

UrbanUpdate

Volume V, Issue X

FEBRUARY 2020

The Burning Tale of Two 'A's AMAZON TO AUSTRALIA

Green city concept is smart

A vote for nature!

India's First e-Waste Clinic
to Come Up in Bhopal



European Union



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ALL INDIA INSTITUTE OF LOCAL SELF-GOVERNMENT

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THESE EMERGENCIES CALL FOR COLLECTIVE ACTION



Rajiv Agarwal
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Two luxury cruise liners were quarantined some days ago, one in Hong Kong and another near the Yokohama port in Japan, both on account of possible infection of persons on board by the dreaded novel coronavirus. This newest attack being described by some as a world health emergency has galvanised governments – national, regional, and local, and multilateral agencies all over the globe to counter the threat. The World Health Organization is putting out daily updates on its website about the outbreak which was first reported from Wuhan in China. It says, ‘WHO is working closely with global experts, governments and partners to rapidly expand scientific knowledge on this new virus, to track the spread and virulence of the virus, and to provide advice to countries and individuals on measures to protect health and prevent the spread of this outbreak’. With the total number of affected in the tens of thousands, and deaths over 750 as per last reports, the outbreak is a likely major global tragedy. While its most severe effects are still within China, countries everywhere are on high alert.

The international community is marshalling all resources at its command - scientists, the medical fraternity and research institutions - in their efforts. In their race against time, new tools such as artificial intelligence and data analytics are helping authorities track persons who may have travelled to affected places or with affected persons and thus assess risks.

Local governments have a challenging task on their hands. Public health is a key function in their portfolio which becomes particularly crucial at such times. In many instances, they run the hospitals which handle communicable diseases and have isolation wards and other facilities. These need to be kept at high alert, in a state of full readiness. In addition, there may be need to set up special quarantine facilities as has been done around the national capital. Local governments are already undertaking surveillance and screening of persons from affected areas, and isolation where required. All this calls for extensive coordination among all stakeholders – elected representatives, officials, NGOs, corporates, and indeed the community. Full awareness, alertness, and agility on the part of all concerned will guard the community against the virus. Local governments can ensure this; the effort being to identify possible affected persons and potential carriers of the virus and thereby prevent its spread. This needs to be done in a humane and caring manner.

As in past instances like the SARS epidemic, collective efforts of the international community, national, regional and sub-regional governments, and the common man, will help contain this outbreak and prevent further loss of lives. One prays that it will happen at the earliest.

Among other incidents of global concern are the raging bushfires in Australia coming on the heels of the forest fires in the Amazon Basin. These destructive wildfires, continents apart, have razed down millions of hectares of land including precious forest cover. These are bound to have far-reaching effects on the already precarious climate issue and will serve as a wakeup call for authorities for action to prevent recurrence and to protect forests. In this issue of Urban Update we carry an article on this subject. ■



States are encouraged to develop their own robust urban policies, including plans for implementation, based on a national framework. Collaboration between State Governments and the Centre is essential for sustainable urban development

Venkaiah Naidu
Vice President, India



Government proposes to encourage states that are formulating and implementing plans for ensuring cleaner air in cities with over 1 mn people. Parameters for the incentives would be notified by the MoEFCC. ₹4,400 cr are allotted for the purpose

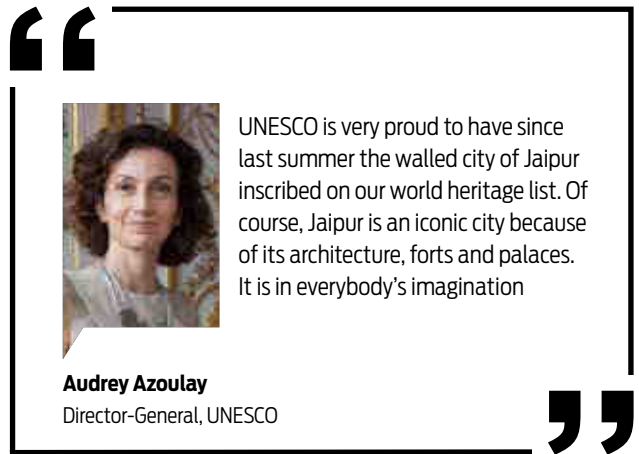
Nirmala Sitharaman
Finance Minister, Government of India

PIN POINT



We have learnt so much in the last two years about how you might align climate risk analysis with financial support and that is the missing link. We all know it should be cheaper to finance sustainable infrastructure but we haven't got the financial tools to express that

Claire Perry O'Neill
President, UN Climate Change Conference (COP26)



UNESCO is very proud to have since last summer the walled city of Jaipur inscribed on our world heritage list. Of course, Jaipur is an iconic city because of its architecture, forts and palaces. It is in everybody's imagination

Audrey Azoulay
Director-General, UNESCO

BUZZ



Nitin Gadkari

Minister of Road Transport & Highways, Government of India

@nitin_gadkari

Alternative fuel is the future and we must encourage the initiatives to explore the new dimensions of alternative fuels. Our industry shall contribute to promote electricity, ethanol and other biofuels to strengthen our economy



UN-Water

@UN_Water

The science around #ClimateChange may seem complicated but the solutions can be simple. Water can help fight climate change. There are sustainable, affordable and scalable water and sanitation solutions



Asian Development Bank

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Delivery of services – such as reliable public transport, schools and hospitals – through economic and social infrastructure is among the most important functions of government. Good governance is as important as financing to deliver quality services



David Malpass

President, World Bank Group

@DavidMalpassWBG

Our 2020 @WorldBank Group #WomenBizLaw Report shows progress toward legal equality for girls & women, with many more steps needed soon. Empowering women is both the right thing to do & necessary for faster growth

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Bhopal Municipal Corporation (BMC) has launched multiple initiatives in their campaign for a better position in Swachh Survekshan. The Corporation has recently launched an E-waste collection model that is helping clean out the city more effeciently

38 Regularising Delhi's unauthorised settlements: A big task at hand

Delhi's unauthorised colonies is often seen as a hurdle to the implementation of an inclusive development plan in the city. However, with the Central Government's decision to legalize Delhi's unauthorised colonies, the long-time residents of these colonies can now own their property legally and avail benefits of government schemes and civic services. Will this move be successful in improving the overall condition of these unauthorised colonies?

40 Manual Scavenging: A Blot on Modern Civilisation

Manual scavenging refers to the practice of manually cleaning, carrying, disposing human excreta from dry latrines, septic tanks and sewers. It often involves using the most basic tools such as buckets, brooms and baskets. Although underreported, this is one of the biggest issues that points to the existence of discrimination in Indian society

42 Enhancing Non-Motorized Transport System of Indian Cities

Indian cities have witnessed an increasing shift to motorised modes of transportation systems while the traditional Non-Motorized Transport takes a back seat in city transportation plans. This article discusses the current status and challenges Non-Motorized Transport (NMT) systems in India face and their role in ensuring first and last mile connectivity and puts forth recommendations for enhancing it



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Urbanisation is providing opportunities for development in various aspects and economic prosperity to citizens on one hand but on the other such development in many cities are happening at the cost of environment. The well-being of communities is increasingly at risk to escalating pollution, environmental degradation, mounting demand for water, food and energy. Cities need to take care of their 'green' and 'blue' ecosystem to remain sustainable and continue their journey of prosperity

KNOWLEDGE SHARING, BEST PRACTICES FORUMS TO BENEFIT NAGPUR

TEAM EQUI-CITY

Best Practices are actions that have made a lasting contribution, improving the quality of life and sustainability of our cities. Over a short period of time, many Urban Local Bodies have come up with innovative ideas to manage urban infrastructure and amenities. Hence, Equi-City team aligning with its objectives conducted 'Best Practice and Knowledge Sharing Forums' on critical issues that can benefit Nagpur Municipal Corporation (NMC). These forums are expected to serve as a source of learning and sharing of experiences in urban development and capacitate officials of NMC. Following are the detailed information of Best Practice Forum conducted under Equi-City project by Indore Municipal Corporation (IMC) and Ahmedabad Municipal Corporation (AMC).

INITIATIVES BY IMC UNDER SWACHH BHARAT MISSION

Equi-City team along with All India Institute of Local Self-Government (AIILSG) organised a Best Practices Forum for the sharing of best practices and knowledge-sharing among local authorities for improving efficiency in provision of civic services under the objectives of the Equi-City on January 3, 2020, at Shri Atal Bihari Vajpayee Training Centre, Nagpur. The forum aimed to strengthen the capacity building of the officials and up-gradation of skills of the NMC employees. The

forum was conducted for the sector of Solid Waste Management of zonal officers and Sanitary Inspectors.

The forum commenced with the welcome note by Jayant Pathak, Regional Director, AIILSG, Nagpur after which Equi-City team greeted Syad Javed Ali Warsi, Solid Waste Management Consultant to IMC with memento. IMC has won Swachhata Award for consecutive 3 years 2017, 2018 and 2019. Indore generates over 1,115 MT of garbage daily and all of it is collected from the source, whether it is a household or commercial establishment. The door-to-door service started in January 2016 as a pilot project in two of the 84 wards in the city. It took almost a year to achieve 100 per cent door-to-door garbage collection. Indore, through its commendable efforts, has achieved segregation of waste at source at 100 per cent of its households and commercial units.

IMC took various initiatives under Swachh Bharat Mission (SBM) for cleanliness of Indore from collection to recovery. Syad Javed Ali Warsi detailed all the aspects of Solid Waste Management in Indore and its implementation.

The citizens of Indore played a significant role in making the city neat and clean. The cleanliness scenario of Indore was changed by improved habits of the people and within a span of one year the IMC successfully sensitised citizens for segregation at source and not dumping garbage in open areas.

COMMUNITY EMPOWERMENT THROUGH INNOVATIVE GOVERNANCE BY AMC

'The Best Practice Forum, Community

Empowerment through Innovative Governance' by AMC was conducted for the Social Welfare Department for improving efficiency in delivery of civic services. The Equi-City team conducted the forum on January 31, 2020, at Shri. Atal Bihari Vajpayee Training Centre, Nagpur.

The forum commenced with presenting memento to Yogesh Maitrak, Director, Urban Community Development (UCD), AMC and the introductory address was delivered by Jayant Pathak. The Government's Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) aims to reduce poverty and vulnerability of the urban poor by enabling them to access employment opportunities by building strong grassroots level institutions for them. AMC's effective implementation of the mission for the upliftment of urban poor posed a success story for NMC.

AMC took various initiatives such as Social Mobilisation & Institution Development Scheme, Self-Employment Program, Employment Through Skills Training and Placement, Shelter for Urban Homeless, Support to Urban Street Vendor and Capacity Building and Training. Yogesh Maitrak explained about the efforts taken by the corporation.

Shelter for Urban Homeless

National Urban Livelihoods Mission (NULM) aims at providing permanent shelter equipped with essential services to the urban homeless under the Shelter for Urban Homeless (SUH). AMC constructed adequate number of shelters under the project GHAR-Giving Home And Respect to ensure shelter along with food and medical

care for the urban homeless. AMC has constructed and refurbished 32 night shelters in Ahmedabad where more than 3914 homeless people are utilising individual shelter and 53 families are utilising family shelters along with medical facilities started by the corporation. AMC has also started giving food to all homeless people which was inaugurated by Vijaybhai Rupani, Chief Minister, Gujarat on December 25, 2019.

SHG Enterprise under Social Mobilisation and Institutional Development

Social Mobilisation is not just the ‘formation’ of groups, but empowerment, financial self-reliance, and participation and access to government, its schemes and programmes for the urban poor. UCD follows Self Help Group (SHG) Enterprise Model with transparent process in its operation. Before entering into any ward or areas, UCD field staff members conduct a comprehensive survey to evaluate local conditions and potential for operations. After respective areas have been surveyed and selected for the operation, a projection meeting is conducted to introduce UCD, its vision, mission, and methodology. After selection of areas and projection meeting, interested women form a group Sakhi Vrund (Joint Liability Group) Formation. Once a group is formed, it begins Compulsory



A Compulsory Group Training session

Group Training (CGT). CGT consists of hour-long sessions designed to educate woman on the processes and procedures of corporation and build a culture and discipline of financial literacy & credit counseling and are officially declared as women entrepreneur of the corporation after successfully completion.

All SHGs are using digital payment platform- Digital Sakhi for payments. They use the money saved for Girl Child Education of SHG family members.

Self-Employment Program

Incubation Centre for Micro Business Aspirant assists all the aspirants with mentoring, planning and execution of their start up idea into a real business. SHG entrepreneurs are groomed with the necessary inputs on how to be

a successful entrepreneur through workshops and seminars by eminent people and institutions. UCD has identified and certified 26,450 micro business aspirants in various trades for economic empowerment of both men and women.

Employment through skills training and placement

After developing the identity proofs of homeless people, priority is given to develop their skills as per their ability. Unlimited opportunity of employment to Skilled Urban Homeless People will be provided by connecting them with “Aajeevika”. Aajeevika is a digital platform for the homeless where they can find endless opportunities for self-employment, earn their bread and butter, fulfill the needs of their families and get recognition in society.

The efforts of Urban Community Development of AMC have resulted in many success stories. The 6 Area Level Federations of ULB Ahmedabad were selected for the Swachhata Excellence Award. From these six, Khodiyarnagar-Baherampura ward ALF got the Swachhata Excellence Award.

The innovations in the functionalities of DAY-NULM will definitely encourage all NMC officials and all those working in the sanitation and livelihood sectors to reflect upon these models and take up such programs to improve livelihoods of marginalised communities. ■



Jayant Pathak addresses The Best Practice Forum, Community Empowerment through Innovative Governance by AMC



Yogesh Patel, State Minister of Narmada & Urban Housing, Gujarat inaugurated the seminar "Development of Green Spaces & Parks under Amrut" by lighting the lamp along with Dr Jigishaben Sheth, Honourable Mayor of Vadodara, Dr Jivraj Chauhan, Dy Mayor of Vadodara, Ranjit S Chavan, President, AILSG, Hansa Patel, Executive Advisor, AILSG and Neha Haldikar, Senior Research Officer, RCUES. Corporators, ward officers and senior officers of Vadodara Municipal Corporation were also present in this seminar held on 21st November 2019

A meeting of the Maharashtra Mayors' Council was held recently under the chairmanship of the Mayor of the Mumbai Municipal Corporation, Kishoritai Pednekar at Sthanikraj Bhavan, Mumbai. Ranjit Chavan, President, All India Institute of Local Self-Government (AILSG), Hansa Patel, Sr Executive Advisor, AILSG and Laxmanrao Latake, the Convener of the Maharashtra Mayors' Council also participated in the deliberations. In this meeting the various issues of Mayoral powers were deliberated



Jeevan Ghimire, Honorable Minister of Social Development, Province no 1, Nepal, visited AILSG's Delhi Center along with his team to discuss the engagement of AILSG in various activities such as Capacity Building programs, Technical Support etc in Nepal

ANDHRA CAPITAL ROW: EXPLAINED

AMARAVATI: Andhra Pradesh will soon become the first state in independent India to have three capital cities at the same time. The mandate of the Andhra Pradesh Assembly on the Andhra Pradesh Decentralisation and Equal Development of All Regions Bill 2020, paves way for the incumbent Chief Minister YS Jagan Mohan Reddy to develop Amaravati as the Legislative Capital, Kurnool as the Judicial Capital and Visakhapatnam (Vizag) as the Executive Capital of the state. When Hyderabad, which was Andhra's capital till 2014, was absorbed in the newly formed state of Telangana, the then Chief Minister of Andhra Pradesh N Chandrababu Naidu proposed and planned Amaravati to be the state capital and allocated a budget of ₹400 crore for the same. Naidu, during his tenure as CM, was able to build an interim government complex, High Court building and a permanent Legislative Complex along with commissioning new apartments of lawmakers and officers. But with the change in the state government, the focus is now to distribute growth across three cities in different corners of the state. The rationale behind this is to utilise the capital in a way that homogenous

growth is ensured across the state. The Executive Capital Visakhapatnam is 700 km from Kurnool, the Judicial Capital which is located 400 km away from the Legislative Capital Amaravati. Amaravati-Kurnool are 370 km apart.

