

housing and urban affairs, in his opening address on Tuesday. Jindal spoke about how Indian cities are moving towards achieving zero waste society goals. He said that waste to compost, waste to energy, plastic in road construction and construction and demolition waste management are the major components of Swachh Bharat Mission. "ODF and cent per cent scientific waste management are two major areas on which Indian government has been working on," he said.

"This system would be helpful in achieving the 3R goals. It has been successful in India so far, and other coun-

try. Prof C Vishwanathan of Asian Institute of Technology, Thailand said that SDGs are the only solution to solve issues related to water security. He said that a circular water economy system should be introduced with inclusion of rain water harvesting and connected with good old practices. Fresh water resources are facing contamination related issues. The situation is worsening with industrialization and urbanization. "Un-

ment goal," he said. Vaughan Levitzke, chief executive, Green Industries South Australia said that circular economy can be considered as the basis for moving towards zero waste society. He claimed that this model, which works on generating revenue through garbage collection and disposal, has created over 25000 new jobs in South Australia. "We are trying to increase capacity to do more in circular economy index. We have been working very hard in this direction," he said. The session ended with a panel discussion and queries from participants.

50% of India grappling with water shortage

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TACKLING WATER WOES

- 50% population of the country faces water scarcity
- Person getting less than 1700 cubic litre water/year is said to face water scarcity
- Dealing with lack of availability of fresh water resources
- Impact of industrialization and urbanization

"We need to focus on finding ways to promote reuse of water as 50 per cent of the country's population is already facing water scarcity," he said, adding that unequal distribution of water is one of the reasons behind water scarcity in the coun-

try. Prof C Vishwanathan of Asian Institute of Technology, Thailand said that SDGs are the only solution to solve issues related to water security. He said that a circular water economy system should be introduced with inclusion of rain water harvesting and connected with good old practices. Fresh water resources are facing contamination related issues. The situation is worsening with industrialization and urbanization. "Un-

treated wastewater leads to both groundwater and soil contamination," he said.

Yuji Hirose, senior environment expert, ministry of environment, Japan, in his address spoke on decentralized bacterial waste water treatment measures to purify contaminated water. "Purpose of Johkasou, decentralized bacterial wastewater treatment, is an evaluation system and our govt also gives subsidies for its installation," he said.



Japan's state environment minister Tadahiko Ito explained the Japanese waste avoidance concept of Mottainai and said that his nation is working towards recycling products. The concept of Mottainai includes 4Rs- Reduce, Reuse, Recycle and Respect.

Both Japan and India should work together to solve issues related to air and water pollution. Japan can help in providing technology for proper disposal of hard plastic

Ryoji Noda | JAPAN

Local bodies need to work in the direction of minimising use of water. The best way to do this is to find out

technologies or ways to reduce water usage

Prof C Vishwanathan | THAILAND

This event is a great opportunity for Indian cities to find solution for proper disposal of waste. A radical approach is needed to achieve objective of zero waste society

Saibal Das Chowdhury | SINGAPORE

Local bodies need to develop a mechanism that would ensure proper monitoring of waste collection, segregation and disposal system. Capacity building is another aspect government needs to focus on to make cities sustainable

Zinaida Fadeeva | UKRAINE

Implementing 3R can check land from getting spoiled

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Indore: "Countries need to think of ways to implement 3R concept for proper remediation to prevent land from getting polluted. 90% waste is dumped at illegal sites, which leads to land pollution," said Prof Agamuthu Pariatambay, University of Malaya, Malaysia on Tuesday.

He said that oil fills or latches generated through such illegal dumping, is one of the major reasons that affects both water and soil.

"Latches flows in the land and has toxic effects on groundwater as well," he said. Open burning is also one of the major reasons for soil pollution, he added.

Dr Banwari Lal from The Energy and Resources Institute, India spoke about offsetting pollution abatement costs through benefits of circular economy. Rosa Vivien Ratnawati, director general, solid waste, hazardous waste and hazardous substances, ministry of environment and forestry, Indonesia said that local government should be pushed on improving its solid waste mechanism with regular assessment of its current system.

"We need to have the infrastructure to handle solid

KEEPING WASTE OFF THE SURFACE

- Efforts suggested to prevent land pollution
- Utilization of organic waste and bio-mass for sustainable farming and energy, bio-cover in landfills
- Circular economic utilization of waste water streams in achieving SDG 11 and SDG 15
- 3R business for clean land through landfill mining



waste. Reducing solid waste would be a tough job for people. Besides, we also need to make young generation aware about how to reduce and minimize waste," he said.

The session also discussed issues on full scale utilization of waste and biomass to prevent open dumping and burning.

Desi Beat At Global Meet



Cultural programme during the event on Tuesday

Road dust causes 30-40% pollution

TIMES NEWS NETWORK

Indore: Construction, lack of proper solid waste management and roadside dust are the major reasons of air pollution in cities, said Al Aggarwal from Amity University, Noida. To set a target, air pollution data and its causes should be made available to the public, he said.

He said that roadside dust contributes to 30-40% of the air pollution. Cities like Indore that have been able to remove roadside dust can control air pollution level.

"If we do not focus on proper utilization of resources, we

NOT SO CLEAN AIR TO BREATHE

- Emission of gas from municipal waste sites and open burning
- Black carbon emission from vehicles and equipment
- Black carbon emission from landfill and dump fires
- Methane emission from landfills and dumps

will end up wasting money on useless resources," he said.

Md Amir Hossain, industry minister, Bangladesh said that countries need to focus on optimum use of raw products with help of available measures.

Dr Sandra M Mazinix, Waste Initiative, Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants, France said that the impact of air pollution is visible and wholesome efforts need to be made to solve the problems. She spoke about

REUSING TRASH, HERE IS HOW



An exhibition to showcase new equipment and technologies for processing and disposal of municipal waste is being organized at Brilliant Convention Center. Around 40 private players along with four civic bodies, Union ministry of urban development, state civic administration department and four countries have set up their stalls. Total 57 stalls have been set up. IMC has also set up stall to portray recycled items. Items made of plastic waste by Indian Plastic Forum have also been put on display. The exhibition is open for all from 10.00 am to 5.00pm.

Indore set an example for others to emulate: Tai

► From P1

She said, "Indore has set one of the finest examples of success of public-private partnership for others to emulate."

Addressing the gathering, Japan's state environment minister Tadahiko Ito explained the Japanese waste-avoidance concept of 'Mottainai' and said, "The Tokyo 2020 Olympics and Summer Paralympics will have medals made of recycled household appliances. Every Japanese citizen has been asked to contribute discarded appliances," he said.

In his speech, Union minister of state for housing and urban affairs, Hardeep S Puri, outlined PM Narendra Modi's concept of Swachh Bharat. "As a foreign service officer, I visited many cities and rank New York as the best of all. But, if I rank New York on cleanliness, it will not be that good a rank," he said. The gathering was also addressed by MP's urban development minister Maya Singh. **TNN**