictable power sources they complement solar and wind.

The first US tidal energy project began supplying power to the grid in Maine last fall.

Here's an update on the latest marine energy developments.

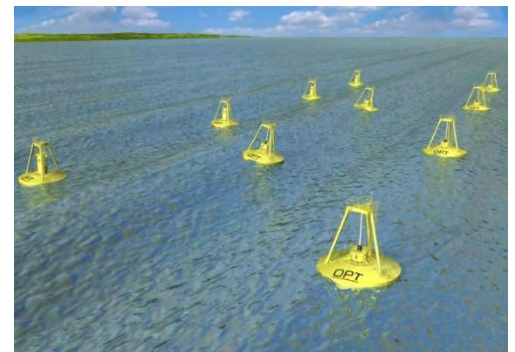
Pacific Northwest

The Oregon coast is becoming a hotbed for marine energy, with the Northwest National Marine Renewable Energy Center located there. The first utility-scale, grid-connected wave energy test site is funded by a \$4 million DOE grant and private investments.

And after consulting with stakeholders (particularly fisherman), the state's Land Conservation and Development Commission approved "marine energy zones" - four areas where development will be encouraged.

Like the Department of Interior's renewable energy zones, which set aside appropriate areas for solar and wind farms, this plan does the same for marine energy, striking the right balance between conservation and energy development.

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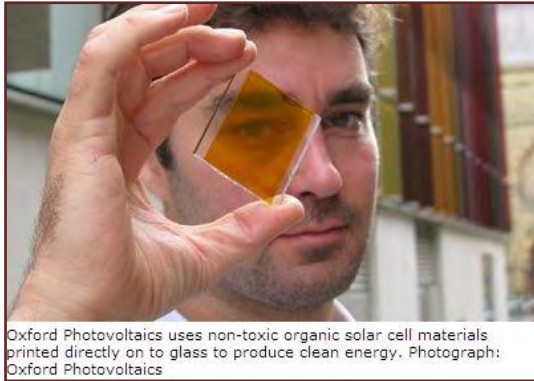
Colourful 'solar glass' means entire buildings can generate clean power

By Adam Vaughan, for guardian.co.uk

A solar power company capable of "printing" colourful glass that can generate electricity from the sun's energy announced a £2m funding boost on Tuesday.

Oxford Photovoltaics, a spin-off from the University of Oxford, said the investment from clean-tech investors MTI Partners will help its solar glass, which can be dyed almost any colour, take a step closer to the commercial market.

"What we say here is rather than attach [solar] photovoltaics to the



Oxford Photovoltaics uses non-toxic organic solar cell materials printed directly on to glass to produce clean energy. Photograph: Oxford Photovoltaics

building, why not make the building the photovoltaics?" Kevin Arthur, the company's founder and CEO, told the Guardian. "If you decide to build a building out of glass, then you've already decided to pay for the glass. If you add

this, you're adding a very small extra cost. [The solar cell treatment] costs no more than 10% of the cost of the facade."

These generally cost between £600 and £1,000 per square metre, meaning the new cell treatment would cost just £60-£100 extra per square metre.

The technology works by adding a layer of transparent solid-state solar cells at most three microns thick to conventional glass, in order to turn around 12% of the solar energy received into low-carbon electricity. The power can then be exported to the national grid or used for the running of a building.

"Within reason we can print any colour, there's a wide range of dyes, blues and greens and reds and so on. But different colours have different efficiencies: black is very high, green is pretty good and red is good, but blue is less good," said Arthur.

The £2m investment will pay for equipment and recruiting staff for the company's new base on the Begbroke Science Park near Oxford. The company is looking to build a much larger manufacturing facility next year, with full size panels available for sampling and trials at the end of 2014. A4-sized samples will be ready by the end of 2013. While the company is mostly targeting customers planning new buildings, it also "very interested" in retrofits on the facades of existing buildings.

Separately, a team at the University of Sheffield and University of Cambridge this week said they had succeeded in developing a process to 'spray paint' solar cells on to surfaces and, potentially in the future, roofs and buildings. The teams believe the process could significantly cut the cost of solar in the future, but currently only works on "very smooth" surfaces and is less efficient than conventional solar panels.

Professor David Lidzey from the University of Sheffield said: "Spray coating is currently used to apply paint to cars and in graphic printing. We have shown that it can also be used to make solar cells using specially designed plastic semiconductors. Maybe in the future surfaces on buildings and even car roofs will routinely generate electricity with these materials."

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Monsanto sued small farmers to protect seed patents, report says

Agricultural giant has won more than \$23m from its targets, but one case is being heard at Supreme Court this month

By Paul Harris, guardian.co.uk,



Over 53% of the world's commercial seed market is controlled by just three firms – Monsanto, DuPont and Syngenta. Photograph: Afp/AFP/Getty Images

The agricultural giant Monsanto has sued hundreds of small farmers in the United States in recent years in attempts to protect its patent rights on genetically engineered seeds that it produces and

sells, a new report said on Tuesday.

The study, produced jointly by the Center for Food Safety and the Save Our Seeds campaigning groups, has outlined what it says is a concerted effort by the multinational to dominate the seeds industry in the US and prevent farmers from replanting crops they have produced from Monsanto seeds.

In its report, called *Seed Giants vs US Farmers*, the CFS said it had tracked numerous law suits that Monsanto had brought against farmers and found some 142 patent infringement suits against 410 farmers and 56 small businesses in more than 27 states. In total the firm has won more than \$23m from its targets, the report said.

However, one of those suits, against Indiana soybean farmer Vernon Hugh Bowman, is a potentially landmark patent case that could have wide implications for genetic engineering and who controls patents on living organisms. The CFS and SOS are both supporting Bowman in the case, which will be heard in the Supreme Court later this month.

"Corporations did not create seeds and many are challenging the existing patent system that allows private companies to assert ownership over a resource that is vital to survival and that historically has been in the public domain," said Debbie Barker, an expert with SOS and one of the report's co-authors. Another co-author, CFS legal expert George Kimbrell, said victory in the Bowman case could help shift that balance of power back to farmers. "The great weight of history and the law is on the side of Mr Bowman and farmers in general," he said.

The report also revealed the dominance that large firms and their genetically altered crops have in the US and global market. It found that 53% of the world's commercial seed market is controlled by just three firms – Monsanto, DuPont and Syngenta.

Meanwhile genetically-altered commodity crops – and thus the influence of patent protection – have spread to become overwhelmingly dominant. In the US some 93% of soybeans and 86% of corn crops come from such seeds.

The Bowman case has come about after the 75-year-old farmer bought soybeans from a grain elevator near his farm in Indiana and used them to plant a late-season second crop. He then used some of the resulting seeds to replant such crops in subsequent years. Because he bought them from a third party which put no restrictions on their use, Bowman has argued he is legally able to plant and replant them and that Monsanto's patent on the seeds' genes does not apply.

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Climate change outpacing green investment, report shows

By Robert Kropp



More than most of the major actors in the climate change crisis, sustainable investors have sought to call corporations to account for unsustainable business practices and advocate for effective legislative and regulatory measures. Because of these efforts,

assets allocated to sustainable investment strategies have continued to increase throughout the past decade.

Meanwhile, as a new report from the World Economic Forum points out, "Greenhouse gas (GHG) levels are rising amid growing concerns that the world is moving beyond the point at which global warming can be contained within safe limits."

The report — entitled the Green Investment Report - The ways and means to unlock private finance for green growth — warns, "Investment-grade public policy is an important prerequisite to engage the private sector." It has been estimated that private investment will have to account for as much as 85 percent of the transition to a low-carbon economy. "Public financial institutions need to more actively engage private investors," the report states.

The report does record some developing success stories, albeit on a small scale, in the public financing of such a transition. Developing nations, many of which are expected to be the hardest hit by climate change, have been scaling up their green investments at a rate that significantly exceeds that of the member nations of the Organization for Economic Co-operation and Development.

"Clean-energy asset financing originating from developing countries in 2012 is on track for the first time to exceed those originating from developed countries," the report states, noting that most of the financing has been encouraged by government policies.

The need to take a new approach

Globally, however, "Progress in green investment continues to be outpaced by investment in fossil-fuel intensive, inefficient infrastructure," according to the report. "Legacy fiscal measures such as fossil-fuel subsidies combine with the slow progress of international climate negotiations to weaken market signals that might otherwise incentivize green investment."

About \$5 trillion per year through 2020 is required under a business-as-usual scenario to promote global development. But even that amount will not be sufficient to effectively address climate change. To limit the global average temperature increase to 2 degrees Celsius above pre-industrial levels, an additional \$700 billion per year will be required.

Existing evidence demonstrates, however, "that the targeted use of public finance can scale up private financial flows into green investment through measures such as guarantees, insurance products and incentives, combined with the right policy support," the report argues. "There is strong potential for increased lending, advancing and rolling out de-risking instruments, using carbon credit revenues, and targeting grant money combined with technical assistance to attract much greater private investment."

But private investors are not off the hook until perfect government policies are in place. They need to take a new approach, the report advises.

"Private investors do not need to wait for public policies or subsidies to remove all material risk," the report states. "The rapid pace at which green solutions are developing is an ideal opportunity for investors to enter a growing market."

Photo of a World Economic Forum 2008 session by World Economic Forum via Wikimedia Commons.

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LED lighting gaining traction in commercial retrofits

By Derek Top

Once thought to be too costly for commercial buildings, LED lighting is increasingly popping up in warehouses and commercial facilities as part of energy retrofit projects.

Atlas Box, a Massachusetts-based manufacturer of protective packaging for electronics and heavy equipment, has embarked on a plan to reduce energy consumption by 55 percent in two facilities by installing LED lighting systems. The two-year retrofit project for installing lighting controls and other energy efficiency measures got underway thanks to a no upfront cost financing program set up by the local utility, National Grid.

Energy, of course, remains a significant cost for buildings and facility managers and "anything we can do to manage and control energy costs gives us a competitive advantage," said Frank Tavaras, global process engineer with Atlas Box and project leader.

Atlas worked with Groom Energy to perform building energy assessments to map savings opportunities.

Tavaras said he considered the warehouse's machinery and



power cutting equipment as using the most energy in the three-year old facility. "But we were wrong, lights use more and gave us the opportunity to target something right away" to save energy.

For Atlas's interior warehouse lighting, Groom Energy installed a Digital Lumens system enabling occupancy-based lighting and the ability to track and manage the system through software.

Having individual control of each fixture, as well remote monitoring and Web-based dashboard tools, were critical features in selling Tavaras on the project.

Indeed, wireless controls with underlying analytics and data management to help building managers track and monitor energy savings helps justify the investment in new LED technologies, writes Casey Talon with IDC Energy Insights.

In addition to Digital Lumens, there are a number of new players in the market for advanced lighting and with Internet-enabled controls, including Enlighted, Adura Technologies (which was recently acquired by Acuity Brands), Redwood Systems and Daintree Networks.

But trying to gather the initial capital expense, which ran upwards of \$500,000, for retrofitting a seemingly new, three-year old facility was of a tough sell, said Tavaras. The company received a number of incentives from the local utility National Grid, including a finance program that covers 70 percent of energy efficiency upgrade costs with an option to finance the remaining 30 percent with no interest over the next two years.

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Urban responses to climate change: the transport battleground

By **Tim Smedley**, for *guardian.co.uk*

While cities only take up 2% of the earth's surface, they account for 50% of the human population, 75% of its energy consumption and 80% of CO2 emissions. How cities respond to the challenges of energy production and emissions reduction is therefore fundamental to the fight against climate change.

Speaking at the Urban Age Electric Cities conference in December, Anthony Giddens, former director of the London School of Economics and author of *The Politics of Climate Change*, argued that "the two great convergent themes of living in the city today are on the one hand, the [dependence on] an electric grid, and the other environmental sustainability.

"The city has to build in resilience. The great difficulty is that cities in the poorer parts of the world have no means of doing this, and in the industrial countries [it is] fantastically expensive and demands long-term thinking. Politicians in democratic countries are not so good at long-term thinking."

It's a bleak picture. A 2012 LSE green cities survey of 100 world cities found that less than a quarter of cities have achieved success in their attempts to

reduce resource consumption, establish energy security, or reduce greenhouse gas emissions. On many of these issues the hands of city governments are tied,

says Philipp Rode, executive director and senior research fellow, LSE Cities. "The energy market is a national one. We all have contracts as individual consumers with national energy companies, often international players that own the centralised power plants ... if you look at the detailed budget of the Greater London Authority (GLA) for example it is very limited, and most of it is earmarked for transport."

Transport, however, offers a significant battleground upon which urban sustainability can be fought. Enrique Peñalosa famously introduced a bus-only road circuit and cycle superhighways when mayor of Bogota, Colombia. Over half of all trips in Bogota are now made by bus, only 22% by car. Also speaking at the Urban Age conference in December, Peñalosa – now president of the Institute for Transport and Development Policy in New York, said, "If it is true that all citizens are equal, then a bus with 80 people has a right to 80 times more road space than a car with one person. Mobility is a political issue, not a technical one ... Similarly a protected bicycle lane is a symbol that shows that a citizen on a \$30 bicycle is equally important to a citizen in a \$30,000 car ... We need to build our cities a little bit more for people, and a little bit less for cars."

Carlo Ratti, director of MIT's Senseable City Lab, believes that car sharing schemes could have a big impact. "Twenty years ago it was cool to arrive at MIT in a big, powerful car; today what's cool is to arrive together in a Zipcar. Most people don't own a car on campus now." MIT students are



President of the Institute for Transport and Development Policy in New York, Enrique Peñalosa believes mobility is a political issue. A protected bicycle lane is a symbol that shows a citizen on a \$30 bicycle is equally important to a citizen in a \$30,000 car. Photograph: Antonio Olmos

hardly a barometer for mainstream America but, he responds: "In January, Zipcar was sold to Avis for \$500m – I'd call that mainstream. These are just some examples ... in New York City we have done a piece of research looking at all the GPS information from taxis for a whole year ... If you allowed people to share the trips they make already, you could cut the number of taxis by 50%."

According to GLA, the UK's capital city emits around 45m tonnes of carbon dioxide a year (or 8% of the UK's CO2 emissions), 20% of which comes from transport. Almost 40% of all trips in London are made by car – a figure broadly similar to those of New York and Stockholm. However, only 2% of trips are made by bike, compared to Copenhagen where it's almost 20%.

Rode argues that Copenhagen's conversion to cycling is "one of the best examples of something a city can really do if it wants to." Car use for commuting in Copenhagen fell from 42% in 1996 to only 26% by 2004, through pro-active policies. There is no excuse, he says, not to build protected cycle ways.

Adam Greenfield, founder of New York urban technology company Urbanscale, formerly worked with the US army looking at psychological operations, or "the art of getting people to do what you want them to do".

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Circular economy saves more than \$700B, report says

By **BusinessGreen Staff**

Consumer goods companies could be missing out on \$700 billion worth of savings by failing to incorporate recycling in their business models.

That is according to the latest report by the Ellen MacArthur Foundation, which attempts to quantify the benefits of the so-called "circular economy," where products are designed so that their materials and components can be easily recycled and reused.

The report focuses on the \$3.2 trillion global markets for clothing, food and drink, and associated packaging, which together account for 35 percent of material inputs into the economy, three quarters of all municipal waste and almost 90 percent of agricultural output -- a sector projected to come under increasing pressure as populations increase and climate change impacts take effect.

Only about a fifth of material from these consumer goods sectors is recovered, at an estimated loss to the global economy of \$2.6 trillion a year. However, the report concludes recovery rates could be increased to 50 percent simply through wider adoption of reusing and recycling.