What would the decision entail for urban Andhra?

With the decision, the state government has made it clear that uniform development of the state is at the top of the government's agenda. Considering the fact that cities contribute vastly in the economic development of a region, the government will be developing these three cities as economic hubs, thereby, ensuring growth opportunities in the surrounding areas as well. "We do not want to develop one area utilising all our available financial resources while other areas suffer due to lack of funds," said YS Jagan Mohan Reddy, Chief Minister, Andhra Pradesh.

But the government will have to deal with major financial issues before moving forward with the decision. For the fiscal year of 2018-19, the state had an outstanding debt of ₹2.52 lakh crore with the State Bank of India (SBI), which is expected to rise to ₹3



lakh crore.

Certain flaws become apparent from an administrative view as well. The government has not laid out any specific plan for the improvement of transit between the cities which are located far away from each other.

Why masses have rejected the proposition

The decision has been facing widespread opposition across the state. The protestors are majorly farmers who believe the formation of the three capitals would leave them short-changed. When the proposal of making Amaravati as the capital city of the newly formed state was put forth, the then government also procured the lands of the farmers around the city for infrastructural development, promising that the value of their lands would increase after the construction. Now, they are not sure that government will not deliver

all the infrastructure in Amaravati that the then government had promised which would have enabled appreciation in the value of their plots.

Another issue is related to the expenditure of around Rs 5000 crore by the previous government on infrastructure such as roads and buildings for offices and quarters for government officials in the city. What will be the fate of that money is a major question left unanswered.



'Study compliance of environment laws by tyre pyrolysis units'

NEW DELHI: In an attempt to assure whether advance batch automated plants can address emission of pollutants due to burning of waste tyres in pyrolysis industries, the National Green Tribunal (NGT) has asked the Central Pollution Control Board (CPCB) to conduct a study within a time frame of four months revealing all the essential data required. As per the NGT bench headed by Justice Adarsh Kumar Goel, NGT Chairperson, the study would be carried out by the CPCB along with National Environmental Engineering Research Institute (NEERI) and Indian Institute of Technology (IIT) Delhi. The two organisations are also required to address the environmental concerns, caused due to the absence of proper management of End-of-Life Tyres/Waste Tyres (ELTs).

The bench has been hearing a petition filed by Social Action for Forest & Environment (SAFE). The plea demanded for complete ban of ELTs in Pyrolysis Industries due to non-implementation of the existing laws by the Pyrolysis plants, resulting in an adverse environmental impact. In pyrolysis, old tyres are recycled through a thermochemical process carried out under high temperature to produce industrial oil and other matters. The CPCB informed the green tribunal that as per an action taken report from the state pollution control boards, there are presently 678 pyrolysis units in 19 states where old tyres are recycled, following which the green tribunal passed the directions. Of the 678 tyre pyrolysis units, 270 were aligned with the environmental norms, informed the CPCB.



BELGAUM: National Commission for Safai Karamcharis (NCSK) held an awareness program for the Prohibition of Manual Scavenging Act, 2013 in Suvarna Soudha Belagavi, Karnataka on 20th January. Manhar Valjibhai Zala, Chairman of the commission was present for the occasion along with Anil S Benake, MLA from Belgaum North.

Telangana marks its presence in BEE's State EE Index 2019

HYDERABAD: The State Energy Efficiency (EE) Index was released by the Bureau of Energy Efficiency (BEE), in association with Alliance for an Energy-Efficient Economy (AEEE). Telangana marked its presence in efficient use of energy under the categories of Transport and Industry. The Index grouped states based on their aggregated Total Primary Energy Supply (TPES) required to meet the states' actual energy demand. Telangana was placed in Group II along with Haryana, Kerala, Punjab, Andhra Pradesh, Delhi, Chhattisgarh, West Bengal and Jharkhand.

Under the 'Municipalities' section of the Index, where Telangana stood first in Group II, only Assam, Haryana, Tamil Nadu and Telangana have set an energy saving target for municipal services. All these targets are specifically for energy efficient street lighting except for the state of Tamil Nadu, where an overall target has been set. Telangana stood third in energy efficiency in Transport sector as the state had performed well in various state initiatives for electric mobility and energy efficiency measures in State Road Transport Corporations and government businesses. According to the Index, 20 states and all Union Territories (UTs) have notified establishment of Nodal Agencies for the promotion of charging infrastructure for EVs.

Telangana stood fourth in the 'cross sector energy efficiency' section of the Index. The highest score of five was awarded to Kerala and Odisha. The main differentiators in the top performing states are initiatives taken with respect to strengthening of communication with the State Energy Department, a greater focus on creating awareness, and focus on R&D activity related to energy efficiency.

'WE ARE STILL ALIVE'

Delhi Exhibition Flags Climate Change



THE EXHIBITION "We are Still Alive", addressing climate change issues in the sculpture garden of India International Centre (IIC) served as an invitation to Delhi artists who have experienced the poor air/water quality, congestion, pollution in the city, change in the temperature and water levels. The public art project was organised to create awareness and highlight these matters. Each work encourages viewers to think about these important issues that affect their health, food and quality of life.



Mohali to get waste-to-energy plant



Captain Amarinder Singh, Chief Minister of Punjab, has given the go ahead to the building of a 7 MW waste-to-energy plant in Mohali. The plant would be built in an area of over 50 acres in Simgauli of Mohali district and would run under the build-own-operate model and take at least two years for completion. The waste-to-energy plant would generate energy from 600 tonnes of waste per day collected from Mohali and Patiala and would be a significant contribution to the implementation of the State Action Plan on Climate Change (SAPCC).

Delhi-Panipat RRTS to extend to Karnal

Government of Haryana has approved the extension of Sarai Kale Khan, Delhi-Panipat corridor of Regional Rapid Transit System (RRTS) to Karnal city with a stoppage at Gharaunda. With the construction of the corridor, the 103 km road connecting Delhi and Panipat with 17 stations would be extended to 130 km to reach Karnal, enhancing the transportation facilities within the National Capital Region, which includes Karnal. The authorities also announced development of a total of eight corridors of RRTS under the Functional Plan on Transport of NCR-2032. The first phase would see the construction of Delhi-Meerut, Delhi-Panipat and Delhi-SNB (Shahjahanpur-Neemrana-Behror).

Delhi's population more than some countries

NEW DELHI: The population count of the Indian capital has crossed the count of population of many countries like New Zealand, Greece, Sweden, Zimbabwe and the Netherlands. Delhi population is more than two crores now. A report released by the Election Commission of India revealed the stats with the announcement of the upcoming assembly polls.

Kazakhstan is the largest country by area with fewer people than the Indian capital. It is spread over an area of 27 lakh square kilometer and has an estimated 1.88 crore people. This means its population is 93.4 per cent of Delhi's population, while its area is 1,819 times as large. Similarly, Zimbabwe has 73.9 per cent of Delhi's population and is 261 times the area.



Although, there are many countries having a population more than that of Delhi but many of these have a slightly higher population and are over thousand times bigger in land area. Canada is one such example, the country has 1.9 times population of Delhi and an area over 6,000 times the size of the city. Another example could be, Australia which is nearly 5,000 times the size of the Indian Capital having just 1.3 times its population. Also, the countries Argentina and Saudi Arabia are more than 1000 times bigger in area than that of Delhi but population in these countries is only slightly higher than that of Delhi. The population of the Delhi Urban Agglomeration (UA) which includes the urban areas like Ghaziabad, Noida, Gurgaon and Faridabad is by far the largest in India. The population estimates from the UN for Delhi's population is at three crores for 2020, which is a crore more than that of Mumbai's population. Other big cities in India catering to a population of more than one crore are Kolkata, Bengaluru, Chennai and Hyderabad. Also, Delhi is the second most populated city in the world after Tokyo.

NGT directs chief secys to provide info on solid waste, environment, pollution

NEW DELHI: The National Green Tribunal (NGT) directed the Central Pollution Control Board (CPCB) on January 7 to obtain information from State Chief Secretaries on solid waste management, rejuvenation of polluted rivers, and air quality management in States and Union Territories.

The NGT bench headed by Justice Adarsh Kumar Goel, NGT Chairperson, said that the kind and extent of information provided by the CPCB is incomplete and a huge gap can be seen in the information available on sewage generation and waste water treatment. Talking on the information provided by the CPCB on solid waste management issues, the green bench said that the information required was with regard to the amount of municipal solid waste generated, the quantity of waste segregated and treated, and the amount of legacy waste.

The tribunal, with regard to the revival of 351 polluted river stretches, said that there is a need for the states to furnish information about the compliance of directions, including in-situ and ex-situ remediation using methods such as creating artificial wetlands, bio-diversity parks to reduce load on rivers, and more.

Further, the green bench said that besides this, it will free the land urgently required for setting up of integrated waste management and other waste processing facilities occupied by such dumpsites in compliance with the environmental laws.

IFAT Delhi 2020 presents innovative solutions for waste management

NEW DELHI: IFAT Delhi 2020, a three-day trade fair centred around the fields of Water, Sewage, Solid Waste and Recycling, was organised by Messe Muenchen India at the India Habitat Center, Lodhi Road, New Delhi. IFAT Delhi is a leading trade fair for Water, Sewage, Sold Waste and Recycling. Due to its high population density and its expansive economic policy, India has immense potential for environmental technologies and waste management. Scarce water resources, rapid industrialization, extensive agriculture and enormous waste volumes pose a great challenge to the country.

The Trade fair was inaugurated by Shri. Prakash Javadekar, Minister of Environment, Forest and Climate Change; Shri. Raj Kumar Singh, Minister, Ministry of New and Renewable Energy; Shri. Hardeep Singh Puri, Minister of Housing and Urban Affairs. IFAT Delhi 2020 hosted over 40 exhibitors from multiple countries. Among them were market leaders like Endress+Hauser (India) Pvt. Ltd., HP Composites LLP, WEIMA Maschinenbau GmbH, WEIMA Maschinenbau GmbH, Sarvo Technologies Limited, Micro Transmission Systems, SIDSA Environmental Pvt. Ltd, HP Composites LLP and many more. Bhupinder Singh, CEO of Messe München India, commented, “With growing environmental crisis, it is crucial to take definitive measures on a larger scale. With IFAT Delhi, we bring the latest innovations in the sector to India’s capital city.”

The trade fair saw the introduction of many sustainable and eco-friendly technological solutions like Gobbler Eco Green, manufactured by Cosmic Healers Pvt. Ltd, Punjab; Anti-Smog Gun developed by Cloudtech; vCam-6 HD inspection system from Vivax-Metrotech to name a few.



Prakash Javadekar, Union Minister of Environment, Forest & Climate Change, inaugurated the event

The trade fair was organised alongside World Sustainable Development Summit 2020. WSDS is the annual flagship event of The Energy and Resource Institute (TERI) which has brought together 47 heads of state and government, 13 Nobel laureates, ministers from 64 countries, 1700 business leaders, 1900+ speakers and over 13,000 delegates from across the world.

The objective of the summit was to establish a strong & comprehensive platform for the environmental sector in the north of India. Regarding the co-organisation of IFAT with WSDS 2020, Bhupinder Singh said, “Our association with TERI for WSDW is a conclusive step towards environmental progression through sustainable measures, and a lucrative opportunity to engage with upcoming green technologies showcased at the trade fair.” The three-day event addressed the theme, ‘Towards 2030 Goals: Making the Decade Count’. The Summit also announced the launch of the Indo-Swiss partnership on tackling air pollution, and released a plethora

of reports including a roadmap for zero-carbon steel sector and tapping the potential for floating solar plants in India. WSDS was inaugurated by Shri Prakash Javadekar, Hon’ble Union Minister of Environment, Forest and Climate Change (MoEF&CC), on January 29, 2020, at the India Habitat Centre, Lodhi Road, New Delhi.

Addressing the gathering, Javadekar highlighted the gap between promise and action by developed countries, saying, “Developing countries should have received \$1 trillion in assistance from developed countries as per commitments made in Copenhagen nearly a decade ago. Much of that has not yet been received.”

The minister exhorted the developed countries to step up their contributions to climate action, saying, “Unless we address the main issues of finance and technology, we cannot achieve a just world order. We need an open source approach for climate change innovation and should not profit while tackling a disaster.”

VMC to set up night shelters for women

Vijayawada Municipal Corporation (VMC) will establish three more night shelters at different places across the city. There will be in total seven night shelters in the city. Among the three shelters, two will be temporary and one will be permanent and will cater only to women. Sridhar, project officer, VMC added that they have identified places near Rajiv Gandhi Park and one more at the Durga Ghat in Karmala Bhavan for the night shelters. The temporary ones will be ready by the end of February 2020. A permanent night shelter will also come up at Balaji Nagar.

Puri city development plan to conserve heritage



Naveen Patnaik, Chief Minister of Orissa, will be initiating several projects which would be worth a total of Rs 265 crore as a part of the Puri City Development Plan. The projects would be implemented in a bid to integrate city development with heritage preservation under the Augmentation Basic Amenities & Development of Heritage & Architecture at Puri (ABADHA) Yojana. CM would be inaugurating Orissa's first trumpet bridge, which would be connecting Puri bypass with Jagannath Ballav Math and would be built on an estimated cost of Rs 190 crore. The Math premises would also host a multi-level parking lot along with a market area and meditation centre that could host 10,000 people at a time.

Britain, parts of Europe hit with Storm 'Ciara'

LONDON: Parts of Northern Europe and the United Kingdom are currently facing hurricane-level winds which are battering the region as of February 10. The National Weather agency of UK has termed the hurricane as storm Ciara which is expected to bring winds with speed as high as 145 km/hr along with heavy rains.

The storm is known as "Sabine" in Germany. The UK agency has issued 123 emergency flood warnings and 159 flood watch alerts across the country.

As a result of the storm, at least 10 British rail companies have issued "do not travel" warnings while trains of 20 other companies are expected to run late. Along with this, traffic was restricted at northern Britain's iconic Humber Bridge

near Hull. High speed trucks and camper vehicles were also banned. The number of flights leaving London's Heathrow Airport have also been reduced owed to the heavy winds.

Ireland also estimated that 10,000 homes, farms and business had no power due to the storm. Their national weather agency also warned that the combination of high tides, high seas and stormy conditions will risk coastal flooding in the coming days.

Deutsche Bahn, Germany's national railway operator, will be cancelling long distance trains to avoid risking the storm. A prominent sports match between Borussia Moenchengladbach and Cologne in the German Bundesliga was also called off. Across the Channel,

Germany's national railway operator, Deutsche Bahn, said it was cancelling long-distance trains to destinations most at risk from the storm, including Emden and Norddeich in Germany's northwestern corner, the northern city of Kiel and the North Sea island of Sylt.



