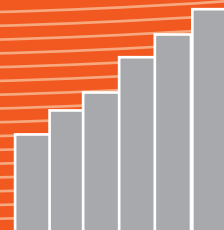


October – December 2010

Green Voice

Quarterly Newsletter



CMS ENVIS

Newsletter on
Environment
& Media

Theme
Green Architecture

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Promoting Environmental Responsibility

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The CMS Environment Team is involved in policy research and programs evaluation aimed at creating sustainable solutions for environment protection and improving the quality of the environment. Creating capacities, undertaking outreach and advocacy and formulating strategies are its strengths.

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- Natural Resource Management: Watershed, Forestry and Livelihoods
- Wildlife Conservation
- Environmental Education and Awareness

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- Evaluation of Environmental Programmes
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In Black and White

“Avatar” and “30 Rock” Among 2010 Environmental Media Award Winners.

Hit TV show “30 Rock” and the highest-grossing film of all time, “Avatar,” were some of the award winners at the 2010 Environmental Media Association (EMA) awards last week.

The awards were presented at an eco-friendly ceremony at Warner Bros. Studios that featured organic food and compostable dinnerware. Actors Olivia Munn and Jason Ritter hosted the event, which was sponsored by one of Hollywood’s favorite green-mobiles, Toyota Prius.

Other productions recognized for spreading a green message were the documentary “Gasland” and TV shows “Bones,” “Handy Manny,” “Living With Ed” and “Lights, Camera, Take Action! Backstage With Disney’s Friends for Change.”

Entrepreneurs Ted Turner and Jeff Skoll received honorary awards for their environmental contributions. Natalie Portman presented Skoll with his award. His namesake foundation has funded organizations such as The Amazon Conservation Team, the American Council on Renewable Energy and Global Footprint Network.

Turner, who founded CNN, supports wildlife habitat preservation, promotes sustainable energy and furthers other environmental causes through his Turner Foundation. His award was presented by his ex-wife, Jane Fonda.

Rosario Dawson, Lance Bass and Eva Mendes were also among awards presenters.

SOURCE: <http://planetsave.com/2010/10/24/avatar-and-30-rock-among-2010-environmental-media-award-winners/>

Cancún summit: Rich countries accused over £30bn climate aid promise

Correspondent : Staff–Correspondent

India’s environment minister says delays in payments could wreck the prospects for advancing a global deal

A fresh fault line opened up at the Cancún climate summit today after rich countries were accused of failing to deliver on their promise of \$30 billion in aid to countries that will experience the worst ravages of climate change.

The commitment to \$30 billion in climate aid between 2011-2012 was the single biggest concrete outcome of last year’s Copenhagen summit, and US officials used the promise of cash to get poorer countries to support the accord. But America and other richer countries had been too slow in awarding the so-called ‘fast-start’ finance, and those delays could wreck the already slim prospects of advancing a global climate deal, Jairam Ramesh, India’s environment minister, said.

“Guyana has complained. Maldives has complained. Bangladesh has complained. Country after country has told me the disbursements are simply not taking place. It was meant to be a fast start,” Ramesh told the Guardian. “We are one year after Copenhagen, and the real issue is: how much of the fast start has been actually disbursed?”

As detailed in the Guardian, the deputy US climate change envoy Jonathan Pershing had repeated consultations with Maldives about how to take advantage of the climate fund.

Ramesh first raised the complaint at a press conference earlier today, where he spoke on behalf of China, India, South Africa and Brazil – the bloc of major emerging economies that brokered last year’s deal with Barack Obama. Ramesh warned then that speeding up aid from the \$30 billion fund was “non-negotiable” for the emerging economies that could make or break the Cancún summit.

Later he outlined further conditions, saying he wanted to see the disbursement of the first \$10 billion by mid-2011. However, he would not say how much had actually arrived so far in poor countries’ treasuries.

The comments from Ramesh present an additional complication to a successful outcome at Cancún, on the eve of the first set of high-level discussions on Tuesday.

Japan last week said it would not agree to renewal of the Kyoto Protocol – a must for developing countries.

The complaints from Ramesh suggest the countries on track to be the biggest emitters in the future intend to use their clout to hold the US and other rich countries to account. The demand from Ramesh for accountability closely mirrors America’s core demand that developing countries offer verifiable evidence of their efforts to cut greenhouse gas emissions.

China, India, Brazil and South Africa were the driving forces, together with the US, behind last year’s Copenhagen accord – the one concrete, if slim, achievement from the climate summit. Now Ramesh argued even that result was in peril.

He said: “The grand bargain at Copenhagen was President Obama telling the four heads of state: do you agree on transparency in return for money which can start flowing to vulnerable countries? The question is: has the money started flowing? and the answer is clearly no.”

The confrontation looks set to intensify on Wednesday, when the summit will look at plans for a far more ambitious climate fund of \$100 billion a year by 2020.

Under the accord, America and other rich countries were to begin mobilising \$10 billion a year between now and 2012 to help buffer the poorest countries from the effects of climate change.

US officials have said repeatedly they are committed to the fund. However, the Obama administration has pledged only \$1.7bn this year, and four senior Republican senators last week warned they would use their party’s new power in Congress to block even that.

Ramesh argued that much of that money had simply been cut from other aid budgets.

“I would like transparency. How much is new and additional money? Nobody knows. How much of it is aid money recycled as fast money? Nobody knows,” he told the Guardian. “I am told that only the UK and Japan have big numbers that appear to be new money.”

The \$30 bn was meant to help the poorest and most exposed countries cope with changes brought by climate change – small island nations, low-lying states and sub-Saharan Africa in particular. But Ramesh said he had heard

repeatedly that the money – though pledged – never materialised, defeating the entire rationale for the fast-start deal. “We need to sit down and have an honest accounting of the \$30 billion,” he said. “Where is it coming from? How is it being used? Where is it going?”

Source: <http://www.guardian.co.uk/environment/2010/dec/07/cancun-summit-climate-aid-row>

India steers full speed towards low carbon transport

Correspondent : Staff–Correspondent

Drive Supported by 2.49 Million Euros German Funding & UNEP Technical Assistance

NEW DELHI, 12 November 2010 - India has embarked on a new pathway towards developing a low-carbon transport system, days before the convening of the UN climate change convention in Cancun.

Launched in New Delhi, Thursday, a new 2.49 million Euros three-year project - funded by the German International Climate Initiative and supported by the United Nations Environment Programme (UNEP) - will support the Indian Government's efforts to align transport growth with the country's climate change agenda and national development plan.

Boasting the world's second largest population, India's per capita emissions remain below the world average. But population growth in the last two decades has been coupled with a rapid increase of private vehicles and a switch from rail to road transport across the freight and passenger sectors.

According to a 2007 estimate, India's transport sector is responsible for 12.9% of the country's greenhouse gas emissions - impacting air quality, public health, road safety and sustainable urban development.

India's National Action Plan on Climate Change (NAPCC) recognizes the need to lower GHG emissions from transport through the adoption of an integrated sustainability approach that encourages the move towards enhanced energy efficiency in transport, higher penetration of biofuels, sustainable urban planning, improved public awareness and participation and the promotion of public transport services.

Endorsed by the Ministry of Environment and Forests, the project comprises two key interventions: the development of a national action plan for low-carbon transport and the design of low-carbon mobility plans for 4 major cities across India. The cities component will be carried out in close coordination with the Ministry of Urban Development.

