

Indian Mining Exchange

News Bulletin, 5th September 2011

COAL

CIL Offers 447 million tonnes of Coal to Power Utilities

Coal India Limited has offered to supply 447 million tonnes of coal to Power Utilities in 2011-12 subject to availability of wagons by the Railways at an average of 190.4 rakes per day during the year. This information was given by Minister of State in the ministry of Coal, Shri Pratik Prakashbapu Patil in a written reply to a question in Rajya Sabha today.

The minister informed the house that 216 coal blocks with geological reserves of about 50 billion tonnes have been allocated to eligible public and private companies under the Coal Mines (Nationalisation) Act, 1973. Out of that, 24 coal blocks have been de-allocated. Out of de-allocated coal blocks, two coal blocks were re-allocated to eligible companies under the said Act. In view of the above, the net allocated blocks are 194 coal blocks with geological reserves of about 44.44 billion tonnes. Out of these 28 coal blocks have come into production. The rest of the blocks are in various stages of development. Development of coal blocks involves gestation period of 3 to 7 years for reaching the production stage and another two to three years for reaching the optimal production capacity. The major constraints being faced by the allocatees are i) delay in setting up end use projects and ii) time taken for obtaining various clearances for mining and land acquisition.

Shri Patil said that Coal India has reported that during April-July 2011, dispatches to NALCO's Captive Power Plant (CPP) and Aluminium plant were 1.828 million tonnes against the pro-rata Annual Contract Quantity (ACQ) of 1.91 million tonnes with 96% materialization. Dispatches to NTPC power stations were 36.622 million tonnes as against the pro-rata ACQ of 40.126 million tonnes with 90% materialization.

The coal stock with Power Stations has increased from 11.517 million tonnes at the end of July 2010 to 13.164 million tonnes at the end of July 2011.

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=75202>

Northern Coalfields refuses to transfer land to Reliance Power's Sasan ultra mega power project

3 Sep, 2011, 02.33 AM IST, Sarita C Singh, ET Bureau

NEW DELHI: Northern Coalfields Ltd (NCL) has refused to transfer land required to operate

the mines attached to the proposed 4,000 mw Sasan ultra mega power project being built by Reliance Power. The Coal India subsidiary has argued that law forbids the transfer of coal-bearing area.

Coal from the mines will fuel both the Sasan and 4,000-mw Chitrangi projects in Madhya Pradesh, which will be built with an investment of 36,000 crore. The ambitious projects are a key part of the growth strategy of Reliance Power, which said last month that both Sasan and Chitrangi projects were progressing on schedule.

NCL told the coal ministry last month that it can't abide by the government's directive to transfer the required land to Sasan Power Ltd, a subsidiary of Reliance Power, because such a move would violate the Coal Bearing Areas Act, 1973.

A Sasan Power spokesperson said that the matter was "being resolved under the leadership of the Ministry of Coal" and that the Sasan project was on schedule.

An official at Northern Coalfields said the company had been cooperative, but was unable to transfer the land.

"We have been co-operating with them in all the meetings held in ministry on this issue but they cannot deviate the existing laws. The government land cannot be transferred. They have their mining plans and they should do it in their area and without overstepping or infringing into our territory. There are huge coal reserves in the area in question," a top official NCL said.

A coal ministry official said Sasan Power asked for 483 hectares in excess of that approved in the mining lease and mining plan for Moher and Moher Amlori blocks. This includes about 365 hectares that is notified under the Coal Bearing Area Act and vested with NCL.

A senior government official said that Sasan Power had argued at various coal ministry meetings that the transfer of the land was important for extracting coal from Moher blocks. "Sasan Power has been taking up the matter with us saying any delay in transferring land required for developing infrastructure and over burden dump facilities, will delay commissioning schedule the project from the present January 2013," he said.

The coal ministry in consultation with the law ministry has earlier transferred one block to Tata Steel from Central Coalfields Ltd. Eight other blocks are being sought by private companies including Tata Steel, Essar Power, GVK Power, Adhunik Power and Arcelor Mittal.