'Freeports' to boost trade in post Brexit Britain

LONDON: Britain is planning to boost up its economy by including the concept of 'Freeports' or free trade zones in its trade policy. The government is planning to establish 10 freeports at spots in sea, air and rail ports and Rishi Sunak, Chief Secretary to the Treasury, foresees that the move will "unleash" the potential of UK's historic ports and boost and regenerate communities across the UK. Freeports are areas where imported goods can be held or processed free of customs duties before being exported again. They can also be used to import raw materials and make finished goods for export. In freeports, imported goods can be processed without being held for custom duties. Raw materials can also be imported while finished goods can be exported hassle free. With the freeports in place, imported goods won't attract tariffs until they leave the decided spot and enter the domestic market. Further no duty is payable if goods are re-exported. "They will attract new businesses, spreading jobs, investment and opportunity to towns and cities up and down the country," said Sunak in a statement. The UK government is also considering implementing tax measures which would boost investment in infrastructure and construction in freeports.



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Goa to set up first plastic recycling plant

The Government of Goa is planning to set up a plastic waste recycling plant that could convert plastic waste into value added by-products. The Government of Goa has asked an agency which approached the state government with the solution to submit a detailed proposal for the government's consideration. Nilesh Cabral, Environment Minister, Government of Goa, said, "The waste management ministry will see if there is a possibility of setting up such a plant which will produce value added products from plastic waste." Nearly half of the 400 tonnes of waste produced daily in Goa is either plastic or non-recyclable.

GMCBL to outsource bus shelter maintenance



Gurugram Metropolitan City Bus Limited (GMCBL) will be outsourcing the maintenance of bus queue shelters from a hired agency. The department has already floated a tender which is to be finalised by the end of February 2020. Sonal Goel, CEO, GMCBL, along with four other officials, boarded a GMCBL bus from Tau Devi Lal Stadium and inspected the status of the bus operation in detail. She inquired about reserved seats for women, specially-abled and the elderly, daily commuters, emergency switches in the buses and the use of smart cards amongst others.

Telangana declares 2020 as the 'Year of AI'

HYDERABAD: As a part of an ambitious plan to establish Hyderabad amongst the top 25 global Artificial Intelligence (AI) Innovation Hubs, the Government of Telangana has declared the year 2020 as the 'Year of AI'. The State Government had signed a number of MoUs for this project. A Centre for Research in Applied Artificial Intelligence (CRAAI) will be set up by the state government in association with Intel, International Institute of Information Technology Hyderabad (IIIT-H) and Public Health Foundation of India (PHFI). CRAAI aims to make a major impact on domains such as mobility, healthcare and smart cities and will focus on diagnostics, public health, autonomous navigation and supply chain automation. It will also carry out research on connected vehicles & multi-vehicle systems and datasets.

Professor Ramesh Loganathan, Co-Innovation at IIIT-H explained that for CRAAI, the focus within mobility will be on autonomous navigation of vehicles, transport solutions, use of drones etc. In the healthcare domain, the focus will be on public health, diagnostics and devices. The Centre will also work towards creating solutions for smart cities and is currently identifying processes, collaborators, areas of work and projects



within the broad framework.

For the project, IIIT-H's expertise in AI research and technology covering computing, robotics, language processing, machine learning and data science, will be utilised. The Centre's work in the sphere of technology development will be coordinated by IIIT-H.

PHFI comes with its understanding of public health and will help in domains such as preventive health, medical treatment and studying disease patterns. Collaboration with Intel will help in bringing industry perspective and funding to the CRAAI project.

KT Rama Rao, Minister for Information Technology, Government of Telangana said the government is committed to maintaining the privacy of citizens, but aims to leverage data sets of the state's 40 million people through technology such as AI and machine learning.

State's first biotech park to be built in Rajasthan

JAIPUR: In order to make Rajasthan a hub for technological research and development, the Government of Rajasthan is planning to build the state's first biotechnology park and incubation centre. The state government will sign an MoU with the Department of Biotechnology, Government of India for the project. The research and incubation centres are expected to promote research in the field of biotechnology and provide employment to the youth. Mugdha Sinha, Secretary, Department of Science and Technology, Rajasthan, said that the two institutions will help in promoting interdisciplinary fields such as bio-informatics, biomedical engineering and nanomedicine. She added that the department also plans to support the Nirogi Rajasthan campaign launched recently in the health sector by strengthening it through bio-informatics.

Once the MoU is signed between the State Government and the Department of Biotechnology, Government of India, the state will seek the Centre's help in evolving startup ecosystem in various spheres of biotechnology. Further, efforts will be made to give recognition to graduates in biotechnology in the recruitment examination of the State Public Service Commission. In order to plan the entire project and take the opinions of various stakeholders, a State Biotech Cohort Meeting was organised in Jaipur. The meeting was attended by Dr Renu Swarup, Secretary, Department of Biotechnology, Government of India, Vice-Chancellors, Deans of various colleges and universities and representatives of biotech startups.

BBMP forms committee to manage & conserve biodiversities

BENGALURU: In accordance with the Bio Diversity Act 2002, the Bruhat Bengaluru Mahanagara Palike (BBMP) has formed a Biodiversity Management Committee (BMC). The Bio Diversity Act 2002 mandates the setup of BMCs at the local body level across the country. BMC is a seven-member committee with five nominated members. Bengaluru Mayor will be the ex-officio Chairman of the committee and the BBMP Commissioner will be the member-secretary. The committee setup by the BBMP will work towards conserving biological diversity. The core work of the BMC includes documenting biological diversity, preserving natural habitats, conserving local and regional flora and fauna. One of the major responsibilities of the BMC will be to prepare a Public Biodiversity Register (PBR). The register will contain in-depth information on local flora and fauna and also essential information on the associated species. HS Ranganathaswamy, Deputy Conservator of Forest, BBMP, said, "As far as city corporations are concerned, the BBMP is now the first corporation in the State of Karnataka to have formed the committee." The action was overdue for a longtime, Ranganathaswamy added. Karnataka Biodiversity Board and National Biodiversity Authority will be the authorities governing the BMC. The committee will consult and also be consulted by the State boards or the National Biodiversity Authority on issues relating to resources and information on biodiversity under its jurisdiction. The PBRs would provide significant inputs to the overall biodiversity information nation-wide, he added.

'Delhi-Mumbai expressway to be completed in 3 years'

NEW DELHI: Nitin Gadkari, Union Minister of Road Transport and Highways (MoRTH), has claimed that the government will complete construction of three out of 22 expressways in the next three years, including the ambitious Delhi-Mumbai Expressway. The 22 projects will be completed by the Financial Year 2025 at a cost of Rs 3.10 lakh crore.

Gadkari further explained that the work on the Delhi-Mumbai Express Highway will be completed in 51 packages and work has begun on 18 packages already. This project will also be India's longest expressway covering 1320 km length and will contribute in reducing the travel time between Delhi and Mumbai from 23 hours to just 13 hours. The total travel distance

between Delhi and Mumbai will also be cut down by about 280 km. Gadkari said the land acquisition for the highway has been completed and 32 contracts out of 60 have already been awarded.

Out of the 22 projects, six are 2250 km expressways to be built at a cost of 1.45 lakh crore while the remaining six are 5250 km long greenfield corridors to be built at a price of Rs 1.65 lakh crore.

Besides the Delhi-Mumbai Express Highway, the trans-Rajasthan and trans-Haryana projects will be completed within the next three years.

Gadkari said that for the Delhi-Mumbai Express Highway, greenfield alignment has been selected in order to optimise construction and land acquisition costs and avoid habitation. He added that this project will unlock new economic opportunities in hinterland districts of Haryana, Rajasthan, Madhya Pradesh and Gujarat and better connectivity in these regions. The 22 projects are expected to provide alternative routes to diversify traffic, improve geometry and provide better connectivity for major towns, thereby reducing distance and travel time.



HC panel directs drafting of plan for curbing river pollution

A panel appointed by the Bombay High Court (HC) and the Maharashtra Pollution Control Board's (MPCB) local unit directed by E Ravindran, MPCB state member secretary, to draft a proposal enlisting the measures to stop pollution of Panchganga river. He also asked the MPCB regional unit to provide portable machines to treat the waste water released from various establishments located in the textile town of Ichalkaranji. According to Uday Gaikwad, an expert on the panel, the main focus must be on maintaining the flow of the river. If the flow of the river remains stable, the pollution caused by effluents is minimised.

Amritsar observes National Road Safety Week



Amritsar Traffic Police, in collaboration with Social Welfare and Health Care Society and BBKDAV college, conducted a public awareness rally regarding road safety programmes on the occasion of the 31st National Road Safety Week. The campaigners primarily focused on preventive actions from deadly accidents due to rash driving. They also distributed helmets to two-wheeler drivers and girl students to ensure their safety. Mount Litera Zee School (MLZS) of Amritsar held a rally titled 'United for Road Safety' at Bhandari Bridge and raised slogans like 'Safety is better than speed', 'accidents hurt, safety doesn't'.

Hyderabad partners with RedBus to better first, last mile connectivity

Hyderabad Metro Rail Limited and L&T Metro Rail Hyderabad Limited joined hands with RedBus, and introduced 'rPool'. With the new move, dedicated carpool zones will be set up along 18 metro stations across the city and users would be required to register on the app to avail the service. One can avail the service for rates as low as Re 1 per km for cars and bikes and can commute four times a day using the app. However, the commuter will have to pay in advance. RedBus will also be issuing 1000 smart metro cards to the initial users of the scheme through its kiosks at metro stations.

FSCM bus service to miss its launch deadline



Faridabad's dedicated bus service, proposed to launch under the Faridabad Smart City Mission, is likely to miss its deadline of January 2020. The delay was due to lack of bidders for the project which was caused by the central government's revision of vehicular emission standards. Monika Agarwal, Deputy CEO, FSCM said that due to the revision of emission standards, the DPR of the project would have to be reframed and the budget of the project will also be increased. Thus, it will take a minimum of six months for the formulation of the new DPR, the updated budget and for the buses to be manufactured and delivered on order.

BMRCL to introduce Common Mobility Card

BENGALURU: In order to facilitate the introduction of the central government's 'One Nation One Card' policy, the Bangalore Metro Rail Corporation Limited (BMRCL) is planning to install Automatic Fare Collection Systems on trial basis at Baiyappanahalli, Mysuru Road and Majestic stations.

The National Mobility Card will allow commuters in Bangalore to use multiple modes of transport like metro and buses run by the Bangalore Metropolitan Transport Corporation (BMTCL). The card can also be used for paying parking fees and tolls, other than being used for retail shopping. However, the card will only be utilised to its full potential after transport corporations start updating their existing ticket vending systems. Ajay Seth, Managing Director, BMRCL, said that automated ticket vending facilities will be made available for commuters travelling from Mysuru Road to Baiyappanahalli on Purple Line by the end of March this year.

Over four lakh commuters who use Namma Metro services every day, 62 per cent are using the smart card. BMRCL, which has issued more than 10 lakh smart cards (closed-loop cards), maintains that passengers can continue to use these cards.

The Bangalore Metropolitan Transport Corporation is also gearing up for the introduction of the open-loop smart cards for commuters.

The Corporation had, even before the One Nation One Card policy was introduced by the central government, adopted the Public-Private Partnership (PPP) model for the implementation of a similar project. The trials of this system were started in January 2017 on two AC buses. However, the initiative failed due to a large number of glitches in the system. The BMTCL is planning to float a tender in order to reintroduce smart cards. C Shikha, Managing Director, BMTCL said, "The Electronic Ticketing Machines we are currently using meet the specifications for introducing national common mobility card. Now, our expert team is working on how to introduce the card and also consulting with BMRCL."

Black carbon melting Gangotri faster

DEHRADUN: A study released by the Dehradun-based Wadia Institute of Himalayan Geology has revealed that the concentration of black carbon on the Gangotri Glacier has doubled in the last few years. The concentration of black carbon is measured by two weather stations which are located on the way to the Glacier. These stations have been monitoring black carbon deposits on the Gangotri Glacier since the last few years.

Dr P S Negi, scientist at Wadia's



research group on 'Geomorphology and Environmental Geology' said that the data received from the weather stations has helped largely to know about seasonal variations in the black carbon concentrations. According to Dr Negi, the period between April and June witnesses the highest concentration of black carbon while the lowest concentration is witnessed in the month of August. He further said the main sources of black carbon include forest fires, wood burning and seasonal burning of crop residue along with tourist activities in the region. He further explained that the black carbon deposit on the glaciers results in absorption of more light and emission of infra-red radiation. This results in a spike in the temperature around the glacier and contributes to speeding up their melting process. The presence of black carbon in the atmosphere also causes changes in the local ecosystem, weather cycles and the regional weather patterns such as rain and snow precipitation patterns.

Australian bush fires doused by heavy torrential rainfall

SYDNEY: Major relief for Australia as the heavy torrential rains finally doused many of the widespread wildfires. Sydney received 7 inches of rain between Sunday and Monday, highest in a day since 1992, according to the Bureau of Meteorology. The New South Wales (NSW) Rural Fire Service, fires still raging in the region have been reduced to 37 from



more than 130 at the start of the year, after parts of the state were hit with several hundred millimeters of rain. The downpour is a welcome sign for drought struck farmers, who are facing the problem for several months now. Although the news of rainfall relieves the fire struck regions and drought areas, it is not entirely a positive news for the country. As a result of extensive rainfall, several parts of the country like NSW coast and parts of Queensland are experiencing major flash flooding. The torrential rains have also caused widespread power cuts in the eastern coast of Australia. Another concern that arises is the debris and ash of the wildfires could now be swept into the water supply. The NSW state's water authority has confirmed that they will be monitoring the water quality and assessing if extra measures are required to check the ash and sediment mixing in the city's water supply. Authorities also said that water can be drawn from elsewhere in the network if the need arises.

“Cannot regularise 170 colonies falling under forest land”

NEW DELHI: The Government of Delhi told the Delhi High Court, on January 23, that the unauthorised colonies falling under the ‘reserved’ or ‘notified forest’ areas will not be regularised under the Centre’s move of regularisation of the unauthorised colonies.

Although, the move incorporates the regularization of over 1,700 unauthorised colonies in the capital, however, it is not clear how many out of the 170 colonies listed by the Government of Delhi were cleared for regularisation.

The fact came in light after the submission made by the Delhi government’s Department of Forests and Wildlife before Justice G S Sistani and Justice A J Bhambhani. The department submitted its data after it was asked to clarify the effect of directions to

regularise unauthorised colonies falling under notified forest areas and wildlife sanctuaries in Delhi.

Elaborating on the Supreme Court’s earlier ruling, Sanjoy Ghose, Delhi government’s Additional Standing Counsel said that prior approval from the Central government is required for carrying out any non-forest activity within any forest area.

Therefore, listing the colonies falling under the reserved or forest land, the Delhi government said that in North Division there are 4 colonies, in South Division 114 colonies, and in West Division 52 colonies. Due to the Model Code of Conduct, legalisation of such settlements in the city has been parked. The process will resume once the Delhi Elections are over.

CCTVs, mobile apps to monitor cleanliness in UPSRTC buses

The Uttar Pradesh State Road Transport Corporation (UPSRTC) will install CCTVs in every bus depot under its jurisdiction and follow the mobile app-based monitoring system. The new system will be in effect from March 2, 2020. According to UPSRTC, two CCTVs will be installed in each depot at the bus cleaning site to record bus cleaning on a daily basis. The corporation will further be launching the ‘Bus Cleaning Data Management Application’ by February 15, 2020.

Unlimited trips for ₹1400 in Mumbai’s Metro 1

Mumbai Metro 1, the city’s first elevated metro track of length 11.4 km and connecting Ghatkopar and Versova, will now offer commuters unlimited trips on a monthly pass. The maximum number of trips that a person could avail using a monthly pass was 45 for ₹1375. Now, there will be no bar on the number of trips for ₹1,400. The scheme will be in effect from January 23.