Key local partners include the Indian Institute of Management, the Centre of Environmental Planning and Technology University in Ahmedabad, and the Indian Institute of Technology in Delhi.

Source: <http://hqweb.unep.org/Documents.Multilingual/Default.asp?DocumentID=651&ArticleID=6829&l=en>

Role of Media in creating Environmental awareness or issues towards climate change

Correspondent : Staff–Correspondent

One of the most effective way of getting the message across to the largest possible audience in a country as vast and diverse like India is through mass media, including television and the English and vernacular press. Both these media have the potential of being extremely effective tools for environmental communication, but have not been sufficiently exploited for this purpose so far. Most environmental documentaries shown on TV today attract few viewers because of the academic or pedantic manner in which they are presented. Similarly, although many English newspapers are now carrying more and more features on environmental issues, they are usually superficially researched and poorly written. Vernacular papers still carry very little or no environmental news. From the issues like pollution to the climate change, the media had been playing a vital role in creating awareness and raise issues to the pertaining topic of environment. The media has been pivotal in covering the entire country of India in raising environment issues like drought in Gujarat, Air pollution in Delhi, Ground water level depletion in Chennai and pollution from coal mines in Jharia, west Bengal. It is still to be confirmed that the role of mass media is one of the most important factors underlying the knowledge of environmental problems: This can only be true on the conditions that first, mass media are accessible to large proportions of the population, second, are spending some

time on environmental issues and third, people are interested in information on ecological issues provided by the media so that they view or listen to the corresponding programs as well as read newspaper articles or other written publications dealing with environmental issues

Source: http://climatechange.thinkaboutit.eu/think4/post/role_of_media_in_creating_environmental_awareness_or_issues_towards_climate/

Dire messages about global warming can backfire, new study shows

Correspondent : By Yasmin Anwar, Media Relations | November 16, 2010

Dire or emotionally charged warnings about the consequences of global warming can backfire if presented too negatively, making people less amenable to reducing their carbon footprint, according to new research from the University of California, Berkeley.

“Our study indicates that the potentially devastating consequences of global warming threaten people's fundamental tendency to see the world as safe, stable and fair. As a result, people may respond by discounting evidence for global warming,” said Robb Willer, UC Berkeley social psychologist and coauthor of a study to be published in the January issue of the journal Psychological Science.

“The scarier the message, the more people who are committed to viewing the world as fundamentally stable and fair are motivated to deny it,” agreed Matthew Feinberg, a doctoral student in psychology and coauthor of the study.

But if scientists and advocates can communicate their findings in less apocalyptic ways, and present solutions to global warming, Willer said, most people can get past their skepticism.

Recent decades have seen a growing scientific consensus on the existence of a warming of global land and ocean temperatures. A significant part of the warming trend has been attributed to human activities that produce greenhouse gas emissions.

Despite the mounting evidence, a Gallup poll conducted earlier this year found that 48 percent of Americans believe that global warming concerns are exaggerated, and

19 percent think global warming will never happen. In 1997, 31 percent of those who were asked the same question in a Gallup poll felt the claims were overstated.

In light of this contradictory trend, Feinberg and Willer sought to investigate the psychology behind attitudes about climate change.

In the first of two experiments, 97 UC Berkeley undergraduates were gauged for their political attitudes, skepticism about global warming and level of belief in whether the world is just or unjust. Rated on a "just world scale," which measures people's belief in a just world for themselves and others, participants were asked how much they agree with such statements as "I believe that, by and large, people get what they deserve," and "I am confident that justice always prevails over injustice."

Next, participants read a news article about global warming. The article started out with factual data provided by the United Nations Intergovernmental Panel of Climate Change. But while half the participants received articles that ended with warnings about the apocalyptic consequences of global warming, the other half read ones that concluded with positive messages focused on potential solutions to global warming, such as technological innovations that could reduce carbon emissions.

Results showed that those who read the positive messages were more open to believing in the existence of global warming and had more faith in science's ability to solve the problem. Moreover, those who scored high on the just world scale were less skeptical about global warming when exposed to the positive message. By contrast, those exposed to doomsday messages became more skeptical about global warming, particularly those who scored high on the just world scale.

In the second experiment, involving 45 volunteers recruited from 30 U.S. cities via Craigslist, researchers looked specifically at whether increasing one's belief in a just world would increase his or her skepticism about global warming.

They had half the volunteers unscramble sentences such as "prevails justice always" so they would be more likely to take a just world view when doing the research exercises. They then showed them a video featuring

innocent children being put in harm's way to illustrate the threat of global warming to future generations.

Those who had been primed for a just world view responded to the video with heightened skepticism towards global warming and less willingness to change their lifestyles to reduce their carbon footprint, according to the results.

Overall, the study concludes, "Fear-based appeals, especially when not coupled with a clear solution, can backfire and undermine the intended effects of messages."

Source: http://newscenter.berkeley.edu/2010/11/16/global-warming_messaging/

Businesses, environment collide in India

Correspondent : **By Nigam Prusty and Jui Chakraborty | November 29, 2010**

(Reuters) - A construction firm accused India's government of high-handedness on Monday and South Korea's POSCO received another setback in its plans to make the country's biggest foreign direct investment, intensifying an ongoing dispute between business and government over the environment ministry's aggressive enforcement of green rules.

A forest panel said permits for POSCO's planned \$12 billion steel mill in the eastern state of Orissa should be temporarily withdrawn.

"The forest advisory committee recommended temporary withdrawal of the final approval ... for establishment of an integrated steel plant and captive port by POSCO India," Environment Minister Jairam Ramesh told the upper house of India's parliament.

The recommendation is not binding and a final decision lies with Ramesh, who has said POSCO's project is "fundamentally different" from Vedanta Resources' refinery expansion and mining project which he scrapped earlier this year.

The POSCO project's progress is also being monitored by the office of pro-reform Prime Minister Manmohan Singh. POSCO did not immediately comment on the recommendation.

Separately, Hindustan Construction Co unit Lavasa sharply criticised Ramesh's ministry over its demand that the firm justify why the ministry should not close Lavasa's luxury real estate project. Lavasa is planning a \$437.9 million share sale.

In an unusually strident reaction from a business, Lavasa said in a statement that the ministry acted "without jurisdiction."

Confrontations have become more frequent between firms and Ramesh, whose tough approach has drawn fire from some members of the government who favour rapid industrialisation.

The tussles underline the challenge of balancing environmental protection with growth in a country where millions are poor, and infrastructure is lacking.

Lavasa has also been named along with several other leading Indian companies in a probe by India's Central Bureau of Investigation (CBI) into a bribes-for-loans case, the latest scandal to hit the government of Prime Minister Manmohan Singh.

It has denied any wrongdoing.

ACTING IN HASTE?

On Nov. 26, the environment ministry asked the firms behind two high-profile projects to justify why it should not close them over possible violations of green rules.

Lavasa has been asked to provide reasons why the government should not raze all post-2006 construction on a \$31 billion project to build a town outside the western Indian city of Pune. The ministry also asked Jindal Steel and Power (JSPL) to defend the clearance given to it for a 6 million tonne per year plant in eastern state Orissa.

JSPL has said it is yet to receive the ministry's request but that it has not violated environmental rules.

