

Urban Update

Volume VI, Issue VI

OCTOBER 2019

+ 'Goa's development plan focuses
on opportunities beyond tourism'
Pramod Sawant, CM, Goa

150
Years of Gandhi

GANDHI.city

Mahatma Gandhi's ideas on self-rule, community relations, sanitation, villages, non-violence and peace always invoke inspiration, reverence among people world over. We can embrace a lot of Gandhian thoughts to improve cities of today



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ALL INDIA INSTITUTE OF LOCAL SELF-GOVERNMENT

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October 16-18, 2019
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Mumbai, India

India's Leading Trade Fair for Water, Sewage, Solid Waste and Recycling

Key highlights



Professional Supporting Program

- ▲ Sustainable Development Goals in Waste Management
by International Solid Waste Association (ISWA)
- ▲ City Leaders Conclave: 'India 2020 Agenda on Sustainable Cities'
by All India Institute of Local Self Government (AIILSG), Mumbai
- ▲ B2G Forum on Smart & Sustainable Waste Management
by German RETech Partnership & GIZ
- ▲ Waste Water Treatment - Demonstration Plant
by German Water Partnership (GWP)
- ▲ Innovative Technologies for Sustainable Wastewater Management
by German Association for Water, Wastewater and Waste (DWA)
- ▲ Rejuvenation of Ponds and Lakes
by International Water Association (IWA)
- ▲ University Challenge India
by German Association for Water, Wastewater and Waste (DWA)
- ▲ Indo-Dutch Forum on Environmental Solutions
by Dutch Consulate, Mumbai
- ▲ Session on E-Waste Management
by German RETech Partnership
- ▲ Desalination Technologies- How to adapt to the needs of India
by Desalination Institute (DI)
- ▲ Session on Waste Water Treatment
by GIZ
- ▲ Technical Workshop on Biogas
by Indian Biogas Association (IBA)
- ▲ Session on Waste to Energy
by University of Rosock and German RETech Partnership
- ▲ Career Management Workshops
by ISWA, German Academic Exchange Service (DAAD) and DWA

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The caption of image that accompanied Urban Dialogues Indore story (Page 28) erroneously said that "Dignitaries observing a moment of silence to pay homage to Late Babulal Gaur, former Chief Minister of Madhya Pradesh". The correct caption of the image is Shankar Lalwani, Member of Parliament (Indore) along with other eminent speakers lighting the lamp to inaugurate the conference.

Gandhi @ 150



Rajiv Agarwal | Editor-In-Chief | dg@aailsg.org

The Mahatma's 150th birth anniversary can become the launch pad for a cleaner, healthier, more innovative, and ecologically responsible India

Several events were lined up in almost every city and town on the occasion of the 150th birth anniversary of Mahatma Gandhi on October 2nd. People of all backgrounds found it an occasion to rededicate themselves to the values of equality and social justice that he tirelessly propagated throughout his life. These continue to guide the efforts of nations around the world to this day.

Among the events organised on this day the more prominent ones were those devoted to Swachhata. Large groups of citizens, notably students pledged to work on cleaning up their cities and water bodies. Events were also organised and messages propagated to spread the message to eliminate use of single use plastic from this day. Several organisations, public and private vowed to eschew the use of such plastic in their office premises and homes. This 'no single use plastic' movement has indeed gathered momentum in a short while and is seeing good participation by large sections of society, especially in cities.

For us it is now time to leverage the big start that Swachh Bharat Abhiyan has given to the country across states and geographies. The achievements in ODF status are impressive. We must now prepare to reap the benefits in terms of better health outcomes and eradicating poverty. Sustained and penetrative awareness campaigns must project the benefits accrued and likely in future. Since independence, Swachh Bharat has been one of the biggest social interventions; its momentum must be sustained. While the initial thrust came from generous government and CSR funding, further sustenance must happen with improved citizen behaviour and participation.

National, regional and local governments

can build upon the significant achievements through further interventions. Among the crying needs is to reduce drastically the household waste that is generated in our cities. Governments can encourage, support and incubate recycling and new material development technologies. While the awareness on the ills of plastic is high, there seems little in terms of cost-effective alternatives. One hopes that with worldwide attention to the issue, viable alternatives will emerge. Consider for example, the widespread use of plastic containers in the FMCG, foods and pharmaceuticals sectors.

The sheer volumes of these, mostly ending up in landfills, creates humungous ecological challenges. There is need for extended producer responsibility in these cases. Local bodies must mandate effective collection measures by producers and transportation for recycling. Additionally they must incentivize rag-pickers who can provide efficient last mile effort to collect, move and monetize these, while creating livelihood options for themselves. Similarly, one is yet to see a mechanism for collecting the millions of empty milk sachets generated every day in cities – there has been talk of dairies putting in place a mechanism to pay for these empty sachets so consumers preserve and monetize this harmful component of household waste enabling its recycling rather than sending it to landfills. This needs to be pushed forward urgently. Cardboard cartons and other paper packaging needs to be recycled fully. Segregation of waste at source is as yet inadequate and sporadic.

All these call for concerted actions by one and all if we are to fully win the battle against waste. It is a battle we must win. ■



Some people, by mistake, are talking about plastic-free India. I have not said this. I have said that single-use plastic, which comes to use only once, causes a lot of problems. On October 2, let us pledge to make the country free of single-use plastic

Narendra Modi
Prime Minister, India



Sanitation, maternal health, primary education, gender balance, women empowerment, reduction of hunger, and ensuring partnerships for development formed the basis for Gandhi's life and practice long before the MDGs or SDGs were designed

António Guterres
Secretary General, United Nations

PIN POINT



It is encouraging to see the momentum to step up action is growing, with over 100 new acceleration actions (to boost progress on sustainable development and climate change) registered for the goals ahead of the SDG Summit

Liu Zhenmin
Under-Secretary-General, Economic & Social Affairs, UN



The average car owner produces more emissions by driving than any other activity. Now that new mobility solutions such as dock-less bikes have abrupted commuting norms, leaders have to rethink space and costs of mobility options

Maya Ben Dror
Lead, Autonomous and Urban Mobility, WEF

BUZZ



Pralhad Joshi
Union Minister, MPA, Coal and Mines
@JoshiPralhad

Millions of marine species and sea birds are choked to death by plastic every year, let's pledge to refuse plastic and start using re-usable items like cotton/jute bags, copper & glass bottles etc to save the environment #PlasticBan



Luis Alfonso de Alba
Mexican diplomat
@ladealba

Small Island Developing States take big #ClimateAction. By aiming for 100% renewable energy by 2030 & preparing for rising seas with the Risk Informed Early Action Partnership, the smallest most vulnerable countries are leading on #ParisAgreement with enhanced NDCs



Mike Shellenberger
Founder of Environmental Progress
@ShellenbergerMD

We shouldn't be surprised that renewables are expensive. Greens have long viewed their high cost as a feature, not a bug. They have for decades argued that energy is too cheap and must be made more expensive in order to protect the environment



Anand Ranganathan
Consulting Editor, Swarajya
@ARanganathan72

Citing per capita carbon footprint is a good negotiating salvo but bad internal policy. We should mitigate polluted urban zones through clean sources, not by cancelling them out with unpolluted rural zones, like France has mitigated its emissions via nuclear power