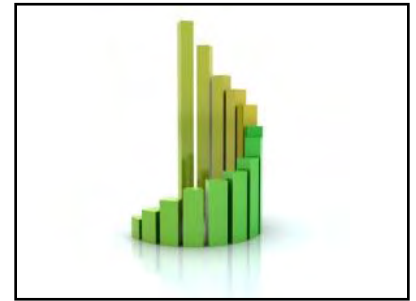
It also argues that embracing these approaches would give companies a huge competitive advantage. For example, simply increasing the amount of clothing that is collected and reused or remade could generate \$71 billion in material savings.

In addition, \$2.35 billion could be generated annually in the U.K. alone for municipalities and investors by collecting household food waste and processing it to generate biogas and fertilizer.

The report also details how the cost of beer could be reduced by a fifth per 100 liters by shifting from using glass bottles to recyclable plastic, subsequently lowering the cost of packaging, processing and distribution.

Even greater progress could be made with wholesale redesign of both products and supply chains, the report adds.

Photo of circular graph provided by Jezper via Shutterstock.



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Will Nike deliver on its 2015 performance standards?

By Felicity Carus, for guardian.co.uk



Nike's Hannah Jones, says the future is not in consuming less but in closed loop products made with material that can be fully recycled. Photograph: PHIL, COLE/ALLSPORT

Making a third of the world's sportswear and training shoes is a profitable business. Nike posted recession-beating revenues of \$24.1bn (£15bn) in the last financial year, up 16% from 2011. But turning out an estimated 120m trainers and hundreds of millions of tonnes of athletic gear each year carries a high price tag when it comes to environmental and social impacts.

Since 2004, Hannah Jones, vice-president of Nike's sustainability and business innovation unit, has had to balance this growth with the company's huge consumption of energy, water and materials.

"As we move into a sustainable economy, we will need to move into a closed loop economy," she says. "We will be providing products that allow businesses to grow, are profitable, meet the demands of shareholders but are also de-coupled from scarce resources.

But, she says, the company doesn't see the future as consuming less. "It's not about saying to the emerging middle class in China 'you don't get to consume as much'," says Jones. "It's about a new definition of premium products, that are closed loop, using only materials that can be fully recycled."

Nike last year issued a new set of performance standards by 2015 that included a 20% reduction in CO2 emissions per pair of running shoes by from 2011 levels; an increase in water efficiency by 15% and a 10% reduction from manufacturing waste. By 2020, Nike has also set a target to eliminate the discharge of hazardous chemicals from all products across its supply chain, following a Greenpeace campaign which exposed dangerous levels of toxins at Chinese apparel factories.

The company has come a long way on sustainability and corporate responsibility since the 1990s, when company co-founder Phil Knight said it had "become synonymous with slave wages, forced overtime, and arbitrary abuse".

There are signs that Nike is producing some concrete results and setting the pace for the rest of the industry.

Last year, Nike was ranked sixth among only 65 companies as having developed an "ecosystem" of long-term sustainability targets according to Deloitte's zero impact growth monitor.

In 2010, Nike rolled its corporate responsibility department into the sustainability unit to develop disruptive innovations in materials.

"We'll see a very significant movement in industries that are working on logistics and waste management but it will start with materials science,"

said Jones. "Ultimately, you can only refurbish materials based on the science and the chemistry and how it's actually assembled."

The company uses around 16,000 materials annually; running shoes alone can be comprised of 30 materials, from natural fibres to polyester, nylon, rubber, synthetic leather and ethylene vinyl acetate (EVA). Materials account for 60% of the lifecycle of a pair of running shoes, manufacturing about 25% and the remainder is split between transport, retail, office facilities, packaging, use and disposal.

Most of these materials are still petroleum-based or have a high dependence on fossil fuels, such as fertiliser for cotton. And as oil prices rise and stocks decline, finding new materials will become the Holy Grail for apparel manufacturers.

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Germany's Feed-In Law Adds Energy Storage, Huge Project Slated for California

By SustainableBusiness.com News

In February, Germany will begin offering incentives for people to tie energy storage systems to their solar arrays.

The three-year subsidy program is for relatively small solar systems, less than 30 kilowatts, that send electricity to the grid. Grants of \$1080 will be available for each kilowatt hour of energy storage added. The program is capped at \$67 million.

This new, if temporary addition to Germany's feed-in law is meant to reduce peaks in electricity production and take pressure off the grid.

Storing excess energy in batteries can reduce peaks in electricity production up to 40% and grid capacity by 66%, according to Fraunhofer Institute for Solar Energy Systems.

California Solar Plant W/ Energy Storage

The first large-scale solar plant in California that includes energy storage starts construction early next year, after having been approved to sell the energy to PG&E.

SolarReserve's 150 megawatt Rice Solar Energy Project now has all its permits. Located in eastern Riverside County and bearing a \$750 million price tag, it's expected to generate more than 5,300 solar jobs (direct and in-direct) during its 2-year construction period.

When complete, the project will supply power to over 65,000 homes during peak electricity periods.

The solar tower design focuses sunlight from thousands of mirrors onto a central tower that contains molten salt, which retains heat and can produce power at night.

There will be 8-10 hours of fully dispatchable energy storage, a key factor in the project's approval. In fact, more than 20 hours of full power energy storage is possible, making it equivalent to coal, natural gas and nuclear plants.



SolarReserve's flagship 110 MW Crescent Dunes Solar Energy Project in Nevada comes online late this year - the first commercial scale molten salt tower in the world.

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Europe's ship-breaking proposals may be illegal, lawyers warn

Leaked papers express grave concerns over the shipping industry's bid to overturn a treaty on the disposal of toxic waste

By **John Vidal**, guardian.co.uk,



Indian workers breakdown ship parts for recycling at a yard in Mumbai.

Europe's plan to overturn a ban on contaminated ships being broken up in developing countries may be illegal, according to the European Union's own lawyers.

Leaked European council legal opinion papers seen by the Guardian express grave concerns over the European commission's attempts to exempt ships from the Basel convention, the global treaty that demands that rich countries dispose of their own asbestos and other hazardous waste materials, and do not add to pollution in poorer countries.

In a move that the Shipbreaking Platform – a coalition of human rights and environment groups – says would set a precedent in international law, the commission has proposed to exempt all ships from the convention and its own legislation. If the move succeeds, this would allow shipowners to legally export toxic ships to developing countries.

But the legal service says in a restricted document: "[We] consider that there is a serious risk that the ... exclusion of ships from regulation 1013/2006 in the manner being proposed could amount to a breach of the obligation not to defeat the object and purpose of a treaty..."

Human rights and environment groups accused the commission of trying to impose double standards. "The EC's proposal to allow the shipping industry to ignore the Basel convention is scandalous and illegal. It is absurd to imagine that a huge oil company could legally dump their old rusty tanker full of asbestos in Asia when it would be a criminal act for anybody else to likewise export one single barrel of the same asbestos. But that is what the [EC] is proposing," said Jim Puckett of the toxic trade watchdog group, Basel Action Network.

European shipowners sent a record 365 vessels to be broken up on beaches in Bangladesh, China, India and Pakistan last year, a 75% increase on 2011. Greece sent 174 ships, Germany 39, Norway 37 and Britain 32 with the remainder from 14 other countries. One firm from landlocked Switzerland sent 23 vessels for breaking.

Although the Basel convention and the European waste shipment regulations specifically ban the export of toxic waste, shipowners have found it easy to circumvent the law by changing flags and selling their vessels for scrap once they are outside EU waters.

Gangs of workers dismantle the giant vessels by hand, often leading to deaths, injuries, explosions and chemical spillages, as well as contamination of the beaches and waters around the breaking yards and destruction of coastal mangrove forests.

The toxic materials must be taken off the ships and disposed of, but some countries have limited facilities to handle the waste. According to the World Bank, Bangladesh alone is expected to have 79,000 tonnes of asbestos and 240,000 tonnes of cancer-causing polychlorinated biphenyls (PCB) chemicals "dumped" on it by rich country's ships in the next 20 years.

Partly in response to criticism, the shipowners have worked with the UN's International Maritime Organisation to draw up the weaker Hong Kong convention in 2009. This permits ships to be exported to authorised facilities in rich or poor countries that have ratified it. However, it is unlikely to become legally binding for 10 or more years.

Patrizia Heidegger, executive director of Shipbreaking Platform, said: "The two conventions are complimentary and work well with each other. To scrap Basel obligations, Europe will be throwing away the very principles it has championed on the world stage, it will be undermining European ship recycling job opportunities, while poisoning some of the world's poorest, most desperate workers – its a lose-lose-lose proposition, all simply to line the pockets of shipping moguls."

Shipbreaking in south Asia is regarded by developing countries as a key industry because it supplies a substantial quantity of scrap steel for their iron and steel industries. Nearly every part of the ship is recycled.

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Honeywell and Opower team up on smart energy

By **Derek Top**



Building on a partnership that first began in 2011, Honeywell and Opower introduced new technology this week that targets homeowners to join energy efficiency and demand response programs offered by utilities.

The powerhouse partnership allows customers to program and

monitor energy usage through a cloud-connected thermostat with web-based tools. Utilities can leverage the program to work with residential customers to help shed energy demand, for example by temporarily controlling energy-sapping appliances when use spikes.

A program trial is underway with Pacific Gas and Electric Co. (PG&E) with the more than 500 free thermostats installed to test and measure energy savings. The technology works with most any residential heating and cooling systems and connects through wi-fi networks.

By gauging customer acceptance, the Honeywell and Opower program, which is expected to run through 2014, will help PG&E test against a theory that the thermostat and app can save up to 5 percent of energy costs.

At this week's DistribuTECH event in San Diego, Justin McCurnin, global marketing director for Honeywell Smart Grid Solutions, says the company has been actively managing demand response program for more than 30 years. He said Opower's large installation base (working with more than 80 utilities in gathering energy consumption data of more than 15 million homes) and a commitment to big data analytics and rigorous measuring and validation of energy savings were key to making the partnership successful.

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Keystone XL will have 'no impact on climate change', TransCanada boss says

Firm planning oil pipeline from western Canada to Texas targets climate change protesters' arguments on emissions

guardian.co.uk,



Syncrude Canada Ltd's tar sand production facility in Alberta
(Photograph: Veronique de Viguier/Getty Images)

The company that wants to build a controversial oil pipeline from western Canada to Texas said on Tuesday that shutting down the oil sands at its source would have no measurable effect on global warming.

"You could shut down oil sands production tomorrow and it would have absolutely no measurable impact on climate change," he said.

Alex Pourbaix, TransCanada's president for energy and oil pipelines, said opponents of the proposed Keystone XL pipeline have grossly inflated the likely impact of the oil it would carry on emissions of greenhouse gases that contribute to global warming.

Canada produces just 2% of global greenhouse gas emissions, Pourbaix said at a forum sponsored by a manufacturing group that supports the pipeline. Oil sands concentrated in Alberta, where the 1,700-mile pipeline would start, make up 5% of Canada's total, Pourbaix said.

"Simple math tells us, therefore, that the oil sands represent only one-tenth of 1% of global greenhouse emissions," he said. "Even if production from the oil sands were to double, the (greenhouse gas) contribution from the oil sands would be immaterial to global" greenhouse gas production.

Pourbaix's comments came two days after a rally on Sunday by pipeline opponents drew an estimated 35,000 people to Washington. Organisers, including the Sierra Club and other environmental groups, billed the event as the largest climate rally in US history. Thousands of people marched past the White House to urge president Barack Obama to reject the \$7bn pipeline and take other steps to fight climate change.

Opponents say the pipeline would carry "dirty oil" derived from tar sands that requires significantly more energy to produce and refine than conventional crude oil and which emits up to 20% more greenhouse gases than other sources.

At Tuesday's forum, organised by the National Association of Manufacturers, Pourbaix challenged the climate argument head-on. He and other TransCanada executives have previously emphasised the pipeline's safety, the jobs it will create and the fact the oil comes from a US neighbour and ally.

"Our opponents are trying to make this debate about GHGs," he said, referring to greenhouse gases such as carbon dioxide that are emitted as oil is produced and refined. "So let's look at Canada's contribution to global GHGs."

Pourbaix called Canada a leader on climate change and noted that Alberta was the first jurisdiction in North America to regulate greenhouse gas emissions. The province also has imposed a carbon tax, an action the Obama administration has said it will not propose.

Oil carried by Keystone will displace heavy crude from Venezuela, Nigeria and other countries that also contribute to global warming, Pourbaix said.

Michael Mann, a climate scientist at Pennsylvania State University, said Pourbaix's comments appeared to be based on "some rather rosy assumptions" about oil sands production. First, the calculation does not take into account the energy cost of refining and transporting the oil from tar sands, nor does it account for a huge reserve that could make the Alberta tar sands a key contributor to global warming in the future, he said.

Mann, who opposes the pipeline, said US approval of Keystone XL would encourage increased development of the heavily-polluting tar sands. Canadian officials have called development of the tar sands a national priority.

By endorsing the pipeline, "we may be insuring that a much larger amount (of the oil reserves) will be economically viable," Mann said.

Obama calls climate change a serious threat and has urged Congress to combat it. In his state of the union address last week, Obama said he will use executive authority to cut greenhouse gas pollution if Congress fails to act.

Obama has twice thwarted the Keystone XL pipeline because of concerns about its route through sensitive land in Nebraska, but has not indicated how he will decide on the pipeline since Nebraska's governor approved a new route last month. The state department has authority over the project because it crosses an international border, but both sides on the issue expect Obama to make the final decision.

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A call for \$700 billion in sustainable infrastructure investments

By Bruno Berthon

As the global population expands to 9 billion by 2050, we are set to spend trillions of dollars on supporting infrastructure that is likely to damage our climate. The good news is that spending more up front on making that infrastructure sustainable will pay off in the long run and provide new growth opportunities.

That's the conclusion reached by a group of multinational businesses and institutions -- called Green Growth Alliance -- tasked by the G20 to consider green growth. To make that vision a reality, though, governments would need to spend \$130 billion -- an amount that could, if well directed, mobilize another \$570 billion of private finance, the group argues in a report released this week.

But it will take some political and business courage to make that \$700 billion yearly investment a reality.

The positive outlook of the Green Growth Alliance, chaired by former Mexican President Felipe Calderón, is partly based on evidence that sustainable investment has proven remarkably resilient in recent years. Spending on renewable energy in 2011 was up 17 percent on 2010. That is double what was being invested just before the financial crisis struck in 2007 and six times higher than in 2004. Global agricultural productivity is rising faster than population and 2 billion more people have enjoyed improved water access in the last 20 years.

Investment needs to be directed at newly industrializing economies to keep climate change under control. That is already happening. More surprisingly, we are at -- or just about at -- the point when more clean energy asset financing is originating from these emerging markets themselves than from developed countries.

Photo of green transmission lines provided by Moreno Soppelsa via Shutterstock.

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Deep green investing: A closer look

By Marc Gunther



As you've no doubt heard, Bill McKibben and his allies at 350.org have launched a national campaign to persuade colleges, universities, churches, foundations and, yes, people like you and me, to stop investing in the fossil fuel industry. The campaign raises interesting questions as, I'm sure, McKibben hoped it would. Among them:

Does divestment make sense as a strategy to curb climate change?

If those of us who are concerned about climate change want to align our investments with our beliefs, what options are available?