In its statement, Lavasa said the ministry was acting under pressure from political activists. "You have chosen to act at the instance and behest of (activist) Ms Medha Patkar and others in haste and in a high-handed arbitrary manner," the statement said.

Knowledge Byte

Nuts and Bolts of a Green Building

Source: <http://india.carbon-outlook.com/content/nuts-and-bolts-green-building>

From stadiums for the Commonwealth Games to Civic Centre buildings, today every new construction aims to be 'green'. Greening comes at a higher capital cost, but has tremendous potential for savings, and a reduction of the strain on our natural resources in the long run.

The Basic Concept

The concept of green buildings is based on constructing buildings using environmentally sustainable processes, right from the point of design, to construction to end use. The aim is to reduce the impact of constructing a building on the environment, without compromising on the basic requirements of those using the building.

To achieve this, one must look into site selection and planning, the nature of materials used for construction, design of HVAC (heating, ventilation, and air conditioning), lighting, electrical, and water heating systems, waste management, water management, indoor air quality, and the possibility of integrating renewable energy sources into building design.

Why should I have a Green Building?

As soon as a building is constructed on a particular site, it alters the natural state of the site, and the impacts on flora and fauna, the soil and groundwater are immediately visible, and to avoid this we would have to stop construction altogether. Since this is not an option, attempts must be made to minimise the damage, by substituting lost natural habitat, or providing water recharging mechanisms.

A factor we can completely control however is energy use in buildings, which also accounts for a large share of the total end use of energy (almost 40% of final energy use). In fact, instead of incorporating unnecessary features, which

consume too much power, and then providing small fixtures here and there to reduce energy consumption, the aim should be to reduce the amount of energy being used in the first place.

Greening during the different construction phases

Pre-construction stage- This would include an analysis of the proximity of public transport, the flora and fauna of the land before construction, the natural landscape and type of soil. For example, over the last year, there has been widespread opposition to construction on the banks of the Yamuna River – an activity which would lead to the destruction of the recharge capacity of groundwater reservoirs, which provide water to millions in Delhi – this would be considered a non-green activity. Similarly, construction of large buildings near Sankey Tank in Bangalore and malls on the Delhi Green-ridge were opposed because they are a threat to the natural habitat of the area.

Construction phase- One would want to use locally available construction material, use of fly-ash bricks reuse old tiles and stones, provide sufficient insulation in walls, ensure least damage to trees on the site, incorporate passive heating and lighting options, install energy efficient technologies for air conditioning, water heating, and lighting needs, create of rainwater harvesting facilities, among others.

Post Construction Phase- During the building operation and maintenance stage, constant monitoring and recording of energy and water use, and segregation and recycling of waste is essential.

Codes and Green-ratings in India

In India, builders must adhere to the National Building Code, which unfortunately has no provisions for energy, water or material efficiency standards. The Energy Conservation Building Code has been developed, but it is voluntary. There is a need to develop a comprehensive and mandatory Code, including all necessary facets of construction.

ESCOs (Energy Service Companies) are now involved in Performance Contracting, a method by which the ESCO invests its own money for retrofitting a building with efficient technologies, and is paid 60% of the savings in power costs for a period of five years. This

was done successfully for the Rashtrapati Bhavan in New Delhi.

Two green building rating available in India are the LEED (The Leadership in Energy and Environmental Design) and GRIHA (. Some examples of certified green buildings are the Centre of Environmental Science and Engineering at IIT Kanpur (The EPI (Energy Performance Index) of the building is predicted to be 45.43 kWh/m²/annum, which is 41.3% less than the TERI GRIHA benchmark), Suzlon One Earth, Pune, the Tamil Nadu Legislative Assembly, and Thermax Corporate House, Pune.

LEED (The Leadership in Energy and Environmental DGreen Rating for Integrated Habitat Assessmentesign)- It has its origins in the United States, and is monitored by the US Green Building Council, and LEED-India, monitored by the Indian Green Building Council has been developed for India. LEED provides building owners, architects, consultants, developers, facility managers and project managers the tools they need to design, construct and operate green buildings. These are measurement tools, and not design tools. These guidelines are available for both new constructions and core and shell buildings. Although the initial cost of adhering to the guidelines is higher, energy savings during years of operation compensate for it. Builders who want certification may register their project with LEED by paying a registration fee, preferably at the earliest stages of design. Projects are certified as Silver, Gold and Platinum, in increasing order of compliance with LEED guidelines.

GRIHA (Green Rating for Integrated Habitat Assessment has been developed by The Energy and Resources Institute (TERI), to design and evaluate buildings in the inception stage. As with LEED, by following a set of guidelines, builders can achieve reductions in energy usage, water and air pollution, reduce destruction of natural habitat, limit waste generation through recycling and reuse and improve the health of inhabitants. It has been derived from building codes/guidelines developed by the Bureau of Energy Efficiency, the Ministry of Non-Conventional Energy Sources, MoEF (Ministry of Environment and Forests), and the Bureau of Indian Standards. Following registration, the guidelines are implemented in design, and rating ranging from one to five stars can be earned.

What will work for India?

Sustainability in architecture is something that needs to be re-learned in India, where modern architectural methods have led to a shift from traditional design methods. We design buildings with large glass panes, for their aesthetic quality, but this leads to an overheating of the building and therefore necessitates artificial cooling. Although this might work in cooler climates, it does not work in India. The rationale for energy efficiency in buildings come from the fact that buildings are built to last for several decades, and therefore a few steps taken during construction to ensure efficiency, will provide a lifetime of savings.

Also, it is much harder to make significant changes in buildings once they are already constructed. And there is a great opportunity for savings in India, considering most of our infrastructure is yet to be built. It is estimated that by 2030, 70% of the buildings that exist, would have been built during 2010-2030, and therefore a careful look at our building practices could lead to a significant reduction in energy use, and related climate change impacts.

Traditional Architecture and Climate

Correspondent : By Santorini Architecture



The island of Santorini in the Mediterranean is famous for the limestone whitewashed houses that reflect the sun's scorching heat. Small windows and doors, and thick plaster walls, also keep rooms cool.

The whitewash also distributes light, allowing for smaller windows, while regular whitewashing actually acts as a disinfectant in an area that gets little rain. Precious rainwater flows from roofs and terraces into cisterns.

Cooling Domes



Sheikh Zayed mosque in Abu Dhabi. Domes or vaulted roofs allow hot air to escape from floor level and expose a larger surface area to the night sky, allowing the heat built up during the day to radiate out better than a flat roof.

Domes expose a smaller area to the sun during the hottest part of the day when the sun is directly overhead. Whitewashing also helps to reflect heat away from the faithful inside.

Igloo



The number one priority in the Arctic is keeping warm. The Inuit peoples responded with the igloo. Made from blocks of wind packed ice, the low profile, domed shape, and narrow entrance protects the structure from wind erosion and keeps snow out.

But the genius of the igloo is the insulation provided by the snow. The temperature inside can be more than 30 degrees Celsius higher than the outside temperature and get as high as 15 degrees Celsius.

Snow Proof Roof



Japan's alpine valleys receive some of the heaviest snowfalls in the world. Therefore traditional 'gassho-zukuri' (clasped-hands) homes have high, steeply-peaked roofs so the snow (and rain) can easily slide off the roof thatched from local grasses and straw. This not only prevents collapse but also avoids leaks and rotting. The high roof also serves as a kind of chimney for the stove inside.