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 Mahatma Gandhi's ideas on self-rule, community relations, sanitation, villages, non-violence and peace always invoke inspiration, reverence among people world over. Gandhi was not a great proponent of cities. There were not many cities then but urbanisation is a reality of today's world. We don't know what would have been his thoughts on cities today. Cities have a lot to learn from his philosophy to build self-sustainable communities with a focus on sanitation, education, health facilities, and deep-rooted democratic practices in running urban systems. We can embrace a lot of Gandhian thoughts to improve cities of today

LEADERSPEAK

- 30** **Why was sanitation so important to Gandhi?**
 Cleanliness and sanitation remained a central theme of Mahatma's teachings. Gandhi compared cleanliness to godliness and even put sanitation above political freedom. Gandhi knew in absence of adequate community sanitation and cleanliness standards, the large population of the country could be at a life-long disadvantage because of related illnesses and malnutrition. This article takes you on a walk down memory lane to assess the relevance of his idea of sanitation in present-day India

Equi-City conducts campaigns on waste segregation, plastic ban

Team Equi-City

Plastic waste is one of the prominent waste materials which is dumped in huge quantities every day. About over 10,000 tonnes of plastic waste remains uncollected daily. This uncollected plastic waste eventually ends up in the natural environment in our seas and oceans or piling up on land. The Plastic Waste Management Rules 2016 were an attempt to improve legislation, and state that every local body has to be responsible for setting up infrastructure for segregation, collection, processing and disposal of plastic waste. Additionally, the rules, amended in 2018, introduced the concept of extended producer responsibility, according to which the producers (manufacturers, importers and those using plastic in packaging) as well as brand owners would be held responsible for collecting the waste their products generate.

The waste generation in Nagpur city is estimated to be around 1200 tonne tonnes per day. Of this, 60 per cent is estimated to be organic waste, 16 per cent is plastic waste, 11 per cent is paper waste, 11 per cent is wood, metal, glass and 2 per cent is inert material. The key to efficient waste management is to ensure proper segregation of waste at source and that the waste goes through different streams of recycling and resource recovery. Then reduced final residue is deposited scientifically in sanitary landfills. Sanitary landfills are the ultimate means of disposal for

unutilised municipal solid waste from waste processing facilities and other types of inorganic waste that cannot be reused or recycled. Equi-City along with Nagpur Municipal Corporation (NMC) is mobilizing the community for waste management by conducting sensitisation workshops for swachhta karmachari in Nagpur.

Waste Segregation Campaign for sanitary workers in Zone 2, Dharampeth

Equi-City team conducted Waste Segregation Campaign for sanitary workers on September 3, 2019 in Zone 2, Dharampeth. The objective of the campaign was to spread awareness on sanitation among people and to make them aware about the significance of waste segregation by distributing pamphlets and discussing issue of waste collection with people. The campaign took place at Yashwant Stadium in Nagpur. Shekhar Giradkar of Equi-City team led the campaign along with Anusuya Kale from Swachh Association and Jadhav, Sanitary Inspector and sensitised around 150 sanitary workers.

Health and Sanitation Campaign for sanitary workers and rag pickers at Bhandewadi dumping yard

Equi-City team in collaboration with doctors from Bhandewari Ayurvedic Hospital conducted Sanitation Awareness Campaign and Medical Camp on September 18, 2019. The objective of the campaign was to spread awareness towards health related issues mainly targeting the rag pickers and sanitary workers at Bhandewadi dumping site. Around 300 sanitary workers participated in the health check-up campaign. Equipment like shoes, gloves and masks were distributed to the participants.

Waste Segregation Campaign for sanitary workers in Zone 10, Mangalwari

On September 20, 2019, Equi-City team conducted Waste Segregation Campaign for sanitary workers at Mangalwari in Zone 10. The campaign aimed to spread awareness on sanitation among people and to sensitise them about waste segregation and



Waste Segregation Campaign in Dharampeth on September 3, 2019



cleanliness in Nagpur. Pamphlets were distributed to the sanitation workers in Zone 10, Mangalwari for sensitisation. The campaign took place at Durga Mandir where 150 sanitation workers participated. Shekhar Giradkar of Equi-City team led the campaign along with the Anusuya Kale from Swachh Association and Mahesh Bokare, Sanitary Inspector, who explained the importance of segregating waste and its resale value.

Waste Segregation Campaign for sanitary workers in Zone 7, Lakadganj

The Equi-City team along with NMC conducted a Waste Segregation Awareness Campaign, on September 24, 2019, at Lakadganj Zone for sanitation workers. Waman Kailkar, zonal officer and Dinesh Jadhav, Sanitary Inspector were present for the campaign. Shekhar Giradkar from Equi-City team addressed the sanitation workers and sensitised them on segregating waste at source. Around 200 sanitation workers participated.

Waste Segregation Campaign for sanitary workers in Zone 4, Dhantoli

The Equi-City team conducted Waste

Segregation Campaign, on September 25, 2019, with the objective of promoting sanitation among people and generating awareness about waste segregation, mainly targeting the sanitation workers in Zone 4, Dhantoli. The campaign took place at Hanuman Mandir Garden where Shekhar Giradkar of Equi-City team interacted with the sanitation workers and asked them about the problems they are facing regarding solid waste collection. The Equi-City team sensitised approximately 250 sanitation workers about waste segregation.

Waste Segregation and Plastic Ban Campaign for sanitary workers in Zone 3, Hanuman Nagar

The Equi-City Team along with NMC conducted a Waste Segregation Awareness Campaign for sanitation workers on September 28, 2019, in Zone 3, Hanuman Nagar. Dinesh Kalode, Zonal Officer and Jamadar, Sanitary Inspector, were present at the campaign. Shekhar Giradkar of Equi-City team addressed the workers and sensitised them on waste segregation at source. The Equi-City team sensitised around 150 sanitation workers. Sanitation workers along with the Equi-City team and NMC officials took an oath to not to use plastic items

and do everything in their capacity to reduce the use of plastic in future.

For Plastic Free India, Equi-City also took pledge from citizens – “I pledge to avoid single use plastic, to reuse or recycle the plastic that I do use, to educate others about plastic waste and to take actions to make plastic a thing of past.”

Information, education and communication (IEC) is a tool which will empower people to make decisions, modify behaviours and change social conditions. Equi-City activities are developed based upon needs assessments, identification of underlying social, cultural, economic and environmental conditions of each part of city and thus promoting specific behaviours that are desirable. Equi-City delivers information to people by various ways such as providing people with very clear information about solid waste management through pamphlet, banner, hoarding and slogan. Equi-City approaches individuals who are most important in the social structure of the community or who have some influence within the community, people whose opinions are respected, to work with us effectively and to serve as role models for desired behaviours and actions.

Civic bodies need to redefine long term vision in solid waste management and rework their strategies as per changing lifestyles. They should reinvent garbage management in cities so that we can process waste with adequate provisioning in processing and recycling. For this, households and institutions must segregate their waste at source so that it could be managed as a resource. Compost pits should be constructed in every locality to process organic waste.