In a column called Deep Green Investing published last week by *Enzia*, a lively new online magazine about environmental solutions, I argued that, by itself, divestment will probably not accomplish much. Having said that, the campaign could prove useful as one of a number of tactics being deployed by 350.org, the Sierra Club and others that are aimed at bringing about political change -- namely, taxes or caps on global warming pollutants, EPA rules to curb coal-burning, etc.

In *The Nation*, Mark Hertsgaard argues that these grass-roots climate efforts have already produced results -- 350.org galvanized opposition to the Keystone Pipeline, which may have persuaded President Obama to delay a decision after the election, and the Sierra Club's Beyond Coal campaign has, along with cheap natural gas, helped drive the decline of coal in the US. Hertsgaard writes:

"As important as the victories themselves was how they were won. Both the Sierra Club and 350.org eschewed the inside-the-Beltway focus and top-down political strategy of big mainstream environmental groups, as exemplified by the cap-and-trade campaign. Instead, they emphasized grassroots organizing at the local level on behalf of far-reaching demands that ordinary people could grasp and support. Their immediate goal was to block a specific pipeline or power plant, but their strategic goal was to build a popular movement and accrue political power."

Political contexts

This is the political context in which the divestment movement makes sense. It won't shake up the oil industry -- the *Enzia* story explains why -- but it's a useful organizing tool.

But what might the campaign mean for investors? Today, I'm taking a closer look at a couple of "deep green" broadly-diversified mutual funds that have decided, unlike most other funds that market themselves as green or socially responsible, to cleanse their portfolios of companies that extract fossil fuels.

Illustration of ladder in a hole in the grassy ground by Zastolskiy Victor via Shutterstock.

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Cradle to Cradle product certification enters new era

By Heather Clancy

The venerable and rigorous Cradle to Cradle (C2C) Certified program entered a new era January 1, with a major revision that encourages continuous improvement.

That's not the only major change: The program also added the first third-party assessor, other than ones affiliated with the originators of the standard -- McDonough Braungart Design Chemistry (MBDC) and EPEA Internationale.

That company, Washington, D.C.-based consultancy ToxServices, has already signed two contracts for C2C Certified assessment services and a third is waiting in the wings, said founder and chief toxicologist Meg Whittaker. "No one is too good to get on a continuous improvement plan," she said.

There are five categories under the C2C certification: Material Health, Material Reutilization, Renewable Energy Use, Water Stewardship and Social Responsibility. There are five tiers of participation, ranging from Basic to the highest achievable level, Platinum.

While the concept of cradle-to-cradle sustainability assessments is fairly well understood, only 150 companies have invested in the full-fledged certification during its eight-year existence -- in part because they could be performed only by MBDC and EPEA Internationale. Two of the biggest proponents of the C2C framework are green cleaning products company Method and office furniture maker Herman Miller.



ToxServices, a 25-person firm in business about 10 years, was caught off-guard by its invitation to participate but barely hesitated to get on board because it overlapped well with its existing services. "We are small, but work for almost every company out there," Whittaker said. While she can't name customers, the ToxServices roster includes major cosmetics and computer companies. Approximately 30 percent of its clients come from the public sector.

The ToxServices staff was trained extensively in the draft version of the standard during the summer of 2012, revising its own internal processes to conform more closely with the C2C assessment requirements along the way and adding an environmental engineer this month.

"We are very aware of the shoes we are stepping into," she said.

New era for the C2C certification

The move to add more assessment bodies is critical for convincing more companies to integrate sustainability principles into their standard design practices, said Adam Lowry, co-founder and "chief greenskeeper" for Method, which has achieved C2C Certified recognition for more than 60 products.

"This is really important from two angles," Lowry said. "You need more assessors for this to scale. C2C has already been the toughest certification to achieve. But moving it to a public body makes it even more authentic. It adds a whole extra level of transparency."

One top priority this year for the Cradle to Cradle Products Innovation Institute, which now governs the standard, is training additional assessors in both North America and Europe.

That's necessary for helping more companies -- particularly small ones -- get on board with the C2C Certified principles because it will help make it easier to invest in audits, Whittaker said.

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McDonald's, Unilever, Pepsi, Adidas make news at Davos

By Liz Enochs



[Image of Davos on map courtesy of ILLYICH via Shutterstock]

As global leaders hobnobbed at the World Economic Forum's annual meeting in Davos, Switzerland this week, the gathering's theme of "resilient dynamism" resonated around the planet through several big announcements from major corporations and nonprofits.

While not a huge surprise, considering its 2011 commitment to source its filet-o-fish sandwiches sold in Europe from only Marine Stewardship Council-certified seafood, McDonald's scored with the biggest corporate sustainability news of the day in announcing it will become the first U.S. restaurant chain to serve sustainable seafood at all of its U.S. locations.

From the Huffington Post story on the announcement:

Packaging for all fish dishes at McDonald's 14,000 U.S. locations will be marked with the blue ecolabel of the Marine Stewardship Council, an independent nonprofit organization that sets standards for sustainable fishing based on fish stock health, impacts of the fishery on its ecosystem and the fishery's management system.

McDonald's fish was actually first certified in 2005, but the company has since performed an audit of its supply chain to ensure sustainability and traceability. Various types of fish have been used in McDonald's dishes over the years -- while some may have been considered sustainable at one point, the recent certification ensures that all seafood are from sustainable sources.

But there's more that needs to be done to combat what's been labeled a crisis of overfishing, others say. In a statement issued at Davos, the World Wildlife Fund joined public and private sector leaders in a call for a new global seafood traceability system to combat illegal fishing:

The pronouncement is the first multi-stakeholder call for such a system, and could herald an important role for the World Economic Forum in support of sustainable fisheries. ...

The world is facing an unprecedented crisis of overfishing, with nearly 87 per cent of the world's commercial fisheries now fished to or over maximum levels, according to the United Nations Food and Agriculture Organisation (FAO).

Meanwhile, experts estimate that 20 per cent of worldwide fish catches come from illegal fishing practices.

The world's oceans are merely one small part of the agenda at Davos, where global problems and solutions are debated into the wee hours by major players whose fingers rest on the levers of global power.

Taking the spirit of the summit seriously

While some business leaders attend the high-profile annual shindig to drum up business, talk mergers, or otherwise advance their own agendas, others – like Unilever CEO Paul Polman – take the "solving global problems" spirit of the summit seriously.

"If I go to Davos and meet 50 of my banks and 10 of my suppliers and five of my ego-strokes, I'm not sure it's in the spirit of Davos," he told the Wall Street Journal (paid access):

Like almost everyone else in the small and suddenly overpopulated village, Mr. Polman gets up at 6 a.m. every morning, goes to bed at 1 a.m., and fills the intervening 19 hours with back-to-back meetings. But instead of schmoozing clients or doing deals, he will be brainstorming with Greenpeace and Oxfam on food security, persuading other business leaders to commit to sustainability programs and hanging out with social entrepreneurs. He won't even sneak in a spot of skiing: "I've never skied in Davos. I can't afford it," he claims wryly.

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MEPs vote to ban discards in historic reform of fishing policy

Landmark victory for campaigners and green groups will ban the wasteful practice of throwing away healthy fish at sea

By Fiona Harvey, guardian.co.uk,

The European parliament voted on Wednesday to ban the wasteful practice of throwing away healthy fish at sea in a victory for campaigners and green groups after more than two years of procedural wrangling.



Members of the Green party hold banners showing fish saying 'thank you' after MEPs voted to back fishing policy reform.
Photograph: Patrick Seeger/EPA

Campaigners in Strasbourg for the "historic" vote on the EU common fisheries policy (CFP) were jubilant. After significant opposition to the changes from the powerful industrial fishing lobby, and multiple attempts to scupper the process, the final vote was won by an emphatic 502 votes to 137.

"This is really excellent news," said Hugh Fearnley-Whittingstall, the chef and food writer who spearheaded the Fish Fight campaign that mobilised hundreds of thousands of people to oppose discards. "It was a nerve-racking morning – there was still a faction who wanted to derail the process – but well done to the MEPs, and well done to the Fish Fighters."

Discarding – where fishermen toss back hundreds of tonnes of edible fish, usually dead, because they have exceeded their fishing quota or have caught species for which they have no quota – has been the most striking example of the failures of a common fisheries policy that green groups have said is "broken" and encourages overfishing instead of protecting dwindling stocks. Between one-quarter and one-third of the total catch quota is estimated to be discarded, and this may rise as high as 90% of the catch in some circumstances for some species, according to Fish Fight.

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India's rice revolution: Chinese scientist questions massive harvests

By John Vidal, for *The Observer*



People work on a rice field in Nalanda district, Bihar, India, where world record yields are said to have been achieved. Photograph: Chiara Goia/ObsERVER Food Monthly

China's leading rice scientist has questioned India's claims of a world record harvest, following a report in last week's *Observer* of astonishing yields achieved by farmers growing the crop in the state of Bihar.

Professor Yuan Longping, known as the "father of rice", said he doubted whether the Indian government had properly verified young Indian farmer Sumant Kumar's claim that he had produced 22.4 tonnes of rice from one hectare of land in Bihar in 2011.

Yuan, director-general of China's national rice research centre and holder of the previous record of 19.4 tonnes a hectare, asked: "How could the Indian government have confirmed the number after the harvesting was already done?"

The dispute centres on a controversial method of growing rice that is spreading quickly in Asia. System of Rice Intensification (SRI) uses fewer seeds and less water, but seeks to stimulate the roots of young plants, mainly with organic manures. It can work with all kinds of seeds, including GM, and has the effect of getting plants to grow larger, healthier root systems.

Many scientists initially doubted whether yields of this magnitude were possible, but peer-reviewed papers have shown consistent improvements over conventional rice farming methods.

Yuan told the Chinese press after seeing the *Observer Food Monthly* article: "I introduced the intensification method to China myself. It could increase yields by 10-15% in low-yield fields, but it's not possible for fields that are already producing relatively high yields."

However, Norman Uphoff, professor of agriculture at Cornell University in the US, defended Kumar and the Indian authorities. "The yield measurements for Kumar and other farmers in the Nalanda district of Bihar, which matched or exceeded the previous record, were at first rejected by Indian scientists, who did not believe such results were possible.

"The measurements were made by staking out 10 by 5 metre plots in the centre of one-acre fields, not sampled crop-cuts from small areas. The 50 square metre plots were harvested with hundreds of people watching the cutting, threshing and weighing because everyone anticipated unprecedented yields," he said.

"These results were achieved with hybrid varieties which derive from Yuan's own innovation of hybridising rice, considered for decades by most rice scientists to be impossible."

The measurements were later acknowledged as valid by both the Indian Council for Agricultural Research and the Ministry of Agriculture

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Delhi sustainable development summit highlights need for urgent action

By John Vidal, for *guardian.co.uk*

Global development summits are rare and usually lead nowhere. But coming up on the inside track as a talkshop to rival Rio and the annual Davos meeting is the annual Delhi sustainable development summit (DSDS), which packs in prime ministers, Nobel prize winners and development thinkers, mostly from Asia.

Rajendra Pachauri has been called the UN's "world climate chief" because he chairs the Nobel prize-winning Intergovernmental Panel on Climate Change (IPCC). But his background is in grassroots development, and in Delhi he spoke more of the challenge to developing countries.

"We all need to take a serious look at the way we are developing," he said. "Developed countries pursued economic growth and development at a time when everything was different. Energy prices were low, there was no pressure on resources, the markets were different. If we continue the same way, we will quite simply exclude a large part of humanity from development. No satisfactory solution has emerged to deal with climate. In Asia, the quantity of resources extracted has doubled in just 20 years.

"Developing countries have to realise that it is in their best interests to use resources more efficiently than developed countries. The mitigation of emissions has a global benefit but also a local one, in things like air pollution. In India, there is a major battle going on between the ministry of forests and the ministry of mining. There's clearly a conflict over development paths. Does the government understand what is at stake? Not entirely. Not yet".

Thomas Friedman, American author of the bestselling book *Hot, Flat and Crowded*, was master of the Delhi soundbite. "I'm 59, a baby boomer," he said. "Our parents built us an incredible world of freedom by practising sustainable values. We are the grasshopper generation. We ate it all. The situation allows me to emit more carbon, so I do it."

Friedman used the analogy of the space rocket to describe the pressure building from the grassroots for change to address sustainable development, saying: "There's vast energy thrusting up from below but the pilots in the cockpit are fighting over the flight plan."



For Jeffrey Sachs, the star economist turned development adviser to UN secretary general Ban Ki-moon, the question was whether humans were smarter than frogs in the steadily

warming waters: "It's actually possible to kill a frog with gradual warming. If the temperature is hot enough, the frog jumps out. But can humans jump?" he asked.

In America, it seemed not. "In the last year," Sachs continued, "the US has lost 20% of its soy and maize harvest, had the single hottest month, a massive drought, the hottest 12 months ever recorded, and the most hurricanes and storm surges. And President Obama only added one paragraph about climate in his inaugural address."

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David Cameron hails clean energy on Indian trade mission

By **Jessica Shankleman**, for *BusinessGreen*, part of the *Guardian Environment Network*, for guardian.co.uk

The Prime Minister has again underlined his support for green technologies during a major trip to India where he is attempting to drum up business for the UK.

David Cameron today arrived in India with a group of more than 100 businesses leaders, including a number of green companies and Climate Change Minister Greg Barker.



At his first stop, the Unilever office, in Mumbai, David Cameron touted the benefits of clean energy as a key to UK economic growth. Photograph: Stefan Rousseau/PA

At his first stop, the Unilever office, in Mumbai, Cameron touted the benefits of clean energy as a key to UK economic growth.

Asked during a question and answer session if he thought governments were doing enough to boost the green economy, Cameron said green technologies such as wind turbines should be promoted in the face of opposition.

"All over the world governments are not doing enough," he said. "We are not on track to deal with climate change and make sure our policies are sustainable."

He maintained he was proud to be the Prime Minister of a country that is taking steps to tackle climate change, highlighting the launch of the Green Investment Bank and investment in offshore wind farms.

"It can be done and the argument we have to have right across the world is to try and prove to businesses and our people that this is actually a growth agenda," he said. "It's not a miserable agenda of low growth and no growth."

"These new green technologies, whether it is waste recycling, wind power, or nuclear power – because there are no carbon emissions – these are growth items and green tech jobs are growing faster in our economy than many other parts."

He concluded that unless larger economies pursue a green growth agenda, efforts to combat climate change will fail.

His comments echo those made in a speech at the start of this month, in which he warned the UK has no choice but to prioritise investment in renewables and energy efficiency if it wants to compete in the "global economic race".

Recent figures from Bloomberg New Energy Finance show India now leads the world in clean tech investment growth, racking up \$10.3bn in the sector in 2011, representing a growth rate of 52 per cent year-on-year.

Speaking this morning, Cameron called for the UK and India to form "one of the greatest partnerships of the 21st century".

"India's rise is going to be one of the great phenomena of this century and it is incredibly impressive to see... the enormous power of your economy that is going to be one of the top three economies by 2030," he said.

"Britain wants to be your partner of choice. We think there are huge ties... but we think we've only just started on the sort of partnership that we could build."

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Indian investors are forcing Ethiopians off their land

By **John Vidal**, for guardian.co.uk

Ethiopia's leasing of 600,000 hectares (1.5 acres) of prime farmland to Indian companies has led to intimidation, repression, detentions, rapes, beatings, environmental destruction, and the imprisonment of journalists and political objectors, according to a new report.