<http://economictimes.indiatimes.com/news/news-by-industry/energy/power/northern-coalfields-refuses-to-transfer-land-to-reliance-powers-sasan-ultra-mega-power-project/articleshow/9842000.cms>

IRON ORE, IRON AND STEEL

SBB SPECIAL REPORT: LITIGATION COULD SLASH GOAN ORE OUTPUT

Steel Business Briefing, Friday, 2 Sep 11

The iron ore mining industry of southwest India's Goa state has come under threat of partial closure, with regulatory authorities and the state high court challenging miners on various issues over the past few weeks. Some 70 of Goa's nearly 100 mines could be affected, and ore output could drop to about 15m tonnes/year from about 50m t/y presently, local sources estimate to Steel Business Briefing.

Most significant was a recent ruling of the court that has resulted in operations at 54 mines being suspended for a three-month period since late August, pending renewal of environmental permits. These mines had secured clearances in 2005-06 valid for up to five years from the Indian ministry of environment and forests (MoEF).

The ministry had issued a subsequent notification in 2006, under which it began granting environmental clearances valid for 30 years or the life of the mine, whichever comes first. However, several miners who had secured their five-year approvals in 2005-06 continued mining operations even after their clearances expired in 2010-11, local sources tell SBB.

Following a lawsuit filed by an environmental activist against one such miner, the high court has ruled that clearances granted under the older law were valid only for five years. Consequently, all such miners have been asked to suspend operations and apply for fresh clearances from the MoEF within three months. However, sources fear the process of securing new permits would be fraught with bureaucratic delays and up to a year might be needed before operations resume at the affected mines.

In another development, the high court issued notices to 48 mining leaseholders for allegedly mining in excess of permissible limits. In addition, operations at some 35 mines have been suspended since early August, with the state's pollution control board claiming these mines do not have the requisite approvals for operations in the vicinity of wildlife sanctuaries, as SBB has reported.

SBB SPECIAL REPORT: LOST BLUESCOPE JOBS CAUSE ANGST

The closure of a BlueScope Steel blast furnace and hot strip mill, and consequent job losses, have sparked a fierce debate in Australia between those who believe the country's manufacturing base should be protected and others with a laissez-faire attitude to the market.

This week Australian prime minister Julia Gillard visited the Illawarra region – where BlueScope's main steelworks is situated – aiming to reassure BlueScope workers that the government would help them. Canberra has pledged A\$30m (US\$31.9m) towards restructuring Illawarra's economy and a further A\$10m to assist sacked workers at the Port

Kembla steelworks. But she ruled out a larger stimulus package for the region and resisted moves to adopt a protectionist stance towards the country's manufacturing sector.

Union officials have called on Canberra to do more and are meeting with BlueScope workers this week to review redundancy terms and see if any of the 800 jobs can be saved.

Gillard did, however, call on Australia's mining industry to assist the country's manufacturing sector by sourcing more steel locally for expansion projects.

Last week Australia's National Institute of Economic & Industry Research revealed that major resources projects are only using around 10% domestic steel and importing the rest from Asia.

A Melbourne-based trader told Steel Business Briefing that Australian steel producers did not generally produce the right kind of high-value steel used in major oil and gas projects in Queensland and Western Australia. This had to be imported from Japan, Korea and Taiwan. Further, the move to impose Australian industry standards for steel had been counterproductive as this was not applicable to the kinds of steel used for major projects.

A Sydney-based coal industry veteran said the steel industry in Australia had failed to restructure itself to become more productive, and to now blame the mining sector for manufacturing's demise was "naïve". "I had to make hundreds of coal workers redundant in the 1990s because of low coal prices. Now the mining sector is being blamed for doing well," he told SBB.