Recovery of e-waste is abysmally low; we need to encourage recycling of e-waste on a very large scale so that problem of e-waste disposal is also contained. Community participation has a direct bearing on efficient waste management. Equi-City team will continue working for community mobilization in order to bring about a change in the society. ■



Ranjit Chavan, President of All India Institute of Local Self-Government (AIILSG), was felicitated by Ramraje Nimbalkar, Chairman of Maharashtra's Legislative Council in the ceremony organized by the Yashwantrao Pratishthan, Mumbai. Many other noted personalities were also felicitated for their contribution to society in various field. Girish Mahajan, Minister of Water Supply, Maharashtra; Ashish Shelar, Minister of Primary Education, Maharashtra; and Vishwanath Mahadeshwar, Mayor of Mumbai and many other leading personalities were present during the function



AIILSG conducted ICBP Training Programme for elected representatives of Himachal Pradesh at Lucknow



ICBP Training Programme conducted by AIILSG for SBM of Madhya Pradesh government officials in Ujjain

AIIILSG organises annual convocation in Mumbai

Maharaja Samarjitsinh Gaekwad of Baroda was the Chief Guest. He stressed on the significance of education for the upliftment of the disadvantaged sections of the society

MUMBAI: The Convocation Ceremony of the All India Institute of Local Self-Government (AIIILSG) to award diplomas and certificates to the successful students of the courses of the Institute for the preceding academic years/sessions was held on August 31, 2019 in Mayors' Hall, Mumbai that is in Andheri office of the institute.

Maharaja Samarjitsinh Gaekwad of Baroda was the Chief Guest. Ranjit Chavan- President, AIIILSG and Co-President United Cities and Local Government, Asia Pacific Region, (UCLG-ASPAC) presided over the function. Other dignitaries present on the occasion included Rohini Devi, Maharani of Kuchh-Guest of Honour, Hansa Patel, Executive Advisor, AIIILSG, Dr Jairaj Phatak, former Commissioner of BMC and visiting Professor, AIIILSG, Ashish Deosthali, Sr Dy Director-General, AIIILSG, Utkarsha Kavadi, Director, Regional Centre for Urban & Environmental Studies (RCUES) of AIIILSG, Prakash Wani, Dean, AIIILSG, V Vijaykumar, Advisor, AIIILSG, Dr RV Ghate, Principal, Sanitary Inspectors' Diploma, and Krishna Korti, Faculty, AIIILSG.

Chavan in his speech spoke about the contribution of Late Shri Barfiwala, the first Director-General. In his speech he gave a detailed account of the multifarious activities of the Institute which mainly includes trainings, conduct of skill development courses, project consultancy, policy advocacy, organising of thematic conferences. He further made mention of the services rendered by the specialised bodies like the Regional Centre of Urban



Maharaja Samarjitsinh Gaekwad of Baroda graced the Convocation Ceremony of All India Institute of Local Self-Government as the Chief Guest of the event

and Environmental Studies, National Fire Academy, Nrupur Institute of Nursing and Research, EQUITY Division of the Institute through which CSR programmes are implemented for the welfare of poor sections like education of Notified and De-notified Communities, etc.

Dr Jairaj Phatak in his Speech referred to the glorious history of the erstwhile Princely State of Baroda which had a sterling record in terms of many parameters of governance, social reforms, education, encouragement of arts, upliftment of the poor, etc. This was followed by the Convocation Ceremony.

Two books were released in the function, namely Case-law digest of the Maharashtra Municipal Corporations Act compiled by Ranjit Chavan and SEVADHIKAR, a book on Right to Service Act written by Prof Mayank Akole and Prakash Wani.

Maharaja Samarjitsinhji Gaekwad, in his Convocation Address spoke about the need for giving thrust on education,

supporting the disadvantaged sections of the society and protection of environment. In this regard he gave an account of the Late HH Sayajirao Gaekwad who worked for the welfare of the common man and brought about several social reforms and took many measures for spread of education in Vadodara. He had helped Dr Ambedkar for going abroad for higher studies. He said that in the Drafting Committee of the Constitution, four members out of six were from Vadodara. He also elaborated on the damages being caused to the environment. It was enlightening to hear from him the instance of Late HH Fatehsinh Gaekwad who used the court litigation to the advantage of saving a virgin forest in the context of land ceiling law. He also spoke about city management strategies and empowering the people in urban governance. He appreciated the activities of the Institute and wished the students success in their life. Ashish Deosthali delivered Vote of Thanks.

BMC to launch mobile toilet for women

The Brihanmumbai Municipal Corporation (BMC) has proposed to use an old bus and convert it into a mobile toilet for women. The idea has been taken from Pune's 'Ti' toilet concept which was launched in 2017 on the occasion of Women's Day. 'Ti' in Marathi refers to 'She' and it also stands for 'Toilet Integration'. The idea will be implemented on the Marine Drive service road in Mumbai. Female hygiene products and a digital feedback mechanism for better services and other features will be provided. Of the total, 90 per cent of the revenue generated would go to the operator and 10 per cent will be given to the BMC.

Indian Railways installs plastic bottle crushing machine



The Western Railway Zone of the Indian Railways has started installing the bottle crushing machines. The machine has a capacity to crush 3000 bottles per day and it enables recycling of 90 per cent PET waste bottles. The Indian Railways said in a tweet that the carbon footprint is reduced by 100 per cent during this crushing process and it also avoids littering. To support the plastic ban and make people aware about the harmful effects of plastic, the Railway ministry shared a short hindi film titled "Main Hoon Plastic Hatela" prepared by the Western Railway Zone, in an attempt to create awareness against single-use plastic.

200 units free, separate electricity meter for Delhi tenants: CM

NEW DELHI: Arvind Kejriwal, Chief Minister of Delhi, on September 25, announced at a press conference that tenants in the city will now get free electricity up to 200 units under the 'Mukyamantri Kirayedar Power Meter Yojana', the tenants will also be entitled to get prepaid power meters installed at rented properties which will supply electricity at subsidised rates. The electric meters provided under the scheme will be installed only on domestic consumer properties, said the Delhi government.

He further announced, "Tenants, so far, were not able to get a separate power meter because they were required to take a no-objection certificate [NOC] from the home owner to get an independent connection. Tenants will now get a meter using just two documents: rent agreement/receipt or any identity card." The electric meters provided under the scheme will have stickers on them bearing the name of the scheme, he added. While people incurring bills for consumption of 200 units of electricity are exempted, those consuming 201 to 400 units will be given half subsidy. The scheme is intended to benefit multiple tenants living in separate units of a single property. As in most such cases there is only a single meter but the consumers are multiple and this results in huge electricity bills. "The landlord charges tenants ₹8-₹10 per unit. With separate connections, many tenants will now get free electricity. On the other hand, the landlord is also likely to get the benefit of subsidy on unit consumption for up to 400 units. The scheme is beneficial to the tenant as well as to the landlord," CM said.

