

OF INVENTIONS & INNOVATIONS THE WINNERS

CATEGORY 1 COMMUNITY

Sustainable living Royal Bank of Scotland | MP

Royal Bank of Scotland is working on the concept of landscape approach for conservation of Kanha-Pench wildlife corridor, implementing a sustainable livelihoods project helping 12,500 households in conjunction with the MP forest department, Foundation for Ecological Security and PRADAN

Climate change MSSRF | TN & ANDHRA

M S Swaminathan Research Foundation has developed methods of managing sea and land surface along the shoreline and is working with communities in the Tamil Nadu and Andhra coastal regions, helping develop mangrove fishery farming systems

CATEGORY 2 INNOVATION

Solar surge Larsen & Toubro

To provide viable solar energy solutions, L&T has diversified into the renewable energy spectrum by incubating solar business units. Its efforts, as part of its Construction Skills Training Institute, have led to the creation of a cadre of solar and micro grid technicians.

Saving water Data Matrix

Datamatrix Infotech has developed methods of managing sea and land surface along the shoreline and is working with communities in coastal Tamil Nadu and Andhra, helping develop mangrove fishery farming systems — an important way to address climate change vulnerability in such areas.

Harnessing the sun GERMI

GERMI, Gujarat government's autonomous research institute for research and development in the energy sector has developed a novel PDP concept, resulting in fast solar rooftop uptake and finding replication in other states. The program aims at maximizing installations of solar systems on rooftops of private homes as well as commercial and government buildings.

CATEGORY 3 INDUSTRY

Slashing chemical use Raymond

Raymond UCO (Denim Division), Yavatmal, which produces high-quality denim fabric and yarn, has installed 100% biological treatment plant, ensuring a cut in chemical and acid consumption for treatment besides developing a process for complete recycle of water for process use.

CATEGORY 4 SMALL AND MEDIUM ENTERPRISE

Waste reduction JB Chemicals

JB Chemicals has demonstrated significant efforts in setting up environment-friendly production of Zinc stearate, which is used as a lubricant in automobiles, by completely turning off its double decomposition process in Feb 2014. The introduction of the fusion production method has led to significant savings in electricity, water and fuel.

Cutting consumption Surat municipal corporation

Surat municipal corporation, known for its progressive work over the years, has initiated action on climate change as an important focus area of the coastal city, creating energy efficiency cells that work towards reducing energy consumption in areas of high-energy demand such as water supply.

Red Carpet For Our Green Heroes

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

TIMES NEWS NETWORK

When Shanti Tekam, a woman from a remote MP village, walked on to the stage on Friday night to receive an award on behalf of her community for saving forests, she realized how the world was looking at her with respect. Tekam is from a household that's part of 12,500 such, across 175 villages in her state. Union environment and forests minister Prakash Javadekar gave her the award. Tekam, with another villager, Bansuri Ram, received the 6th JSW - The Times of India Earth Care Award in the 'community' category given to the Royal Bank Scotland (RBS) Foundation, India, for leading a consortium that's been not only working to save green cover through community participation but also helping thousands to adopt sustainable practices for their livelihood. Another award in this category went to Chennai's M S Swaminathan Research Foundation for developing an integrated mangrove, fishing and farming system to con-



The award winners with environment minister Prakash Javadekar

serve the ecosystem and improve the coastal community's access to livelihood opportunities. Presenting the awards, Javadekar praised the joint efforts of the JSW Group and The Times of India. It was a wonderful move to recognize communities for their efforts and unique solutions they had adopted, he said. "I've got better solutions from a

common man and a farmer than experts," he said, promising full support to community initiatives to make lives of fellow citizens better and fulfil the government's "clean India, green India" motto. These were part of the eight awards given in different categories including innovation, industry and small & medium enterprise. The awards honoured entities that

have demonstrated excellence in climate change mitigation and adaptation. Besides Javadekar, Union power and renewable energy minister Piyush Goyal honoured the winners and shared the stage with the green heroes at an impressive ceremony at Kamal Mahal, Hotel ITC Maurya. Enlisting measures being taken by PM Modi's government to fight

climate change and promote sustainable development practices, Javadekar and Goyal urged people, communities and industries to partner the government in its effort to save "Mother Earth". Launched in 2007-08, the Earth Care Awards is a joint initiative of the JSW Foundation (social arm of the JSW Group) and TOI. It seeks to identify and foster actions with special reference to mitigation and adaptation imperatives related to climate change across sectors. The Center for Environment