Mandi set to be HP’s first e-district

Mandi is set to be Himachal Pradesh’s first district to achieve the status of e-district. The target is set by Rugved Thakur, Deputy Commissioner, Mandi and his staff. The DC said that the district management is planning to host all kinds of certificates and other documentation of a person of Mandi district online soon. They have targeted April 1, 2020 for the complete implementation of the project. He further said that all offices across the district would be connected with a computer network with an aim to provide citizen’s common services online.

Promote rural entrepreneurship for a better India



(L-R) Dr H Purushotham, Chairman & Managing Director, NRDC; Ashok Wankhade, Managing Editor, Urban Update; Kuladhar Saikia, Ex DGP Assam; Manjula Saikia Bhuyian IAS, Joint Secretary, Industries & Commerce Department, Govt of Assam; Prof T G Sitharam, Director, IIT Guwahati; Prof Sashindra Kumar Kakoty, Head, CRT Coordinator: UBA and RuTAG-NE, IIT Guwahati

The 2nd Rural Dialogues was organized by All India Institute of Local Self-Government in collaboration with Innovior, a non-profit social enterprise and Indian Institute of Technology Guwahati (IIT-G) at the campus of the latter.

GUWAHATI: The primary objective of the two-day conference was to highlight innovation in rural areas of the North East India and give the emerging entrepreneurs of rural North East a platform. Prof T G Sitharam, inaugurated the conference. The eminent panel who addressed the conference included Manjula Saikia Bhuyan, Additional Secretary, Industries and Commerce, Assam; Dr H Purusottam, Ashok Wankhade, Rajiv Kumar, amongst others. Over 40 experts took part in the deliberations, while about 30 entrepreneurs and innovators working in the rural areas participated in the event.

Addressing the conference first, Manjula Saikia Bhuyan highlighted the achievements of the Assamese state government in encouraging the startup culture in the region. In her address, she highlighted how the state government's initiative "Startup Assam" is providing significant help to the young entrepreneurs of the state in taking

forward their business ventures.

One of the key observation that came out of the dialogues was the ongoing water storage deficiency in rural parts of the area. The problem is unique to the region as unlike the majority of the country, the issue is not of water shortage but of storage space. Another thing that arose was the need to preserve the indigenous rural knowledge and technologies. They should be so upgraded so that a sense of belonging among the people is created.

Prof Sitharam, in his address, underlined the need to solve the water quality problem. Water is the cornerstone of life and Sitharam emphasized the need to build small dams to solve the problem of shortage in water storage facilities

Dr Kuladhar Saikia, president elect of the Assam Sahitya Sabha was critical of the urban bias in the introduction of new technologies. "It is high time that our policy makers realized the fact that our village folks

do not want to live in their imagination, but they want to live in reality," said Dr Saikia.

Prof S K Kakoty, head of the Centre for Rural Technology and Dean, Infrastructure, Planning and Management of IITG, announced that the institute is currently implementing seven technologies which would help in changing the rural economy. Of them, six are its own technologies while one was being developed by IIT-Bombay. The IIT Guwahati has now been able to deliver in the area of rural technology because of the collaboration of other agencies like the public sector units (PSUs), NGOs and government agencies. It now wants to expand its area of activities and with that goal the second rural dialogue is organised, said Prof Kakoty.

Rajiv Kumar, Mission Director, Innovior, highlighted the importance of entrepreneurship in today's economy. "The power to think differently and ahead of times for the betterment of mankind is what sets entrepreneurs apart. To the young entrepreneurs of India, I would like to say; each of you has something unique to contribute to the nations. You are the vehicles of change and instruments of India's transformation.

Cities to finalize roadmap for SDGs at South Asian Cities Summit in Goa

All India Institute of Local Self-Government (AIIILSG) along with a host of national and international partners is organising a two-day summit in Goa. The theme of the Summit is '10 Years to Sustainable Development Goals (SDGs)'. A total of 100 international delegates from 35 countries will be participating in the event and around 60 mayors from Indian cities will also take part

participants to come together, share knowledge and learn from experiences of others. For its 5th edition, the Summit will host over 80 speakers who will share their views and opinions on issues like 'urban sanitation', 'e-mobility', 'building inclusive cities' and 'circular economy', among others.

A few prominent speakers who will be participating in the conference are Pramod Sawant, Chief Minister, Government of Goa; Uday Madkaikar, Mayor, Corporation of the City of Panaji; Jerome Pons, Ambassador, European Union; Dr M Ramachandran, IAS (Retd), Former Secretary, Ministry of Urban Development, Government of India; Dr Sudhir Krishna, Former Secretary (Urban Development), Government of India; Dr Rakesh Kumar, Director, Council of Scientific and Industrial Research (CSIR); Prof TG Sitharam, Director, Indian Institute of Technology-Guwahati (IIT-G); Hitesh Vaidya, Director, National Institute of Urban Affairs (NIUA); Dr H Firdaus, Mayor, Pekanbaru Municipality, Sumatra, Indonesia along with Jerome Pons, Head of Cooperation, European Union and Kulwant Singh, Former Asia Advisor, UN-Habitat. United Cities and Local Governments—Asia Pacific (UCLG-ASPAC), World Bank, European Union, United Nations University (UNU), NALAS, CITYNET, J CLAIR, FSLGA-Sri Lanka, Municipal Association of Bangladesh (MAB), MUAN-Nepal, and several other distinguished national and international organizations have also recognized the efforts of AIIILSG and SAC Summit, and they will be represented during the Summit to support it and its endeavors.

The two day summit will be divided into a total of six sessions and an inaugural and valedictory session.



10 Years to SDGs

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TEAM URBAN UPDATE

AIIILSG IS ORGANISING the 5th South Asian Cities (SAC) Summit to be held on March 5th and 6th, 2020 at Hotel Cidade de Goa, Goa. Through the Summit, AIIILSG wishes to spread knowledge and promote resource-sharing, innovative ideas and technologies, and help build better cities for future generations.

AIIILSG has organized 4 editions of SAC Summit since inception of the event in 2013. SAC Summit has witnessed participation of city mayors, municipal officials, policy makers, experts and the general public in large numbers from more than 50 countries. Through its previous editions on themes like 'Smart Cities – Aspirations and Challenges', 'Connecting Cities,

Building Knowledge' and 'New Urban Agenda and SDGs', the SAC Summit has managed to share detailed information, spread awareness and develop an understanding of some of the most important issues that urban areas face today. This year, the theme of the Summit is '10 years to SDGs'. The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries – developed and developing – in a global partnership.

AIIILSG has made efforts for

EVENT

Sustainability central theme at the 50th World Economic Forum in Davos

DAVOS: 2020 marked the 50th year of the flagship annual meetings of the World Economic Forum. The invitation-only meeting brought together several prominent global figures ranging from politicians, representatives from academia along with big names from the private sector to deliberate over this year's theme 'Stakeholders for a Cohesive and Sustainable World'. The theme couldn't have been more relevant given the current scenario and the moral imperative that weighs upon us to be custodians of the planet for the sake of the next generation implies that we must act today. The forum aims to improve the state of the World in the coming 50 years, by offering its platform for putting forth the common good. The keyword at the World Economic Forum Annual Meeting 2020 was "stakeholder responsibility". The gathering of eminent stakeholders was urged to act against the world's most pressing environmental, social, and governance (ESG) issues. An

interesting development from this year was that the stakeholders, primarily the private sectors interest towards the climate issues. Achim Steiner, Administrator, United Nations Development Programme (UNDP), said, "The WEF Forum is a unique opportunity to discuss development and economic trends while advocating for the private sector to become part of addressing some of the greatest issues of our time. One of the interesting trends, one could observe in Davos this year, is how much the corporate world is now focusing on some of the key environmental risks such as climate change and biodiversity loss that are shaping the economy of tomorrow, which will be a green economy,"

In an encouraging development, new members signed up to the Forum's Alliance of CEO Climate Leaders, committed to helping companies meet the Paris Climate Goals. Platforms and partnerships were launched to foster inclusive and sustainable growth

globally. The Forum and its stakeholders also deliberated on measures to better understand the implications of deploying artificial intelligence.

In a bid to incorporate the concept of inclusive growth across the globe, The International Business Council, incorporating 140 of the world's largest companies, agreed to support efforts to develop a core set of common metrics and disclosures that can be used to measure private-sector progress on ESG goals. A strategic partnership was signed between the World Economic Forum and the Organisation for Economic Co-operation and Development (OECD) to accelerate progress towards inclusive and sustainable growth globally.

For climate change mitigation

The Forum also moved towards improving the state of climate and environment by becoming a founding partner of an alliance with Refinitiv and the United Nations of The Future of Sustainable Data Alliance which



“One of the interesting trends one could observe in Davos this year is how much the corporate world is now focusing on some of the key environmental risks such as climate change and biodiversity loss that are shaping the economy of tomorrow, which will be a green economy”

Achim Steiner
Administrator, UNDP

will focus on improving the quality of climate and environmental data for companies and investors. It.org, a new multi-stakeholder effort to support efforts to grow, conserve and restore 1 trillion trees by the end of the decade was announced. Within the first days of its launch, Colombia announced to plant 180 million trees by 2022, Salesforce committed to plant 100 million trees and Pakistan also committed to plant 2 billion trees. IT was also supported by the United States of America, China and Saudi Arabia as part of its G20 Presidency. The Forum's network of Global Shapers also committed to planting one million trees by next year across its 400 hubs worldwide. New members signed up to the Forum's community of CEO Climate Leaders. The community is committed to helping companies meet the Paris Climate Goals.

For global benefit

The meeting also marked the launch of the Reskilling Revolution. With this, WEF will aim to provide better education, skills and jobs to a billion people by 2030 with the initial backing of the governments of India along with Brazil, France, Pakistan, the Russian Federation, UAE and the US as well as many important companies.

As the world faces a possibly new epidemic in Corona Virus, CEPI, the Coalition for Epidemic Preparedness Innovations which was launched in Davos in 2017, announced the initiation of three programmes to

develop vaccines against the novel coronavirus, nCoV-2019 in partnership with Moderna and the Wellcome Trust. The World Economic Forum also announced a partnership with the Global CEO Initiative (CEOi) to form a coalition to accelerate treatments for Alzheimer's disease.

Ministers in Davos announced negotiations between 99 economies on a new international agreement on investment facilitation at the World Trade Organization. The agreement aims to make it easier for investment to flow between economies while increasing its development impact. The US and France agreed a détente on digital taxation during the Annual Meeting, the Forum received a mandate from multi stakeholder partners to further build understanding of and encourage input into international tax reforms. The Forum also partnered with the Japanese government to launch a multi stakeholder effort to find practical mechanisms to enable “Data Free Flow with Trust” in support of the Osaka Track process that was initiated at the G20 in 2019.

Forming a Sustainable World and marching towards SDGs

The Sustainable Markets Initiative, backed by a Sustainable Markets Council, was launched by The Prince of Wales in collaboration with the Forum aimed at bringing about a transition to sustainable financial markets and rapid industry decarbonization. The Forum's Advanced Manufacturing and Production community launched the Carbon Reduction in Manufacturing Initiative to achieve a goal of cutting carbon emissions in manufacturing by 50% by 2030.

The Sustainable Development Goals were also addressed at the meeting. The ‘Frontier 2030’ was launched as a platform to leverage the technologies of the Fourth Industrial Revolution to accelerate the SDGs. The Food Action Alliance was launched by the Forum, the International Fund for Agricultural Development (IFAD) and over 20 global leaders to strengthen the sustainability of the world's foods

systems through better nutrition, climate adaptation and access to finance. A new multi-stakeholder partnership, SDG500, was launched to mobilize \$500 million towards achieving the SDGs in emerging markets through a series of six blended finance funds.

Discussion on technological advancement

The Forum partnered with a community of 40 central banks, international organizations, academic researchers and financial institutions to create a framework to help central banks evaluate, design and potentially deploy Central Bank Digital Currency (CBDC). The Forum, in collaboration with 100 stakeholders, produced the Empowering AI Toolkit to help board members better understand the positive and negative implications of deploying artificial intelligence. Partners of the Centre for the Fourth Industrial Revolution Global Network, including Brazil, Colombia, Japan and Saudi Arabia, expanded their commitment to ensuring responsible and ethical governance of smart city technologies through the G20 Global Smart Cities Alliance on Technology Governance, led by the World Economic Forum. The World Economic Forum's Global AI Council, launched in 2019, collaborated with UNICEF to create guidelines for AI-supported toys for the under sevens, as well as identifying young people under the age of 18 to sit on a Global AI Youth Council. A group of private-sector leaders from major cybersecurity companies, services providers and global corporations along with leading law enforcement agencies, Interpol and Europol, agreed to work together with the Forum through 2020 to foster a global public-private alliance against cybercrime. A group of telecommunications stakeholders endorsed new principles combatting high-volume cyberattacks that could protect up to 1 billion consumers in 180 countries. A community of key stakeholders from international organizations, government and business was formed to reinforce cyber resilience in global aviation.

The Burning Tale of Two 'A's AMAZON TO AUSTRALIA



KUMAR DHANANJAY
Consulting Editor

We are in an age where environmental issues are becoming increasingly political. Two of the biggest fires in 2019 and 2020 have caught the imagination of the world. First it was Amazon Basin that was hit by the biggest fire in over a decade in 2019 and then it was Australia that experienced a fire that created havoc in the country and resulted in damage to the forests on an unprecedented scale.

But why did these fires take place? What are the main causes and how

much worse is it than in previous years? How does a forest fire even start in a rainforest? These are the questions that are on everyone's mind and also what are going to be the future ramifications. Let us first look at fire in rainforests. Before we discuss the fires, let us look at some context of the environmental and political background of the Amazon and its relation to fires. The Amazon Basin spans approximately 6.7 million square kilometres, which is twice the size of India. The basin is shared by eight countries Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname, as well as the overseas territory of French Guiana. Approximately 60% of the Amazon Basin is located within Brazil, and due to this the political situation in Brazil has a big impact on the region.

HOW CAN THERE BE FIRES IN A RAINFOREST?

Amazon Basin is also called 'rainforest'. Despite the name 'rainforest', it does have a dry season. However, this dry season still has a lot of water though less than the wet season which sees heavy rains on a daily basis during monsoon.

It is a known fact that most fires within Amazon rainforest are human made and not natural. Some obvious reasons are illegal logging, deforestation and agricultural burning among others.

Scientists who study forests say that spontaneous fires are rare in the moist rainforest. What has been observed is that workers first cut the trees, leave them to dry and then set them on fire in the dry season. Another factor is that in the absence of transport or roads, timber cannot be sold and workers find it the easiest option to burn the trees to clear the land. This is known as slash-and-burn method and is used to clear the forest for agriculture, livestock, logging and mining purposes. It is particularly easy for these "controlled" fires to become uncontrolled and transform into forest fires, which are then notoriously difficult to stop. Although it is illegal to do so in the Amazon rainforest, regulations are lax and are hardly enforced. On top of that, budget cuts to Brazilian Environmental Agency in recent years have resulted in fewer men and other resources to enforce the regulations in the most affected regions of the basin.

POLITICS OF PLAYING WITH FIRE

World leaders almost unanimously agree that climate change is a reality. The politics of the rainforest has been intense for many years. With growing environmentalism as a consequence of climate change, the politics on the subject has become more intense and heated. For over a century now, every Brazilian ruler has tried to move into the interiors of Amazon supposedly to develop it. From a populist President in the 1930s to military dictatorship from 1964 to 1985 and now the new President Jair Bolsonaro have all justified it and the justification is the same - 'economic gain'. The idea has been to integrate the territory into Brazil by building roads and developing agricultural and corporate enterprises.