Nomadic Ger/Yurt



A Mongolian boy stands against a ger or yurt, a traditional portable house used by nomadic peoples in the Central Asian steppes. A circular wooden lattice frame is covered by felt mats made from the wool of sheep, goats or yaks that the nomads herd.

These mats can be removed or rolled up in summer to let air flow through the ger. The lattice frame keeps animals out. The circular shape leaves the least amount of exterior surface exposed making it easier to heat and protect against the strong winds.

Grass Insulation



A house with a traditional grass roof in the Faroe Islands in the stormy North Atlantic. A grass roof with a layer of turf underneath provides great insulation, and keeps the house nice and quiet.

It also prevents excessive rainwater runoff and because the soil soaks up the water grass roofs are often less leaky. What's more, because the roof is alive it is soaking up carbon dioxide.

Source: <http://knowledge.allianz.com>

Article

Correspondent : By Herman K. Trabish

GREEN BUILDINGS IN INDIA & SOUTHEAST ASIA

Building Sector in South Asia Benefits from Going Green

“Green’ building retrofits or new construction can protect the Asian real estate sector from increasing environmental risks emerging in the region, according to a new report

“Green” building retrofits or new construction can protect the Asian real estate sector from increasing environmental risks emerging in the region, according to a new report released by the World Resources Institute (WRI) and HSBC’s Climate Change Centre of Excellence.

The report, *Surveying Risk, Building Opportunity*, assesses the commercial building sector in India, Indonesia, Malaysia, the Philippines, Thailand and Vietnam and the financial impacts it could face from energy insecurity, water scarcity and climate change. The report finds that green building investments can alleviate these risks in addition to achieving a positive return for building owners in a few years.

“The environmental challenges and resource constraints these countries have been experiencing will intensify and can result in increased utility, operating and construction costs for building owners,” said Shally Venugopal, an associate at WRI and lead author of the report. “Incorporating green features into design and construction can save real estate companies money, especially for energy use, and can increase occupancy rates and even rent premiums.”

According to the report, electricity prices are expected to increase as demand continues to rise, particularly in cities with weak electricity infrastructure. Most of the energy used by commercial buildings in the region goes toward air conditioning and lighting. In India,

for example, lighting accounts for 60 percent of the energy used in commercial buildings while 32 percent goes toward air conditioning.

The region’s water constraints will also cause utility costs to rise. India, in particular, faces severe water availability and quality constraints in many areas. One estimate by the World Bank suggests that India will exhaust all available freshwater supplies by 2050.

The other focus countries will see localized water scarcity near major cities due to population growth and changing rainfall patterns. In Vietnam, the amount of freshwater consumed has tripled and in Malaysia and India it has doubled in the last two decades. This will not only lead to increasing water costs but will also affect the electricity grid since power generation depends heavily on water resources.

Major Indian cities already see power outages weekly. During peak season, Bangalore loses power an average of 1.5 hours a day while Kanpur loses power an average of 7 hours a day. In addition to losing power, the price of electricity will also increase.

As part of the study, HSBC’s analysts conducted a case study on the Indian real estate sector and the materiality of environmental factors. They found that for a typical commercial building (300,000 square feet) in Mumbai, a 1 percent increase in electricity costs could increase annual operating costs by approximately Rs 2.8 million, or around USD 60,000.

Building owners could protect themselves from energy price hikes by investing in energy efficient lighting, such as targeted task lighting, that could reduce energy demand by 20 to 25 percent. HSBC estimates that a 10 percent increase in energy costs would only increase operating costs in a green building by as little as only half as much compared to a typical building.

As the region sees increased rains, flooding, storms and landslides, weather-related insurance premiums for buildings could also increase. Jakarta, where 40 percent of land is below sea level, is especially vulnerable. Flooding in 2007 caused building insurance premiums to increase by 25 percent in 2008. Building owners can protect themselves from damage caused by extreme weather events by

examining climate risks for prospective sites even before purchasing land. Buildings can be designed to minimize damage from floods and storms by incorporating features such as flood vents and barriers, water-resistant flooring (e.g., tiles versus carpeting), and landscaping and exterior features that incorporate storm water management (e.g. rain gardens).

“Green buildings can protect investors from volatile and increasing power prices,” said Nick Robins, head of HSBC’s Climate Change Centre of Excellence. Roshan Padamadan, a HSBC analyst at the Centre, said “Our analysis shows that the upfront investment can pay off in as little as 3 years.”

Though green buildings are gaining momentum in the region, barriers to growth exist, such as the availability of local green building materials and expertise. The report recommends that governments create appropriate market incentives and institute stricter building codes to enable the green building movement to flourish in South and Southeast Asia.

This is the last report in a three-part series. *Weeding Risk*, the first report, analyzes environmental trends on the food and beverage sector in South and Southeast Asia. The second report, *Over Heating*, analyzes the power sector in the region.

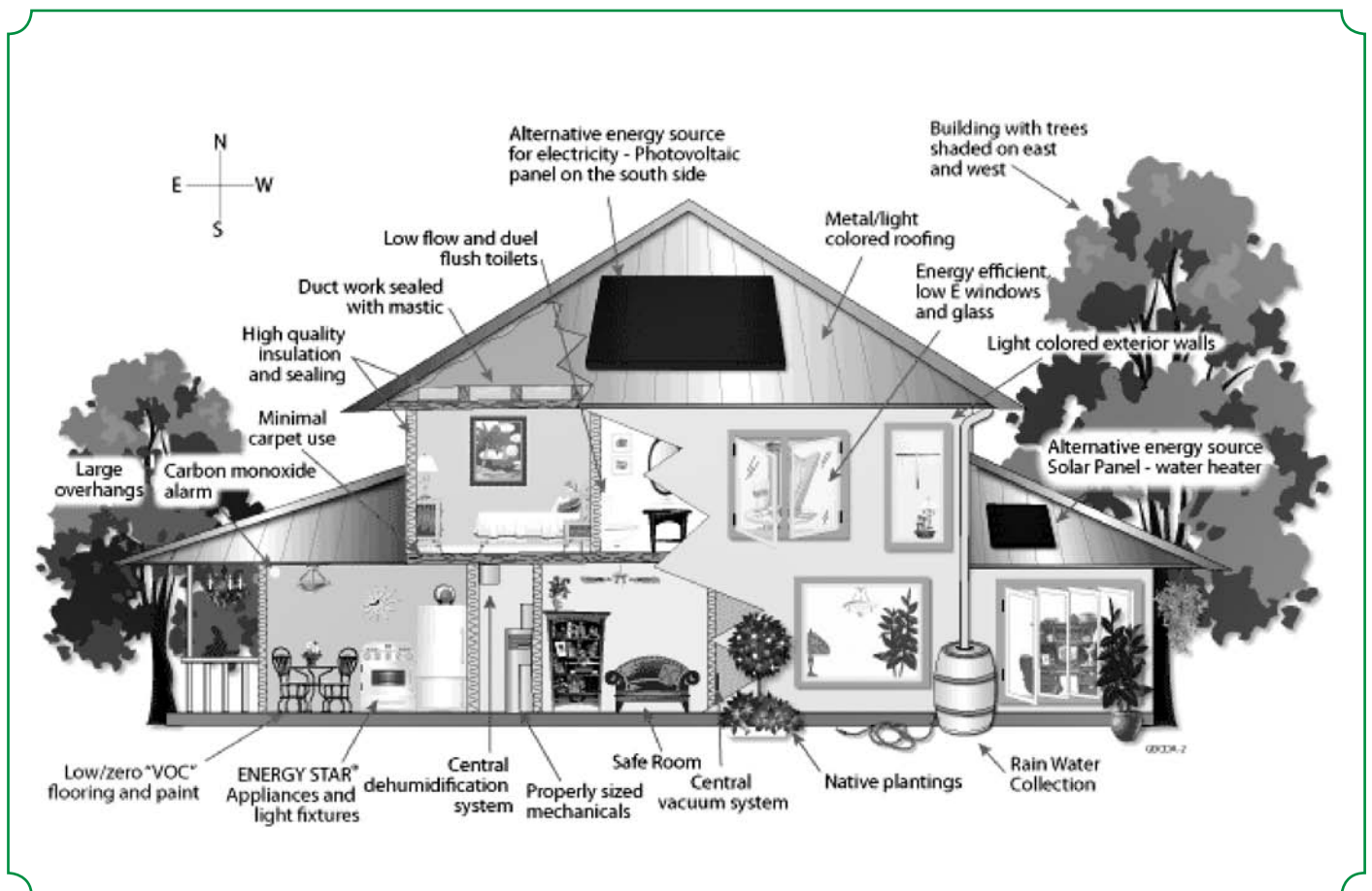
“[*Surveying Risk, Building Opportunity*] assesses the commercial building sector in India, Indonesia, Malaysia, the Philippines, Thailand and Vietnam and the financial impacts it could face from energy insecurity, water scarcity and climate change. The report finds that green building investments can alleviate these risks in addition to achieving a positive return for building owners in a few years...”