NGT directs DJB to ensure free water scheme isn't being misused

NEW DELHI: The National Green Tribunal (NGT) has directed the Delhi Jal Board (DJB) to initiate steps to conserve water in the city. "The policy of providing 20,000 liters of free water per month results in excessive use of water. The DJB needs to ensure that treated waste water is mandatorily utilised," said a bench headed by Justice Adarsh Kumar Goel, NGT Chairperson. The green panel issued the order after a report filed by a monitoring committee, which was headed by Justice SP Garg (retired) and also comprises representative each from the DJB, Central Pollution Control Board (CPCB) and Central Ground Water Authority (CGWA), showed that the Delhi government's flagship scheme of distributing 20,000 liters of water free to every household in the national capital is being misused by several housing colonies. "The extraction of groundwater by using tubewells and borewells is being

done to avoid payment of water tariff. The DJB should take effective steps to prevent this practice," the panel said.

In contrast to the committee's finding, the Delhi government said that the scheme also led to an increase in water conservation as consumers reduced consumption to avail benefit of the scheme and also led to increase in number of functional water meters. The green panel also directed the DJB to devise an action plan, with the help of civic bodies or experts, to ensure that rain water harvesting systems are installed in all government buildings, housing societies and new buildings where occupancy certificate is yet to be issued. The panel noted that overuse of ground water for drinking, irrigation and domestic purposes has resulted in its rapid depletion. The water table has dropped to more than 300 feet in many areas of the national capital.

Subscription PAGE

Intimate new parking policy in Delhi by September 30: SC

Supreme Court (SC) directed the Delhi Government to make sure that parking needs for the capital would be analysed for the coming 25 years and permissions for building infrastructure to solve one of the “most serious problems” faced by Delhi would be granted timely. SC directed the government to intimate the draft of the Delhi Maintenance and Management of Parking Places Rules, 2019, by September 30. The apex court also called for diligent imposition of the same. The SC directed all civic bodies to clear out encroachments from the pedestrian pathways in the residential areas of the city and make it suitable for its purpose.

Gurugram to get two multilevel car parks soon



People visiting Sadar Bazar area in Gurugram will no more struggle for parking space as two multilevel parking facilities are soon to come up near the area. Rao Narbir Singh, Haryana Public Works Department Minister, on September 13, laid the foundation stone for the parking facilities. The parking lots to be built at a cost of ₹150 crore will be a six-level parking facility which will have a combined capacity of 1,275 cars. Singh said that both the parking projects would be financially viable and the cost incurred would be fully recovered. He further said that these would be ready in two-year time and will deal with the problems related to parking space in city.

20 Indian cities to join ‘World’s Big Sleep Out’ to raise money for homeless

NEW DELHI: Delhi will be among the 50 cities participating in a world wide effort to raise funds for the homeless across the globe. The ‘World’s Big Sleep Out’ (WBSO) will see participation of almost 50,000 people from these 50 cities in a bid to raise \$50 million to help out the homeless ahead of the winter. Delhiites would camp out in Central park in Connaught Place on December 7 for the event. The sleep out is being organised by Indo-Global Social Service Society (IGSS) and Jamghat, which is the Delhi Chapter of the society. The event has been backed up by the Delhi government along with New Delhi Municipal Council (NDMC), Delhi Urban Shelter Improvement Board (DUSIB), Delhi Commission for Women (DCW). Indu Prakash, national coordinator for WBSO said that the idea was inspired by Scottish social entrepreneur Josh Littlejohn’s 2017 event, ‘Sleep in the Park’, held in Princes Street Gardens in Edinburgh on December 9, in which thousands of people took part



to raise money and awareness about the plight of the homeless.

“We have been reaching out to schools, colleges and corporate sector to campaign for the event and make them aware of the problem of homelessness. Through a dedicated campaign, we hope to achieve the target of having at least 2,000 people attend the event,” Prakash said.

A total of 20 Indian cities will participate in the event. “While Oscar-winning actor Dame Helen will participate in the sleep out at London’s Trafalgar Square, Hollywood actor Will Smith will camp out at New York’s Times Square,” Prakash said.

UN-DESA releases International Migrant Stock 2019

NEW YORK: Across the globe, the number of international migrants reached an estimated 272 million in 2019, an increase of 51 million since 2010, states International Migrant Stock 2019 released by the United Nations Department of Economic and Social Affairs (UN-DESA) on September 17, 2019. As per the estimates released, presently, international migrants comprise 3.5 per cent of the global population, compared to 2.8 per cent in the year 2000. As per Liu Zhenmin, UN Under-Secretary-General for DESA, “These data are critical for understanding the important role of migrants and migration in the development of both countries of origin and destination”.

In the current year, regionally, the largest number of international migrants are in Europe (82 million), next comes Northern America with 59 million international migrants, followed by Northern Africa and Western Asia (49 million). Shifting the frame of reference to country level it is seen that about half of all international migrants reside in just 10 countries, with the United States of America (USA) hosting the largest number of international migrants (51 million), which is nearly equal to about 19 per cent of the world’s total. Germany and Saudi Arabia host the second and third largest numbers of migrants (13 million each). Focusing on the pace of birth, around one-third of all international migrants originate from only 10 countries, with India leading, accounting for about 18 million persons living abroad. Migrants from Mexico constituted the second largest “diaspora” (12 million), followed by China (11 million). As per the report data on gender composition, women comprise slightly less than half of all international migrants in 2019. The share of women and girls in the global number of international migrants fell slightly, from 49 per cent in 2000 to 48 per cent in 2019.

URBAN CANVAS Murals of Climate Change



ARTISTS AND ARCHITECTS in cities not only design physical entities but also through their artwork shape the mindset of urban population. Whether abstract or spatial, the urban murals have a unique ability to evoke a reaction within the people, unlocking new perceptions, and new mindsets. The art activism has now transformed from rebellious to reformer views. With the first world-wide climate strike, the artist has turned to streets making them a canvas of climate change issues. From streets of San Francisco to wall of Bristol, the art has now become a way to express a “new movement” in the fight against climate change.



AMC to appoint super specialty doctors in urban centers

The Ahmedabad Municipal Corporation (AMC) will appoint super specialty doctors at urban and community health centers to provide better health service to poor. “The government has directed the AMC to appoint super specialty doctors at regular salaries and not on fixed salaries. The appointment will be made under the Gujarat Urban health Project and the government will give the salaries,” said Amul Bhatt, Chairman, Standing Committee. Amul further said that the 72 urban health centers and seven community centers in the city has only one MBBS doctor, but now these centers will have super specialty doctors. The patients will not have to go to civil or big hospitals for specialised treatment.

Haryana to get road cleaning machines



Haryana government has decided to introduce a special road sweeping machine soon. A total of 44 state-of-the-art road-sweeping machines, developed in Italy, would be procured by the state government. Each machine would cost the government ₹1.5 crore. The machine can automatically cleanse the soil on the roads and the dividers. This move will possibly ensure a reduction in manpower used in the cleansing of roads. In the first phase, these machines will be introduced to all 10 municipal corporations and 18 municipal councils across the state.

India wants alliance for disaster resilient infrastructure

NEW YORK: India's top representative to the UN said that India is looking at bringing together developed and developing nations for another coalition to focus on disaster resilient infrastructure to help nations build better after natural calamities.

Narendra Modi, the Prime Minister of India was among the first set of speakers at UN Secretary General's high-level Climate Action Summit in the UN General Assembly chamber, on September 23, along with the Prime Minister of New Zealand Jacinda Ardern, Hilda Heine, the President of Marshall Islands and Angela Merkel, German Chancellor. Over 63 countries were invited to speak at the Summit, which demonstrated solutions proposed by governments, the private sector and civil society to reduce emissions and build climate resilient infrastructure.