Jair Bolsonaro, is seen as the most aggressive on this plan. He is a supporter of agribusiness and has openly opposed several agencies and foreign nations aiming to safeguard the Amazon rainforest. He has said he will not tolerate the agenda of the World Wildlife Fund (WWF) and has come out strongly against lands reserved for indigenous tribes. He even tried to take shelter in a conspiracy theory that NGOs were setting the forest on fire to discredit his government. On top of that he has also cut funding of Brazilian Environmental Agency that resulted in agency's enforcement actions being reduced by twenty percent. His words and actions led to large scale unregulated burning of the basin in 2019. Though Bolsonaro initially rejected media's attention to the crisis and public condemnation by international leaders, he finally dispatched 44,000 troops to control the fire after he was threatened at G7 Summit that he will lose EU-Mercosur free trade agreement. The problem was resolved but it's unlikely that we have heard the last of this story as Bolsonaro will be in power for several more years.

ANOTHER COUNTRY, SAME STORY

They are continents apart but the forest fire story is the same. Australia saw its

worst in terms of loss of human lives, homes destroyed, and species killed in the inferno raging for the last few months beginning late July. It's the worst wildfires seen in decades with large parts of the country devastated. Authorities have been struggling to contain the fire, with firefighting assistance from several countries including the United States, but have not been successful yet. Persistent heat and drought has made the matter worse. There are many who are pointing towards climate change as the reason that makes natural disasters go from bad to worse.

WHERE ARE THE FIRES?

Not a single state in Australia has remained unaffected from multiple fires but New South Wales has been hardest hit. Australia's largest cities like Melbourne and Sydney have also been affected where fires have damaged homes in the outer suburbs and thick smoke has completely blanketed urban centres. In December, the situation in Sydney turned so bad that air quality measured eleven times the hazardous level. Though there are natural causes of fires like lightning strike in drought affected areas, humans are also to be blamed. NSW has charged twenty four people with deliberately starting bushfires and has taken legal action against almost two hundred people for fire related offences.

STORY OF A DECADE 2009 TO 2019

Fire season in Australia is always dangerous. In 2009, what is termed as 'Black Saturday bushfires', killed hundred and seventy three people in Victoria. It's the deadliest fire disaster on record till date. But this year conditions have been unusually severe. The Country's Met department has said that last spring was driest on record and making thing worse, in December, heatwave broke the record with nationwide average temperature at 40 degrees Celsius and even higher in some places. Experts believe that climate change has worsened the situation and impacts of natural

disasters like fire and flood have become more severe. They say that weather conditions are growing more extreme. For years now fires have been starting earlier and spreading with greater intensity and at times turning into infernos. Several high ranking emergency officials have been writing to Prime Minister Scott Morrison warning of the impact of climate crisis on Australia. While Morrison pledged to reduce carbon emission, at the same time he also said that he would stick to 'sensible' policies and there was not 'a single policy, whether it be climate or otherwise' that can completely protect against the fires.

THE DAMAGE SO FAR

Towns after towns have been engulfed in flames and New South Wales has been worst affected. Till date, 17.9 million acres have been burned across six states of Australia; which is more than the area of Belgium and Denmark combined. The 2019 Amazon rainforest fires burned 17.5 million acres. California, known for its deadly fires burned 2,47,000 acres in 2019. Apart from loss of human lives, a conservative estimate says that half a billion animals have been affected by the fires and millions are feared dead. According to ecologists at the University of Sydney the number of animals affected could be as high as one billion nationwide.

TOO LITTLE TOO LATE MAKE NO MISTAKE, IT'S CLIMATE CHANGE

The 'Beautiful Mind' Australian actor Russell Crowe picked up a Golden Globe on January 6 for his role in a mini series. He could not attend the ceremony in California because he was protecting his family and home back in Australia. His winning speech was read out by Hollywood actress Jennifer Aniston. "Make no mistake," the statement began, "the tragedy unfolding in Australia is climate change based. We need to act based on science, move our global workforce to renewable energy and respect our planet for the unique and amazing place it is. That way, we all have a future." ■

Forests essential to maintain balance between ecology & economy in cities

The India State of Forest Report (ISFR) is a biennial report released by the Indian government that details the extent of green cover in the country. The 2019 edition of the ISFR highlights the fact that the green cover in major cities has in fact increased significantly over the years. It is not often the case that growth in infrastructure and green cover are simultaneous for an urban area

AKSHIT PUSHKARNA

Editorial Assistant

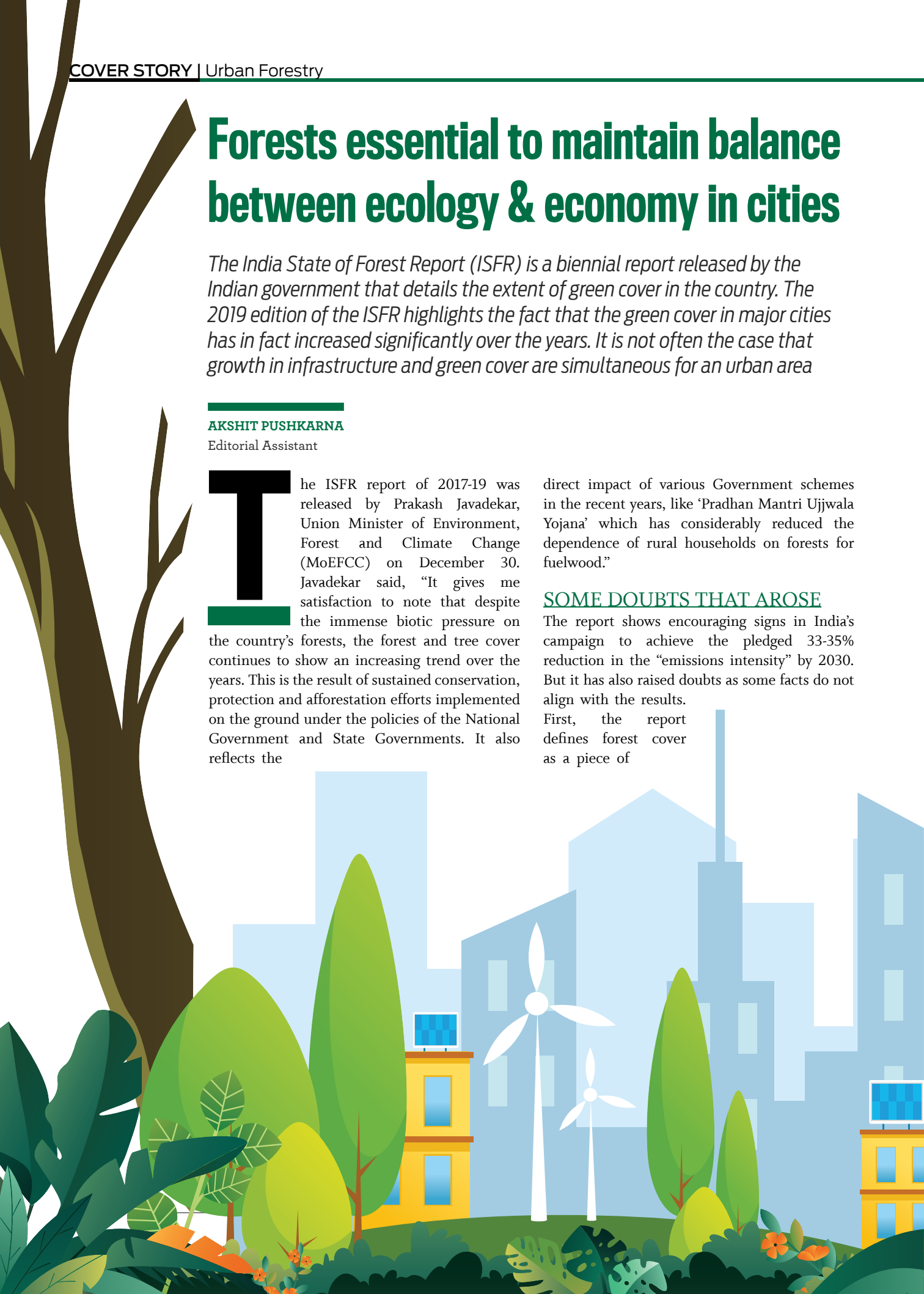
The ISFR report of 2017-19 was released by Prakash Javadekar, Union Minister of Environment, Forest and Climate Change (MoEFCC) on December 30. Javadekar said, “It gives me satisfaction to note that despite the immense biotic pressure on the country’s forests, the forest and tree cover continues to show an increasing trend over the years. This is the result of sustained conservation, protection and afforestation efforts implemented on the ground under the policies of the National Government and State Governments. It also reflects the


direct impact of various Government schemes in the recent years, like ‘Pradhan Mantri Ujjwala Yojana’ which has considerably reduced the dependence of rural households on forests for fuelwood.”

SOME DOUBTS THAT AROSE

The report shows encouraging signs in India’s campaign to achieve the pledged 33-35% reduction in the “emissions intensity” by 2030. But it has also raised doubts as some facts do not align with the results.

First, the report defines forest cover as a piece of



The background of the page features a stylized illustration. On the right side, a large tree with green and orange leaves stands prominently. The lower portion of the page shows a cityscape with various buildings, including houses with solar panels and taller skyscrapers. In the foreground, there are green trees and bushes with small orange flowers. Two white wind turbines are visible in the middle ground, set against a light blue sky.

land with a tree canopy density greater than 10 per cent and more than 1 hectare in area, irrespective of ownership and species of trees, creating a doubt about the quality of the green cover earmarked in the survey. Secondly, it is not common to see a simultaneous growth in infrastructure and green cover as is highlighted here. Another fact that got lost amidst the celebrations was that carbon stock, which is the sequestration of carbon in a forest ecosystem, of many Indian states declined over

the past two years although they reported a significant increase in their green cover.

DECODING THE ISFR 2017-19

The question of quality

In order to understand more about this, Urban Update spoke to Swapan Mehra, CEO and co-founder, IORA Ecological Solutions and a prominent environmentalist working on climate mitigation, forestry and biodiversity conservation. The environmentalist verified the authenticity of the report but raised some questions about the quality of the enhanced forest cover India now has. The forest report analysis is done on the basis of something called as Green Wash Analysis. They basically put a Normalised Difference Vegetation Index (NDVI) in the satellite

SALIENT OBSERVATIONS OF THE REPORT

- ◆ THE VERY DENSE FORESTS OF INDIA COVERED 99,278 SQ. KM. AREA, MODERATELY DENSE FOREST 3,08,472 SQ. KM. AND OPEN FOREST 3,04,499 SQ. KM. THE FOREST SURVEY OF INDIA (FSI) USED SATELLITE IMAGING FOR IDENTIFYING THE GREEN COVER.
- ◆ THE TOTAL TREE COVER OF INDIA NOW STANDS AT 80.73 MILLION HECTARES, APPROXIMATELY ONE-FOURTH OF THE COUNTRY'S TOTAL GEOGRAPHICAL AREA.
- ◆ DELHI'S FOREST COVER ESSENTIALLY DOUBLED IN THE PAST TWO DECADES, NOW STANDING AT A 21.9 PER CENT AREA OF THE TOTAL AREA OF NATIONAL CAPITAL TERRITORY (NCT).

imagery which measures all the greens as forests. Therefore, quantitatively the results are correct. "The bigger question that arises is what about the qualitative aspect of forests, or if the right species have been identified? The satellite cannot capture that as it only focuses on greenery. So on the basis of that analysis we can say the overall green cover has increased quantitatively, not necessarily qualitatively."

Parameters involved

We asked Mehra about the criterion used to judge the density of a green space. He told us that India actually uses a specific measure called 'canopy density' to decide the very dense forests, medium dense forest, open forest, tree cover areas. There is a specific percentage of area in a unit. So for example, if we take a pixel and the green covered area is covering more than 70 per cent area of the unit taken then we consider it as very dense forest. Similarly, 40 to 70 per cent green cover is considered as the moderately dense, 10 to 40 per cent is low dense, and less than 10 per cent is considered as the open forest. Also, there is another category – tree outside forest. Tree outside forest refers to tree clusters, parks, or even jungle (trees planted on a piece of land greater than 1 hectare is termed as forest/ jungle, technically) planted outside the legal forest area.

Slow growth of very dense forestation

Although there is no denying the

increase in the overall vegetation of India but the increase in the very dense cover is not that significant. As the minister said in his aforementioned statement, almost every Indian state has implemented various schemes to conserve, so overall plantation is increasing. However, the growth rate of very dense forests (which fit the common definition of forests) is very slow. Mehra, the forest researcher, attributed this to various issues, primarily amongst them over population. "It is debatable that how many people are dependent on forests directly but one thing is for sure that the number is big," he says. Another issue is deforestation for fuel, fruits and medicines. Although there are civil societies and policies in place for forest protection which are effective in protecting the forests from extraction to quite an extent. But most of the extraction is under the canopy and not every single one of them is illegal. As these extractions are under the canopy and do not affect the greens directly, the satellite is unable to track it easily until the trees cut start degrading. "Also, the degraded trees take time to regenerate. Therefore, the rate of increase of very dense forest is very low," Mehra added.

If we take Mizoram as an example, 85 per cent of the state's land is under forest cover but out of that only 5 per cent is under the very dense forest cover. This can be attributed to deforestation. The ISFR report also shows a decrease in the forest cover in the North Eastern States.

Mitigating urbanisation and biodiversity conservation

As rapid urbanisation is afoot in India, many forests are being cut down in favour of infrastructural expansion. The most recent of such cases being the Aarey deforestation to set up a shed for Mumbai metro. Now, as per law, when forest land is being used or greens are being cut down compensatory afforestation is to be done under the CAMPA bill. Also, as per the bill, the plantation should be done in the same region as near as possible from the area where trees were razed. In case the land nearby is unavailable then the respective amount is paid to the Forest Department and the department plants saplings somewhere else. Mehra was critical of the efficiency of the bill and gave an example of a State where around ₹70,000 cr got collected for the compensatory afforestation and the State was unable to spend it. Therefore, a new bill was released to distribute the amount among the States to carry out afforestation.

Also, the states have been directed that no more than five per cent can be spent as institutional cost and rest should be spent on the field. Hence, this system is very effective but in practice tracking its implementation is a bit debatable. The tracking gets problematic as if you consider cutting down a bunch of old trees and it takes you 10 years to replace the vegetation, then the ecological damage caused during this period will be significant. "There is a need to increase the value tremendously so that it can compensate the loss appropriately," Mehra said.

Won't an increase greens combat air pollution?

A layman might question the simultaneous increase in pollution levels and forest cover as is the case for India. The expert validated this but also added that there is a need to look at different aspects when we talk about tree cover or forest cover. The composition of the forest plays an important role in controlling pollution levels. Not all species have the right biological and physical aspects to hold

dust particles, sequester high amount of carbon, and rejuvenate water table. So, we need to have a combination of different native species. Another aspect which I would like to mention is that the trees planted along the roadsides, highways, gardens are more or less for ornamental purpose. The aesthetic appeal is also important and therefore in case of avenue plantations, it is preferred to plant species which grow upright and not horizontally like ficus.

India has set ambitious ecological and environmental goals for the next decade. We are targeting a 5-trillion-dollar economy and cutting down our carbon footprint simultaneously. Mitigating economy and ecology is a big task at hand for the government. In his opinion, Mehra believes that urban areas, which are hubs of economic activity, must incorporate more cluster forests in them.