Steel Business Briefing

RARE EARTHS

High Rare-Earth Prices Force Hitachi, Toyota to Find Alternative

Japanese rare-earth buyers are switching to quarterly sales contracts and looking for alternative sources after China curbed shipments, increasing prices for the materials used in hybrid cars and missiles.

Prices have increased by as much as three times since May, hurting companies such as Hitachi Metals Ltd. (5486), which makes magnetic and electronic materials, said Shinya Yamada, a Tokyo-based analyst at Credit Suisse AG. Higher costs may drive users to avoid applications based on the 17 chemically similar elements entirely, Yamada said.

China produces more than 90 percent of the world's rare earths, used in Apple Inc. iPads, Boeing Co. helicopter blades, Raytheon Co. missiles, Toyota Motor Corp. (7203) hybrid cars and wind turbines. **The nation has curbed output and exports since 2009, saying it wanted to conserve resources and protect the environment.** Japan is the top buyer of rare earths.

“China changed its strategy from limiting export quotas to tightening regulations for digging and refining,” Fujinori Sato, deputy manager at the electro materials section of Sojitz Corp. (2768), said Aug. 25. “Prices may go up further later this year.”

Dysprosium and neodymium, used in automotive and wind-power applications, soared more than threefold since May to \$3,500 per kilogram and 62 percent to \$450 a kilogram respectively, according to Sojitz data. Trading houses Sojitz and Sumitomo Corp. import most of Japan’s rare-earth requirements.

‘Beyond Expectation’

“The prices have jumped beyond our expectation and the current levels will worsen our earnings,” said Takakazu Momozuka, general manager of the financial and accounting department at TDK Corp. (6762), a major Japanese producer of power supplies, transformers and magnets.

Processors will switch to quarterly based sales contracts from six-month contracts in October with users such as automakers and electronics makers because of soaring prices, said Kenichi Nishiie, a spokesman at Hitachi Metals.

China’s output of dysprosium is about 500 metric tons a year and combined demand between China and Japan is about 2,500 tons a year, Sojitz’s Sato said. The trading house has been investing rare-earth mines in Australia and Brazil.

China’s policies on exports of rare earths don’t violate World Trade Organization rules and the nation will appeal a finding that its export controls over raw materials violate global rules, Shen Danyang, spokesman for the Ministry of Commerce, said on Aug. 24.

WTO Ruling

Xinhua news agency said on July 6 the Chinese government was evaluating the report of a WTO panel released the previous day that found duties and quotas on the export of raw materials violate global trade rules.

To cope with surging prices, Shin-Etsu Chemical Co. plans to raise its procurement rate of raw materials from recycling to 30 percent from 10 percent, spokesman Tetsuya Koishikawa said. TDK will cut the usage of rare earths in its magnet products by 50 percent from next year and sell those products free from rare earths after five years, Momozuka said.

Aichi Steel Corp., which buys all its requirements from China, plans to increase purchases from South Africa to reduce its dependency to 50 percent, said Yoshinobu Honkura, senior managing director of the company, which is 23.7 percent owned by Toyota Motor.

Toyota is developing an alternative motor for future models and electric cars that doesn’t need rare earths. Toyota engineers are working on a so-called induction motor that’s lighter

and more efficient than the magnet-type motor now used in its Prius, company spokesman John Hanson said in January.

China Minmetals Non-Ferrous Metals Co., a rare-earth producer owned by the nation's biggest metals trader, has halted production to meet government requirements to limit output. The company also called for domestic producers to voluntarily stop output from early August to ensure a stable rare-earth market and to protect China's strategic resources, it said on Aug. 2.

<http://www.bloomberg.com/news/2011-08-29/high-rare-earth-prices-force-hitachi-metals-toyota-to-find-alternatives.html>

ENVIRONMENT

Volunteerism Drives Sustainable Development

Posted on September 4, 2011 by Isabelle Anne Abraham

One of the major obstacles that hinder sustainable development is the perceived perception that human beings are separate from the earth, said Dr. Vandana Shiva, a keynote speaker at the 64th Annual UN DPI/NGO Conference in Bonn, Germany.