Research by the US-based Oakland Institute suggests many thousands of Ethiopians are in the process of being relocated or have fled to neighbouring countries after their traditional land has been handed to foreign investors without their consent. The situation is likely to deteriorate further as companies start to gear up their operations and the government pursues plans to lease as much as 15% of the land in some regions, says Oakland.

In a flurry of new reports about global "land grabbing" this week, Oxfam said on Thursday that investors were deliberately targeting the weakest-governed countries to buy cheap land. The 23 least-developed countries of the world account for more than half the thousands of recorded deals completed between 2000 and 2011, it said. Deals involving approximately 200m ha of land are believed to have been negotiated, mostly to the advantage of speculators and often to the detriment of communities, in the last few years.

In what is thought to be one of the first "south-south" demonstrations of concern over land deals, this week Ethiopian activists came to Delhi to urge Indian investors and

corporations to stop buying land

and to actively prevent human rights abuses being committed by the Ethiopian authorities.

"The Indian government and corporations cannot hide behind the Ethiopian government, which is clearly in violation of human rights laws," said Anuradha Mittal, director of the Oakland Institute. "Foreign investors must conduct impact assessments to avoid the adverse impacts of their activities."

Ethiopian activists based in UK and Canada warned Indian investors that their money was at risk. "Foreign investors cannot close their eyes. When people are pushed to the edge they will fight back. No group knows this better than the Indians", said Obang Metho, head of grassroots social justice movement Solidarity Movement for a New Ethiopia (SMNE), which claims 130,000 supporters in Ethiopia and elsewhere.

Speaking in Delhi, Metho said: "Working with African dictators who are stealing from the people is risky, unsustainable and wrong. We welcome Indian investment but not [this] daylight robbery. These companies should be accountable under Indian law."

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Farm workers remove weeds from young plants at the palm oil plantation owned by Karuturi Global, near the town of Bako, in Ethiopia. Photograph: Jose Cendon/Getty Images

Forthcoming Events

NATIONAL CONFERENCE ON ENVIRONMENTAL SUSTAINABILITY AND SOCIETY: THE GROWING PARADIGM SHIFT (ESS - 2013)

30th & 31st March 2013

GUNA, Madhya Pradesh, India

National conference titled Environmental Sustainability and Society: The Growing Paradigm Shift is being organized by Jaypee University of Engineering and Technology (JUET) in Guna, Madhya Pradesh on March 30 – 31, 2013. The broad fields of conference include:

- Environmental Sustainability related to (i) Water and Waste water (ii) Chemical Industries (Fertilizer, Petrochemical, Fine Chemicals etc.) (iii) Metallurgy and Metal Processing Industries (iv) Semiconductor manufacturing Industry and (v) Building materials, Management of C & D Wastes.
- Environmental Impact Assessment of Industries.
- Hazardous Waste Management and Treatment.
- Environmental Bio-technology for sustainability.
- Renewable Energy Technologies towards sustainability.

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1st International Conference on Innovation and Sustainability

Kuala Lumpur, MALAYSIA

3-4 April, 2013

UUM School of Government is organizing the 1st International Conference on Innovation and Sustainability (ICOIS) at **Sunway Resort Hotel & Spa, Kuala Lumpur**, Malaysia on 3rd and 4th April, 2013. It is expected that this will draw participants from many countries, however, organizers confirm the participation of former Secretary General Dr. Surin Pitsuwan, ASEAN and Mr. Henrik Paulsson, Vice President, Ericsson.

Among themes, Public-private partnerships, Innovation in government and the economy, Social innovation and sustainability, ICT and social networks, Community resilience and social capital, Sustainable development and Ethics, leadership and corporate social responsibility also feature.

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Engineering Sustainability 2013

April 7 – 9, 2013

Pittsburgh

On behalf of the Mascaro Center for Sustainable Innovation at the University of Pittsburgh and the Steinbrenner Institute for Environmental Education and Research at Carnegie Mellon University, conference “Engineering Sustainability 2013: Innovation and the Triple Bottom Line”, to be held between April 7-9, 2013 in Pittsburgh. This focused conference will bring together engineers and scientists from academia, government, industry, and nonprofits to share results of cutting-edge research and practice directed at development of environmentally sustainable buildings and infrastructure.

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GREEN CAMPUS SUMMIT – 2013

04-05 April, 2013

Puducherry, India

The conference GREEN CAMPUS SUMMIT – 2013 is being organized by Association for promoting Sustainability in Campuses and Communities (APSCC), Puducherry, India in association with Hamburg University of Applied Sciences, Research and Transfer Centre “Applications of Life Sciences”, RCE Hamburg and Region and Centre for International Business and Sustainability (CIBS), London Met University, UK. The conference will take place on 4th and 5th of April, 2013 at ‘ANANDHA INN’ in Pondicherry.

The event is being organized:

- To provide Universities and Higher Educational Institutions all round the world with an opportunity to display and present their works on campus greening (i.e. curriculum innovation, restructuring, action research, activities, practical projects, etc.)
- to foster the exchange of information, and dissemination of knowledge, ideas and experiences acquired in the execution of projects, from successful initiatives and best practices
- to promote adopting/ implementing strategies for campus sustainability
- to provide opportunity to showcase thought leadership on campus sustainability for institutional/ industrial campuses all round the world
- to discuss methodological approaches and projects which aim to integrate the topic of campus greening in Universities, Higher Educational Institutions and even other organizations
- to network the participants and provide a platform so they can explore possibilities for cooperation and collaboration.
- A further aim of the event will be to document and disseminate the wealth of experiences available today. To this purpose, a book “Green Campus” with selected papers from the conference will be produced. This will be a further volume of the award-winning book series “Environmental Education, Communication and Sustainability” (Peter Lang Scientific Publishers), which since its creation in 1998 has become the world’s longest running book series on education and communication on sustainable development.

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Water & Environment 2013

10th and 11th April 2013

London, UK

CIWEM is organizing conference “**Water & Environment 2013**” with an aim of bringing together a diverse audience of environmental professionals, regulators, academics, researchers, local authorities, NGOs, civil servants and others to debate, share knowledge, hear from and engage with key figures in the environment sector, and network. The event will take place on 10th and 11th April 2013 at **Royal Geographic Society, London**. The cosponsors of this conference are MHW and HALCROW, global leaders in consulting, design, design-build, operations, and program management.

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Conference on Energy Policies and Climate Protection (ICEPCP' 2013)

April 15-16, 2013

Johannesburg (South Africa)

International Conference on Energy Policies and Climate Protection (ICEPCP' 2013) aimed at presenting current research being carried out in that area and scheduled to be held April 15-16, 2013 Johannesburg (South Africa). This conference is being organized in collaboration with University of Johannesburg. The idea of the conference is for the scientists, scholars, engineers and students from the Universities all around the world and the industry to present ongoing research activities, and hence to foster research relations between the Universities and the industry. This conference provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

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B4E Global Summit

15-16 April, 2013

Delhi, India

The 7th annual B4E Global Summit in Delhi will look at the role of emerging markets in driving the world's transition to a global green economy. This conference will be held on 15th and 16th April at The Ashok Hotel in Delhi. Leaders from business, government and the NGO community will gather to explore inclusive green business models, innovation in finance and technology and propose industry commitments to action. Renowned personalities Kris Gopalakrishnan, Co-Chairman, Infosys Technologies and President-designate, **Confederation of Indian Industry (CII)**, Ian Johnson, Secretary General, **The Club of Rome**, Digvijay Singh, General Secretary, **All India Congress Committee**, S. Ramadorai, Adviser to Prime Minister, **National Council on Skills Development, India** are expected to give opening addresses. Many sustainability practitioners, corporate leaders, policy makers, NGOs of national and international repute are participating in this event.

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7th European Conference

ON

Sustainable Cities & Towns

17 - 19 APRIL, 2013

GENEVA, SWITZERLAND

The 7th European Conference on Sustainable Cities & Towns – organized by ICLEI Europe - City of Geneva - ESCT Conference Preparatory Committee shall be an ideal place for networking and exchange. From 17 to 19 April 2013, local and national government delegates, members of European and international organizations, as well as business, research and NGO associates will come together in Geneva, Switzerland to tackle the current economic, environmental and social challenges confronting urban areas.

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ICSD 2013

19th - 20th April, 2013

Tirana, Albania

The ICSD 2013 will be held at the Canadian Institute of Technology, Tirana Campus in collaboration with the European Center of Sustainable Development, at the Zayed Center, Tirana, Albania from Friday 19 April to Saturday 20 April, 2013. This Conference on Sustainable Development is inspired from the critical challenge of human, environmental, and economic sustainability concerning the present and future generations in a global-scale context. The Conference theme is, "Creating a unified foundation for the Sustainable Development: research, practice and education". This theme emphasizes the strong foundation that is provided by using research to inform our everyday practices, policies, and analytical approaches.

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The Times of India, Delhi dated January 26, 2013

Tycoons funding anti-warming sceptics?

Audit Finds Donors Tied To Fossil Fuel Industry Trying To Cast Doubts On Climate Change

Steve Connor

A secretive funding organization in the United States that guarantees anonymity for its billionaire donors has emerged as a major operator in the climate "counter movement" to undermine the science of global warming. The Independent has learnt.

The Donors Trust, along with its sister group Donors Capital Fund, based in Alexandria, Virginia, is funneling millions of dollars into the effort to cast doubt on climate change without revealing the identities of its backers or that they have links to the fossil fuel industry.

However, an audit trail reveals that Donors is being indirectly supported by the American billionaire Charles Koch who, with his brother David, jointly owns a majority stake in Koch Industries, a large oil,

gas and chemicals conglomerate based in Kansas.

Millions of dollars has been paid to Donors through a third-party organization, called the Knowledge and Progress Fund, which is operated by the Koch family but does not advertise its Koch connections. Some commentators believe that such convoluted arrangements are becoming increasingly common to shield the identity and backgrounds of the wealthy supporters of climate scepticism — some of whom have vested interests in the fossil-fuel industry.

The Knowledge and Progress Fund, whose directors include Charles Koch and his wife Liz, gave \$1.25m to Donors in 2007, a further \$1.25m in 2008 and \$2m in 2010. It does not appear to have given money to any other group and there is no mention of the fund on the websites of Koch Industries or the Charles

Koch Foundation.

The Donors Trust is a "donor advised fund", meaning that it has special status under the US tax system. People who give money receive generous tax relief and can retain greater anonymity because, technically, they do not control how Donors spends the cash.

Anonymous private funding of global warming sceptics, who have criticized climate scientists for their lack of transparency, is becoming increasingly common. The Kochs, for instance, have overtaken the corporate funding of climate denialism by oil companies such as ExxonMobil.

One such organization, Americans for Prosperity, which was established by David Koch, claimed that the "Climategate" emails illegally hacked from the University of East Anglia in 2009 proved that global warming was the "biggest hoax the world



BIGGEST HOAX OR GROUND REALITY?

has ever seen". Robert Brulle, a sociologist at Drexel University in Philadelphia, has estimated that over the past decade about \$500m has been given to organi-

zations devoted to undermining the science of climate change, with much of the money donated anonymously through third parties. THE INDEPENDENT

The Economic Times, Delhi dated January 28, 2013

ONGC, NTPC Among Energy Cos Thinking Out of The Box on CSR

RAJEEV JAYASWAL & SARITA C SINGH
NEW DELHI

Blue chip energy firms have fascinating new ideas. Exploration giant ONGC plans to join hands with top private hospital chains such as Fortis, Apollo and Max to provide healthcare, while power major NTPC will lay pipelines and do some drilling — to make septic tanks and clean toilets around its power stations.

State-run Oil and Natural Gas Corp has already identified land in several states such as Gujarat, Assam and Uttar Pradesh to provide specialized health care, and it plans to nominate its own executives on the boards of these hos-

pitals. Companies are increasingly looking at such activities to tackle public anger, particularly after village land is acquired for large projects and expectations from local governments that big firms should lead the initiative to develop the region.

"We are planning to set up highly equipped specialized hospitals for the poor under our corporate social responsibility," ONGC chairman & managing director Sudhir Vasudeva told ET.

Vasudeva, who is a specialist in offshore oil and gas exploration, is clear that healthcare is a different cup of tea, better brewed by existing players such as Medanta, Fortis, Apollo and Max. "We will tie-up with major companies

to professionally run these hospitals. Its boards will have our nominees, who would ensure free treatment to the poor," Vasudeva said.

For such activities, ONGC has a budget of Rs 500 crore a year, as it is committed to spend 2% of its net profit in corporate social responsibility (CSR) activities, he said. The company uses this budget for several social and community development activities such as education, skill development and envi-

ronment-oriented projects around its projects.

India's biggest power utility NTPC is also aligning its CSR activities to government's developmental programmes such as Nirmal Bharat Abhiyan. The company plans to build community and individual toilets around its existing power stations, an NTPC official said.

For example sanitation is a key issue for villagers around Kudgi power project. The company has planned to provide about 800 independent toilet rooms — 200 each in four village — with pipeline and septic tanks or soak pits to each residence, the official said. The company spends 2% of their net profits in CSR activities,

which also includes health and family welfare works.

NTPC plans to build community toilets based on the requirements and subject to availability of space and adoption with an aim to make India's "total sanitation programme" a success, the official said. The company is also planning to provide separate toilet facilities for boys and girls in village schools with water supply facilities.

The department of public enterprises, which regulates affairs of central public sector companies including ONGC and NTPC, has made it mandatory for all state-run firms to annually spend minimum 2% of their net profits in CSR activities.

The Times of India, Delhi dated January 29, 2013

'City heat affects weather in distant places'

Waste Heat From Buildings, Cars Can Warm Some Areas And Cool Others, Says Study

Washington: Heat generated by everyday activities in major cities affects temperatures across thousands of kilometres, significantly warming some areas and cooling others, according to a new study.

The "waste heat" generated from buildings, cars, and other sources in major Northern Hemisphere urban areas causes winter warming across large areas of northern North America and northern Asia, US scientists found. The impact on temperatures may explain a

climate puzzle of sorts: why some areas are experiencing warmer winters than predicted by climate models, researchers said.

The study found that temperatures in some remote areas increase by as much as 1°C. At the same time, the changes to atmospheric circulation caused by waste heat cool areas of Europe by as much as 1°C.

The net effect on global mean temperatures is nearly negligible — an average increase worldwide of just 0.01°C. This is because

the total human-produced waste heat is only about 0.3% of the heat transported across higher latitudes by atmospheric and oceanic circulations.

The waste heat is also changing atmospheric circulation, including jet streams — powerful narrow currents of wind that blow from west to east and north to south in the upper atmosphere, LiveScience reported. In the new study, the researchers looked at "urban heat", produced directly by transportation, heating and

cooling units, and other energy-consuming activities.

"The burning of fossil fuel not only emits greenhouse gases, but also affects temperatures because of heat that escapes from sources like buildings and cars," said study researcher Aixue Hu, of the National Center for Atmospheric Research. "Although much of this waste heat is concentrated in large cities, it can change atmospheric patterns in a way that raises or lowers temperatures across distances," Hu said. ■



URBAN IMPACT

The Economic Times, Delhi dated January 29, 2013

Coke Brings 'Parivartan' in Rural Women's Life

Co's vision is to create five million women entrepreneurs globally by 2020

RATNA BHUSHAN
NEW DELHI

For years, Preeti Gupta nursed a deep feeling of helplessness. The 42-year-old mother of three always wanted to do more for her children, but her farmer husband's limited earnings meant that those wishes would have remained just a dream.

Always a housewife who had never strayed out of home to work before, doing a job was hard to imagine, and, with her limited education - she has studied only until class seven - it was probably also hard to get.