“...[E]lectricity prices are expected to increase as demand continues to rise, particularly in cities with weak electricity infrastructure. Most of the energy used by commercial buildings in the region goes toward air conditioning and lighting...The region’s water constraints will also cause utility costs to rise...India [may] exhaust all available freshwater supplies by 2050...The other focus countries will see localized water scarcity near major cities...In Vietnam, the amount of freshwater consumed has tripled and in Malaysia and India it has doubled in the last two decades...Major Indian cities already see power outages weekly...”

"[F]or a typical commercial building (300,000 square feet) in Mumbai, a 1 percent increase in electricity costs could increase annual operating costs by approximately Rs 2.8 million, or around USD 60,000...Building owners could protect themselves from energy price hikes by investing in energy [efficiency]...[A] 10 percent increase in energy costs would only increase operating costs in a green building by as little as only half as much compared to a typical building."

"As the region sees increased rains, flooding, storms and landslides, weather-related insurance premiums for buildings could also increase. Jakarta, where 40 percent of land is below sea level, is especially vulnerable...Building owners can protect themselves from damage caused by extreme weather events by examining climate risks for prospective sites even before purchasing land. Buildings can be designed to minimize damage from floods and storms..."

"Though green buildings are gaining momentum in the region, barriers to growth exist, such as the availability of local green building materials and expertise. The report recommends that governments create appropriate market incentives and institute stricter building codes to enable the green building movement to flourish in South and Southeast Asia."



Viewpoint

Architect Bruce March talks about green design in buildings Special

Correspondent : By KJ Mullins

Toronto architect Bruce March has been green long before it became the new black. In 1988 he was already ahead of the pack using solar-powered designs.

Toronto is new to the green way of living when it comes to buildings Bruce March said during an interview.

"I think the movie *An Inconvenient Truth* was a large factor in the change of thinking."

When you are looking at building a new home, cost is a concern. Pinching pennies in some areas may not be the best plan of action. For instance it may cost up to 3 percent more for green improvements but the long term investment not only to your home but the environment are worth that extra cost.

Looking at your overall lifestyle will play a huge part in your final home design. For example, if you own a solar-powered mansion in the country and have to drive everywhere you go, it may not be as green as having a walk-up townhouse in the city close to public transit. Furthermore, building a 10,000 sq.ft. home with many green sources may not be as sustainable as building a 1,600 sq.ft. house that uses fewer sources.

"There are different shades of sustainability in each design. There is a lot of 'green wash' in the industry that you should be wary of when looking for a designer," March cautions.

March said there are different factors of sustainability and it should be looked at on a case-by-case issue.

There are some fairly simple ways to green your new home, including window alignment and shading, which are passive solar designs or direct solar designs with panels.

The best designs are not generally the cheapest ones, either. A good architect works with key players to insure the final product, your home, will last and be a value to its environment. The research that goes into green home costs money, but it's well worth starting on a solid foundation instead of having a future money pit.

When asked what the perfect green home was, March laughed, saying it depends on the client and their budget.

"A perfect home may be a yacht that doesn't touch the land at all for some; it really is a case by case issue."

March said for larger projects, having a design competition can be a good way of getting the best designer. When it's a small project, your own home for example, look at professional references and at their past projects. A red flag

is if the designer does not seem interested in your ideas.

March said he spends a lot of time researching resources. That time is invaluable to his clients and his knowledge of the best products does factor into his fees.

March said he hasn't been affected by the recession very much other than two years ago it was more difficult to find people to work for him. That has changed, and more people are now available.

In Toronto, new harmonized sales tax is going to be a big factor in the future of construction, as those taxes will raise the cost of building. Another time-consuming, non-billable cost is the 2006 regularity laws to which architects and builders must comply. Those rules are 1,400 pages long

Abstract

The paper based on desk research is an attempt to study the opportunities prevailing in the green building market. In India the green building movement has been pioneered by the CII which set up the IGBC as an advisory and consultant for construction and agency for certification of green building. The scorecard display 109 certified Green Buildings, 433.26 m sq.ft Green footprint & 687 registered Green Building projects.

Indian's green momentum is slowly gaining traction with companies like CII, ETL Infrastructure Service Ltd, KTPL, Lake View Developers, Kalpataru Properties, Godrej & Boyce Manufacturing Co.Ltd, Lodha Group, Kesar Group, Buhari Group, Raheja group, India Land & Properties Ltd, Bengal Shraci Housing Development Ltd, Ambuja Realty Development Ltd, & other leading groups having and working on environmentally sustainable projects.

Key benefits for the occupants include energy & water conservation, higher productivity levels, healthy living & recycling of effluents. And for the builders it builds corporate image due to LEED ratings which are globally recognized benchmarks & an opportunity to discharge Corporate Social Responsibilities.

An important roadblock is the stupendous cost associated with turning Green. However recent reports of from CII shows that as green buildings gain popularity the cost is coming down from around 18% to less than 10% depending on the structure & LEED rating sought by the builder.

Sign of steady growth in corporate environment initiatives have boosted the Green growth in IT Parks, offices, banks, airports, convention centre, educational institution & hotels. It can bring in loads of carbon credit.

The paper recommends spotlight on residential green buildings for an accelerated growth. Integrated affordable township can be ideal for green architecture. With huge amounts of urbanization and a potential demand of 27 million houses, the green building can usher an era of environment sustainability and healthy living. Correspondingly when it is initiated at the middle and bottom of the pyramid, it could be the next revolution after mobile phones and benefit the government agenda of Inclusive Growth.

Source: www.icaindia.info/Papers/Mrs.%20Devi%20Kutty.doc

Interview

It's easy building a green space!