"Somehow people have become divided from nature," she said during Saturday's opening ceremony at the Maritim Hotel Bonn. The theme of the three-day conference is 'Sustainable Societies; Responsive Citizens.'



Dr. Shiva was introduced as an environmental hero, a physicist, author, and eco-feminist by Kiyoko Akasaka, the Under-Secretary-General for Communications and Public Information. Dr. Shiva is the founder of Navdanya International, a non-governmental organization that promotes biodiversity conservation, organic farming, seed-saving, and other sustainable practices. In 1993 she received the Alternative Nobel Prize for her social and environmental research and her work with local communities in establishing alternative sustainable practices.

Dr. Shiva noted that the creativity of indigenous people and practices is really interesting and truly contributes to the vision of a sustainable planet. She also said that sustainability exists in three dimensions: economic, ecological, and social.

On an economic level, she states that free trade is not about citizen freedom, but corporate freedom – and therefore everything becomes commodified, which defeats the purpose of sustainable development. Consequently, poverty is becoming worse. This can be solved if people live in an ecologically-friendly manner, Dr. Shiva said. “The more we protect nature, the more she provides for our needs; we need to re-establish the rights of Mother Earth,” she said.

Yet alternative, sustainable practices not only need to be talked about, but actually implemented. Dr. Shiva is committed to protecting living resources, and suggested various strategies to avoid climate catastrophes and species extinction (which is occurring at a faster rate). Artificial separation between the environment and development is a problem, she said. “We need regulations on the amount of emissions,” she stated. “Polluters can’t be volunteers, they need to be regulated.”

Another keynote speaker, Grace H. Aguilin-Dalisay, noted that, “Volunteers are the best-kept secrets of well-established institutes.” Dr. Shiva added that volunteering is beneficial both ways: “volunteerism means freedom.” If the public becomes involved in decision-making and actively takes part in sustainable practices, this means that people are already taking the crucial steps that will improve their environment and subsequently their lives. Therefore, citizen participation is what drives the process of sustainable development.

“Ordinary spirits are what guide the transformation,” Dr. Shiva said.

<http://www.ngo-un-conference-blog.org/?p=1028>

Climate Change – North East India to become hot

By- Correspondent | Date- August 29, 2011

The climate of North East India is set to undergo changes, including rise in temperature and rainfall, as indicated by Minister for Environment and Forest, Jayanthi Natarajan in Lok Sabha.

In the Regional and Sectoral Analysis for 2030 of the Indian Network of Climate Change Assessment (INCCA) assessment, the Ministry of Environment and Forest has claimed that the temperature of the region is set to increase by 1.8 degree – 2.1 degrees during the next two decades. In addition, the mean annual rainfall is also likely to increase by 1-6 mm per day; however the number of rainy days in a year may decrease by few (1-10) days.

The rise in temperature and changes in pattern of rainfall is expected to affect ecology, especially the forests of the North East. With the increase in rainfall, the region also might witness increase in malaria, unless corrective and preventive actions are proactively taken.

It is to be mentioned that the Government of India has already directed the State Governments to prepare State Action Plan on Climate Change, which would aim at adapting to the projected climate changes in the respective States. The North Eastern States have been known to have prepared their draft documents accordingly.

<http://www.timesofassam.com/headlines/climate-change-north-east-india-to-become-hot/>

World Bank adopts Sundarbans revival project

CauseBecause Citizen Bureau, August 30, 2011

The World Bank, in collaboration with the Planning Commission and the ministry of environment and forests (MoEF), has initiated a mega-project for conserving the rich biodiversity and boosting socio-economic development of the Sundarbans area in West Bengal.

‘This has been done according to the recommendation of the Planning Commission of India and (the project) is expected to be complete at the end of this year,’ Sundarbans Affairs Minister Shyamal Mondal said.