The 2015 awardees were selected by a six-member jury headed by eminent scientist and former DG of the Council of Scientific and Industrial Research R A Mashelkar. The awards in the 'innovation' category went to Larsen & Toubro Limited, Datamatrix Infotech Pvt Ltd and the Gujarat Energy Research and Management Institute. Raymond UCO Denim Pvt Ltd won in the 'industry' category. The award in the 'small and medium enterprise' category went to JB Chemicals. Surat Municipal Corpo-



Education (CEE) is the Knowledge partner for these awards. It has been instrumental in conceptualizing a technical and methodological framework for assessment of the mitigation and adaptation parameters to define the evaluation process. In 2011, this initiative extended its reach to all SAARC countries and was joined by TERRE Policy Centre as outreach partner.

ration won in the 'urban' category. Highlighting joint commitment to save the earth through concerted action on the ground, JSW Foundation Chairperson Sangita Jindal said: "We've borrowed this earth from our children. JSW, Times of India, CEE and TERRE are committed to return a thriving and prosperous planet to them. We will continue evolving."

'Developed world must cut emissions rapidly'

Union environment, forests and climate change minister Prakash Javadekar is confident of a global climate deal in Paris this December. This will help nations jointly fight climate change challenges. Before giving away awards to the green heroes of the 6th JSW - Times of India Earth Care Awards, he told Vishwa Mohan about the roadblocks in the run up to the Paris summit, specifying what India has been doing to ensure climate justice while striving to save the planet without compromising on its goal to eradicate poverty by 2030. Excerpts:



Environment minister Prakash Javadekar speaks at the Earth Care awards

Is the world moving in the right direction to save the earth from the impact of climate change?

■ It's a fifty-fifty. The world realizes the dangers of climate change and the vulnerability of certain sections of people and countries, but developed countries haven't done enough to deal with the challenge. The developed world must cut emissions rapidly. But, they're fix-

ated on their own formula. They haven't come out aggressively with their pre-2020 action against climate change. While developing countries like India have stepped up efforts voluntarily, rich nations aren't even taking ambitious targets (to cut carbon emission).

What are the roadblocks?

Even at a base cost of Rs 4, we are looking at massive savings which all go to the consumer," he said. Solar generation was another priority area for the government for which many states have reacted with enthusiasm, Goyal said. "We are bidding out nearly 15000 MW of solar power. We will soon come out with a policy to encourage industries and commercial establishments for rooftop solar generation. We're also looking at expanding wind-generating capacity. Our current renewable energy capacity is 34,000 MW and we plan to increase the target to 1,75,000 MW by 2022. Fortunately, we are doing very well on this and my own internal target is to achieve this by 2020," he told the audience.

Sharing cutting-edge technology and finance are key issues. Technology can bring solutions but it has a high Intellectual Property Right cost. Companies that conduct research and come out with critical technology can be compensated from the Green Climate Fund (created through contributions from rich nations to help developing countries

TOI INTERVIEW

combat climate change). It can make a difference if technology is provided to the developing world at affordable costs. Climate change is a common problem. The world did this in case of HIV/AIDS. Why can't they do it for climate change?

Has India raised this issue at a global forum?

■ India has constantly been raising it. I flagged it in Paris last week during an informal meeting ahead of the December conference. I told the gathering if technology is made available, we can make progress.

Will nations be able to sign a deal in December?