“There are many ways to promote green cover in urban area. The most common approach amongst them is the Cluster approach where we create city forests, parks, etc. This is basically creating a few lungs in the city in the form of tree clusters and these are scattered citywide as per the need to reduce air pollution, recharge water table, sound pollution, and more. These are the ‘Urban Forests;’” he said.

Developing city forests is better because they not only sequester more carbon as compared to a few individual trees but also helps in rejuvenation of ground water table as well. They are also natural habitat for the local fauna, thus promoting a healthy ecosystem. The government is also of the same view towards the city forests. When the problem of air pollution was at its peak in Delhi this November, Prakash Javadekar had pitched his experiment in Pune of creating an urban forest that would act as “green lungs” of any growing city. “The Centre had identified 200 cities and told the civic corporations there that we would give the money for the creation of urban forests.” For Delhi, there are already many city forests in place. ■

[With inputs from Adarsh Som.]

The state of Delhi’s urban forest Jahapanah City Forest

OUR TEAM VISITED Delhi’s urban forest which is open to public, the Jahanpanah City forest. The entrance of the forest is aesthetically pleasing but the condition changes as we move deeper into the forest. The upkeep of the forest starts deteriorating. Jahapanah city forest is spread in an area of 435 acres and is quite dense. However, the forest department reported to Delhi Development Authority(DDA) in its report in January in 2019 that the instances of tree felling and deforestation are common as people extract wood regularly in the winter season.

There were claims and counter claims between the DDA and the civil contractor who is in-charge of the upkeep of the forest. The DDA official told Urban Update that the trees are not marked in the area. The marking of trees is essential to keep track of them. The civil contractor, however, told us that the trees over the age of six have been marked. We did not see

any markings on the trees during our visit. Further, the DDA said that there are no preventive measures for tree felling in the area, while the contractor said proper criminal cases are lodged against the persons who are caught cutting trees.

The other thing was the lack of public facilities as the number of toilets were inadequate in the area and a few toilets were neither functional nor maintained properly. Hence, open defecation in the area is rampant, the report also mentions the fact. While the DDA official says the civil contractor is responsible for the upkeep of toilets and the dustbins, the contractor points towards the authority for the same.

Open littering of garbage was a common sight during our visit as the city forest serves as a pathway for people living in the nearby colonies during the day. Most of these issues were reported by the state forest department of Delhi last year in January to the DDA but no concrete actions were taken.



Every urban activity has an impact on the environment. Whatever citizens buy, eat, and throw away, the way they move around and where they live, work and play, all have an impact on the environment. Most of these activities impact the environment negatively. Cities need to create an ecosystem of infrastructure and services that not only just fulfil the growing requirements of citizens but also protect the urban ecosystem.

This is not just happening in urban areas. Human activities in villages are also impacting the environment. The fast pace of development has reduced biodiversity by destroying the habitats of plants and animals. Forestry and farming have affected the largest areas, where trees and shrubs had been partly or totally cleared. The protection of tropical rain forests is of great significance as the balance between animals, plants and soil is very fragile.

In urban areas, the construction of concrete jungles and reduced focus on open spaces is affecting the availability of public spaces for socializing and recreation. This is affecting the quality of life especially for children, elderly population. Cities of developing and under-developed nations, especially those which have a high density of population, need to focus on building open green spaces and pedestrians pathways.

GREEN CITY MISSION

There are many cities which have started their own campaigns for keeping their cities clean and green. People are joining and supporting such initiatives with community participation. But if the governments want to have a long-term impact on cities' sustainability, they need to come out with a concrete policy framework which guides urban local bodies on the path of sustainable and green development.

Government of West Bengal had initiated a comprehensive Plan of Action to meet the challenge of rapid

GREEN CITY CONCEPT IS SMART

Urbanisation is providing opportunities for development in various aspects and economic prosperity to citizens on one hand but on the other such development in many cities are happening at the cost of the environment. The well-being of communities is increasingly at risk due to escalating pollution, environmental degradation, mounting demand for water, food and energy. Cities need to take care of their 'green' and 'blue' ecosystem to remain sustainable and continue their journey of prosperity

urbanization by initiating Green City Mission. It is to be noted that the state had rejected the idea of Smart Cities and, instead, came out with this mission. Green City Mission is implemented throughout all cities covering all municipal corporations/municipal areas and aims at addressing growing challenges of rapid urbanisation with strategic interventions through the concept of 'greening' and 'blue-ing'. The state government intends to build an environmentally friendly, sustainable, liveable, energy positive, IT-friendly and safe city.

According to Mission Guidelines, the state had plans for urban afforestation, beautification of public spaces, nature-friendly parks, pocket forests, avenue plantation, hedges and green creepers as view cutters, rooftop farming, kitchen gardens, vertical gardens and floriculture/ tall tree nurseries are some examples of activities that can be taken up. The state had also directed municipal authorities to enhance the ratio of open spaces to built-up spaces beyond minimum norms. The state also wants to implement a green plan on land available with public institutions including schools, colleges, universities, office complexes etc. The

mission also encourages "Blue-ing" through conservation of water-bodies, encouraging water-based recreation (boating, fishing etc) and canal, water-front greening and beautification.

The state government has envisaged solar panels with net metering facilities on rooftops, canal-tops, bus-shelters and even on water-bodies on floating blocks or as sheds in car parking areas. LED lights in street lights and at all places including homes should be encouraged. All new buildings should be encouraged to be green certified. All norms laid down by ECBC (Energy Conservation Building Code), State Government Policy on Renewal Energy and Building Rules in so far as they relate to energy conservation matters should be followed.

Cycle tracks and cycle stands are also part of the project to encourage last-mile mobility in a safe manner and for this traffic control should also be made cyclist-friendly. Electric vehicles including e-rickshaws should be encouraged. Pre-paid quick charge stations should be available in fuel pumps. Wastewater recycling, rainwater harvesting ("Jal Dharo Jal Bharo"), energy-saving light sensors and efficient appliances should be adopted.



RANJIT S CHAVAN
President, AIILSG

URBAN PLANNERS NEED TO FIND INNOVATIVE WAYS TO WEAVE GREEN DEVELOPMENT WITH SPRAWLING INFRASTRUCTURE. IN THE LARGE CITIES WHERE LAND IS VERY PRECIOUS, THE DEVELOPERS TEND TO UTILIZE EVERY INCH OF SPACE FOR COMMERCIAL PURPOSES BY JUST MANAGING THE RULES OF THE MUNICIPALITY

Solid waste should be segregated and recycled and used to make RDF (Refuse Derived Fuels). While making the energy plan, efforts should be made to adopt a clear timeline with an annual reduction in net energy required out of fossil fuels so that after a certain number of years the city is zero energy or energy positive entity.

SOME IDEAS FROM FOREIGN LAND

Urban planners need to find innovative ways to weave green development with sprawling infrastructure. In the large cities where land is very precious, the developers tend to utilize every inch of space for commercial purposes by just managing the rules of the municipality.

It is not always possible for cities to dedicate sprawling parks in every neighbourhood and commercial areas but city planners and municipalities need to weave nature into city design for giving relief to its residents. Many studies have suggested that people love living close to nature and perhaps, that is why hill view, park view, sea view, lake view apartments and properties are sold at a premium.

In an article published in National Geographic Magazine, Jonce Walker, who works in sustainable design in New York City, says that pockets of nature function like “acupuncture” for residents. “Small, strategic interventions offer relief to people who live in cities. We must be careful not to erase nature out of cities, and work on putting nature back in.” In the article, Walker points to projects such as Paley Park and PARK(ing) Day, a movement to convert metered parking spots into temporary public spaces that began in San Francisco and spread to other cities.

In New York, it’s similarly represented by Street Seats, a seasonal program allowing benches and chairs, surrounded by landscaping, to be installed on streets. ■



Singapore is promoting green spaces and the “Supertrees” belong to a display at the 250-acre Gardens by the Bay. Over 162,900 plants of 200 species and varieties of bromeliads, orchids, ferns and tropical flowering climbers can be seen

Surprising as it may sound, bats and birds have just won a battle over an airport. As the world grapples with a state of climate emergency and the current model of growth is being growingly challenged worldwide, councillors of the North Somerset Council in the UK have rejected the expansion plan of the Bristol airport. Extra parking space for thousands of more cars, extension of passenger terminus and plane taxi ways, major changes to the roads around the airport and other works that the expansion would have permitted at the cost of a greenbelt was being opposed by people concerned with environment. Following an opening debate at a Planning and Regulatory Committee meeting of North Somerset Council in which a motion was proposed to refuse the application, councillors voted 18 in support of the move and seven against, with one councillor abstaining. Reports point out that the councillors who voted against this expansion after a four and

A VOTE FOR NATURE!

In a historic move in the fight against climate change, the North Somerset council in the United Kingdom rejected a planning application to expand Bristol airport, a move which would have raised the capacity of the airport to 12 million. The expansion could have negatively impacted the environment of the surrounding areas and hence, saw a major protest from climate change activists

half hour long meeting, actually became the voice of more than eight thousand people who had been protesting against this extension plan.

After deliberating the move in the councillor meeting Don Davies, leader of North Somerset Council, said, “What the committee has considered is that the detrimental effect of the expansion of the airport on this area and the wider impact on the environment outweighs the narrower benefits to airport expansion. I know some people will be upset by this decision and I am sure that we can reconsider it in future when the airline industry has decarbonised and

the public transport links to the airport are far stronger.”

That’s actually a rare thing to happen at a time when humans want to expand their transport network to run fast, and slowing down such growth is largely considered to be a regressive move. But that’s what we see from the common and conventional human being’s point of view. If we consider the same from an ecological conservation lens, this is a historic vote for sustainability of civilisations on earth, a much needed breather for Mother Earth. People who have supported this vote said it was a welcome step towards fighting climate

Bristol Airport in North Somerset, Bristol, England





RANJAN K PANDA

Convenor, Combat Climate Change Network, India

change. The airport expansion would have eventually led to an increase in health problems of people around the location and would also have harmed precious colonies of bats and birdlife. Officials, whose nod for the project was stuck down by the councillors, feared the loss due to this decision would be to the tune of 1.4 billion pounds over a decade. That's historic in many senses.

PLANET VERSUS PROFIT

It's a clear case of planet winning over profit of humans and comes at a time when the earth experienced its hottest January in recorded history. The ongoing climate crisis has seriously challenged us to rethink the way humans are growing, necessarily at the cost of ecology, all other species. And that means our capacity to adapt to the catastrophic changes is shrinking by the day. In fact, a recently published report has estimated that UK would be the third-worst hit country by loss of nature. The World Wildlife Fund estimates that by 2050 loss of nature will wipe 368 billion pounds a year off global economic growth. UK alone will face a 16-billion-pound loss per year.

BIODIVERSITY LOSS

So even if planners, like the ones who planned the airport expansion, only understand the language of business and profit, the time is to take a pause and read the huge warnings on the wall. A report "Nature Risk Rising" released at the World Economic Forum this year says that 44 trillion dollar of economic value generation – over half the world's total GDP – is moderately

IF OUR CLIMATE ACTIONS CONTINUE TO REMAIN SLOW, AT LEAST 80 AIRPORTS WORLDWIDE COULD GO UNDERWATER DUE TO SEA RISE BY 2100. EVEN IF WE ARE ABLE TO LIMIT OUR EMISSIONS TO 2°C, AT LEAST 44 AIRPORTS WOULD FACE THIS FATE. THE MESSAGE IS CLEAR. VOTE FOR NATURE!

or highly dependent on nature and its services and, as a result, exposed to risks from nature loss. It is now amply clear economic growth alone cannot drive our progress. A UN report released recently said that biodiversity, and the benefits it provides, is fundamental to human well-being and a healthy planet. However, our actions have made a million of the world's eight million species face extinction, many within decades. As scientists have already warned, we are already in the midst of the sixth mass extinction, the first one to be caused by humans. The unprecedented rate at which species extinction is happening is alarming.

GROWTH AND CLIMATE CHANGE

The UN has said in a 2019 report that shrinking habitats, exploitation of natural resources, climate change and pollution are the main causes of this. In fact, it is warned that the global rate of species extinction is at least a thousand times higher than it has been on average over the past 10 million years. The World Economic Forum's 2020 Global Risks Report has listed biodiversity loss as

one of the top five major risks in terms of likelihood and impact in the next 10 years. Nature's loss is a fat-tail risk like the 2008 asset-price bubble: It cannot be seen with a linear world view, but once triggered can have far greater than average implications, says this report.

The vote against the expansion of Bristol airport should be seen as a small win in our battle against climate change. Growth can be slowed down till we have rejuvenated our natural resources to an extent that it can ultimately sustain our growth. However, in this defining decade, which is being considered as the last decade of serious climate action if we want to survive, nature should be prioritised over economic growth. Take the case of airports alone. If our climate actions continue to remain slow, at least 80 airports worldwide could go underwater due to sea rise by 2100. Even if we are able to limit our emissions to 2°C, at least 44 airports would face this fate. The message is clear. Vote for nature! ■

[The views expressed are the author's own. They do not purport to reflect the views of Urban Update.]

INDIA'S FIRST E-WASTE CLINIC TO COME UP IN BHOPAL

Bhopal Municipal Corporation (BMC) has launched multiple initiatives in their campaign for a better position in Swachh Survekshan. The Corporation has recently launched an E-waste collection model that is helping clean out the city more efficiently

ABHILASH KHANDEKAR

Senior Journalist

The Central Indian state of Madhya Pradesh has indeed taken the cleanliness initiative of the Prime Minister very seriously. And for the good of its citizens!

While the biggest city of the state, Indore, topped the chart of the cleanest city competition for three successive years with its various novel methods, many other cities of the state have also fared well on this score.

Bhopal, said to be one of the greenest capitals of the country, with beautiful natural features like lakes, hills and forested areas, has also been launching multiple initiatives to keep the city spic and span; the latest of the measures being the e-waste collection model launched by the Bhopal Municipal Corporation (BMC). Earlier, the decades-old large Bhanpur dumping ground's garbage that weighed in several thousand metric tonnes and which was set to acquire the shape and size similar to Delhi's infamous Ghazipur garbage dump, was treated in phases and the entire area has been cleaned up. Once it was seen to be a real challenge for the city managers, but now the levelled ground there shows the good amount of work put in.

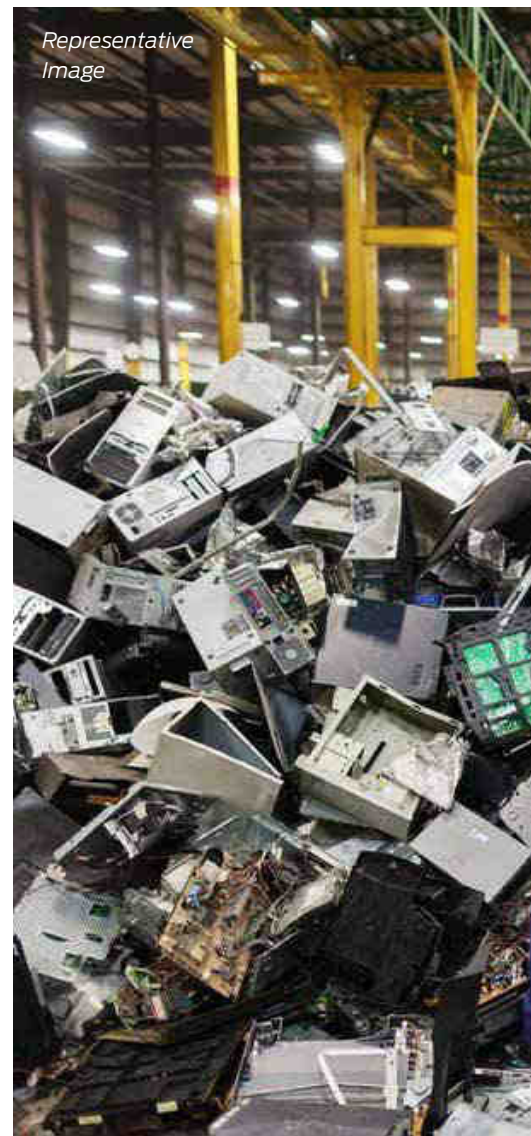
Door-to-door daily collection of domestic garbage and putting up biodegradable and non-biodegradable waste bins all over has now resulted in a remarkable change, with Bhopal becoming largely a litter-free city in the last over two years of sustainable efforts. Bhopal is pitching up for the top slot in the All India competition with a number of technological innovations in place.