Until a year ago.

Gupta, who lives in Naglasabla, a rural hamlet on the outskirts of Agra, today is a much-empowered woman, happy that she is now contributing equally to her household's earnings.

The situation changed a year ago when Gupta borrowed some ₹50,000 to set up a shop in her village. Today she is one among a growing set of 1.5 lakh women retailers who run kirana shops that sell Coca-Cola beverages one of the beneficiaries of US soft drinks giant Coca-Cola's global CEO Muhtar Kent's global vision to create five million women entrepreneurs globally by 2020.

An authorised retailer for Coca-Cola products such as fizzy drinks Coke and Thums Up, Minute Maid juices and Kinley water now, Gupta says opening her own shop was "the most important moment of my life". "It has made a considerable difference to my earnings," she says.

The story of Gupta and that of thousands like her are being shaped by Coca-Cola University's Parivartan programme, which trains women retailers in rural markets. It is first of its kind in the soft drinks industry, and the latest in a series of similar efforts by fast-moving consumer goods companies developing an unconventional sales channel that empowers people and, in the longer term, possibly their own bottom lines.

Coca-Cola's move is somewhat similar to Anglo-Dutch consumer goods giant Hindustan Unilever (HUL)'s rural micro-enterprise called Project Shakti. Project Shakti was a low-cost business model under which rural women entrepreneurs became direct-to-home distributors of Unilever brands in rural markets with population of less than 5,000.

"We are increasing access to training, cooling infrastructure and support networks within and outside our value chain, to help women build their businesses and support their families," Coca-Cola India and South West Asia

The Path to Power

- **Coca-Cola University** trains rural retailers under Parivartan programme
- **Training conducted** in classrooms and customized buses in rural and semi-urban markets
- **Retailers taught** how to manage shops, stock, customers and financials, merchandising and glass management
- **Retailer gets** a certificate of completion and insurance of ₹1 lakh for accidental death or premature disability

Coke sold in 2.15 million retail outlets all India, of which

999993

7%

are now run by women

- **Women supplied** with solar coolers for chilling the beverages

GRETA NUALI

President & CEO Atul Singh told ET.

Each retailer who signs up for Parivartan is trained by Coca-Cola for some 10 days and upon completing the programme gets a certificate of completion from the company and insurance of ₹1 lakh for accidental death or premature disability. In addition, women who don't have existing refrigeration are supplied with solar power-operated coolers - a Coca-Cola innovation called eKoCool which has the capacity to store and chill close to fifty 300-ml glass bottles.

On an all-India basis, Coca-Cola is sold in close to 21 lakh retail outlets. The Parivartan banner, which kicked off its first classroom training in 2007, began its women-only sessions last year. The programme is conducted in classrooms and mobile classrooms in rural and semi-urban markets, which are provided with seating areas, presentation zones, audio-videos and on-board trainers.

Industry experts say the move is progressive though it would require consistent efforts to build scale in the long run. Says RK Shukla, consumer economy expert and former director at think-tank National Council of Applied Economic Research's (NCAER) Center for Macro Consumer Research (NCAER-CMCR): "The move will create opportunities for low-literate women not only to support their families economically, but also to gain business exposure. The step also works for Coca-Cola in breaking ice in new markets."

The Economic Times, Delhi dated January 29, 2013

'Most CEOs Don't Understand Sustainability'

The number of Indian companies publishing sustainability reports is on the rise, with telecom majors Bharti Airtel and Vodafone India the latest to do so earlier this month. However, John Elkington, one of the early champions of sustainability and the creator of the term 'triple bottom-line'—measuring a corporation's financial, social and environmental performance—says companies, across the world, have not understood sustainability. On the sidelines of the CRY Corporate Responsibility Summit 2013 in Mumbai recently, the executive chairman of Volans Ventures told Ahona Ghosh where companies were falling short and why he will be tracking the Indian government's CSR directive with curious interest.

Why do companies use the language of sustainability, but fail to practice it?

Many companies use the sustainability language due to peer pressure. In 2010, the UN Global Compact group of companies published a report by Accenture, polling 766 CEOs around the world. About 92% said, "sustainability is now important to our company". What quickly became clear is that they understood sustainability very differently than us. They understood it as reporting, having a chief sustainability officer, understanding problems around the supply chain—88% said they would drive it through their supply chains.

What really worried me was that 81% said, "we have already embedded sustainability in our organisation". That was the moment I realised they don't really understand what this is about. They don't understand the nature and scale of the climate issue, water issue, natural resources issue, poverty and all these things. They are seeing it as efficiency issues and transparency.

They are doing a lot compared to what companies were doing 25-30 years ago. But still, for most companies we deal with, it is still an incremental change agenda. Another problem is they are trying to address these issues, but they lack skills beyond their core expertise to tackle sustainability.

Is it the same with Indian CEOs?

I haven't worked with many Indian companies, except Ford India and the Tata Group, and visited companies like Infosys. What I have seen is MNCs bringing elements of what they do globally into India. One of the companies I have worked with in Denmark is Novo Nordisk. I hear they have struggled to bring to India all that they do globally because the culture is so different.

If I look at a company like the Tata (Group), I see an extraordinary corporate history and family values. But I also see, until relatively recently, a very strong skew towards the social agenda and not so much the environmental agenda. Even people within the Tata

Group I have spoken to admit that, it's the same phenomenon as the Global Compact survey—people want to believe they are doing the right thing and use the appropriate current labels.

The Indian government wants companies to spend 2% of their net profit on CSR. While Indian companies have been building businesses, they are yet to develop a mindset to invest in social projects. How will they develop these skills?

What would worry me enormously is if the Indian government required companies to make these investments all at once. As long as funds are being accumulated and can be spent at some point on building expertise and manpower, and not doing it simply in the old corporate philanthropy way—we are rich, you are not; we feel uncomfortable; so here is some money and then go away.

Instead, have a vested interest in the economy and an inclusive approach to all this. Engage with social entrepreneurs at the edge of social innovation and learn from them. Don't just pour money in these projects because too much money, too quickly could blow apart a lot of these organisations. It could drive various forms of inflation.

It is an exciting development other countries might sensibly follow at some point. The defined mandate still strikes me as unusual.

How do other countries drive this agenda?

Taxation by governments. You are given tax benefits if you invest up to certain points. But this sort of forced contribution, I'm not sure I have seen anywhere else.

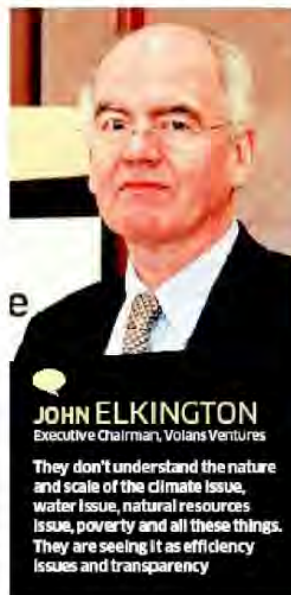
One of my concerns is how do you sustain this. If things get difficult in the economy,

will this be cut back? Is it vulnerable to government changes and political priorities? It is a fascinating opportunity to run a sort of national experiment and I will watch it with great interest.

Will this force the private sector to work with NGOs (non-government organisations)? Will this lead to cross learnings?

None of us like to be forced into marriage or anything else in life. So sometimes when you are forced to do things, you do them because you have to, not because you find it exciting or inspirational. In the 40 years I have worked with business, the key shift was the mood through the 60s to the early 80s, where companies were being forced to do what they didn't want to do; they did it with a compliance mentality. I hope this (CSR) directive does not come in the way of creative responses. Companies that respond in a creative way would be well-advised to engage with leading-edge NGOs, not every NGO.

One of the things that will happen is a consolidation and shakeout in the NGO space. Certain NGOs will be able to professionalise better and come up the curve, and just be interested in working with corporate partners. A lot of NGOs aren't. There is always a mutual mistrust, which is very difficult to remove. It's a huge opportunity, but will take 5-10 years to see if it will start working or not. There are always unattended consequences.



CSR Spends by Top 10 'Reputable Companies'

The Top 10 with the 'best reputation' in 2012 as ranked by the Reputation Institute

Rank	Company	Country	CSR Spend (\$ mn)
1	BMW	Germany	25.4
2	Sony	Japan	54.5
3	Walt Disney	US	248.5
4	Daimler	Germany	82.2
5	Apple	US	NA
6	Google	US	NA
7	Microsoft	US	904
8	Volkswagen	Germany	NA
9	Canon	Japan	1.1
10	Lego	Denmark	NA

Note: This ranking is given by Reputation Institute, a US-based reputation management consultancy, and considers both qualitative and quantitative factors of CSR spending from Bloomberg. * Figures for 2012 except Sony & Microsoft (for 2012)

The Times of India, Delhi
dated January 29, 2013

E-rickshaws roll out in Greater Noida

TIMES NEWS NETWORK

Greater Noida: The eco-friendly rickshaws, which the Greater Noida Authority had approved last year to make travelling to short distances easier for residents, have finally become operational in the city. Greater Noida Authority CEO Rama Raman formally launched the battery operated e-rickshaws on Sunday.

The Authority has introduced 15 such e-rickshaws in the first phase. As per plan, these rickshaws will ply in and around Knowledge Park, Pari Chowk, Galgotia College and Sharda University besides four residential sectors viz. Alpha, Beta, Gamma and Delta. It will launch a fleet of another 85 such rickshaws by the end of February, as part of the "second phase" of its plan and expand their route to ensure that the e-rickshaws reach the remaining parts of the city as well. The route for the second phase is yet to be finalized.

The move comes in the wake of the Authority's decision to phase out old three wheelers plying without permits and to provide easy feeder services for residents. The e-rickshaws have been launched in association with Samman, a city-based non-profit group. While the project is funded by the non-profit body, the Authority is facilitating its operations, including movement, parking etc.

Authority officials say the new battery operated rickshaws will not just provide an environment friendly and speedy option for commuting, they will also help in reducing the menace of the shared autos crowding

busy junctions across Greater Noida. The officials claim that most of these shared autos run illegally without valid permits.

"These eco-friendly rickshaws will be charged using electricity. These can run for about 90km once fully charged at a maximum speed of about 25 km/per hour. The rickshaws will be easily accessible to the public as besides being parked at some of



Shared autos (above) will make way for the new eco-friendly rickshaws

the most frequented spots in the city, they will also provide a pick-and-drop facility on call in the areas covered under the fixed route," an Authority official said.

A control room has been created for bookings and one can call on the number '06285024242' to avail the pick and drop facility for the e-rickshaws. These rickshaws ply on prefixed charges in accordance with the distance covered.

The Times of India,
Delhi dated January 30,
2013

Smog hazard worsens in China

Saibal Dasgupta | TNN

Beijing: China's environmental authorities have come up with a shocking piece of statistic about smog.

The haze choking many Chinese cities covers a total area of 1.3 million square kilometers, the ministry of environmental Protection said on Tuesday.

The area under heavy smog accounts for 13.5% of China's total area of 9.6 million square kilometers suggesting that almost the entire industry covered areas have uncontrollable levels of air pollution that pose serious health risk to millions.

The MEP said air quality across China has "notably worsened" because of the fog and haze covering several cities in recent days. The harried ministry also admitted



THREAT UNMASKED: The haze covers a total area of 1.3m sqkm

in a report that the country's 163 environmental assessment agencies are below standard and lack professional assessment abilities.

The US Embassy, which monitors Beijing's floating particulate matter that can percolate into lungs, said the

smog on Tuesday had jumped the scales at 500 and reached 526. "I have even stopped walking the dog. Outdoor exercises do more harm than good." Wu Min, a 40-year old health worker connected to a local hospital said.

The Chinese capital pre-

sented an atmosphere filled with a grey white mass a week after the government ordered closure of several polluting industries around the capital. Thousands of people are believed to have sought medical help for respiratory problems during the recent days of heavy smog.

The environment ministry, which had earlier resorted to artificial rain to reduce pollution levels, is not able to counter the combination of pollution and fog. The airport in Qingdao in Shandong province was shut down this morning due to smog, leading to the cancellation of 20 flights that left 2,000 passengers stranded. Visibility has been reduced to just 100 meters and some of the major highways have been closed, official sources said.

The Economic Times, Delhi dated February 01, 2013

Eco-friendly Palm Oil, a New Mantra for Sustainability

**RITURAJ TIWARI
& SAGAR MALVIYA**
NEW DELHI | MUMBAI

Indian consumer goods and edible oil companies are rapidly switching to eco-friendly palm oil to create sustainable supply chains that would encourage higher production without damaging the ecology in Malaysia and Indonesia.

In 2012, more than 20 companies including Godrej Industries, Hindustan Unilever, Adani Wilmar, and Ruchi Soya, committed to buying palm oil originating from plantations certified as sustainable by the Roundtable on Sustainable Palm Oil (RSPO), an industry body created for the voluntary certification of palm oil.

"We need a larger participation of India and China, the two largest consumers and importers of palm oil, to spur demand for eco-friendly palm oil," said Darrel Webber, secretary general, RSPO. India buys more than 20% of the palm oil traded globally, followed by China which buys 16%.

"Multinationals with Indian footprints like Hindustan Unilever, Wal-Mart and Cargill have played a critical role by leading this transformation to sustainable palm oil as well as inspiring and influencing their Indian counterparts. In the domestic market, early members like Godrej Industries, Adani Wilmar and VVF are playing a significant



role in pioneering this wave of change," he added.

For Hindustan Unilever, the commitment to source sustainable palm oil is led by parent company Unilever's determination to create sustainable supply chains. Unilever, the world's largest buyer of palm oil, had set a target of 100% certified sustainable palm oil covered by Green Palm Certificates. It is a goal the company reached in 2012, three years ahead of schedule, Unilever announced recently.

Unilever says it has now set a new target of purchasing palm oil from traceable sources by 2020. This means it will be able to track all the certified oil it buys back to the plantation on which it was originally grown.

With oil palm plantations of its own in India, the Godrej Group is equally committed to importing eco-friendly palm oil.

The Economic Times, Mumbai dated February 02, 2013

Get Yourself A Green House

Contrary to popular notion, setting up an environment-friendly house is not expensive. In fact, it yields better returns in the long term by saving on your power bills, writes Radhika P Nair

While building a house or doing it up, we spend all our time and energy worrying about how it looks. But most of us ignore questions like is it energy efficient, will it cause pollution, or what will be its carbon footprint. We prefer to leave these things for policymakers, big corporates or hotel chains. Also, we tend to think eco-friendly is expensive. That is not necessarily the case, says renowned Bangalore-based architect Chitra Viswanath, managing director of Biome Environmental Solutions. "If you design a house that is energy efficient and uses rainwater harvesting, it will actually provide better returns in the long run," she says. Follow these steps to make your home greener and more sustainable:



The Foundation

If you are building your own house, use materials that are available in the surroundings. Biome's Viswanath uses mud from the construction site itself. Bricks made of fly-ash — the residue from coal-based power plants — are as durable as regular bricks. Similarly fly-ash cement can be used for most houses. While designing your home, make sure there are large windows that let in natural light and breeze and reduce your dependence on electric lights, fans and air-conditioners. Also, check out whether a flat roof or a sloping roof works best for your region. In our tropical climate, large verandas and balconies are extremely useful. Also, invest in a rainwater harvesting system, which can cost as little as ₹10,000 for 1,000 litre.