Green architecture expert Sanjay Prakash talks about what makes a building green, the current green rating systems, the traditional versus green architecture debate and some of his favourite green buildings in India.

Sanjay Prakash is a member of the Technical Advisory Committee of the Green Rating for Integrated Habitat Assessment (GRIHA). He is a senior architect and is currently running a green architecture firm. He is also former Senior Advisor at Indian Institute of Human Settlements.

What are your top criterions for making a building green?

Materials (embodied energy), energy conservation, water usage, water conservation, and renewable energy, in that order, are the most significant. Also organic gardens and local food production are important. Daylight use should be maximised. Appropriate set-point temperatures for air conditioning are required, because they are either too low or too high in most cases. One of the best ways to achieve good cooling is the use of desert coolers whenever possible, that is, as long as the humidity isn't too high. Even with air conditioners, it is always better to keep the set-point high, and keep the fan on for air circulation.

Do you think the LEED and GRIHA ratings are compatible with the way in which Indian architects design buildings?

In a smaller context, yes, it is relevant for certain kinds of buildings. My only objection is the fact that people think there were no green buildings existed earlier. Gandhi's Ashram in Wardha, for example, should be platinum rated, but since it does not fit into the LEED or GRIHA criterion, it is not. Some changes need to be incorporated to include the merits of traditional designs as well. My personal opinion is that both LEED and GRIHA ratings are both outputs of a consumption oriented fixation, whereas ideally green should mean zero or

negative consumption. But yes, some would argue that because a large number of buildings are LEED and GRIHA rated, they are effective rating systems.

What about traditional designs? How much and what can we learn from them?

Distribution of space, like the inclusion of a central court or veranda, the use of heavy walls, ventilators are ideas that are not in vogue these days. Ideally, machine use should be minimised and natural circulation of air should be encouraged, using traditional methods which improve air quality and comfort. It is important to remember the zero-energy, zero-water conditions in which most of the traditional solutions emerged and flourished. Now a days, buildings end up being resource intensive, that can be avoided if we decide to use less, right at the design stage.

In your experience, how much more does greening a building cost (in percentage) and what is the payback period?

The extra cost is hardly 5 to 20%. In some cases, the cost is even negative, as some houses just need design changes (from a current design to a south facing design). Such minor low cost changes largely reduce the need for lighting and heating. Vaastu designs go against this basic principle, and this is something that needs to be looked at seriously. Often costs can be further reduced, but in most cases, inaccessibility of materials and lack of technical knowledge are both time and money consuming. Architectural firms need to start providing integrated services. Just designing is not enough, the firms must be involved in every aspect of the building, including the choice of air conditioners used, the material procured, and so on, to ensure that there are least deviations from the plan.

What works best in retro fittings?

Compressors, lights, and types of windows. Retrofits done for the Swiss Embassy and the UNICEF building have resulted in over 30-40% savings. Large savings can be made in all these cases. And especially because in most existing buildings, the lighting and air conditioning don't match the needs. These errors can be rectified while retrofitting.

Is there any alignment between the CDM sector and Green architecture, in terms of earning carbon credits? How popular is it in India?

None of the green buildings, till date, have been awarded with GHG emission reduction credits under Clean Development Mechanism (CDM). Additionality is the constraint, since getting a neutral third party data on the GHG emissions of an average building construction is difficult.

How can residential complexes and individual homes be incentivised to go green? Would a greening clause in home loans help? Has it been tried elsewhere? What are the problems?

No financial incentive will make people change in a serious way. An improved lifestyle choice over a generation of learning is the only way to get home owners to make changes. The key is to avoid air conditioning altogether by making homes using hybrid systems (like indirect evaporative cooling and passive cooling) for set points of 28°C and 60 RH. The set point of 24°C used in most places makes people addictive to ACs, and this is something that needs to be looked at, along with raising the price of electricity to its 'real' price. People won't stop consuming power the way they do, until they have to pay its real price, removing subsidies and including environmental externalities.

What is the response of real-estate developers to adopting green building techniques and sustainable practices, especially in the day of increased construction costs?

They will adopt it when the customers demand it. And this is increasingly happening today. If people can afford it, they would like to live in a place that provides them with a greener and healthier lifestyle. And people have realised that the costs are not much higher than conventional buildings.

CII-Godrej complex, Devi Ahilya School of Energy and Environmental Studies building, IIC, New Delhi, Mirambika school building, New Delhi, Development Alternatives office complex, Suzlon One Earth, Pune are some well designed green buildings and should be exemplary for other corporates as well.

Source: <http://india.carbon-outlook.com/content/green-buildings>

Open Windows

Indian Green Building Council

<http://www.igbc.in/site/igbc/index.jsp>



IGBC which is part of CII- Sohrabji Godrej Green Business Centre, is actively involved in promoting the Green Building concept in India. The council is represented by all stakeholders of construction industry comprising of Corporate, Government & Nodal Agencies, Architects, Product manufacturers, Institutions, etc. The council operates on a consensus based approach and member-driven. The vision of the council is to usher green building revolution and India to become one of the world leaders in green buildings by 2015.

IGBC Services:
IGBC is facilitating the green building movement through the following services:

- Certification of Green Buildings in India
- IGBC Accredited Professional examination
- Green Building workshops & training programs
- Green Building missions
- Green Building Congress - India's flagship event on green buildings

Greenroofs.com
<http://www.greenroofs.com/>



Greenroofs is to inform, promote and inspire the earth friendly technology of organic greenroof architecture through the interchange of ideas, projects, news, video, travel, research, organization and government updates, marketing opportunities and exclusive features via our website. We recognize that each reader, project, and perspective is unique. Greenroofs.com serves an important role as the information database and clearinghouse for the greenroof movement worldwide. Founded in 1999, the website continues to evolve to better reflect the needs and desires of our ever growing readership while continuing to provide an interactive platform of greenroof learning and varied living architecture philosophies.

Green Home Buildings

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



In [greenhomebuilding.com](http://www.greenhomebuilding.com) you can find a wide range of information about sustainable architecture and natural building. "Greenhomebuilding.com provides a way to communicate with, and learn from, a variety of experts in the many fields associated with the site. In the Ask the Experts section you are invited to ask questions and read the responses to others' questions. More in-depth consulting is also available. Education and Events will direct you to educational opportunities and listings of workshops and other news. There is a Bulletin Board where diverse notices have been posted about special opportunities. Sections about Building Codes,

Financial Aspects and a Store where pertinent media can be purchased, round out this site. Most pages also have links to other informative websites that are pertinent.

Green Buildings India

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



Green Buildings India is a full service green project management consulting firm that supports green sustainable building practices through the entire life-cycle of a project. Our extensive experience in education, consultation, management and marketing of green projects, as well as hands-on experience in the green trade, has well-equipped our firm to completely meet clients green project management needs as they relate to green buildings.

Livegreen

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



LIVEGREEN is the new blog designed by Floornature which will showcase the best in sustainable production and completed projects. A blog to converse with everyone and to allow a truly open, all-encompassing, and unfiltered discussion. Because, in reality, the matter of energy and sustainable building is everyone's problem, from those who plan, to those who develop, and especially those who live in the environments.