■ Paris will be a success. I am hopeful. We'll sort out differences during negotiations in October and November. Commitment on finance is a major roadblock. But differences on climate finance are narrowing. We are firm the agreement must come in Paris within the UNFCCC mandate, reflecting all its basic principles and key elements.

How would India contribute to this?

■ We've already engaged with one of the world's largest renewable energy programmes comprising solar and wind. We will also tap offshore wind energy. We are increasing carbon sink through a massive forestation drive. Rs 38,000 crore that had been locked for 10 years will now be unlocked through a new legislation for increasing green cover. We have taken up energy efficiency measures. We will substantially reduce carbon intensity (emission per unit of GDP).

LED bulbs to save up to ₹40,000cr, says Goyal

TIMES NEWS NETWORK

New Delhi: Making a powerful pitch for energy conservation, Union minister for power, coal and new and renewable energy Piyush Goyal said the government's ambitious programme to replace all electric bulbs in Indian households with energy-saving LED bulbs over the next three years is attracting reputed companies from India

tonnes every year.

Speaking at the TOI Earth Care Awards ceremony, the minister said energy conservation was a prime focus of the government. "When I became a minister, I realized that the Bureau of Energy and Efficiency was languishing. You can judge its status from the fact that last year they procured only about 3 lakh LED bulbs for distribution, while there is a demand for 77 crore

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Outlining several other plans for environmental protection, the minister said: "Where coal mining is concerned, the investment that should have gone into environment protection was left out so far. According to our target every kilo of coal that comes out of mines and travels a distance has to be washed. My plan is to set up coal washeries for 500 million tonnes of coal every year for next five years. It requires massive investment and probably increases cost of coal, but this is great for environment protection."



R A Mashelkar, head of jury, presents a TOI coffee-table book to Union minister Piyush Goyal

and abroad as transparent contracts and prompt payments to suppliers has made the initiative more than just a pipe dream.

Goyal said replacing bulbs would lead to savings of upto Rs 40,000 crore which would be money in the hands of consumers. For environmental benefits, this would lead to a reduction in carbon dioxide emissions of about 60 million

LED bulbs. The price for each LED was Rs 310 and I realized it would never make economical sense."

He said the ministry changed the rules of the game and pledged to replace every bulb in the country with LEDs in three years. This brought down the cost per bulb to Rs 74 in just one year. "The saving will be 22,000 MW in evening peak hours between 6-10pm.

Jury focused on scale, sustainability

TIMES NEWS NETWORK



Jury members interact with the minister

A seven-member jury headed by eminent scientist R A Mashelkar picked awardees for the 6th edition of the JSW - Times of India Earth Care Awards after a painstaking process of due diligence spread over months. The panel focused not just on novelty but on scale and sustainability.

Other than Mashelkar, those on the panel of judges were Karthikeya V Sarabhai, founder director, Center for Environment Education, Rajendra Shende, former head of OzonAction Programme, UNEP, Aneeta Benninger, executive director, CDSA, Rajat Gupta, deputy DG, Centre for Science and Environment and Nitin Pandit, MD, WRI India, Chandra Bhusan, Deputy DG, Centre for Science & Environment.

The Centre for Environment Education drew up the first shortlist of applicants. The jury members were then made their mentors. "We have a rigorous process where our emphasis is not just output but outcome, in terms of the difference they make in terms of sustainabil-

ity and scale. I chair a lot of awards committees. This is one of the best in terms of practices followed," said jury head Mashelkar, former DG of Council of Scientific and Industrial Research. Each category had a different set of criteria. For instance, judging the community segment, the jury looked at how an initiative had empowered a group of people or households and how useful it was to them. The dialogue between them, networking in terms of how they had learnt from one another and how their projects could be scaled up were assessed. For some other categories, innovation was at the core.

"A lot of it had to deal with how these innovations could be scaled up to reach a wider audience so they have the intended impact," Nitin Pandit said. The jury scrutinized each application and organized field visits. "The jury had to use their expertise and judgment to ensure that the right winner was picked. There was enthusiasm among communities, industries and individuals on battling climate change. But it was difficult to figure out who was doing better," Rajendra Shende said.