Furniture & Furnishings

If you are buying a ready-to-move-in flat, it will be very difficult to make eco-friendly alterations to the structure. But you can still do your bit by picking up furniture that are certified environment-friendly. If that is not possible, buy furniture made of recyclable material like rubber or bamboo. Go for furnishings made of natural fibre like cotton or jute. For curtains, bedsheets and other furnishings, opt for fabric with natural dyes.



Odds & Ends

There are many more simple ways to make your home eco-friendly. Grow a garden, especially with local varieties, even if you have just a tiny balcony or a window box. House sparrows are fast disappearing from urban centres. You can do your bit to help these little birds by setting up a nest box that can be bought from Nature Forever Society. Or better still make one on your own — build a box from wood slabs or plywood with a sloping roof and a small hole into which only a sparrow can squeeze in. Turn your vegetable waste into compost that can be used in the garden. Use retractable *khas khas* curtains in your balconies and verandas to keep you cool in summers, and save on your power bills as well!



Walls & Fittings

Normal paints have volatile organic compounds (VOC) that are toxic. Use low-VOC paints that use water instead of petroleum solvents and, therefore, more environment-friendly. While choosing fittings for your home, take some time to pick efficient models. Low-flow showerheads and dual-flush toilets use less water. Invest in energy-saving lighting like CFL. Install solar panels that can stand in for electric geysers at least when the sun is shining

*The Economic Times, Delhi dated
February 04, 2013*

Green Growth

Policy must promote, not throttle, India's potential in global farm trade

A discussion paper from the Commission for Agricultural Costs and Prices, *Farm Trade: Tapping the Hidden Potential*, deserves wide attention. It brings out the potential of India's farm sector to become a generator of prosperity. India, today, is the world's largest exporter of rice and buffalo meat. India has been a very major exporter of cotton also, until the government banned cotton exports. Rice exports had been banned till recently. In fact, all agri commodities are subjected to an extremely uncertain trade policy. Yet, India's share in global farm trade, at 2.1%, is higher than India's share in global trade per se, 1.7%. Clearly, we need a major shift in our farm sector policies, and tap the sector's potential to create prosperity. Poverty declines much faster when the sector in which most of the poor are engaged, agriculture, experiences fast growth than when fast growth in other sectors trickles down to the rural poor. What has been holding farm sector growth back is the usual suspect: weak-kneed politics. All policy focus is on muting the protests of vocal urban consumers, who cry foul at the smallest sign of a rise in food prices. This surrender to blackmail has led to a choppy, uncertain policy on farm trade, swinging between outright bans to export incentives. This must change.

Subsidy keeps farm inputs artificially cheap, bloats the fiscal deficit and exaggerates export competitiveness. Exports take off. Prices tend to rise and then the government slams the brakes on. Buyers lose faith in Indian suppliers and switch to new ones. When the negative consequences of the export ban manifest themselves, for example, as 80 million tonnes of grain piling up in government stocks, policy opens an export window. India's farmers need stable access to fully-priced inputs and global markets. Trade policy has to be stable, liberal and without bias towards either producers or consumers. As a corollary, farmers need functional commodity markets, which lack a statutory regulator, derivatives beyond futures and risk-takers with financial muscle. A stilted farm export policy and stunted commodity markets lower the pace of poverty reduction.

*The Times of India, Delhi
dated February 05, 2013*

China's smog wafts across sea, covers parts of Japan

Tokyo: The suffocating smog that blanketed swathes of China is now hitting parts of Japan, sparking warnings on Monday of health risks for the young and the sick. The environment ministry's website has been overloaded as worried users log on to try to find out what is coming their way.

"Access to our air-pollution monitoring system has been almost impossible since last week, and the telephone here has been constantly ringing because worried people keep asking us about the impact on health," said an environment ministry official.

Pictures of Beijing and other Chinese cities shrouded in thick, choking smog played out across television screens in Japan last week.

News programmes have broadcast maps showing a swirl of pollution gathering strength across China and then spreading out over the ocean towards Japan. Pinks, reds and oranges that denote the highest concentrations form a finger of smog that inches upwards to the southern main island of Kyushu.

In Tokyo, worried people say, "China is our neighbour, and all sorts of problems happen between us all the time," said Takaharu Abiko, 50. "It is very worrying. This is dangerous pollution, like poison, and we can't protect ourselves. It's scary." **AN#**

*The Economic Times, Delhi dated
February 06, 2013*

No Bottlenecks in Green Nods, says Natarajan

**OUR BUREAU
NEW DELHI**

Environment Minister Jayanthi Natarajan declared that there was no bottleneck in green clearances, and made public the status of various projects, as she sought to counter barbs from companies and colleagues in the government about alleged delays in clearances.

"My object in giving all the details is to show that there is no delay in terms of processing. There is no bottleneck in this ministry and all projects that can be cleared have been cleared and we are not a bottleneck by any stretch of imagination," Natarajan said.

According to information provided by the ministry, there are 101 proposals awaiting forest clearance, and 88 proposals for environmental clearance. These projects cut across various sectors—defence, drinking water, hydropower and thermal power, irrigation, roads, and transmission lines.

Drawing attention to measures taken to 'streamline' the clearance process, Natarajan stressed that her ministry was not a 'bottleneck' but a partner in the development process.

"We are a partner in the development of this country. My primary mandate is protection of environmental integrity; at the same time it is to ensure that there is clarity for user agencies. We consider that preserving and protecting the environment is an important part of that partnership, but it is not a roadblock," she said.

Striking a balance between environment protection and economic growth, the minister said, "projects have to be cleared on time. There should be no undue harassment, loss or delays for projects."

In the exhaustive list made public by the ministry, Gundia Hydroelectric Project in Karnataka, Devsari in Uttarakhand, Hirong in Arunachal Pradesh, Lurhi in Himachal Pradesh, Teesta in Sikkim, Baglihar in Jammu & Kashmir are among the 12 hydroprojects for which environmental clearance remains pending.

For several of these, the statutory environment clearance body — the expert appraisal committee — is awaiting information, clarifications and compliance records. A final decision on Karnataka Power Corporation's Gundia project



GMR Highway Project Gets Nod

NEW DELHI Less than a month after GMR Infrastructure walked out of the single-largest highway project in India citing delays in securing green clearances, the government has moved swiftly to grant environmental clearance and taken steps to expedite forest clearances for the ₹7,200-crore project. Environment Minister Jayanthi Natarajan has approved the file granting clearance for the upgradation of the Kishanganj-Ahmedabad National Highway stretch of 555.5 km, a government statement said.

Moreover, the Forest Advisory Committee (FAC) met on Jan 21-22 to discuss the proposal on diverting forest land for the highway. The committee has cleared the project though it pointed out that the delays were due to lack of critical information. It said there was 'information gap between the monitoring, executing and user agencies' that resulted in the environment ministry being held responsible. "Such feeble information flow could be seen as an attempt to undue influence the ministry," FAC said. — Our Bureau

will be taken after an expert committee submits its report on implementing the recommendations of the expert panel headed by Madhav Gadgil for the protection of the Western Ghats. For the hydropower projects in the Ganga basin, a decision will be taken after the Chaturvedi Committee submits its report on cumulative impact of power projects on the Ganga.

There are 30 coal mining projects that are pending clearances. The coal sector has been at the forefront of suggesting that green clearances were delaying projects.

The Economic Times,
Delhi dated February
07, 2013

Green Nod for JSW Steel, Jindal Power Projects

Cos to mine iron ore, manganese in Asia's largest sal forest in Naxal-affected area of Jharkhand

URMIA GOSWAMI
NEW DELHI

JSW Steel and Jindal Power and Steel have secured a key green clearance to mine iron ore and manganese in Asia's largest sal forest in a Naxal-affected area of Jharkhand.

The Forest Advisory Committee's approval for mining in the Saranda Forests now awaits endorsement of Environment Minister Jayanthi Natarajan, who will have to weigh the benefits of economic growth against concerns of uprooting dense forests.

Saranda is a sensitive area, which was under Maoist control for a decade before paramilitary forces seized control in 2011. Mining in the area could derail Rural Development Minister Jairam Ramesh's Saranda Development Plan, which was launched to counter the influence of the Naxals.

Ramesh told ET he was concerned about fresh mining in the region. "The environment and forests minister will take the final decision on the projects. However, if fresh mining proposals are allowed, I can no longer guarantee that the Saranda Development Plan will be embraced enthusiastically by locals. This is a critical decision, consequences of which will reverberate much beyond Saranda in other Maoist-affected areas."

Sources said Ramesh has separately written to the PM and the environment minister urging against opening up the Saranda Forest.

The committee dealing with forest clearances has given the two companies the go-ahead for the diversion of 1,500 ha of dense forests in the West Singhbhum district of Jharkhand. JSW Steel had sought the diversion of nearly 1,000 hectares to mine iron ore and manganese from the Ankua Reserve Forest, just 6 km away from the high-pri-

ority Ankua-Ambia Elephant Corridor. Jindal Steel and Power sought the diversion of 500 ha for the Ghatkuri iron ore mine. The diversion will affect some 87,000 trees in the area, which is home to a rich variety of flora and fauna.

The Forest Advisory Committee has cited the ministry's decision to allow forest diversion for iron ore mines for SAIL in the area. In February 2011, the ministry had overruled the FAC to allow SAIL to mine iron ore from the Chitria mines in the area.

Ramesh and Tribal Affairs Minister V Kishore Chandra Deo have consistently called for a moratorium on fresh mining, particularly by private companies, in Naxal-affected areas. Last July Ramesh wrote to Prime Minister Manmohan Singh warning about "propaganda by Maoists, their front organisations and sympathisers that the Saranda Development Plan is only meant to subserve private mining interests."

The Times of India,
Delhi dated
February 07, 2013

In haze, China leaders gasp for air

Chinese Blame Govt Policies For Pollution As CO Poisoning Kills 10 In Beijing

Saibal Dasgupta | TNN

Beijing: With carbon monoxide killing 10 people in Beijing, China's new leaders suddenly find themselves up against an avalanche of criticism over smog and heavy pollution enveloping most major cities.

Besides the deaths, scores of people have fainted across China as PM2.5 or particulate matter 2.5 rose 20 times higher than permissible limits. PM are microscopic pieces of solid or liquid matter in the air as atmospheric aerosol, and can adversely affect human health apart from impacting on climate and precipitation levels.

With Chinese internet exploding with criticism of government policies — people are asking whether they are to pay with their health as price of development — the

administration is worried that protests may mar the leadership transition from President Hu Jintao to Xi Jinping. Pollution driven bad weather including heavy smog and PM2.5 levels peaking to 526 has become one of the hot topics discussed by Internet users on Twitter-like Weibo site with the number of people complaining running into a few hundred thousand, sources said.

Fears of bad air are drawing cheers for the US embassy in Beijing, which is relentlessly monitoring PM2.5, revealing its levels as a lot higher than those supplied by the government. Chinese officials are extremely unhappy about this: a foreign country giving them a bad name. Most Chinese now believe US embassy readings ignore weather and pollution reports given out by the government.



BREATHLESS IN BEIJING: Parents help their children to inhale atomized liquid medicine at a hospital in Xiangyang, Hubei province

Readings above 300 are considered "hazardous," and anything above 500 is off-the-charts, or "beyond index", said one government source.

The protests gathered steam after state media reported unsafe coal boilers killed at least 10 people in

Beijing. Five of the dead were medical students, initially found unconscious in a rented flat in Beijing's relatively well-off Chaoyang district on Monday. They were taken to hospital but declared dead.

Three of the students died due to carbon monoxide poi-

soning from fumes from a punctured gas water heater in their bathroom. In another case, a seven-year-old boy died of suspected carbon monoxide poisoning in the same area of Beijing. Investigators found a carbon monoxide detector unplugged in the coal-fired heater in the house.

Actress Song Dandan said, "I was born in Beijing and have lived here for over 50 years. The flood of emigration and every other temptation were not enough to get me to leave this lovable city. Today, this thought keeps circling in my mind: Where will I go to spend my later years?"

TV host Zhang Quanling said, "I really don't understand people who smoke outdoors. They really don't know how to be thrifty! Right now in Beijing, you can smoke for free anywhere you go by taking two breaths of air."

The Times of India,
Delhi dated
February 07, 2013

Pollution has shrunk Indian newborns'

Exposure Of Moms-To-Be To Car Fumes Tied To Low Birth Weight, Postnatal Mortality

Kounteya Sinha | TNN

London: Scientists may have found the major reason why 1 in every 4 babies born in India (of the 2.6 crore births in India annually) are of low weight (below 2.5kg).

A worldwide study announced on Wednesday has shown that pregnant mothers exposed to air pollution emitted by vehicles are significantly more likely to have smaller babies. The study, the largest of its kind, analysed data from more than three million births in nine nations at 14 sites in the UK, Europe, North America, South America, Asia and Australia.

Publishing the findings on Wednesday, researchers found that at sites worldwide, the higher the pollution rate, the greater the rate of low birth weight. India's pollution rate has been very high.



FUTURE AT RISK

Low birth weight is associated with serious health consequences, including increased risk of postnatal morbidity and

mortality and chronic health problems in later life.

Professor Tanja Pless Mulloli, who led the UK study at Newcastle University said: "As air pollution increases we can see that more babies are smaller at birth which in turn puts them at risk of poor health later in life. These microscopic particles, five times smaller than the width of a human hair, are part of the air we breathe every day. What we have shown definitively is that these levels are already having an effect on pregnant mothers."

In the UK, researchers used records from the city going back over 50 years.

Allowing for socio-economic status and occupation, they were able to correlate the amount of particles in the outdoor air to the birth weight of children.

Professor Pless-Mulloli added: "The

particles which are affecting pregnant mothers mainly come from the burning of fossil fuels. In the past the culprit may have been coal fires, now it is primarily vehicle fumes."

"We would like policy makers to use the results of this study to inform decisions on whether the permitted levels of air pollution should be changed," said professor Pless-Mulloli. "We would urge countries considering reviewing their air pollution standards to include estimates of the growth of newborns as a measure of air quality standards." Judith Rankin from Newcastle University said: "This should not deter mothers-to-be from taking exercise outdoors as the benefits of keeping active in pregnancy are well known."

For the full report log on to www.timesofindia.com

The Economic Times, Delhi dated February 08, 2013

Simpler Forest Approval Norms for Mining

Mine developers will now have to seek forest clearance for entire lease area instead of nod in phases

URMIA GOSWAMI
NEW DELHI

The environment ministry has changed forest clearance norms for mining projects to make them simpler and discourage firms from acquiring excess land.

In an order issued on February 1, the ministry said mine developers would have to seek forest clearance for the entire lease area instead of the current practice of seeking nod in phases.

This requires them to seek clearances several times as and when they expand the mining area.

For the government, it would mean getting the net present value of the full forest area required for the mining lease, and the compen-

satory afforestation for the diversion, instead of the present piecemeal system. "The government will get upfront payment for the entire lease area. The developer is anyhow in possession of the entire area. So the government gets no benefit from it. Making it mandatory to get clearance for the entire area will help the Centre get the NPV and the compensatory afforestation payment right at the start," a top government official said.

Companies have also welcomed this decision. "This is a welcome move. This way you don't have to halt production on a 20-30 year lease every time you need forest clearance," said a Steel Authority of India official.

As of now, the environment minis-

try has no idea how much of the forest land, for which no clearance has been sought or granted, is being held by mining companies. The ministry has asked states to provide details, within three months, of all mines where the developers has sought clearance for only a part of leased forest area. In these cases, clearance for the balance area will have to be obtained within two years. Failure to get the clearance within this period would result in reworking the lease to the area for which clearance has already been granted.