Green Building Projects in India

Top 10 Green Buildings in India

Correspondent : By Chillli Breeze
writer-Vandana Thambi

Accepted definitions of green buildings describe them as structures that ensure efficient use of materials, water, energy and other resources without depletion of nature and minimal generation of non-degradable waste. The concept of green buildings was prevalent in India from the time of our ancestors who revered the five elements of nature. Today, India can boast of Leadership in Energy & Environmental Design (LEED)-certified green buildings ranging from residential complexes, exhibition centers, hospitals, and educational institutions to laboratories, IT parks, airports, government buildings and corporate offices. This list of top 10 green buildings in India gives special mention to those extraordinary structures that have left an indelible mark in the green construction industry.

Suzlon Energy Limited - Pune

Several accolades continue to shower upon Suzlon's global headquarter in Pune - "One Earth" - ever since the facility has been LEED 'Platinum' rated and certified as an eco-friendly building by the Green Building Council. Built to perfection on an area of 41,000 square meters (10.13 acres), One Earth can be counted as among the largest green building projects in India and is living proof that our world can be replenished with a little green effort, everyday.



One Earth can house 2,300 people and was constructed at a lower cost compared to other eco-friendly buildings of the same size

<http://inhabitat.com/2010/06/09/suzlon-headquarters-in-india-leed-platinum-living-laboratory/suzlon-one-earth-headquarters-7/>

Biodiversity Conservation India Ltd (BCIL) - Bangalore

As a green builder who strives for the conservation of diversity in vegetation, forests, culture and urban lifestyles, BCIL has created some of the most energy-efficient residential homes India has ever set eyes upon. The company's TZed homes in Whitefield, Bangalore has been certified as the first residential apartment in the world to be rated 'Platinum' under LEED. TZed, which means "Towards Zero Energy Development"

is a 2,49,000 sq.ft. green project spread across 5.5 acres and is designed to reduce lighting and energy by nearly 70 per cent.



No home at BCIL TZed Homes uses incandescent lamps, halogens and fluorescent tubelights <http://www.civilsocietyonline.com/April08/april081.asp>

Olympia Technology Park - Chennai

The world's largest LEED 'Gold' rated green building is right here in India. Built on an area of 1.8 million sq. ft., this futuristic masterpiece features three mighty towers on 8.4 acre greenery. Constructed with energy saving technology, autoclaved blocks containing 30 per cent flyash, wooden door-frames made from compressed sawdust and low VOC (Volatile Organic Compounds) paints, Olympia is green and eco-friendly in every sense of the word.



Olympia's green construction is compatible with the needs of an IT company and also ensures efficient space utilisation

<http://www.olympiapark.com/current%20status.htm>

ITC Green Centre - Gurgaon

Renowned as one of the early adopters of the green building movement in India, the ITC Green Centre is still considered a benchmark for green buildings. It was the first 'Platinum' rated building in India and has endeavored to adopt green practices that go beyond recycled waste and day-lit offices. Within a built-in area of 180,000 sq.ft., the building features alternative transportation facilities, storm water management system, solar thermal technology, reflective high-albedo roof paint, minimal exterior lighting, separate smoking rooms with exhaust system and zero-water discharge.



More than 10% of the building materials are refurbished from other sites and 40% are from within 500 miles of the project site

<http://green.in.msn.com/cleantechnologies/article.aspx?cp-documentid=3214982>

The Druk White Lotus School - Ladakh

In this desert landscape of severe climatic conditions, 3,500 meters above sea level, was born a modest school that is adjudged as an outstanding example of sustainable, green, cost effective building development. This multi-award winning structure is the recipient of the Best Asian Building, Best Education Building and Best Green Building awards. It combines the best of traditional Ladakhi architecture with 21st century engineering excellence and is built with traditional materials such as locally excavated stone, mud bricks, timber and grass.



Traditional mud brick masonry is used internally to provide increased thermal performance and durability

http://www.worldarchitecturenews.com/index.php?fuseaction=wanappln.projectview&upload_id=11107

La Cuisine Solaire - Auroville

One of the most innovative green buildings in the country is the solar kitchen at Auroville that best demonstrates the use of solar energy to produce steam. This 1700 sq. m. kitchen is named thus because of the huge 15 diameter solar bowl that has been fixed at the top of the structure to harvest solar energy. On a clear day, this green structure can generate enough steam at a temperature of 150°C that can be used to cook meals for 1000 people, three times a day.



This building puts to use appropriate technologies and passive solar concepts to achieve energy-efficiency

<http://www.auroville.org/society/solkitchen.htm>

Doon School - Dehradun



Authorities can rightfully claim that this establishment is one of India's first green school campuses that opted for recycling measures and successfully achieved cent per cent self-sufficiency in energy, water and

organic fertilizer. Several old building blocks that were part of the 69 acre school were redesigned and solar thermal systems, waste management processes as well as biomass gasification systems were introduced as part of its green initiatives.

Doon school drastically reduced the need for artificial heating/cooling air conditioning through solar thermal systems and cross-ventilation

<http://www.flickr.com/photos/vermin-jr/2951603963/>

<http://www.flickr.com/photos/30176390@N02/3167082010/>

Raintree Hotels - Chennai

Here is an eco-sensitive hotel for the eco-savvy traveler. The entire chain of Raintree business hotels across Chennai city are the first eco-sensitive hotels in South India. Everything about this hospitality range is green: right from the rubber wood, bamboo and medium-density fiber used for construction down to the Portland Pozzalana cement containing 15 to 20 per cent fly ash. The George Fisher concealed cistern installed at the hotel controls the water used in toilet flushes and the sewage treatment plant recycles water for use in air conditioners.



Setting new standards of environmental responsibility without compromising on guest experience

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

Rajiv Gandhi International Airport - Hyderabad

India's first Greenfield airport is undeniably among the top 10 green buildings in India and the first airport in Asia to be awarded the LEED 'Silver' rating certification by US Green Building Council. Featuring 100,005 sq. m. of glass encased terminal, this green building ensures optimal use of natural light and minimal wastage of electricity or energy consumption. Yet another of its green features includes the recycling of treated wastewater for landscaping, air conditioning and flushing requirements.



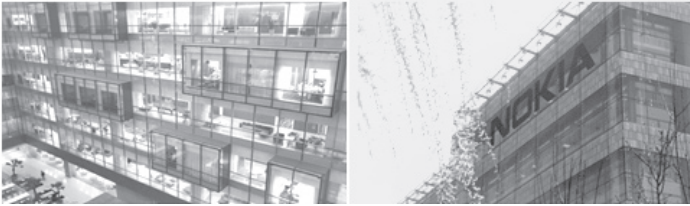
This greenfield airport has been built at a cost of Rs 2,478 crore

<http://www.thepicky.com/popular/hyderabad-international-airport-inaugurated-indias-most-modern/>

<http://green.in.msn.com/cleantechnologies/article.aspx?cp-documentid=3214978&page=2>

Nokia - Gurgaon

Among India's most sustainable buildings is the corporate office of Nokia in Gurgaon which has been granted accreditation as one of the world's leading green buildings by the U.S. Green Building Council (USGBC). This is the first time that a commercial interior fit-out project in India is being awarded the Green Building Award and prestigious LEED 'Gold' rating. What makes this green office stand out from the rest is its smart lighting and ventilation systems, high-efficiency chillers, high-performance double glazing, heat recovery wheel, green guard certified furniture and online CO2 monitoring system.



