

### OF INVENTIONS & INNOVATIONS THE WINNERS

#### CATEGORY 1 COMMUNITY-BASED ADAPTATION

##### Empowering Tribals

**Aga Khan Rural Support Programme | GUJARAT**

In May 2009, cyclone Aila hit the Sundarbans, a delta in the Bay of Bengal consisting of 102 islands, sheltered from the sea by mangroves and embankments. In a day, the cyclone washed away 1,300 embankments, killing about 300 people and rendering many homeless. One of its consequences was increased salinity of the soil, which could no longer support paddy. "It occurred to me that a 100 years ago, people lived in this area but these embankments weren't there," said A K Ghosh, president of ENDEV (Society for Environment and Development), "so what did they eat?"

##### Paddy Power

**ENDEV & Lutheran | SUNDRABANS**

The revival of salt-tolerant rice varieties in the vulnerable Sundarbans Delta Region by ENDEV—Society for Environment & Development and Lutheran World Service Trust. Their efforts to create community-level institutions such as seed banks for the conservation of these varieties have earned them the Earth Care Award. Today, farmers have 2,000kg of these seeds from the initial 10kg

#### CATEGORY 2 GREEN HOUSE GASES EMISSION REDUCTION IN INDUSTRY

##### Carbon Conscious

Between 2007 and 2008, Tata Consultancy Services reduced its carbon footprint by 34% and then further reduced it by 26% in 2009. Besides implementing green interventions across its data centres, TCS has also taken positive steps in biodiversity conservation, e-waste management and increasing power-use efficiency

##### Alternate Fuels

**Kymore Cement Works, ACC Limited | MADHYA PRADESH**

The burning of tyres, industrial waste as well as chocolates and face cream past their expiry date, as alternate fuel to coal in the production of clinker (an intermediate product in the manufacture of cement) has helped the company reduce Green House Gas emissions. The optimization of their infrastructure has helped conserve electrical energy. The award acknowledges their use of alternate fuel resource and raw material management and the improvement of their plant efficiency to derive energy efficiency

#### CATEGORY 3 INNOVATIONS FOR CLIMATE PROTECTION

##### Water Recharge

Their innovative 'V-Wire injection well' technology aids water recharge in arid regions and eliminates the need for tanker water, establishing new bore wells and the utilization of energy during the water extraction. Other benefits include the reduction of top soil loss, the checking of sea water ingress in the coastal areas, and the reduction of hardness and salinity in the groundwater source. FLRHS has done 5,000 such installations to date across the country

This award is quite an achievement for Kymore Cement Works, ACC Limited. The team has done a good job on the front of energy, environment, community and resource conservation. This is a good initiative by JSW and The Times of India to improve the environment performance of the whole industry

**Subhash Chandra Chaudhary | ACC KYMORE CEMENT WORKS**

# Honour For India's Green Heroes

Earth Care Awards Bring Recognition To Community Groups & Corporate Houses That Show Eco Initiative

TIMES NEWS NETWORK

In May 2009, cyclone Aila hit the Sundarbans, a delta in the Bay of Bengal consisting of 102 islands, sheltered from the sea by mangroves and embankments. In a day, the cyclone washed away 1,300 embankments, killing about 300 people and rendering many homeless. One of its consequences was increased salinity of the soil, which could no longer support paddy. "It occurred to me that a 100 years ago, people lived in this area but these embankments weren't there," said A K Ghosh, president of ENDEV (Society for Environment and Development), "so what did they eat?"

On Wednesday, at the fifth edition of the Earth Care Awards instituted by JSW Foundation and The Times of India, ENDEV and Lutheran World Service India Trust (LWSIT) received the 'Community-based Mitigation



and Adaptation to Climate Change' award for tracing indigenous, salt-tolerant rice varieties and developing seed banks so the community would be more resilient to natural disasters. "Farmers now have 2,000kg of seeds from the initial 10kg," said Ghosh.

The Centre for Environment Education (CEE) was the knowledge partner for the awards, and the TERRE Policy Centre was the outreach partner. The awards ceremony was held at the JSW Centre, which has LEED Platinum Certification, the highest possible green rating. The jury included McKinsey's Rajat Gupta, retired civil servant Shailaja Chandra, Prof. M S Swaminathan, chairman of the M S Swaminathan Research Foundation, Dr William Dar, director general of the International Crops Research Institute for

the Semi-Arid-Tropics (ICRISAT), Kartikeya Sarabhai, director of the Centre for Environment Education, TERRE Policy Centre's chairperson Rajendra Shende, Pradip Shah, the chairman of IndiaAsia Fund Advisors and the Centre for Development Studies director, Aneeta Benninger.