For existing mines, which do not have forest clearance for the entire mining lease area, the ministry said environmental clearance would be considered for the non-forest area and the forest area within the

mining lease for which forest clearance is available. Mining in the balance area of the lease will not be permitted. At the end of the two year period, given to developers of existing mines to obtain forest clearance for the entire lease areas, the mines' environmental clearance will be re-worked according to the revised mining lease area.

The ministry is of the view that this will ensure that mine developers are more realistic in assessing the total forest area that needs to be diverted. "Given the amount of money, which could be thousands of crores, that the developer will have to shell out right at the outset, I am sure that they will be more realistic in the demand for diversion of forest land," said the official.



The Times of India,
Delhi dated
February 08, 2013

As smog chokes China, oil giants face public fury

Saibal Dasgupta | TNN

Beijing: Growing public outrage against rising pollution levels in China's burgeoning cities has found a new focus: state-owned oil companies. Most of these conglomerates are accused of raking in billions of dollars by buying low-grade fuel and avoiding the need to invest in de-sulphurization of fuel without which the smog-filled air over Beijing and other cities wouldn't clear.

New information, some released through quasi-official sources, suggests these oil firms saved over \$8 billion necessary for cleaning the fuel. New reports that new born babies breathing polluted air may end up with life-long damage to their health are complicating the picture further.

The government on Thursday admitted that a heavy layer of smog has set over a 1.3 million sq km area. This accounts for 13.5% of industrialized cities housing over 200 million people.

"Even if children are being exposed for a short period, it may still have a cumulative effect on them in the future," said Li Pu, senior consultant at New Century International Children's Hospital, the private arm of Beijing Children's Hospital.

In recent years, foul air has been responsible for early deaths of more than 8,000 people in four Chinese cities including Beijing and Shanghai, a study by Green-



FUELLING ANGER

peace and Peking University showed. In 2011, 38 people died in Beijing due to carbon monoxide poisoning.

New government data on web portal, Sohu Business, has exposed the myth that vehicular pollution is mainly responsible for the smog over Beijing. The data shows that 57.5% is due to pollution from the use of coal as fuel and industrial emissions in Beijing. Vehicle emissions contribute 22%.

Frightened by public outrage, government run oil giant Sinopec announced plans to upgrade 12 of its refining facilities on war footing by end 2013. China's state council has ordered all refiners to upgrade their equipment and adopt European standards on low sulphur levels.

Oil companies are also being blamed for lobbying with the government to keep pollution control requirements at an extremely low level.

What is more, the government's low standards are not observed in the smog clogged areas of Beijing and the highly industrialized deltas of the Yangtze and Pearl River that passes through Shanghai.

The Times of India,
Delhi dated
February 08, 2013

Pollution check for NTPC plant

Noida: Acting upon complaints of high levels of industrial pollution in Ghaziabad, the National Green Tribunal has directed for the inspection of NTPC's power plant in Dadri and the manufacturing plant of Continental Carbon, a US-based company in Ghaziabad. The tribunal has directed the Uttar Pradesh Pollution Control Board and the Central Pollution Control Board to jointly form a committee comprising their respective member secretaries for the survey.

The principal bench of the tribunal, headed by chairperson Justice Swatanter Kumar, has asked the committee to determine the quantum of pollution caused by a number of other industries too. TNN

*The Times of India, Delhi dated
February 09, 2013*

Drive to save Mangar grove gets a boost

Dipak Kumar Dash | TNN

New Delhi: The campaign to save the "sacred" Mangar Bani grive from being consumed by ill-considered development has received a major shot in the arm with the Haryana government being directed by the Union environment and forests ministry to prepare a fresh geo-referenced map of the area.

Haryana's attempts not to categorize the area as a forest have been thwarted by the MoEF order for a satellite survey that in effect forces the state government to put its plan to build a 500-acre tourist complex and other facilities to come up in the area on hold.

The state's arguments that the area is not recorded as a forest in government records has not impressed the ministry, which had last November asked for satellite mapping. The exercise is aimed at including all patches that can be defined as "forest" though this may not be reflected in the official record.

Haryana may now have to keep the notification of Mangar Development Plan-2031 in "abeyance" until it submits fresh maps. The MoEF directive is not mandatory but it will boost the arguments of environmentalists and force the state to seek fresh clearances from the Centre is it seeks to ignore the advice.

So far the state government has not submitted the maps to Centre. As envisaged in the draft development plan,

the mega tourism complex would eat into the Mangar grove. After environment activists — under Mission Gurgaon Development — raised objection to Haryana's plan of allowing non-forest activities, the Centre had asked the state to prepare maps of forest areas and submit them. The signatories included noted author of Trees of Delhi Pradip Krishen.

The MoEF letter mentions the December 12, 1996 SC order, which had outlined that all those areas understood as



PUTTING IT ON THE MAP

'forest' in a dictionary sense and those recorded as forest in the government record, irrespective of ownership, be mapped. Haryana forest department then prepared detailed geo-referenced maps of this part of Faridabad surrounding Mangar and submitted them to MoEF.

Haryana's principal and chief conservator of forest (PCCF) C R Jotriwal told TOI: "Off hand, I cannot say anything on whether new maps have been submitted. You have to wait for four-five days since all our staff is busy in state-level games."

The Economic Times, Delhi dated February 11, 2013

'PLANET-FRIENDLY' PRODUCTS FAIL TO MOVE CASH REGISTERS



Organic Food: Good Feel but Not Many Takers

Sales from organic products account for less than 2% of total food sales for top retailers

WRITANKAR MUKHERJEE
KOLKATA

Brands may be spending million to promote an eco-friendly image, but when it comes to actual sales, organic and 'planet-friendly' products have failed to move cash registers for retailers, whether it's fresh produce, groceries or even clothing.

Top food retailers like Future Group, Reliance Retail and Spencer's Retail say sales from organic vegetables, fruit and food products account for less than 2% of total food sales, even three or four years after their launches.

ITC has pulled a range of organic spices from the market, and apparel brands and retailers like Madura Fashion & Lifestyle and Woodland, which launched eco-friendly fabrics have seen tepid response to these products as well. "Eco-friendly products have remained a feel-good and talked-about factor in India, rather than generating hardcore revenue," says Spencer's Retail chief executive Mohit Kampani.

Kampani says Spencer's will continue to stock these products — but only to ensure that its stores offer a full range, since organic lines only contribute around 0.5% to the total food sales. A senior Reliance Retail official said the company has started to prune down its organic food range in several Reliance Fresh stores, since sales were nowhere close to expectations.

Retailers say there are problems with the supply chain of organic products in India, since all products are not always available. And the price premium, which can be 50-70% of regular prices, is certainly deterring consumers.

For some products like organic ghee, the price is just double than the regular range and for honey it is almost three times.

As a result, herbal FMCG maker Himalaya has launched its organic range only in the US and Europe, and has no plans to launch it in India.

ITC's divisional chief executive (food) Chitranjan Dar says apart from the price premium, Indian consumers find organic food not as fulfilling as the non-organic product. "In organic food, you have to sacrifice certain quali-

When Taste Rules over Health

Retailers say there are problems with the supply chain, since all products are not always available

Also, the price premium, which can be 50-70% of regular prices, also deters consumers

For products like organic ghee, price is just double than the regular range and for honey it is almost three times

ITC has already pulled a range of organic spices from the market

Experts feel Indian consumers find organic food not as fulfilling as non-organic product



Turtle says it plans to launch organic range — but more as 'a talking point in the stores' rather than to drive sales

Brands and retailers are still far away from making money out of selling organic-branded products

Eco-friendly products have remained a feel-good and talked-about factor in India, rather than generating hardcore revenue

MOHIT KAMPANI
Chief Executive,
Spencer's Retail

Yesterday's products won't bring in tomorrow's consumer. With many brands peaking their replacements have to be constantly sought, and small categories like organic food will have a future

DEVENDRA CHAWLA
President,
Future Group
(Food Bazaar)

ties. For instance, the turmeric is not as yellow or the chilli powder not as red as the usual. And consumers also think there is no point buying just few organic products at a premium when rest of the products they consume is non-organic," says Dar.

It's not just food products — organic cotton, which is a fast-growing, though nice market abroad, is not even a 'micro-niche' market in India, says Madura Fashion & Lifestyle's Allen Solly brand head Sooraj Bhat. Madura had launched organic cotton products under its Van Heusen brand, but it's now slowed down its plans to expand the category.

"There is a clear cost associated with these products, which is a premium of around 20-30% over regular garment and hence the market has not picked up. There are also processing issues since

organic cotton lends itself more to casual clothing more than formal wear due to its texture," says Bhat. Amit Ladsaria, director of apparel brand, Turtle, says it plans to launch an organic range — but more as "a talking point in the stores," which shows the brand at the cutting edge of new products, rather than to drive sales.

So while other eco-friendly initiatives such as moving to paper or jute carry bags instead of plastic, recycling old packaging boxes, and encouraging shoppers to bring their own bags to stores have been popular with consumers, brands and retailers are still far away from making money out of selling organic-branded products.

HOPE REMAINS

However, the eco-friendly industry feels that it's still better off than the 'health' industry — brands like PepsiCo and Parle have actually withdrawn some of their health products in India due to poor market response, as Indian consumers preferred taste to health.

Future Group's president (Food

Bazaar) Devendra Chawla says eco-friendly products, especially organic food, may become more prominent in another 2-3 years as retailers develop the categories jointly with the brands.

"Yesterday's products won't bring in tomorrow's consumer. With many brands peaking, their replacements have to be constantly sought, and small categories like organic food will have a future," he says.

Dar of ITC thinks the adoption of organic products would first start with staples such as organic vegetables and fruits.

"It's how organic products have become successful internationally. Once this market matures, the awareness and value of organic and eco-friendly products would pick up in India," he says.

WAY TO GO ON RECYCLING

It's not just the consumer brands who have failed in pushing environment-friendly products. Even electronic companies and computer makers have failed to promote recycling electronic waste or old machines.

"The computer industry has absolutely drawn a blank in e-waste recycling despite launching in India for three years now," says Acer India chief marketing officer S Rajendran. "Indian consumers try to derive value from every old product they have and hence wants some inherent value out of recycling. However, with thin margins on sales, it is not possible to provide such value," he says.

Nokia India is an exception having collected and recycled over 15 lakh old mobile phones and accessories from consumers since launch of the recycling campaign in India in 2009. The company, however, provides an incentive to the consumers — a surprise gift for every handset, regardless of the brand recycled.

"Around 44% of old mobile phones are lying in drawers at home and not being recycled. If every mobile phone user across the world recycled just one unwanted phone at the end of its life, it could prevent nearly 2.4 lakh tones of raw material from being mined and result in saving energy and reducing greenhouse gases by as much as taking four million cars off road for a year," says a Nokia India spokeswoman.

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The Economic Times, Delhi dated February 12, 2013

Tata Power, Green Infra May Merge Renewable Energy Assets

The plan is to house the renewable energy assets of the two companies in an independent company managed by professionals with Tata Power and IDFC PE as promoters

RACHITA PRASAD & BAIJU KALESH
MUMBAI

Tata Power is in early-stage talks with IDFC Private Equity Fund-owned Green Infra Ltd to merge the renewable energy assets of both companies, a person with direct knowledge of the development said. The transaction, if consummated, will create India's largest renewable power producer; IDFC PE has appointed investment banker Lazard to examine different options to raise capital, including a merger.

"We cannot comment on this specific market speculation. Green Infra is a growing company with fund requirements. So, we are looking for equity infusion in the company," said IDFC Private Equity's managing director Satish Maulhana. Maulhana serves on the board of Green Infra and was instrumental in setting up the independent clean energy producer in 2008.

The proposal being considered is to house the renewable energy assets of the two companies in an independent company managed by professionals while Tata Power and IDFC Private Equity will play the role of promoters. Further, Tata Capital's PE fund and Tata Communications could invest in the new renewable energy company.

Tata Capital PE fund will play the role of a financial investor, exiting when the time is ripe, while Tata Communications' investment would be limited to an assured supply of power to run its towers.

Tata Power, Tata Capital and Tata Communications did not respond to email questionnaires from ET.

"Renewable energy requires big investments and has a long gestation period," says Rupa Shah, analyst from brokerage Prudhans Lilladher. "Therefore, getting a sound financial institution to lock these projects would be the best way to create a sus-

tainable business model."

Both the companies are expanding their renewable energy assets. "We plan to add 150-200 MW of wind and 50 MW of solar power capacity every year," Anil Sardana, managing director, Tata Power, had said in a statement last month after the launch of its 25-MW solar power plant in Gujarat. Tata Power has said on various occasions that it intends to reduce its carbon footprint by expanding the share of renewables in its total generation capacity to 20-25% over a five to seven years period.

Tata Power, which generates 6,847 MW from coal, plans to increase its capacity by 1,140 MW. Of this, 136 MW will be from hydro and solar power.

Green Infra plans to expand its renewable energy portfolio to produce 5 gigawatts (5,000 MW) by 2015 from wind, solar, hydro and biomass. It now owns and operates around 165 MW of wind assets in four states and

10 MW of solar power in Gujarat. In May 2009, the company purchased BP Energy's wind mills which generate 96.4 MW.

"Tata Power has done some work in wind and geothermal energy and they may look at setting up for expanding their renewable portfolio to reduce their dependence on fossil fuel," Shah of Prudhans Lilladher said.

There are examples of utilities in Europe and North America tying up with specialised companies for renewable energy as it allows them to focus their management bandwidth and resources on core activities, while the specialised company helps them build and manage their renewable portfolio, says Kameswara Rao, energy utilities, and mining leader at consultant PricewaterhouseCoopers.

India plans to add 30,000 MW of new capacity from renewable sources of energy during the 12th Five-year Plan, which runs from 2012 and 2017, taking

total renewable power capacity to 56,267 MW. India's total power generation capacity stands at 2,16,562 MW, of which hydropower accounts for 18%, while other renewable energy represents 12%.

Power generators have entered the sector largely because of tax incentives. But the lack of buyers for relatively expensive power produced from renewable energy projects had been a dampener. Loss-making state electricity distribution companies have found it difficult to fulfil their renewable energy obligations as they have to pay higher price for power generated from non-renewable resources.

State-run distribution companies purchase power from coal-fired plants at anywhere between ₹5 and ₹4 per unit while it pays anywhere between ₹5 and ₹6 a unit for wind-generated power and ₹14 to ₹15 for solar.

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Going Green

	Tata Power	Green Infra
Hydro	447	Nil
Wind	377	165
Solar	28	10
Total	852	175
Coal	6,847	Nil

Installed Capacity (MW)

- Tata Power plans to increase its capacity by 1,140 MW
- Of this, 136 MW will be from hydro and solar power
- Green Infra plans to expand its renewable energy portfolio to produce 5,000 MW by 2015 from wind, solar, hydro & biomass

The Times of India, Delhi dated February 14, 2013

Study: Air pollution 5th biggest killer in India

TIMES NEWS NETWORK

New Delhi: Air pollution is the fifth leading cause of death in India after high blood pressure, indoor air pollution, tobacco smoking and poor nutrition, with about 620,000 premature deaths occurring from air pollution-related diseases. Like China, India faces an unprecedented public health crisis due to air pollution, the Centre for Science and Environment's (CSE) analysis of government data and the Global Burden of Disease report's data on India has shown.

The green think tank released its own assessment and the global study's India specific data on Wednesday warning that the number of premature deaths due to air pollution had increased six fold over the last 10 years.