The project will be prepared by an international professional organization. Mondal informed that the project will chalk out concrete steps to both save the world heritage site and strengthen livelihood options for the local population. The project report will be submitted by the year end. Steps are also being taken to develop the site as a major tourist destination promoted jointly by India, Bangladesh, and the World Bank, Chief Minister Mamata Banerjee had said recently.

Lamenting the absence of an integrated plan for all-round and sustainable development of the Sundarbans region, Mondal said that the development in the region has so far been made with the state plan fund and that assistance from the centre was sporadic and mostly selective area-wise. He said the government was committed to improve the standard of living of the locals.

Over 10,000 sq km of the Sundarbans, covering India and Bangladesh, comprises a vast area of reserve forests and tidal rivers. The World Bank project is as timely as it can be, coming as it does on the heels of warnings by experts that large tracts of the Sundarbans are being submerged by rising sea levels. In the last three decades, it has lost not only an estimated 31 square miles of land but also several species of flora and fauna. It is also reported that more than 600 families have relocated following the submergence of land. Environmentalists claim that exploitation of natural resources is exerting pressure on the ecology and biosphere of the world’s largest estuarine sanctuary. Changes due to global warming inflict serious problems on the rich biodiversity and ecology of this region, leaving it more and more vulnerable.

<http://causebecause.com/news-detail.php?NewsID=405>

Schemes for Increasing per Capita Forest Cover in the Country

The per capita forest cover of India is 0.06 hectare while the global per capita forest cover is 0.6 hectare. To increase the per capita forest coverage in the country, the Ministry of Environment & Forests is implementing a Centrally Sponsored Scheme of National Afforestation Programme (NAP) for regeneration of degraded forests and adjoining areas in the country. The scheme is implemented through a decentralized mechanism of State Forest Department Agency (SFDA) at State level, Forest Department Agency (FDA) at Forest Division level and Joint Forest Management Committees (JFMCs) at village level. The choice of species to be planted under NAP Scheme is decided by JFMCs, based on local preferences, suitability of land and agro climatic conditions. Seven models of Afforestation have been recognized under the National Afforestation Programme (NAP) and teak could be one of the species.

Besides NAP, the following steps have been taken to promote afforestation / tree planting in the country which will help to increase the per capita forest coverage in the country:

- Two new **Eco-Task Force (ETF)** Battalions have been operationalised by the Ministry for eco restoration of degraded areas in Assam, in addition to supporting the existing four ETF battalions in the country. An amount of Rs. 31.91 Crores has been released during the 2010-11.
- XIIIth Finance Commission has recommended Rs. 5000 crore for five years starting from 2010-11 for activities including conservation and development of forests.
- Additional Central assistance of Rs. 81.66 Crores has been released to the States during 2009-10 for **Restoration and Regeneration of Forest Cover**.
- Tree planting is also an approved activity under Mahatma Gandhi National Rural Employment Guarantee Act.

This information was given by the Minister of State for Environment and Forests (independent charge) Shrimati Jayanthi Natarajan in a written reply to a question by Shri Bhagat Singh Koshyari in Rajya Sabha today.

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(Release ID :75334)

<http://pib.nic.in/newsite/erelease.aspx?relid=75334>

Brahmapuri, TATR officials' 'no' to mining in Bander

Vijay Pinjarkar | Sep 2, 2011, 03.09AM IST

NAGPUR: The Brahmapuri forest division and Tadoba-Andhari Tiger Reserve (TATR) officials have said 'no' to proposed mining in Bander coal blocks near TATR in Chimur tehsil in Chandrapur district.

A proposal for open cast and underground mining by Bander Coal Company Private Limited (BCCPL), Mumbai, a joint venture of Amar Iron & Steel, Yavatmal; Century Textiles Industries, Mumbai; and JK Cements Limited, Kanpur, was pending since May 2010 to seek comments of deputy conservator of forests (DyCF), Brahmapuri, and TATR field director prior to getting environment clearance. The company had issued several reminders to seek comments of forest officials.