On PM Modi's agenda for the Climate



Action Summit, India's Permanent Representative to the UN Ambassador Syed Akbaruddin said that India is increasingly talking about addressing issues of e-mobility relating to use of fossil fuels.

Akbaruddin said, while India's focus is on engaging with developing countries, it is sui-generous as a country and is able to engage with both developing and developed countries as partners through broad-based coalitions that cut across the developing and developed world.

PM Modi invites foreign investors to invest in “rapidly urbanising India”

NEW YORK: In his keynote speech at the Bloomberg Global Business Forum, Prime Minister Narendra Modi invited global businesses to invest in “rapidly urbanising India”. He said that historic reduction in corporate tax rates by his government creates a golden opportunity and promised more measures to improve business climate. Earlier this month, the government had reduced the effective corporate tax rate to 25.17 per cent from nearly 35 per cent, thus bringing India at par with major global economies on taxation front. “In the coming years, we are going to spend around \$1.3 trillion on modern infrastructure in India. Also, lakhs of crores of rupees are being spent on the social infrastructure of the country. Thus if you want to invest in urbanisation, come to India,” PM said.

Inviting the global business community to invest in India the PM said, “If you want to invest in a market where there is scale, come to India... If you want to invest in start-ups with a huge market, come to India... If you want to invest in one of the world's largest infrastructure ecosystem, come to India.” “Your desires and our dreams match perfectly, your technology and our talent can change the world,” PM Modi told the American corporates. He further promised democracy, political stability, independent judiciary to the businesses. “Today, there is a government in India that is working towards improving the business environment in the country. India's decision to cut corporate tax has sent a positive message”, he said, adding that India had garnered \$286 billion foreign direct investment in last five years, which is half of what it got in previous 20 years.

'Climate emergency is race we are losing, but we can win'

NEW YORK: Leaders from government, business and civil society announced potentially far-reaching steps, on September 23, to confront climate change at the United Nations Secretary-General's Climate Action Summit in New York. The UN estimated that the world needs to increase its efforts between three and five-fold to contain climate change to the levels dictated by science, a 1.5°C rise at most and avoid escalating climate damage already taking place around the world. However, the Paris Agreement provides an open-door framework for countries to continuously ratchet up their positive actions, and the Summit demonstrate how governments, businesses and



civilians around the world are rising to the challenge.

"The best science, according to the Intergovernmental Panel on Climate Change, tells us that any temperature rise above 1.5°C will lead to major and irreversible damage to the ecosystems that support us," said António Guterres, Secretary-General, United Nations. "Science tells us that on our current path, we face at least 3°C of global heating by the end of the century." "The climate emergency is a race we are losing, but it is a race we can win," he added. "This is not a climate negotiation summit. You do not negotiate with nature. This is a climate action summit." Guterres further said, "Governments are here to show you are serious about enhancing Nationally Determined Contributions under the Paris Agreement. Financial actors are here to scale-up action and deploy resources in fundamentally new and meaningful ways. Coalitions are here with partnerships and initiatives to move us closer to a resilient, carbon-neutral world by 2050."

IIT Delhi team to monitor impact of vehicle rationing on pollution levels in Delhi

NEW DELHI: To analyse the impact of odd-even scheme, which is to be rolled out on November 4, a team from the Indian Institute of Technology (IIT) Delhi will be analysing the Capital's pollution using real-time pollution monitoring devices invented by students. The team will be monitoring Delhi's air from October 15 to November 15 to study the effectiveness of the car-rationing scheme in improving air quality. The team will be using sensor-based pollution monitoring devices called "Eziomotiv", invented by the six-member team at IIT through the incubated start up 'Aerogram'. The tech has been patented and has received ICAD certification.

Pooja Singh from IIT Delhi's incubation unit told PTI, "The devices will be placed atop around 250 buses running in the national capital to gauge air quality. The devices will help calculate particulate matter (PM), heat, temperature and humidity across different terrains, traffic movement, weather and times of the day. We have tied up with the Delhi Integrated Multi-Modal Transit System (DIMTS) for the purpose."

"Each bus makes 16 trips daily, covering different routes with each of them being around 30 to 40 km long. The devices have camera and are GPS enabled so we can also track the vehicle's movements," Pooja added. As per the team, the study will be conducted in two phases— first pre odd-even and while the odd-even scheme will be active.

NMC launches electric buses for women



Nagpur became the third city in Maharashtra, after Pune and Mumbai, to launch electric buses for commuters. Buses launched by the Nagpur Municipal Corporation (NMC) are exclusively for women travelers in the city. The buses will operate on five routes starting from Sitabuldi and going to YCC College, Defence, Koradi, Butibori MIDC, Pipla Fata. The buses will make around 75 trips each day between 7 am and 10 pm, covering around 951 km every day. The fare for these buses will remain the same as those for the diesel ones. The buses were launched by Nanda Jichkar, Mayor of Nagpur. These zero-emission buses are expected to benefit around 1 lakh women passengers every month.

ASCDCL to generate revenue from bus shelters

The Aurangabad Smart City Development Corporation Ltd (ASCDCL) has appointed an agency to construct 150 new bus shelters as a part of its plan to improve public transport in the city. The ASCDCL has told the agency to develop the bus shelter in such a way that it can generate revenue through advertisement. Nipun Vinayak, CEO, ASCDCL announced 150 new bus shelters in the city. The shelters are designed in such a way that private agency can rent out the space for advertisements. The first bus shelter was built in five days near Aurangabad railway station premises and is made of stainless steel.

NGT forms committee to resolve depleting groundwater levels

The National Green Tribunal (NGT) has formed a special committee for devising steps to prevent the unauthorised extraction of groundwater. A bench headed by Justice Adarsh Kumar Goel, NGT Chairperson, directed the committee to evolve a robust mechanism to prevent illegal extraction of groundwater and to monitor manning and functioning of the Central Ground Water Authority (CGWA). “Unfortunately, in spite of clear directions of the Supreme Court, the CGWA is not willing to take the ownership of the subject and repeatedly takes the plea that it does not have the infrastructure or that the responsibility of dealing with the problem is of the States and not that of the said authority,” the NGT said.

Gyms opened post 2008 to be sealed in Delhi

A Supreme court-appointed committee has ordered closure of all fitness centers which have been operating since August 12, 2008. The committee took the decision seeing that opening of such fitness centers directly violates rules set under the Master Plan of Delhi (MPD)-2021. The MPD highlights that fitness centers shall only be operated from malls and commercial plots owned by the Delhi Development Authority (DDA). The Chambers of Trade and Industry (CTI) came in support of the gym and yoga centre owners and requested Hardeep Singh Puri, Union Minister (IC) for Housing and Urban Affairs to amend the master plan and shift the cut-off date so that sealing could be stopped.

TN all set for natural calamities ahead of north-east monsoon

CHENNAI: The Government of Tamil Nadu has geared up before the arrival of northeast monsoon period, which starts from October 1, and has identified 4,399 flood prone areas in the state.