Air pollution is now the seventh leading cause behind the loss of about 18 million healthy years of life in India due to illness. It comes after indoor air pollution, tobacco smoking, high blood pressure, childhood underweight, low



WARNING SIGNS

nutritional status, and alcohol use. CSE's own assessment of the air pollution data generated by the government painted the grim facts that are leading to the public health crisis.

"Close to half of cities are reeling under severe particulate pollution while newer pollutants like nitrogen oxides, ozone and air toxics are worsening the public health challenge," CSE estimates say. Half of the urban population breathes air laced with particulate pollution that has exceeded the safety standards. As much as one third of urban population is exposed to critical level of particulate pollution. Smaller cities are among the most polluted in the country.

The data is a damning in-

dictment of India's supposed growing urban regions. Out of the 180 cities that are monitored for only two towns—Malapuram and Pathanamthitta—in Kerala meet the low pollution norms (pollution levels remaining at 50% below the standard) for all pollutants.

About 78% cities (141 cities) exceed the standard set for particulate matter of size below 10 microns (PM10). As many as 90 cities have critical levels of PM10 and of this, 26 cities have most critical levels of PM10, exceed the standard by more than 3 times. Gwalior, West Singhbhum, Ghazabad, Raipur, and Delhi are top five critically polluted cities.

The data analysis shows the situation is only getting worse with time.

"The PM10 monitoring network has doubled between 2005 and 2010—it has increased from 96 to 180 cities. During this period the cities with low level of pollution has fallen from 10 to 2 and the number of critically polluted cities have increased from 49 to 89 cities," CSE said.

The Economic Times, Delhi dated February 15, 2013

Sun Starts to Shine on Solar Power Sector on a

Guest Column

SUSHISHYAMAL

From almost negligible capacity in 2009 to 1,000+ MW today, solar power is one of the fastest growing segments in the Indian power sector, aided in good measure by enabling policies of the government. The Union government has set a target of 22,000 MW solar capacity by 2022. In addition, a few states like Gujarat, Madhya Pradesh and Tamil Nadu have established their own solar targets.

While much of early wind power addition was driven by depreciation incentives, solar power addition is taking place in a more structured manner, through a mix of MOU and bid-based projects. As a result, there is a fair mix of IPPs and corporates among the developers. In only two years, solar tariffs have more than halved from ₹17.91 a unit to nearly ₹7.5 a unit largely due to falling solar panel prices world-



wide. It is estimated that by 2015, the levelled cost of solar power would fall to almost ₹4.2 per unit, achieving grid parity, making solar power competitive in states that have high commercial and industrial tariffs.

The industry is expected to see a gradual shift from policy-driven projects to parity-driven projects, with solar tariffs falling and conventional electricity tariffs rising. Large corporates are already consciously investing in a sizeable solar capacity to meet the twin objectives of RPO compliance and securing power at increasingly competitive rates. The captive market will further take off once a stronger regulatory

framework is in place.

Until recently, banks were hesitant to lend to solar projects, fearing risk of receivables and fall in tariffs in future – the early projects projected unit tariffs of Rs 15-Rs 18 over the next decade. However, a combination of falling tariffs and an operating track record of over 1,000 MW solar projects (providing a feel of asset performance) has led to lowered risk perception.

Further, developers today have access to cheaper international sources of financing, which help bring down their costs further. At least 110 MW, being developed by companies like Azure Power, Green Infra and Kiran Energy, is known to have been partly financed using foreign currency.

Financial and strategic investors have also started to step forward. Developers such as Kiran Energy, Azure Power and BLP have secured funding from PE investors. Many corporates such as Shree Ganesh Jewellery and Tecpro have taken majority stakes in solar companies, while many others are keenly explor-

ing partnership opportunities. PE and M&A activity will increase as companies achieve scale.

MNRE published draft guidelines for phase-two of the NSM in December 2012. It targets adding 9,000 MW solar in the 12th Plan.

To achieve these targets, the role of EPC players and component suppliers will be crucial. Many of these players, primarily large international module manufacturers, such as First Solar, Suntech Power and T-Solar, see India as a strategically important market. The importance of India is further driven by the fact that globally, demand in developed economies is stagnating. In addition, the US has imposed anti-dumping duties against Chinese manufacturers and Europe is witnessing anti-dumping proceedings.

The author is partner, Infrastructure Practice, Ernst & Young. Sweta Lakra, senior professional with Infrastructure Practice, Ernst & Young, also contributed to this article. Views are personal

The Times of India, Delhi dated February 16, 2013

Plastic bag ban to stay as SC dismisses appeal

TIMES NEWS NETWORK

New Delhi: The Supreme Court dismissed a petition by the All India Plastic Industries Association (AIPIA) on Friday that challenged the ban on plastic bags and their manufacturing in the capital.

After an oral direction by the Delhi high court in December 2012, Delhi government had suspended prosecution under its October notification, but will now start cracking down on violations again. The environment department has said that it will come up with an action plan to restart its drive against plastic bags.

Officials said that based on the SC's view on the matter, they were confident of a positive outcome in the case in the HC. "The association is trying to derail the ban by putting in application after application in the courts. However, the ban on plastics was implemented



CRACKDOWN SET TO START

on the basis of an HC order and so we are hopeful that the court will not entertain these applications," said a source.

Environment secretary Sanjiv Kumar said that since they were only being cautious about the court's observation in the absence of written orders, the department would use the relief provided by the SC to re-start its drive against plastic bags. "Our work had been completely derailed because of this observation but now we intend on starting again. A proper plan will be

drawn up and we will not tolerate violations," he said.

Delhi Pollution Control Committee had stopped taking action against violators in December after the HC made an oral observation that till the time the issue was resolved, "there should be no prosecution in furtherance of this notification" (on ban on use, sale, distribution and manufacturing of plastic bags issued on October 23, 2012 and effective a month later). This was conveyed to the government by its lawyer on December 22 and till date, the court has not issued written orders for the same.

Sources said the application was made by the AIPIA in an existing case filed in 2009. The association had asked for a stay on the new notification issued in October 2012 and the prosecutions launched under the old 2009 notification that banned plastic bags.

Deccan Chronicle, Hyderabad dated February 18, 2013

CHHATTISGARH TO GET INDIA'S FIRST GEOTHERMAL PLANT

DC CORRESPONDENT
RAIPUR, FEB. 17

India's first geothermal power plant is coming up in Chhattisgarh's newly-created Balrampur district, an official statement said on Sunday.

National Thermal Power Company (NTPC), inked a memorandum of understanding with the state-run Chhattisgarh Renewable Energy and Development Authority (CREDA) for setting up a 300 MW power plant by harnessing energy from a hot spring at Tattapani in Balrampur district at an estimated cost of ₹5,000 crore.

"Out of 340 hot springs traced across India by Geological Survey of India the Tattapani geothermal field is considered the most promising geothermal resource", NTPC is a statement said.

Buy incandescent bulbs cheap, exchange it for costly CFLs City takes to 'green' scam

COREENA SUARES | DC
HYDERABAD, FEB. 17

The replacement of incandescent bulbs with the energy saving compact fluorescent lamps (CFL) has turned into a big scam in the city and is causing a huge loss to the government's Bachat Lamp Yojana scheme.

The scheme was meant to promote energy-efficient lighting. It is not compulsory to use CFLs in households. But to encourage their use, incandescent bulbs that are being used at homes can be replaced by CFLs at discom centres for ₹15 to ₹20, as against the CFL market price of ₹120-160. Ingenious customers are buying incandescent

LIGHTING UP THE HOMES

- The Central government scheme is meant to promote energy-efficient lighting in homes.
- To promote the use of CFL bulbs, incandescent bulbs can be replaced by CFLs at discom centres for ₹5 to ₹20, as against the CFL market price of ₹120-160.
- 60- and 100-watt incandescent bulbs can be replaced with 11-15 watt and 20-25 watt CFLs.



bulbs for ₹10-15 in the market, and replacing them with the subsidised CFLs, and then selling the latter for a profit.

As per the scheme, 60-watt and 100-watt incandescent bulbs can be replaced with 11-15 watt and 20-25 watt

CFLs. One can replace three incandescent bulbs for one CFL bulb.

The sale of incandescent bulbs has shot up, said electrical shop owners.

Shashank Agarwal of Bharath Electricals said he sells 150-200 incandescent

bulbs a day, when earlier sales never crossed 100 bulbs.

"Most of our costumers are office and shops keepers who purchase five or six bulbs at a time. Domestic customers have also increased," he said.

When asked about the ban, he smiled and pulled out a 100 watts incandescent bulb and said, "Industrial bulb not for domestic use. Please remove the cover and get the bulb replaced. Don't mention that it is new."

Kaveen Kavidi, an electrical shop owner said "The 60 watt bulb is still in demand. But the demand for CFLs is good for us because the energy saving bulbs have higher profit margin."

The Times of India, Delhi
dated February 23, 2013

Pollution has bred 'cancer villages', admits China

Beijing: Facing flak over poor pollution control measures, China for the first time has admitted the existence of "cancer villages" due to the production of certain harmful chemicals banned in developed countries.

The statement from the environment ministry came following scathing public criticism for poor pollution control measures as industri-

al waste, hazardous smog and other environmental and health consequences of years of rapid growth has made life miserable. "Poisonous and harmful chemical materials have brought many water and atmosphere emergencies... certain places are even seeing 'cancer villages'," said a five-year plan that was highlighted this week.

The admission came after a Chinese entrepreneur offered a pollution control authority chief a \$33,000 reward to swim in a polluted river. **en**

The Times of India, Delhi dated
February 23, 2013

Eco-Friendly Jewellery Design

A Delhi-based jewellery designer reclaims silver from old artefacts, jewellery, embroidery and fabric to carve out accessories that are not only unique and functional, but also sustainable

Design to me is a means to an end. It is the process of creation that aides function and beauty. In jewellery, there is often a 'behind-the-scenes' innovation in design that takes it that much further. Making environmentally sustainable products by using recycled silver is my way of taking accessory design to the next level. The process of reclaiming silver from old artefacts, jewellery, embroidery and fabric ensures that the use of virgin silver is limited. The end result after purification is 99.99% pure silver; which is then combined with copper to create sterling silver (92.5%), making it a suitable material for my metallurgical creations. So the customer is not just assured of a piece of jewellery that is innovative and excitingly functional in terms of design, but also a guilt-free, sustainable adornment.



White Bougainvillea Necklace

As I explore the form and beauty of the bougainvillea plant in this collection, I have used both silver metallurgy as well as gemstones. In order to do justice to the delicate bougainvillea flower, I abstracted its form in silver wire that outlines the quintessential silhouette. Semi-precious stones such as citrine, rock crystal, coral and pearl come together in eclectic clusters to re-create the inflorescence feel. Hammered silver shaped like leaves presents the structural and textural counterpoint to the gemstones, completing the suggestion of summer fauna. This particular piece represents the gentle, almost translucent, white bougainvillea with interplay of the vivid summer green of its leaves.



Double-Sided Medallion Necklace

This piece is like 'beaded embroidery' in silver. Gemstone beads are 'stitched' or attached directly onto the silver, rather than have them hanging or set in the jewellery. Since silver is naturally reflective, this technique helps bring out the hues, translucency and refraction of the stones. The silver is hammered to increase reflectivity. The medallion has been painstakingly beaded on both sides, making it double-sided — amethyst on one side and labradorite on the other. The resultant look evokes the feel of natural organic growths, making the jewellery resemble barnacle-encrusted finds from an underwater treasure trove.

Cathedral Arches Ring

The vision for this ring was to have the feel of gemstone-encrusted silver beautifully wrapping the finger all the way to the top, in lines that are reminiscent of Gothic cathedral arches. The challenge was to give complete flexibility to the wearer while keeping the harmony of the lines and the integrity of the architecturally inspired design intact. Hinges added at strategic points in the ring solved the problem. As a result, the continuity of form — from the base of the finger to the very tip — is undisturbed and harmonious while making the ring completely functional.



Floating Knuckle-Duster

The idea here was to create a ring that would 'span' two fingers, without two obvious rings for the fingers to slip into — a design innovation I had not seen before. This meant the silver would appear to emerge organically and without obviously being anchored in the middle. For this, the design would have to incorporate an element that would compensate for the missing double rings, which is how the double flair in the middle came about. It serves the purpose elegantly while adding to the intrigue of the piece.



Three-Drop Necklace

I wanted to play with the tear-drop shape to create a statement neck piece. The challenge in this design was that despite the repetition and overlapping layout of the tear drop shape in three sizes and the asymmetry of the piece, one had to create harmony in design. Instead of changing the overall look, I innovated to create completely movable, yet invisible, joints. This made each individual petal movable, bringing rhythm to the necklace and making it extremely functional. The end result is the impression of three silver drops sitting gently on the neck.

EXPERT VIEW
Suman Mishra

DELHI-BASED JEWELLERY
DESIGNER WHO WORKS WITH
RECYCLED SILVER



Photos: Shikhar Chandra

The Times of India, Delhi dated February 25, 2013

Plastic to fuel Sydney-London flight

5 Tonnes Of Waste Plastic To Be Turned Into Diesel For 16,898Km Trip

London: In a first-of-its kind attempt, an Australian pilot plans a 16,898 kilometre historic trip from Sydney to London using fuel produced entirely from plastic waste.

Forty one-year-old Jeremy Rowsell's flight will be powered by five tonnes of discarded packaging, waste collected from rubbish dumps and — using a pioneering technique — melted down into 1,000 gallons of aviation-grade diesel.

In July he will embark on the journey from Sydney, flying over Asia, the Middle East and then Europe, and arrive in London six days later, after flying a single-engine Cessna 172 at about 2414 km a day with a speed of about 185kph.

Rowsell will have to fly for up to



© Paul Bawery/Science Faction/Corbis

GREEN MISSION

15-hour stretches to reach his scheduled stops on time, the 'Telegraph' reported. He will travel at an altitude of 5,000ft — much lower than commercial airliners, which reach up to 40,000ft on long-haul flights.

The fuel will be sourced solely from the so-called "end-of-life" plastic that cannot be recycled and would otherwise end up as landfill, including household waste such as packaging and wrapping.

The plastic will be collected from the countries in which Rowsell is scheduled to stop along the way and shipped to Cynar, the Dublin firm that will help process the waste into aviation-grade diesel.

Recent technological advances have made it possible to distill plas-

tic — most of which is petroleum-based — into fuel, using a process known as pyrolysis that does not pollute the air.

Cynar claims its plastic waste diesel fuel is cleaner than that used by most planes, its production process is cleaner, and it estimates a lower cost per gallon.

Although it has been tested in cars, it is in the very early stages of aero engine tests and has never been used in flight, the report said. Rowsell, a hobby pilot, decided to undertake the trip to raise awareness of new technologies that are exploring viable, environmentally friendly ways to fly, while also cutting down amount of plastic waste in landfills around the world. ■

Tatas invest in Swiss solar tech developer Flisom

The Tata Group has been increasing its investment in the solar power business. The tea-to-telecom conglomerate recently invested in Zurich-based solar technology developer Flisom, which raised capital for the third time. The group, through Tata Industries, is already a strategic investor in eight-year-old Flisom, which was spun off from the Swiss Federal Institute of Technology. Flisom, which also has other investors, will use the proceeds to set up a 15 MW solar module plant in Switzerland. The Tata Group supports Flisom as it believes that the Swiss company's technology has the potential to make solar electricity affordable. In 2011, the group bought out British oil major BP's 51% stake in Tata BP Solar, a manufacturer of solar modules and its access to the BP's solar technology expires this year.

(Contributed by Reeba Zachariah)



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