In their comments forwarded to the senior officials, DyCF Brahmapuri and TATR field director have opined that coal mining should not be allowed in Bander, whether it underground or opencast.

It is reliably learnt that both the officials concerned have clearly said 'no' to mines in Bander. "It is the only corridor left on the northern side connecting TATR and Melghat landscape through Nagpur, Wardha and Bor wildlife sanctuary. The existing coal mines in Murpaar have already damaged the tiger corridor. More mining would completely destroy the entire corridor," the officials said.

They have further said that proposed mining area is a good tiger habitat and in the past 3-4 human deaths have been reported due to man-animal conflict. The forest is such a rich habitat that it cannot be restored once damaged. Now the senior wildlife wing officials in city have to take a call. A three-member National Tiger Conservation Authority (NTCA) committee comprising Kishor Rithe, Urmila Pingle and GN Vankhede in its report last year had also opposed to the proposed mining.

BCCPL was allotted coal blocks in Bander on May 29, 2009 to extract 175.110 million tonnes of coal. Although the proposed mining area falls in Brahmapuri division, the coal blocks are between 7.5km and 9km from the TATR boundary. Over 1,170 hectare of forest land will have to be diverted if mining is allowed.

Bandu Dhotre, president of Chandrapur-based NGO Eco-Pro, had also raised the issue with union environment minister Jairam Ramesh on July 19, 2010 requesting him to save the only corridor connecting TATR-Melghat.

"Khadsangi reserve forest and adjoining forest area, located towards the northern side is the narrowest bottleneck among all. Already degraded due to human habitation and agricultural activity, it will be disastrous to allow mining in Bander," Dhotre said.

He said that the buffer area of TATR is demarcated only up to 7.5km from the TATR core boundary. Therefore, apparently mining area seems to fall outside buffer area (touching the buffer boundary).

In 1999, the ministry of environment and forests (MoEF) had rejected proposal for the same blocks citing its adverse impact on wildlife around Tadoba. Now, after 10 years, the corridor is already degraded and shrunk. It will be highly irrational to re-allot, the once rejected block for coal mining when wildlife problem remains the same, experts felt.

Sources said that TATR management plan had identified this area as a threatened degraded corridor and proposed its restoration. Under such circumstances it will be unwise and disastrous to degrade it further by allocating it for coal mining.

<http://m.timesofindia.com/PDATOI/articleshow/9829427.cms>

Paper industry seeks to cultivate wasteland to meet rising demand

Sandip Das

Posted: Wednesday, Aug 31, 2011 at 2300 hrs IST

New Delhi: With the rising demand for paper and paper products during the last decade, the industry has urged the government to explore possibility of using a part of the huge track of wasteland for growing trees, which would meet future wood pulp requirements.

An assessment of the raw material requirement of the R25,000-crore paper industry is anticipated to rise to 6.1 million tonne per annum by 2025 from the present 2 million tonne.

“We need to plan for production of 24.4 million tonne of freshly cut pulpwood per annum for meeting the demand of pulp and paper industry by 2025 which at present needs only 10 million tonne of raw material per annum,” the paper said.

The industry has urged the government to allow paper manufacturers to grow tree varieties such as Eucalyptus, Casurina and Subabul in wastelands estimated to be more than 28 million hectare which would be supplied to paper units. This would also increase green cover in the country.

“Large-scale promotion of agro-forestry plantations integrated with wood-based industries would address the constraints hampering the growth of agro-forestry plantations,” the paper noted.

Due to a variety of reasons including unbearable biotic pressures and forest fires, 28.84 million hectare (mh) out of the 69.09 mh of forest cover in the country has suffered severe degradation.

While urging the government to promote agro-forestry plantations integrated with wood-based industries, the paper has asked for the restoration of 28.84 mh of degraded forestland for optimum sustainable productivity.