The first Nokia facility to receive LEED Gold Certification was the China campus in Beijing

<http://www.hardwarezone.com/product-guide/features/view/2940>

SOURCE: <http://www.chillibreeze.com/articles/top-10-greenfort-buildings-in-India-1011.asp>

Books on Green architecture

Green Architecture



When is a house ecological? Does the use of natural materials and solar cells on the roof make a building an example of "green" architecture? Perhaps even Antoni Gaud and Frank Lloyd Wright designed "greener" buildings than most contemporary architects, whose low-energy houses scarcely differ outwardly from traditional ones. James Wines puts up the various - and often irreconcilable - concepts of environmentally-friendly architecture for discussion, making a case for an architecture that not only focuses on technological solutions, but also tries to reconcile man and nature in its formal idiom. Among the examples of contemporary ecological architecture presented are works by Emilio Ambasz, Gustav Peichl, Arthur Quarmby, Jean Nouvel, Sim Van der Ryn, Jourda and Perraudin, Log ID, James Cutler, Stanley Saitowitz, Francois Roche, Nigel Coates and Michael Sorkin.

Paperback: 240 pages

Publisher: Taschen (May 1, 2000)

Language: English

ISBN-10: 3822863033

ISBN-13: 978-3822863039

Product Dimensions: 10 x 7.9 x 0.9 inches

Shipping Weight: 2.1 pounds

Source: <http://www.amazon.com/Green-Architecture-Midsize-James-Wines/dp/3822863033>

Green Architecture

Advanced Technologies and Materials



Green Architecture surveys new developments, innovative techniques, and emerging technologies that support environmentally responsive architecture. Residential, commercial, and institutional high-performance buildings are discussed. This architectural resource includes details on green building rating systems, energy generation and retention, water and waste management, and green building materials. In-depth case studies highlight advanced green buildings; active and passive solar buildings; self-sufficient, off-the-grid modular and mobile systems; and solar-decathlon competition projects.

By Osman Attman

Format Hardback, 368 pages

ISBN 0071625011 / 9780071625012

Source: <http://www.mhprofessional.com/product.php?isbn=0071625011>

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वहाँ है खुशहाली ॥

Environment

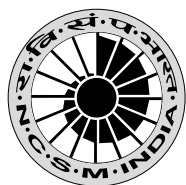
presents

University Film Festival

World Environment Day Celebrations 2011
Ministry of Environment and Forests, Govt. of India
- 4 June 2011, New Delhi

National Science Centre, Near Pragati Maidan
ITBP, Tigri Camp
PVR Plaza, Connaught Place
Tihar Jail, Janak Puri
Air Force Auditorium, Subroto Park

In collaboration with



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Media Analysis

In a country like India, media is the most effective tool environment communication but as per the records these are not sufficiently exploited for the same, most of the environment stories presented lack the priority status with which it should be presented. Though the English newspapers are carrying sufficient news on environment but it lacks the depth and also the follow-ups of the stories plays the spoil sport. On analysing the prime time slot in the leading news channel in the month of October to December 2010 it was revealed that coverage

of international affairs is the highest for all the months which was around 25.78% for the month of October, 40.98% for the month of November, and almost 22% for the month of December, the second highest coverage was that of film and entertainment with almost 39% in the month of October and November and 34% in the month of December. On analysing the data for the environment and wildlife category it was revealed that a major dearth was reported throughout the quarter, the data shows only 3.58% coverage in October and 3.23% in the month of November the month of December was also no better with only 6.95% of coverage on Environment and wildlife.

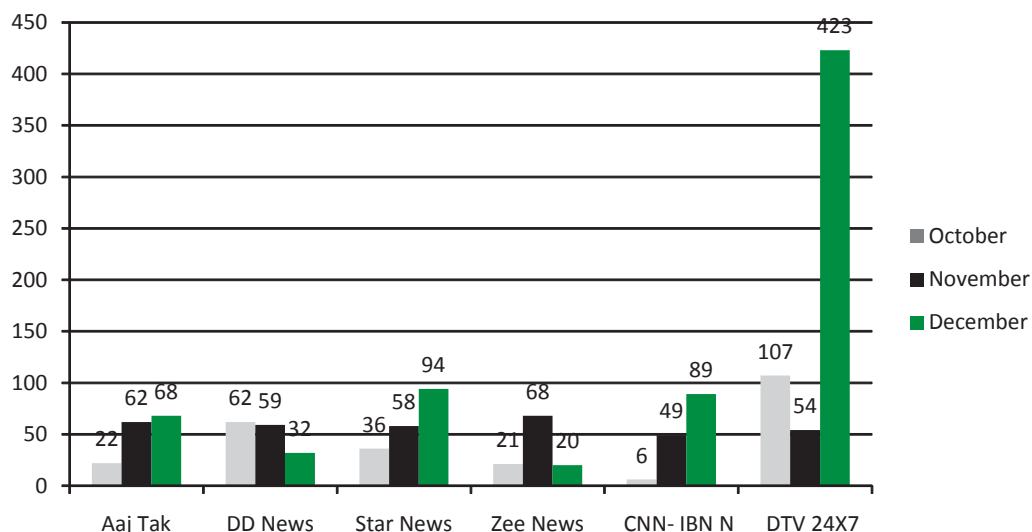
SOURCE: CMS Media Lab

Environment and Wildlife Stories on News Channel

On analysing the channel wise breakup it is revealed that Aaj tak in the month of october had just 22 stories as compared to 62 and 68 stories in the month of november and december respectively, DD news though being the national channel couldn't live up to the expectation, 62 stories were reported in the month of october while only 32 stories in the month of december, Star news showed some considerable growth towards the end of the quarter with 94 stories in the december compared to just 36 stories in October. Zee news had almost similar no. Of stories 21 and 20 in october and december respectively, CNN-IBN had shown the negligence towards environment in the month of October with just 6 stories, amongst all leading news channels NDTV 24x7 performed better with 107 stories in october and 423 stories in the month of december.

Classification	Time	% of Time
October		
International Affairs	1814	25.78
National Politics	1141	16.21
Environment & Wildlife	252	3.58
Film & Entertainment	2714	38.57
Crime	1116	15.86
Total	7037	100.00
November		
International Affairs	4446	40.98
National Politics	1929	17.78
Environment & Wildlife	350	3.23
Film & Entertainment	3124	28.80
Crime	999	9.21
Total	10848	100.00
December		
International Affairs	2293	21.99
National Politics	1970	18.89
Environment & Wildlife	725	6.95
Film & Entertainment	3567	34.20
Crime	1874	17.97
Total	10429	100.00

Environment Stories (Channel wise)



CMS Environment

presents

Biodiversity Film Festival

Organised as part of World Environment Day Celebrations 2011

Hosted by Ministry of Environment and Forests, GoI

1 - 4 June 2011, New Delhi



Highlights

- 🌿 Film Screenings for Children, Defence Personnel, Tihar inmates and General Public
- 🌿 June 1, 2011 | National Science Centre, Near Pragati Maidan
- 🌿 June 1, 2011 | ITBP, Tigri Camp
- 🌿 June 2, 2011 | PVR Plaza, Connaught Place
- 🌿 June 3, 2011 | Tihar Jail, Janak Puri
- 🌿 June 4, 2011 | Air Force Auditorium, Subroto Park

Interactive Sessions with Filmmaker & Experts

www.cmsindia.org

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Participation by invitation only | For more details contact:

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