Now, the Sarthak Plastic Waste Management Raggpickers Upliftment Project, being implemented in association with United Nations Development Programme's (UNDP) technical guidance, has focussed its attention on what is known as the world wide threat to environment - electronic waste! The NGO had already implemented plastic-free Bhopal campaign with a degree of success and that 'Bhopal Model' is being replicated in many cities across India, says Imtiaz Ali, Sarthak President.

The raggpickers, numbering over 2200 in the capital city, have been trained over the years by Sarthak and BMC and now having been able to successfully segregate plastic, metal and other waste, some of them are being trained for e-waste collection and its proper disposal. Most raggpickers are now making ₹100-250 per day. Like most Indian cities, Bhopal too generates huge amount of plastic waste. According to the BMC Commissioner Vijay Datta, IAS, close to 11 MT plastic waste is generated

in the city daily, besides other wastes which also include tetra packs, double coated plastic sheets, rubber footwear and glass bottles.

The e-waste collection model is not much different but yes, the non-profit Sarthak Group has now kept a large number of dedicated e-waste bins in the city with the help of MP Pollution Control Board, in addition to plying



Representative Image

Door-to-door daily collection of domestic garbage and putting up biodegradable and non biodegradable waste bins all over has now resulted in a remarkable change with Bhopal becoming largely a litter-free city in the last over two years of sustainable efforts

an old and redone-up bus called e-waste ambulance-cum-clinic. This innovation is termed as the first such step in the country towards making the city e-waste free over the next few months. This bus collects e-waste from residential colonies and business districts of the city. So far, all this waste was going into the unorganised sector and polluting the environment.

The collected waste would be scientifically treated by Rajasthan-based Green Tech, a Private company in Alwar. The BMC has set up a call center from where regular calls are being made to citizens to create awareness for e-waste disposal. The NGO is also proposing to issue Green Certificates to those who are bringing

in the e-waste for disposal.

On any given day more than 800-1000 such calls are made and E-waste collectors are dispatched to the homes for collection of electronic items which are junked by users but they do not know how and where to throw them, said Datta, adding “with the e-ambulance moving in the city, more and more e-waste collection is happening as people know it now that these electronic and electric gadgets and spares are not to be thrown and mixed with domestic and kitchen waste”. Ali says that more than 70-80 calls have started coming in from citizens who wish to see the mobile e-waste ambulance which also houses clinic and dumping box. The e-waste is also being purchased at different rates which is proving to be a cash incentive. A touch screen mobile is being bought for ₹50 and a kilogram of electric bulbs is being bought for Rs 10 and so on.

Bhopal, not an industrialised city like Pune or Bengaluru, however generates 432 MTs of e-waste per year with citizens mixing the items with regular domestic waste. Now there is a solution provided by Sarthak and BMC to the citizens. The unique e-waste clinic was inaugurated in Bhopal by Union Environment Secretary CK Mishra and CPCB chief SPS Parihar in January end.

Laptop accessories, printers, monitors, mouse, cables, disc cartridges, fridge, broken or old washing machines and its parts or LED bulbs are being increasingly dumped into these bins by citizens or being sent to the bus. Ali says soon Bhopal will have more e-waste clinics set up in different areas of the widespread city for the convenience of people. There are 24 items listed under e-waste category so far and their disposal plans have also been put in place. ■



(The author is a veteran journalist who writes on politics, urban affairs and the environment. He can be contacted at kabhilash59@gmail.com and [@Abhikhandekar](https://twitter.com/Abhikhandekar) --Twitter.)

Regularising Delhi's unauthorised settlements

A BIG TASK AT HAND

Delhi's unauthorised colonies is often seen as a hurdle to the implementation of an inclusive development plan in the city. However, with the Central Government's decision to legalize Delhi's unauthorised colonies, the long-time residents of these colonies can now own their property legally and avail benefits of government schemes and civic services. Will this move be successful in improving the overall condition of these unauthorised colonies?

ASHLEY PAUL

Reporter

The National Capital Territory of Delhi (Recognition of Property Rights of Residents in Unauthorised Colonies) Bill has sparked hopes in the hearts of residents of nearly 1,731 unauthorised colonies in Delhi. According to an estimate made by the Government of Delhi in 2013, nearly 30 per cent of Delhi's population (according to Census 2011) or 40 lakh Delhiites live in unauthorised colonies. Since long, these residents have been promised by many leaders of the State that their demand to regularize their colony will be fulfilled. Moreover, being unauthorised, it was common to see narrow lanes and poorly built houses, open drains and broken pipelines in these colonies. With the passing of this Bill, government authorities responsible for providing civic services in the state will become liable to work on development of these colonies as they will now be recognized places of residence of the public. Along with this, the government will also work to provide standard documents of ownership to the residents of these

colonies. Further, the government has appointed the Delhi Development Authority (DDA) as the agency responsible for implementation of the Bill. The DDA has announced that it will set up an online portal for the residents to apply for the procedure. DDA claimed that it will complete the entire process in a timely manner and will also set up help centres. Despite of all these provisions, the Bill still seems incomplete and lacking in a number of ways.

WHERE IS IT LACKING?

In order to know more about the Bill, Urban Update spoke with Dr Sanjay Kumar, co-Founder and co-Director of Aashray Adhikar Abhiyan and Aravind Unni, Thematic Lead, Urban Poverty Reduction, Indo-Global Social Service Society. The following points arose from the discussions:

Multi authoritarian model of working

Dr Sanjay Kumar, while explaining the provisions of the Bill, said that the passing of the Bill will prompt all municipal authorities in Delhi to carry out development work in the unauthorised colonies. He said, "Due to the multi-authoritarian model of working, the work carried out by these authorities might be delayed or even

disturbed due to poor coordination between different organisations. An example of this would be clear when organisations related to water and sanitation would spring into action. Both would have work involving the digging up of roads and lanes to lay water and sewage pipelines. In the absence of proper coordination, both the works being carried out together would result in the colony lanes being dug up for a longer duration, thereby causing inconvenience to the residents."

Further, Aravind Unni said that the Bill did not include a number of specific details regarding the implementation procedure. For example, building laws in Delhi are monitored by nearly 7 urban authorities. Thus, this causes confusion between different organisations as to which area falls under their jurisdiction. Not only does this affect the implementation of the regularisation bill but also delays other development related works across the city. According to both the experts, these discrepancies in the Bill can be addressed by adopting a simple approach. A separate independent body must be formed to oversee the entire process and manage all documentation. The body must consist of members from all major public organizations in the city like the DDA, the Delhi Jal Board (DJB), the Public Works Department (PWD) and all municipal corporations. This will help the body in considering different aspects while making any decision related to the unauthorised colonies, thereby making the regularisation and development of these colonies hassle-free and smooth for its residents.

Lack of better fire, disaster safety measures

Even though the government will carry out development work in the unauthorised colonies, the basic infrastructure of these colonies will remain the same. Narrow lanes, insufficient parking spaces, very few or no parks will continue to be some of the problems that inhabitants of

PROVISIONS OF THE BILL

- ◆ A SUITABLE CIRCLE RATE FOR THE SALE AND PURCHASE OF PROPERTY IN THESE COLONIES WOULD BE SET. THIS WILL REGULATE PROPERTY PRICES IN THESE COLONIES.
- ◆ STAMP DUTY AND REGISTRATION CHARGES WILL BE CALCULATED ON THE SET CIRCLE RATE AT THE TIME OF REGISTRATION. RESIDENTS CAN PAY THESE CHARGES IN THREE INSTALLMENTS.
- ◆ ONCE THE RESIDENTS HAVE COMPLETED THE PAYMENTS, WHETHER IN INSTALLMENTS OR OTHERWISE, THE GOVERNMENT WILL GRANT THEM LEGAL RIGHT TO THEIR PROPERTY.

these newly legalized colonies face. Moreover, an unregulated construction plan would mean that the houses are not built according to fire safety measures and that a majority of the houses would be inaccessible for emergency services.

Dr Sanjay opined that the Ministry of Housing and Urban Affairs (MoHUA), the government body in-charge of development in urban areas, along with the Delhi Government, can overcome this problem by adopting simple yet laborious approach. Lanes which do not support the movement of emergency vehicles must be connected directly to bigger roads. This will not only

help the vehicles reach closer to the distress point but will also ease laying of different pipelines, installation of cables and streetlights. Apart from this, post the regularisation, the Members of Legislative Assembly (MLAs) of these respective areas can also use the funds allotted to them for helping the cause of colony redevelopment.

On the other hand, Aravind suggested a rather peculiar approach. According to him, "Since, due to multiple reasons, not all colonies can be redeveloped, the government must think of newer ways to make these colonies safe in all aspects." He suggested that

instead of working towards making the roads wider, the government could just invest in building smaller fire trucks, ambulances and other emergency service vehicles. The Delhi Government's Bike Ambulance service is one such example.

Although the bill fulfills long-standing demands of residents of unauthorised colonies, it has been formulated and passed in a hurry and seems more like a people-pleaser. According to Dr Sanjay, this is so because the bill lacks a number of basic provisions, which make the bill hollow and more likely to fail in fulfilling its aim. Moreover, once the authorities start implementing the bill, the people will realise that apart from being incomplete, the government has also set unrealistic deadlines on the tasks. Talking about the long term effects of the Bill, Aravind said that the Bill is only the first step and the government needs to continuously formulate newer policies to incorporate the unauthorized colonies in the overall development plans of Delhi. Both the Central and Delhi government need to carefully look into the intricacies of the bill and reframe deadlines while formulating newer ways of making the process inclusive of all basic necessities of the residents of unauthorised colonies. ■



MANUAL SCAVENGING

A Blot on Modern Civilisation

Manual scavenging refers to the practice of manually cleaning, carrying, disposing human excreta from dry latrines, septic tanks and sewers. It often involves using the most basic tools such as buckets, brooms and baskets. Although underreported, this is one of the biggest issues that points to the existence of caste discrimination in Indian society

AKSHIT PUSHKARNA

Editorial Assistant

The archaic practice still results in multiple unwarranted deaths across the country. The ‘profession’ is one of the most unsafe ways to make a living across the world. Supreme Court, on September 18, 2019, said about manual scavenging, “In no country, people are sent to gas chambers to die. Every month four to five persons are losing their lives in manual scavenging”, equating sewers to gas chambers. As the scavengers enter the narrow, deep septic tanks or sewers, which are filled with poisonous gases, without any protective gear, it is often the case that they end up getting trapped and suffocate to death in human excreta.

More than half a million people are employed at present in this profession even after it was banned by the Indian government in 1993. The ban was further reinforced with the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, but with little effect as the illegal occupation still results in hundreds of deaths each year. Many NGOs and help groups work for the betterment and rehabilitation of the scavengers. A prominent figure amongst them is Bezwada Wilson and his Safai Karamchari Andolan. We spoke with him regarding the issue. The Magsaysay awardee believes that if the government diligently works towards ending this malpractice, it can be eradicated.

He believes that the divide in Indian society still hurts our country as a large section of the population is employed in the profession of scavenging works in inhumane condition. “Scavenging clearly violates Article 21 of the Indian Constitution which gives every

citizen a right to live with human dignity and decency”, Wilson said. As the malpractice is prevalent in India for a long time, we asked him about the ‘profession’ in modern India. “Manual scavenging is still going on strongly, so much so that the deaths in septic tank are reported regularly. The malpractice is only brought to light when deaths are reported which is a classic discrepancy in Indian psyche. We should focus more on the eradication of the profession as a whole. Cases are registered where people jump in manholes without proper gear. The fact that even women are employed like this is disturbing”, he said. Scavenging is more common in rural India as adequate sewerage systems are not available.

Swachh Bharat Abhiyan, the government’s flagship program encouraging sanitation across the country and making India open defecation free, saw the installation of millions of toilets across India. This could lead to an increase in demand for manual scavengers as highlighted by “Health, Safety and Dignity of Sanitation Workers: An Initial Assessment”, a 2019 report published by the World Health Organisation, International Labour Organization, the World Bank and WaterAid.”The concerns around sanitation work seem to be growing, given the large number of toilets that have been constructed under the ongoing Swachh Bharat Mission, using technologies that would require periodic emptying and offsite treatment of faecal matter,” the report says. Wilson was also critical of the sanitation program from the perspective of manual scavenging. “The main problem here is toilets have been constructed yet effective sewage disposal system has not been developed. The problem of open defecation is far more prevalent in rural areas than urban areas. Same is the case for manual scavenging. Proper sewerage system must be implemented at grass root level for effective implementation



Bezwada Wilson, National Convener,
Safai Karamchari Andolan

of Swachh Bharat. Septic tanks have been installed in the new toilets instead of proper drainage. Earlier septic tank deaths were majorly reported in cities. Now, slowly, similar cases would be reported from villages as well.”

The activist’s approach towards eradicating scavenging was very well planned, “We need to identify the number of people who are employed in this in order to think of rehabilitation. First, we need to mechanise the sewage cleaning system in India. This will allow us to identify the total number of people employed in various types of scavenging by conducting surveys. After that, you can provide these people involved with an alternate livelihood.”

While we work towards rehabilitating the scavengers, it is also essential to figure out a sustainable way for sewage cleaning. This has been identified by many young entrepreneurs who are working on developing technologies that take out human involvement from the process. “The higher authorities need to get behind small scale technologies like Bandicoot and Sewer croc which are working in this area and make them effective at a Pan-India scale,” Wilson said. In order to understand how successful such new technologies have been, we spoke with Afsal Muttikal, CMO at Genrobotics, the startup behind Bandicoot. “The idea of Bandicoot came to us in our college



days after we found out that someone we knew died after getting trapped in a manhole. Being robotics engineers, we developed a prototype Bandicoot which is a semi-robotic device with a human-controlled interface to clean manholes,” he said.

“We implemented our prototype in Kerala. After that, we have expanded to 7 states till now,” he added. “Bandicoot is solving the manhole cleaning issue by taking out the human element from the actual cleaning process. The machine enters into the manhole, collects sludge and disposes it off outside, eliminating hazard to human life,” Afsal asserted.

Regarding the success of the robot,

the CMO said, “Last year, it was implemented in different municipal corporations in Andhra, Kerala and Haryana. Our model also incorporates rehabilitation of the manual scavengers by employing them as robotic operators as the user interface is easily programmed so that anyone can operate it. These manual scavengers are already familiar with the sewer drains and hence they can clean the drains virtually without putting their lives in danger as the machine takes care of the risky part.”

The robot is coupled with a tracking device that predicts any future blockages in the drain. “G-beetle detects blockage in the drains beforehand via tracking the flow parameters and alerts the authorities before the case of blockage.”