Inspiration from the hinterland



N Sunil Kumar, senior vice president RBS foundation and Shanti Tekam receive their award on sustainable living

TIMES NEWS NETWORK

New Delhi: Shanti Tekam's journey from the forests of Balaghat, Madhya Pradesh, to the capital reflects her effort to keep the rural economy running when thousands of loss-stricken farmers are forced to leave their lands and migrate to cities.

Standing among awardees in business suits was Shanti, a 40-year-old woman and a mother of four from Amoli village. She had received the award on behalf of her community, instrumental in building the resilience of rural areas in tackling challenges arising out of climate change.

Shanti is one of the initiators of a women's organization that started as a self-help group and is now key to harnessing the village economy.

She and members of the Nari Shakti Sangathan started this group in 2009 roping in women from their village to pool their savings. "We began by saving Rs10 a week. Gradually, we realized the potency of such a model, so we invited four to five similar groups from other villages and established a larger body where savings was not our sole objective. We discussed issues and worked towards getting women to take part in economic activities and decision making," she says. They got 70 women from different villages to participate in these groups that, like a gram sabha, shared thoughts and raised concerns about the progress of the village. They raised their voice against domestic violence.

With frequent monthly meetings and more savings, the group started inviting representatives from government departments like women and child welfare. They organized meetings with the panchayat to discuss and understand government policies. "These interaction made us realize that there was a need to boost the economy of our village. So we shifted focus to land, forest and water and became a part of the Mahila Kisan Sashaktikaran Pariyojana." Under this programme, they got step dams built. They learned the use of manure and vermicomposting. "Soon, we were able to produce good quality grain and vegetables. We avoided chemical pesticides because they damaged land quality," says Shanti.

The group encouraged others of neighbouring villages to take part in these activities rather than doing odd jobs in other places.

"We are the only government body to win this year. We have taken many initiatives to tackle climate change as well as to promote solar energy. Over 1 lakh trees have been planted by us and we will keep adding to that as well as take all measures to preserve the environment. Surat has been declared a solar city. We were the first to operate 3 MW of wind power in 2010... that was used in the water supply which helped reduce maintenance cost." **Niranjan Zansmera** | SURAT MUNICIPAL CORP



"Nearly 6 lakh acres of agricultural land will be affected in case sea level rises and lakhs will be displaced. We tried to develop something to make community be able adapt. We're providing physical barriers to rising sea levels and cyclones and providing opportunity for the community to earn more money for ecological sustainment." **Dr Selvam** | M S SWAMINATHAN RESEARCH FOUNDATION



"One thing that I have learned from these awards is that science and nature should be in harmony. JB Chemicals was initially using seven lakh litres of water. It has now become a zero discharge factory. We have also been successful in reducing carbon dioxide emissions." **Sridhar Joshi** | JB CHEMICALS



"It is a good way of felicitating people who work towards saving the earth. We have received the award for tackling climatic change in three ways. We have worked towards reducing water consumption, reducing the material use in Solar plants and reducing the land use when it comes to solar plants." **Shaji John** | HEAD OF SOLAR BUSINESS AT LARSEN AND TOUBRO



"In the last four years, we saved about 90 lakh units of power by electricity conservation. We saved 5,000 tonnes of coal and about 530 million litres of water. Plantation is a way of life for us and ours is a totally green plant. Every year we plant not less than 5000 trees. With this CO2 emission have also reduced significantly." **Nitin Srivastava** | RAYMOND UCO DENIM PVT LTD



"We work with a lot of universities & industries. With this tech, we can measure the hydraulic parameters from energy input to the pump. Implications are many... farmers can measure groundwater level, he will know the actual water drawn in the field and understand the health of the pump. Once we can measure actual quantum of water in the field, we can enforce better management measures." **Raphel Thomas** | CHAIRMAN, DATAMATRIX