During the ceremony, chief guest Dr R K Pachauri said, "The scientific community can give you a detailed assessment of climate change but what is far more compelling is to have those implementing measures tell us about their successes and struggles." Take, for instance, the use of

expired Cadbury chocolates, Nivea Cream, broken tyres and industrial waste, which are burnt as fuel in the manufacture of clinker (a cement intermediate) by Kymore Cement Works, ACC Ltd, which won the award for 'Green House Gases Emission Reduction in Industry.' "The use of alternate fuel and raw material has resulted in a 4% reduction in the use of coal energy," said S C Chaudhary, Kymore's senior general manager, plant operations, adding that the plant harvests rainwater in old mine pits, and does not use any river water for cement production.



(Left) Award winners with the jury members; (above) Sangita Jindal, chairperson, JSW Foundation, with chief guest Dr R K Pachauri

The plant has cut down 4 units of electrical energy per tonne of cement by improving their equipment and replacing inefficient motors.

Tata Consultancy Services won an award in the same category as ACC for creating green office infrastructure, procuring renewable energy sources and reducing its carbon footprint by 34% in 2007-2008 and 26% in 2009.

Farmland Rainwater Harvesting Systems, which developed a 'V-Wire injection well' technology for runoff rainwater harvesting and recharge in Karnataka, won the 'Innovations for Climate Protection' award.

By decentralising water management in villages, the Aga Khan Rural Support Programme, India (AKRSP) hit on an environ-

mentally-friendly way of dissolving caste barriers. They won an award for 'Community-based Mitigation and Adaptation to Climate Change.'

"A typical drinking water system in a village involves an underground bore-well, from which water is pumped to overhead tanks and then goes to public water-taps. The dominant caste would control the water, and switch the pump on at times convenient to them, and not to Dalit labourers," said Apoorva Oza, CEO, AKRSP. "But in the systems we worked on, water from the bore-well goes to underground storage tanks servicing around 25 households. All tanks fill up simultaneously, and no one person or caste controls water."

## Micro-measures can have macro-impact

TIMES NEWS NETWORK

What I'd like to see is for companies to have an impact beyond their own walls," said jury member Rajat Gupta, during the JSW-TOI 2014 Earth Awards. Gupta explained that companies need to start thinking not just about "what they can do in their boundaries but also outside and adjacent to them."

A technology company, for instance, can develop products, which reduce the consumption of energy in buildings or cars through sensors and control systems. Similarly, reducing emissions during the manufacturing of cement diminishes the carbon footprint of the structures built using that cement. One of the award winners, ACC Ltd's Kymore Cement Works, for instance, uses tyres and other waste materials as a source of fuel. "Tyres are green products, made of rubber, which comes largely from trees," explained Gupta.

Other awardees like Tata Consultancy Services aim to extend green practices such as waste reduction and water efficiency into the supply chain by putting pressure on their suppliers. "The computers that we currently purchase are green-rated," explained Aniruddha Agnihotri, head of health, safety and environment at TCS. "There is a green label, which is a certification to show that it is energy efficient and has used less-toxic chemicals during the manufacturing stage." Agnihotri said TCS was initially "propelled" to be more energy efficient by its global customers, so it should apply similar pressure on its vendors and contractors.



(clockwise, from left) Jury members Shailaja Chandra and Rajat Gupta compare notes; award winner and CEO of AKRSP, Apoorva Oza; delegates at the awards function in Mumbai; and jury member Aneeta Benninger



## 'India should turn to renewable sources of energy'

Dr Rajendra K Pachauri, chief guest at the Earth Care Awards, chairperson of the Intergovernmental Panel on Climate Change and director general of The Energy and Resources Institute, spoke to *Anahita Mukherji* on why India need not go down the same path as the developed world. Excerpts from an interview:

**Should Western countries be forced to pay more attention to reducing carbon footprint than countries like India, as the developed world has contributed more towards damaging the environment?**

The UN framework on climate change states the need for a common but differentiated responsibility that all countries need to undertake on climate



change. But I feel it is in the interest of countries like India not to follow the path of the developed world, and opt instead for energy security and lower levels of air pollution which would be

achieved through a different energy mix. There are economic benefits to using energy more efficiently. Instead of importing hydrocarbons and coal, it will be more efficient for India to use low carbon sources of energy and turn to renewable energy on a large scale. This does not compromise growth; it's just a different pattern of development.