During the north-east monsoon, Chennai and several other northern parts of the State receive the maximum rainfall. Claiming that the state is ready for any alarming disaster if arrived, R B Udhayakumar, Revenue Minister of the State said, “We have identified and mapped about 4,399 places/areas, which fall in the very high vulnerable, high vulnerable, vulnerable and low & moderate vulnerable areas in 32 districts and zonal teams will be formed for rescue and relief work.” Separate teams are formed comprising of 8,624 personals to rescue cattle in case of disaster.

Also, Udhayakumar said that he will be reviewing the preparedness plans, along with the district collectors and other district level officials in coming days. The motto of preparedness plan for pre-disaster, during disaster and post-disaster management is “No loss of life if calamity strikes,” the minister said at the launch of manual on disaster management. To decrease and prevent spreading of diseases during onset of monsoon, about 30,759 first-aid officers have been deployed in the State and of them 9,162 are women officers.

A toll free number 1070 is also created to get alerts and authenticated messages about cyclone or floods. The minister also said that the TN-SMART app has also been activated and anyone can get details about any calamity and stay prepared.

CM expresses concern over environmental degradation in Andhra Pradesh

AMRAVATI: Y S Jagan, Chief Minister of Andhra Pradesh directed the state government officials to impose ban on single-use plastic with immediate effect. The directions came after CM expressed his serious concerns about climate change and growing environmental concerns across the globe and told officials there shouldn't be any compromise in imposing plastic ban and handling environmental issues. The CM had a meeting on September 26, with the state forest department officials to discuss about the plastic ban and other environmental concerns.

The CM said that the new rules and guidelines will be devised to make the environmental guidelines tough. “Future generations will not spare us if we continue to be negligent in tackling the violation of environmental rules,” the CM stressed. He further that only 30 per cent of the one lakh tonnes of pollutants are being treated by the pharma industry



while leaving the rest into water bodies and air. He noted that the govt failed to act on environmental issues aptly in a hurry to attract investments from various industries in the state. “We need industries. We also need to take stringent measures to protect the environment,” CM emphasised. He said that the government would levy green tax to handle the job of treating the pollutants from the industry. CM also emphasised on protecting the Godavari river basin and ordered officials to take up Mission-Godavari to focus on cleaning the east and west Godavari canals.

AIILSG, Infocomm organise seminar on Liveable Cities



NEW DELHI: All India Institute of Local Self-Government and InfoComm India organised a seminar on Liveable Cities during InfoComm India 2019 that was held at Bombay Convention Centre from September 18 to 20. In this seventh edition of the summit, more than 500 exhibitors participated and the conference hosted 11,532 visitors which is a 17 per cent increase from the previous year's conference. Of these visitors, 2,512 attended the Summit, which comprised 74 knowledge-sharing sessions running the gamut from high-level conferences to industry seminars and technical discussions.

Richard Tan, Executive Director, InfoComm Asia, said, "In tandem with the growth of India as one of the most exciting emerging economies in the world, InfoComm India has soared in seven years. We are now well-known in India as the platform of choice amongst exhibitors who want to tap into the promising Indian market and amongst business and organisations which want to plug into the latest experiential technologies from the best companies in the world."

Rajiv Agarwal, IAS (Retd.), Director General, AIILSG chaired the discussion. He also delivered the welcome address in which he said, Dictionary definitions of liveability indicate that liveability is about being suitable for human living. In relation to cities, liveability describes the surpassing of basic living conditions to meet citizens' aspirations. This is reflected in the annual rankings of liveable cities by several research agencies such as The Economist's Intelligence Unit, Mercer

and Monocle. He further said, the world is urbanising faster than ever and the fastest growth is happening in Asia. The rapid economic growth in Asian cities is attracting more than 120,000 new urbanites daily. According to an Asian Development Bank (ADB) report, around 65 per cent of all Asians will reside in cities by 2050. This fast-paced urbanisation demands better amenities in cities for increasing urban populations.

According to a recent report by EIU, the Austrian capital Vienna is the most liveable city in the world for the second year running. On the EIU's index, which ranks 140 cities on 30 factors bunched into five categories—stability, health care, culture and environment, education and infrastructure—Vienna scores a near-perfect 99.1 out of 100, putting it just ahead of Melbourne. Sydney and Osaka fill the next two spots in a top ten dominated by Australian, Canadian and Japanese cities. Indian cities have performed poorly in the recently released ranking. While the Indian capital registered the biggest decline in Asia, as Delhi fell six ranks on the chart, Mumbai also fell two places since last year to rank 119. New Delhi (rank 118) has been given an overall score of 56.3, Mumbai has got 56.2, while top-ranked Vienna has scored 99.1 and least-ranked Damascus (Syria) has got 30.7 points.

A host of experts from various parts of the country participated in the discussions. The summit was divided into a wide range of issues during a series of technical and panel discussions on how professional Audio-visual and

Integrated Experience Solutions will shape the future of different industries.

Tikender Singh Panwar, Former Deputy Mayor Shimla, spoke on environmental concerns and steps that local authorities need to take for improving the present scenario. While suggesting a few measures in his address he said that green tax should be imposed on corporate bodies. Ranjan Panda, Convener Combat Climate Change Network, India talked about climate migration. He said that not all migration is need based but at many places people migrate to prevent natural calamities.

Reflecting India's nation-wide push toward digital technologies, numerous government representatives attended the exhibition with huge projects in their pocket, to hunt for the latest experiential communications. For instance, the Public Works Department of the Government of Madhya Pradesh, Bhopal, is supporting the development of a smart city and was searching for smart displays and LED walls for command and control centers, including for traffic management.

Based on the enthusiastic response to their products and solutions, the exhibitors noted that the market in India is stronger than ever. Sixty amongst the over 200 exhibiting companies were first-time InfoComm India exhibitors.

They hailed from over 20 countries. Exhibitors were delighted to get the opportunity to demonstrate their solutions to potential new clients. InfoComm India will return to Mumbai during September 2-4, 2020.

‘We need to declare a world-wide climate emergency’

Team UrbanUpdate

NEW DELHI: After a 16-year-old Swedish Climate Activist, Greta Thunberg inspired millions of youngsters about the consequences of climate change, people all over joined her in her attempt to raise attention towards the issue; at least 150 countries to take part in a global movement called ‘Global Climate Strike’. The world saw young people turned up in the streets, public parks, and schools with homemade signs to fight for their future. This meant braving the rain, skipping classes, and dodging strict government rules to demand action on climate change. The protesters had one message: We take action now before it’s too late. Here are the highlights of the strike from across the globe.

Singapore

In Singapore more than 1700 people turned up at first Singapore climate

rally, despite public rallying being illegal in the country except at the parks. At the Singapore event, protesters came bearing posters with slogans like “Don’t burn my future” and “O-Levels are soon, so is this irreversible climate crisis”.

The protesters staged a DIE-IN - a move similar to a human chain domino that was a way for organisers and participants to show collective grief over the loss of biodiversity and human lives resulting from climate change.

Malaysia

In Kuala Lumpur, more than 500 Malaysian protesters gathered to show their support for global climate strike. The protesters displayed banners mainly focusing on forest fires, which has now become a common occurrence every year since four decades and the subsequent deteriorating air quality. The protesters asked their government to take legal action to curb environmental degradation and asked for a system-

wide paradigm shift.