The only issue with Bandicoot is that it is quite expensive at Rs. 32 lakhs. However, Afsal said, “Right now, we make the robots on our own but we have signed an agreement with Tata to develop a batch of bandicoot making it available across India.”

Bandicoot has brought forth changes. Afsal said that a 22-year-old died cleaning a septic tank in Kerala. Following that, the local authorities contacted them and procured a Bandicoot to prevent such a mishap in the future. Such encouraging signs have come from various other parts of India as well. ■



Enhancing Non-Motorized Transport System of Indian Cities

Indian cities have witnessed an increasing shift to motorised modes of transportation systems while the traditional Non-Motorized Transport takes a back seat in city transportation plans. This article discusses the current status and challenges Non-Motorized Transport (NMT) Systems in India face and their role in ensuring first and last mile connectivity and puts forth recommendations for enhancing it

AKANKSHA DEWAN, BARKHA SHARMA & RENUKA KULKARNI

Department of Energy and Environment, TERI School of Advanced Studies

The lack of effective planning and land use controls have resulted in cities expanding beyond the old city boundaries into the countryside areas. This has led to cities losing their compact forms, thus increasing the number and length of trips, which in turn increases the dependency on non-motorised transport systems. We look into different case studies elaborated in expert sessions held at the Conference on Integrated Sustainable Transport for Smart and Resilient Cities (IST Conference) during October 10-11, 2019 at UNESCO House, Chanakyapuri to provide recommendations that might improve the existing framework of NMT systems in big cities like Delhi.

POLICY FRAMEWORKS FOR NMT

The Ministry of Urban Development (MoUD) has encouraged Indian cities through its various initiatives and programmes to adopt NMT as a key element of their integrated urban transport system. An overview of these policies and programs suggests that NMT has been included but has

not yielded the desired results mainly attributed to lack of implementation. To work on this, the government linked Jawaharlal Nehru National Urban Renewal Mission (JNNURM) funds with the NUTP's Vision. JNNURM was launched in 2005 with an aim to develop and improvise infrastructure projects including urban transport.

The National Mission for Sustainable Habitat (NMSH), under the Prime Minister's National Action Plan on Climate Change, constituted a sub-committee specifically focusing on urban transport systems under MoUD in 2015. Amongst the eight principles of sustainable urban transportation listed out by the sub-committee, 'Walking' and 'Cycling' were the focus. In addition, the Service Level Benchmarks (SLB's) developed by MoUD focused on integration of NMT with overall performance of urban transport systems by its continuous assessment of infrastructure (MoUD, 2010). A working group was set up to provide recommendations on urban transport when the 12th Five Year Plan was being formulated. One of the key recommendations delivered by this group was to allocate funds to improve, maintain and upgrade existing NMT

infrastructure. Even though the policies and programs have been comprehensive enough to address the issues related to NMT and promote its usage, the implementation of the same is questionable. This is attributed to the lack of integration of multi-modal systems which can be attributed to inappropriate allocation of funds.

CHALLENGES

Policy Framework and Finance

Statistics reveal that very few smart city proposals have allocated appropriate finances for NMT. A 2017 study conducted by SUM Net India Secretariat compared the budgets of five Indian cities and brought out linkages between sustainable transport and their budget allocations in cities of Pune, Ahmedabad, Chennai, Nagpur and Bangalore. The budget analysis revealed that the share of expenditure on motor-vehicle related projects was the highest across all five cities. The analysis also pointed out the problem of multiple organizations handling overlapping and indistinct functions. This complicated planning of transport services. Consequently, the

city budgets revealed poor compliance with the vision of sustainable transport or the goals of increasing public transport and non-motorized transport trips as the budgetary allocations were not in coherence with the city development plans.

Infrastructure Provision

NMT users have the highest share of traffic accidents due to the increase in the share of motorisation. The use of NMT has also been declining due to rise in income levels resulting in a greater number of private vehicles on road. Government data shows that the total number of registered motor vehicles has increased from about 0.3 million in 1951 to nearly 142 million in 2011. Thus, to accommodate the rising numbers of motor vehicles, the major focus of the authorities is on the provision of a transport system to enable uninterrupted flow of Motorised Vehicles and construction of foot over bridges and subways has ensued, resulting in jeopardizing the safety of pedestrians.

People's Perception

Affordability is another aspect that can encourage use of public transport and NMT. One of the studies carried out in the city of Visakhapatnam suggested that people from lower income group (LIG) were more dependent on NMT for travelling due to its

affordability. Women belonging to LIG made 80% of their trips by walking making them important stakeholders while planning and designing for Non-Motorized Transport Systems. Kalpana Vishwanath, Co-founder of Safetipin identified women as one of the vulnerable groups of society having different requirements, travel behaviour including trip chaining and trip distance.

RECOMMENDATIONS BASED ON CASE EXAMPLES

The recommendations are based on the case examples discussed by the experts at the IST Conference. Pune has made the highest per-capita expenditure on NMT, attributed to the devolution of 'Urban Planning' function to the Urban Local Body (ULB) which avoids problems created by parastatals as they act as entities working in complete silos.

The Institute of Transport and Development Policy in June 2019 highlighted that Pune is pioneering a shift from a car-centric city to a people friendly urban setup in India. To ensure sustainability, Pune is also engaging in active community participation and public-private collaborations for effective planning and implementation of its projects.

We also need to ensure apt security and safety of streets to encourage

NMT in cities. Some of the key recommendations given by Vishwanath on enhancement of street safety include better lighting, properly designed foot paths connecting the bus stops/metro stations or transit station for safer access and display of emergency contact numbers on these stations.

Pedestrianisation of streets is another effective way of fostering walkability and cycling. One such example is the recent proposal of redevelopment of Chandni Chowk which is designed by Ar. Pradeep Sachdeva. The redevelopment plan of Chandni Chowk includes planning of two lanes for smooth movement of Non Motorised Vehicles with public amenities such as toilets to be placed in the median, seating along the roads with plantations and development of Townhall Chowk as a pedestrian plaza.

CONCLUSION

NMT is a sustainable mode of transport providing accessibility to all, while having minimum emissions. Even though the benefits are numerous, there are key challenges related to NMT in India which include encroachment of NMT infrastructure, lack of proper street design, lack of focus on a proper institutional framework, improper divergence of funds for NMT, disjointed policies and goals and a lack of integration of different transportation modes. The review of literature and the relevant policies and programmes indicate that there is a pressing need for the civic authorities to allocate appropriate funds for NMT to accomplish the larger vision of National Urban Transport Policy (NUTP).

Various case studies gave insights on the good practices for planning and implementation of NMT system. A complete network plan must be in place which is well integrated with the existing and proposed public transport system of the city. ■

[The views expressed are the author's own. They do not purport to reflect the views of Urban Update.]



CAPITAL STORY, YET AGAIN!



ABHILASH KHANDEKAR

Senior Journalist

I have been writing off and on, and reviewing books on various cities and the lion's share of the books I have read and reviewed has been on Delhi and the historic city's various interesting aspects. Among them Khushwant Singh's unique book on the seasons of Delhi, Swapna Liddle's book on Chandani Chowk, Pradip Krishen's beautifully illustrated Trees of Delhi, Nikhil Devsar's Birds About Delhi and then the quaint Princely Palaces of Delhi are the ones I immediately recollect having introduced to the Urban Update readers. The extraordinary of them all was 'New Delhi' by Robert Byron. It's a reprinted book of January 1931 on the architecture of the new capital which was officially opened in February that year.

So, here's another one for you. Kind of a novel but not purely fiction; it takes you back and forth to historical anecdotes while also beautifully

showcasing the present. Capital tells us stories of Delhi that many of us may not have read before. It's more than pure history or architecture and surely different from scores of books written on Delhi in recent times. Since I have lived in Delhi and am aware of the City's DNA, I found the book worth a read.

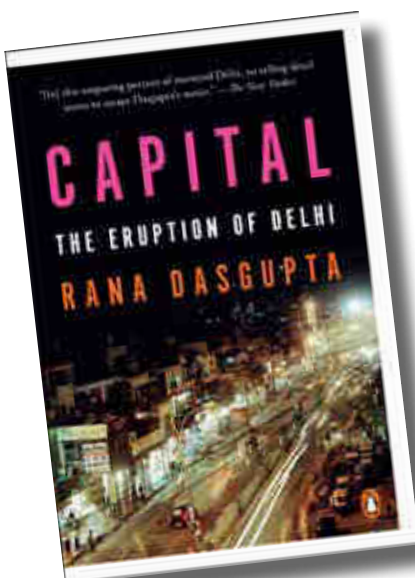
An excerpted para or two may give the reader enough hints before I delve into the absorbing portrait of the Indian capital city further. Here it goes...

"In a city of euphemisms, this place is called a 'farmhouse'. Nothing is farmed here, of course. But when, in the 1970s, the Delhi elite began seizing swathes of land to the south of the city to build private estates, the entire belt was reserved, according to the regulations, for agriculture - and, with a pang of propriety that touched the names of things even if it could not touch the things themselves, they called their new mansions 'farmhouses'. This was specially important since many of the

first farmhouses were built by the very bureaucrats and politicians who had made the regulations, severely correct individuals for whom irregularities in the names of things were an offence to the dignity of their office....In no other Indian metropolis does the urban elite bask in such pastoral tranquillity: this is an idiosyncrasy of the capital."

Author Dasgupta has woven some of the great stories of individuals of the city so well in this book that they help one get some really new perspectives about Delhi, its citizens and their interesting past. Stories of first generation businessmen, of contractors, of young job aspirants and their struggles, and of course, the old families who came to Delhi many years before the partition and made it big.

So he observes: "It was a city of surprisingly graceful buildings - far more so than those built in London at the same time - and it recalled, quite self-consciously, the ethereal splendour of Athens and Washington, DC. As it came to life, the alien city, whose sapling-lined avenues petered out into the dusty brush, also introduced to this place an entirely unaccustomed ethos. In order to turn their majestic emptiness into a real city, the British needed people to live in it, which few wished to do. Most of those managing the building project, British and Indian, lodged their families in old city or just outside its walls in Civil Lines, where there was commerce, social life and entertainment. In order to get these people - the suppliers of labour, stone, furniture, alcohol, food, and all the rest - to move into the new city, the administrators offered them large plots of land at a greatly discounted rate. So the contractors came. They snapped up sites in the centre of the city for their



Book

Capital: The Eruption of Delhi

Author

Rana Dasgupta

Publisher

Harper Collins

Pages

466

Price

₹599





own mansions and also bought up large areas of city land as investments. Rich already from the money they had made, by fair means and foul, during Delhi's construction, the estates they now owned in the centre of what was to become a major capital city guaranteed their families wealth and prestige for a century to come. These contractors, in fact, became Delhi's new aristocracy."

There is a laudatory mention of Ranjit Singh who, as a contractor, built the Council House (Chambers), now the Parliament House, and of Sir Lala Shri Ram, the owner of Delhi Cloth Mills, and about how the two discussed in their sprawling neighbouring houses in the Civil Lines, the then Asian sugar trade which the Britishers were trying to capture from the Dutch and how the two astute businessmen saw an opportunity in buying sugar refineries from Java. It was Java from where India used to get its sugar, some 90-100 years ago. The book also informs us how Gurgaon and Noida came up to deburden Delhi and eventually became what they are today - over populated

suburbs"...Noida was conceived during the slum demolitions of the 1970s as a modern extension to the capital that would be able to absorb its population growth and industrial expansion. It lay just across the Yamuna River in the state of Uttar Pradesh, whose chief ministers gradually acquired land for the project and laid out the kind of grid-like structure suited to a rationally planned new town. By the late 1990s, Noida was a fully realised city, bustling with the new middle classes and their flats, offices and shopping malls."

While reading one chapter after another and one story after another - at times unrelated - a reader who does not know much about Delhi, its history and its ever growing problems, stands to gather a lot about the Indian society, crime and politics, issues related to urban development, flawed government policies, economic growth of India and how things work and worked in India's national capital over the decades. It is mainly because of the umpteen insightful observations about the city that Rana Dasgupta has

succinctly made. Look at this: "The bureaucracy is a vast cash generator, which is why there is so much cash in Delhi economy. In central Delhi markets you see hundreds of bank notes in customers' wallets. The big jewellery stores feel like banks, which is, in a way, what they are: people use them to convert cash into gold, many thousands of dollars at a time. The cashiers' desks are noisy with the constant whirr of counting machines flicking banknotes.

Of course, these observations by the author were of the pre-demonetisation days!

The lucid style and the story telling art of the author have made the book highly absorbing. Like I said earlier, it's not a fiction but the style suggests that it is one and thus makes it much different from a large number of books written on Delhi because it is a factual account of a city that has seen important social, economic, urban and political growth at the same time.

No surprise then Salman Rushdie has this to say about it: A terrific portrait of Delhi right now. ■

Reimagining Delhi's open green spaces



ASHOK WANKHADE
Managing Editor

Since a few years the Indian capital is being defamed for its high pollution and massive population which has painted a dreadful image of the city. However, after the release of the India State of Forest Report (ISFR) by the Ministry of Environment Forest and Climate Change (MoEFCC), there is a need for a revised portrayal of Delhi's image with the increased open green spaces, as the report shows

Delhi is a city which is catering to a massive population of nearly 3 crores, making it the second most populated city worldwide after Tokyo. Also, being the capital city of India, one of the largest developing nations, the city suffers with high amounts of air and water pollution; insufficient resources to cater to the needs of the population; clogged traffic on roads; noise pollution and many more city issues.

To escape the daily hustle, one needs a calm on green open space and Delhi has a good number of such spaces to offer. And, with the ISFR report claiming a significant increase in the open green spaces like parks, gardens, open forests, etc. the city is on its way to mend its image and create a cleaner and greener environment.

WHAT DELHI HAS TO OFFER

India gate lawns, Central Park, Purana Quila lawns, Zoo, Lodhi gardens, Deer park and a lot more of such spaces are there for Delhiites to take a break from their fast-paced lifestyle. As per the Delhi's Parks and Gardens Society, Government of Delhi, there are 18000 parks and gardens in the city spread across 8000 hectares out of which 6400 parks and gardens are in South Delhi itself. The city is also home to a great number of heritage sites which are the core tourist attractions in the city. Due to a high footfall, the heritage sites like Humayun's Tomb, Qutub Minar, Purana Quila, Red Fort, etc. are well maintained and equipped with various facilities for the visitors. A large number of Delhiites and tourists from neighbouring cities as well as foreign countries visiting these sites are

a common sight. Open greens provide breathing spaces for the urban people and are essential for people to live a healthy life. In addition, the city planners and architects are working towards improving the open spaces in the city by introducing concepts like building boulevards, open gyms, sidewalks with spaces to rest one's back, and more. Although the city is offering all of it for its citizens, what about citizens' approach towards the city?

WHERE WE LACK?

There is an urgent need to bring behavioural changes in the population of Delhi along with other cities as well. People throwing garbage in the open, urinating in public areas, spitting, are just a few examples of negligent behaviour which can be observed commonly at any hour of the day. Open dumping of garbage is a rising issue and is one of the major factors damaging, not just the aesthetics of the parks and gardens, but the soil, plantation and air around as well.

The city authorities need to take up initiatives for organising awareness programmes to sensitize people and to try and reduce negligent attitude towards the environment. Also, penalties and fines should not only be limited to the books but its implemented at the ground level as it is highly important for avoiding misuse of the open public greens.

An effective plan for sensitising people and efficient ground work for the same can probably be the key to improvement. Proper upkeep of dustbins and their regular cleaning should be a corrective measure for the authorities to implement. As broken bins, unmaintained and defunct toilets are a common sight, these need attention too. ■

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