**You seek to bring corporates on board the battle against climate change. At a time when large corporates have backed think-tanks that fund climate change sceptics, why would they support sustainable development at the cost of business interests?**

Lots of corporates have done outstanding work in conserving the

environment, which shows that such actions have co-benefits. Let's accept that corporates are a part of society and if climate change has a major negative impact on society at large, they will also be affected by it. Rational thinking, reflection and use of knowledge and science will prove the need for corporates to take climate change seriously.

**How can one hold businesses accountable for their impact on the environment?**

Business has a crucial role to play in dealing with climate change. Enlightened government policy and the right regulatory mechanisms can hold the corporate sector accountable.

### SIDELIGHTS

#### WHEN DELHI BUSES SWITCHED TO CNG

Shailaja Chandra, former chief secretary (Delhi), recalled the sympathy with which people would look at her in the 1980s when she was in charge of non-conventional energy. That was a time when portfolios like petroleum and coal were viewed as important, with energy conservation viewed as a poor second cousin. She was often at the receiving end of jokes about how she was in charge of "smokeless choolas." But energy conservation proved of paramount importance when the entire fleet of Delhi government buses switched to CNG, a process that Chandra helped co-ordinate as chief secretary. She found herself flying to the US to accept the International Clean Cities Award (US Department of Energy) on behalf of the Delhi government.

#### LOCAL INNOVATION WORKS BEST

"In a village outside Ahmedabad, I saw women carrying traditional canisters of water on their head, but instead of heading for the well, they went to an

entrepreneur with an RO plant, to purify the water. This shows how global technology can be modified for India," said Kartikeya Sarabhai, director, Centre for Environment Education, and a member of the jury for the awards. He stressed the need for indigenous innovation instead of transplanting technology from the West.

#### WORLD IGNORED A NOBEL WINNER

R K Pachauri, Nobel laureate and chairperson of the Intergovernmental Panel on Climate Change, referred to Swedish scientist Svante Arrhenius who won a Nobel for chemistry over a hundred years ago, and had manually solved thousands of equations over a hundred years ago to show the effects of an increase in atmospheric carbon dioxide on climate change. "But like most prophets and pioneers, his work was ignored, as the world was lured into producing and consuming more and more, while ignoring the externalities," said Pachauri.

#### CAR POOLING AND CONGESTION TAX

Shailaja Chandra, former chief secretary (Delhi) said it's important not to go on crowding over Delhi's achievement of having moved its buses from diesel to CNG. Not at a time when a huge number of private cars running on diesel are being added to Delhi's streets. She advocated car-pooling, congestion tax and a process whereby buying more than one car is made very expensive.

#### WARNING SYSTEMS

The manner in which the recent cyclone in Orissa was handled shows the use of early warning systems and efficient government mobilisation, which minimised damage to life and property, said R K Pachauri.

The JSW-TOI awards are one of the most important initiatives today because caring for the earth is the responsibility of all Indian citizens. If we don't care for the earth, we are heading towards extinction

**Dr Subhas Chandra Garai | LUTHERAN WORLD SERVICES TRUST**

It is good to see that field work done in remote rural areas gets recognized in our urban-centric world. Also, it reinforces our belief that community-centric work is the best way to help communities cope with the vagaries of climate change

**Apoorva Oza | AGA KHAN RURAL SUPPORT PROGRAMME**

This Earth Care award is unique for us because in 2010, we received this award for our water-harvesting filter technology. Afterwards, we were able to expand our business nationwide and globally as this award, presented by JSW and The Times of India, is recognized both nationally and internationally

**Michael Sadanand Baptist | FARMLAND RAINWATER HARVESTING**

We feel really honoured to get this award. It is an endorsement of our efforts over the past 7-8 years in the sphere of sustainability. This reaffirms our direction and the path we are taking towards climate change mitigation

**Dr Aniruddha Agnihotri | TATA CONSULTANCY SERVICES**

It is great to get this recognition from the organizations that have arranged this award. We do feel that this incentive will be very useful as the workers of the institution get recognized. This award is one of the major reasons why we can now scale up our operations in other coastal areas of West Bengal

**Dr A K Ghosh | ENDEV (SOCIETY FOR ENVIRONMENT & DEVELOPMENT)**