Along with the global messages “There is no planet B” and “System change not climate change,” banners like “Tree plantations are not real forests” and “Let us breathe freely again” drew attention to the main environmental degradation effects that Malaysians deal with on a daily basis.

Australia

Australia saw an estimate of 300,000 people gathered at more than 100 rallies calling for action to guard against climate change.

In Sydney and Melbourne, there were long lines to enter the rallies, which brought parts of both the cities to a halt. A crowd of silent protesters including students, families, mums with strollers, office workers and unionists filled Sydney’s Domain to hear from protest organisers, climate activists, and event organisers.

The international movement “Fridays for future” has brought the impending climate crisis issue to the common Indian man. Indians are increasingly becoming climate refugees because of heatwaves, pollution, water shortage, and unemployment. As the severity of the situation escalates day-by-day, children from around the world have come forward to urge the world leaders to put the pressing issue of rapid climate change in the forefront of their policy framework, developing policies that will subside the effect of this “climate emergency” in order to avoid jeopardising their future. Placard holding, school going children of Delhi banded together at Jantar Mantar and performed here on September 27 in order to draw people’s attention to their cause. Acts like nukkad natak, dance performances and juggling





performances were put out under the watchful eye of Brother Steve Rocha, Director of PRATYeK, who have been organising small protests against climate change in Delhi regularly. In order to know more about the climate strikes, Urban Update's Akshit Pushkarna and Adarsh Som talked to Brother Steve.

Seeing that you have been regularly holding 'Climategiri' at Jantar Mantar against the ongoing climate crisis, what progress have you made as of now?

Every month we have one Friday dedicated for this. 'Climategiri' has grown into a movement with more and more schools and NGOs coming onboard and the voices of the children are being heard across the globe. Young people are leading a path of change and Greta's initiative has given young people a platform to express their growing discomfort of foreseeable dark future. As a result, in India, we can see various schemes like the ban on single use plastic are being initiated. But, we are not confident about the implementation

of the same at ground level and hence this won't be the end of our protests until it becomes a commitment which should reflect in our laws and our budgets, in our lifestyles basically. Four countries have already declared such climate emergencies.

What exactly are Greta Thunberg's demands from the world leaders?

What she is basically asking for is to declare a worldwide climate emergency and prioritise the climate crisis, whose severity is highlighted daily in the news. We want budgets changing in order to emphasise more on introducing reforms which protect the environment, rather than depleting our natural resources. The world could face severe consequences in the coming decade if anything is not done to rectify the situation now.

What exactly is a climate emergency?

Adequate funds get reallocated to the designated natural resources ministries. They get more empowered in order to

implement tougher laws which can ensure that stricter measures are taken for the betterment of the environment. Activities that degrade the environment get suspended. Green taxes come into play. Greener ideologies like encouraging cleaner alternatives to the day to day utilities would be introduced. The whole paradigm needs to be changed. Hence, an emergency.

Why aren't the other governments implementing this climate emergency?

Many countries are supporting the corporate world and industrialisation, which I believe are at the heart of the issue. The over exploitation of natural resources by industries has contributed in flaring the situation.

Given the current economic scenario of India, can such a paradigm shift proposed by this kind of emergency be feasible?

There is no other option. We have to act immediately and that's why these little kids are here. Physical changes are highly essential at this stage.

Hussain Sager canal wall partly collapses inundating 200 houses



Protective wall of a canal connected to Hussain Sager Lake partially collapsed due to heavy rains on September 27, inundating about 200 houses in Hyderabad's MS Maqta area. The rains also led to waterlogging in the low-lying areas of the city. According to an official, Gudimalkapur, Red Hills, Nampally, Sinagar Colony, Jubilee Hills, Karwan and Asif Nagar areas of the city received 10 to 14 cm of rainfall in the intervening night of September 26 and 27. The Greater Hyderabad Municipal Corporation (GHMC) is carrying out operations to remove water. B Rammohan, Mayor, visited several inundated areas and promised to dispatch disaster response teams.

IMC organises workshop on waste segregation

The Itanagar Municipal Council (IMC) organised a one-day workshop on significance of waste segregation on September 25. Kamlung Mossang, Arunachal Pradesh Urban Development, Town Planning, Urban Local Bodies and Government Estates Minister, said that people are aware of the Swachh Bharat Abhiyaan (SBA) and the importance of clean surroundings but do not want to take responsibility. The minister promised that the cleanest district, cleanest sector and any individual commitment towards the cleanliness be provided with a letter of appreciation.

ADB to fund Ranchi's urban water supply scheme, other development works

RANCHI: The work on second phase of Urban Ranchi Water Supply Scheme, which is funded by the Asian Development Bank (ADB), will start from March 2020. This scheme aims to benefit over 92,000 households in the city. A high-level fact-finding team of ADB which had visited Ranchi water supply project sites, along with sites of other urban infrastructure projects that they would be funding, between September 14 and 20, gave a presentation before the Jharkhand Urban Development department officials at Project Bhavan in Ranchi.

Ameet Kumar, director of State Urban Development Authority (SUDA) said that the ADB team showed them the presentation on their findings, which they would submit to the Union finance ministry later this month. Around 70 per cent of the financial costing of the project

will be provided by the ADB as a loan while the state government will provide the rest 30 per cent. "We have started the tender process for some projects and after formally signing loan agreements, will issue work orders to the private contractors to get the work started," added Kumar. ADB will fund six urban infrastructure projects including the second phase of Ranchi Water Supply Scheme, integrated drainage and sewerage project in Jugsalai and Mango (both in Jamshedpur), integrated drainage and road projects in Dumka and Medininagar and the urban water supply project in Hussainabad.

The Ranchi Water Supply Scheme, the work on its first phase is already underway along with the second phase which will begin soon, will provide piped water supply in all the 53 wards under the Ranchi Municipal Corporation (RMC).

Puducherry constitutes Heritage & Conservation Committee

PUDUCHERRY: The Government of Puducherry has reconstituted a state-level Heritage Conservation and Advisory Committee (SLHAC) in an effort aimed at protection and conservation of heritage buildings in the Union Territory (UT). The committee will be headed by the Secretary to Government (Town Planning).

The newly formed committee comprise of Chief Engineer of PWD, Superintending Engineer of Local Administration Department, Director of Tourism, Art and Culture, Conservation Assistant, Archaeological department, Dr S Kothandaraman, Professor, Pondicherry Engineering College, Raphael Gastbois, a French Architect-cum-Urban Planner, and the Chief Town Planner, Town and Country Planning Department. Indian National Trust for Art and Cultural Heritage (Intach) has prepared a detailed list of all heritage buildings and a copy has been submitted to the government. The committee would have statutory powers to notify heritage buildings and precincts. Ashok Panda, Co-convenor of Intach said that once the heritage buildings are notified, they cannot be demolished or modified without the approval of the newly formed Heritage Conservation Committee. Earlier, Intach carried out a study in 1995 which declared that there are 1,807 heritage structures in the boulevard. And, in 2005, the numbers fell to 1,173. However, a few more buildings were added to the list in 2008 taking the total to 1,184 heritage structures. In 2010, post changing the listing classification as per the recommendations



of the Ministry of Urban Development, the number was pruned to 980 buildings. These have been further classified as heritage buildings in Grade-IA, Grade-II A, Grade-II B, and Grade-III as per their order of importance.