Indian Paper Manufacturers Association has said that as a result of the industry-led social forestry initiative, more than 4 lakh hectare of barren land had been brought under pulpwood plantations for supplying raw material to units. One of the biggest paper manufacturers ITC has promoted social forestry in more than 1.2 lakh hectare. "We have taken only barren land from farmers for social forestry purpose, where the wood pulp produced is purchased by us at market prices", Sanjay K Singh, divisional chief executive, paper boards & speciality paper division, ITC, told FE. He said farmers are willing to take up plantations in their unutilised land as there is a market ready for pulp.

From 7.5 kg per capita consumption during 2007-08, the domestic consumption of paper has gone up to 9.3 kg during the current fiscal. While global average per capita consumption of paper is around 45 kg against the consumption of 312 kg in the US. Even China has per capita paper consumption of 42 kg while countries such as Indonesia and Malaysia have an estimated consumption of 22 kg and 25 kg, respectively.

<http://www.financialexpress.com/news/paper-industry-seeks-to-cultivate-wasteland-to-meet-rising-demand/839423/>

Teachers, principals get training in sustainability development

Dipannita Das | Aug 29, 2011, 02.40PM IST PUNE: A consortium of Indian institutes, that includes Bharati Vidyapeeth Institute of Environment Education and Research (BVIEER), [Centre for Environment Education](#) (CEE), ministry of environment and forests, National Council of Educational Research and Training (NCERT) and the Energy and Resources Institute ([TERI](#)), have been identified to guide and coordinate the training programme 'Education for sustainability training for trainers' in the country.

The training, which is a four country programme (India, Mexico, South Africa and Germany), is funded by the Federal Republic of Germany. The first workshop was held at [BVIEER](#), Pune, between August 23 and 27. The idea is to understand and introduce education for sustainability development into the education process.

Under this programme, school teachers, principals and NGOs in the field of environment will be trained to impart training on education for sustainability and to go beyond environment. Thirty-six trainers across the country underwent the five-day training currently on in BVIEER.

The trainers were from states such as Maharashtra, Karnataka, Hyderabad, Chennai, Orissa, Kolkata, Delhi and Goa.

Kranti Yardi, faculty, BVIEER, told TOI that the United Nations has dedicated this decade to education for sustainability. Earlier, the stress was on environment education. But now it is on sustainability education.

"The pillars of education sustainability are based on environment, social equity and economics. Education sustainability goes beyond environment," she said.

Citing an example, Yardi said "when we talk about water resources, it is also related with social and economic equity. In case of water issue, the usage is less for underprivileged and more among the higher class. The other issue is economic use. One should not use water resource in unsustainable ways."

"This is the pilot project to understand not just environment but also sustainability. Country specific design training modules have been prepared," Yardi added.

Erach Bharucha, director of BVIEER, and one of the members of the expert group formed for this training programme, said "As of today, our knowledge of environment education is based on the NCERT curriculum. Now, we want to introduce education sustainability in the education process."

As part of the programme, young trainers will be sent to Germany for training. The five-day programmes included understanding sustainable development, education for sustainable development using various activities and bring about whole school for education of sustainable development, among students, teachers, principals, staffs and parents. On the fifth day on August 27, it will look into how to evaluate and monitor this programme.

Bharucha said, "we wanted the whole school to participate and understand about sustainable development through this programme. There should be involvement from students to teachers, from staff to parents. They will take up various activities such as rain water harvesting, vermi-composting, waste management, among others," he added.

Three components of the programme:

- * Expert group as the guiding force
- * Programme for young people
- * Training of trainers.

Country involved: India, Mexico, South Africa, Germany

Forty four trainers are from states like Maharashtra, Karnataka, Jammu and Kashmir, Hyderabad, Chennai, Orissa, Kolkata, Delhi and Goa, among others.

<http://timesofindia.indiatimes.com/city/pune/Teachers-principals-get-training-in-sustainability-development/articleshow/9782168.cms>