NDMC plans to go 'PLASTIC FREE'

Team UrbanUpdate

THE INDEPENDENCE DAY address delivered by Prime Minister Narendra Modi has created a serious impact across the country asking all the government and private organisations, shopkeepers, vendors, and citizens to boycott single-use plastic. The Government of India has planned to implement a nation-wide blanket ban on single-use plastic from October 2, the 150th birth anniversary of Mahatma Gandhi, and the preparatory measures for the move can be seen in the National Capital. Shop owners across the city have stopped giving polythene bags to customers, and the continuous awareness programmes conducted by various civic bodies taking place to help the cause.

NDMC in its efforts to curb plastic pollution has started a drive where underprivileged kids are involved in making cloth bags which will be sold and used in place of plastic bags in day-to-day life, Mary, Social Education Department, NDMC told Urban Update.

She was very enthusiastic about the drive and said that the plastic which can only be used once and is also not recyclable - like straws, cups, plates, polythene bags, etc should be completely banned from being used.

The stall put up by the NDMC had students from the NDMC training institutes making cloth bags. Mary said that these students have been trained in sewing techniques and they are making cloth bags which will sold to prevent people using plastic bags. "The cost of the bag varies from ₹15, ₹20, ₹50...depending on the cloth used. We only charge for the cloth", she said, further adding that such bags can be made at home very easily using old clothes. This initiative is taken to spread awareness among people and also to make these cloth bags more accessible.

Talking on the nation-wide 'plastic



ban' which is expected to be announced on October 2 the official said, right now the change can be seen in some parts of the city where shopkeepers have stopped using plastic bags for packaging but, from October 2 stricter rules will be implemented nation-wide. People who are caught using polythene bags or any product made out of single-use plastic will be penalised in the future.

She further said that the authorities are planning to open four training institutes where unskilled youth would be provided with skill training and also cloth bags will be made there which will be sold. Location for these institutes have not been finalised yet but certainly things will get clearer soon. "People are coming to us with donations offering various sums of money for the institute and want more and more young women to be involved in the training program," she said. Such a move will not only make the cloth bags more accessible to people but will also create job opportunities for women who will be trained in the institutes. "Officials like us will get orders for work for these women getting trained under us", added Mary. Under this drive organised by the NDMC, the stall which was put up on September 26 will continue till October 2.

NDMC organises awareness campaign on single-use plastic ban

On the occasion of 150th birth anniversary of Mahatma Gandhi, the

NDMC and Smart Bike organised 'Eco-mart' as an awareness programme at Pandara park, Chanakyapuri in New Delhi. Vijay Kumar Dev, Chief Secretary of Delhi was invited as the chief guest for the event.

The programme saw participation of NDMC school students, presenting street plays, musical performances, skits, and more to spread the message 'Say No to Single-use Plastic'. Promoting Gandhian paradigm on cleanliness, many children were dressed up like Mahatma Gandhi and gave out loud messages on cleanliness, sanitation and using 3R policy - Recycle, Reuse, Reduce. A rally of people on smart bikes wearing t-shirts bearing 'Stop using Plastic' slogans was seen on the streets of the Capital as a part of the awareness campaign. The organisers also made sure that right alternatives of single-use plastic like wooden cutlery, earthen pots, glasses, containers made up of bamboo, paper based products, jute bags, and more such eco-friendly products were kept for display and a few of them were for sale as well. A small art gallery was created where different paintings by school students were put up bearing messages against plastic use, promoting organic materials, eco-friendly alternatives of single-use plastic, messages on pollution in the city, and more.

The event saw active participation of various government officials and locals residing in nearby areas.

NDMC to conduct drone surveys to ensure fire safety in Karol Bagh



Delhi High Court issued a direction to the Capital's authorities to use drones to conduct fire safety inspection surveillance in Karol Bagh. The court expressed strong exception to non-filing of status report by the North Delhi Municipal Corporation (NDMC) and Delhi Fire Services (DFS), which were initially ordered to appoint nodal officers for regular interaction and communication so that fire audit is given priority. A bench of justices Hima Kohli and Asha Menon directed the NDMC and DFS to file a joint status report on the issue by the next date of hearing, that is, October 14.

IIT Guwahati, PCBA partners to curb Assam's air pollution

Indian Institute of Technology (IIT) Guwahati signed an MoU with Pollution Control Board Assam (PCBA). This initiative is taken to curb air pollution in the identified cities - Guwahati, Nagaon, Nalbari, Sibsagar and Silchar where particulate matter levels exceed the annual average ambient air quality standards. Professor Shared Gokhale, IIT Guwahati said, the current levels of PM10 and PM2.5 in Guwahati and other cities of Assam are alarming. IIT Guwahati is, therefore, committed to extending technical assistance to the PCBA in improving the air quality monitoring network and carrying out technical studies to develop a suitable city-wise air quality management plan.

Himachal targets 100% transition to EVs by 2030

SHIMLA: Himachal Pradesh authorities have introduced HP Electric Vehicle Policy-2019 which aims to make Himachal 100 per cent transitioned to electric vehicles by 2030. The aim of this initiative is to provide the residents of the state with sustainable, safe, eco-friendly, inclusive and integrated mobility for the future. Chairing a meeting of officials in Shimla on September 19, Shrikant Baldi, chief secretary of Himachal Pradesh said that the aim of this draft policy is to achieve 100 per cent transition to EVs by 2030 in the state. This target was in line with the United Nation's sustainable development goals (SDGs) and vision of the Central government, he said.



"There will be a shift from internal combustion engines (ICE) to electric vehicles. The objective is to encourage use of hybrid electric vehicles by the government entities during the transition period. This will create fresh employment opportunities," he said.

Baldi said that a viable business model would be prepared for private developers to install EV charging stations and infrastructure within their premises. There would be a provision for charging spots in commercial buildings such as hotels and shopping malls. Domestic rate of power will be charged if an EV is charged at domestic user facility. "Non-domestic, non-commercial rate will be applicable in public charging facility and commercial charging stations," he said.

He said that the Himachal Pradesh Electricity Board Limited had been designated as the state nodal agency for setting up charging infrastructure in the state. The HP Electricity Regulatory Commission would be the final authority to determine the rate of electricity to EV charging stations from time to time.

Panchkula authorities use drones for seeding in Shiwalik region

PANCHKULA: The Haryana Forest Department conducted aerial seeding between September 13 to 18, via drones at the Shiwalik area of Panchkula district. The airborne dispersal of seeds of neem, jamun, amla and ficus species of bargad, pipal, pilkhan, khair, etc, was done to enhance the vegetation of the once extensively vegetated area. The pilot project was executed via the use of an IIT Kanpur start-up developed seeding drone which is capable of dispatching a total payload of 2 kg and is equipped with precise delivery mechanism for seeds of different sizes to drop them at predetermined intervals from a low height of 10-15 meters. On the occasion of its pilot run on September 13 at Mandhna, Anil Hooda, Principal Chief Conservator of Forests, said, "Drone based seeding will boost vegetation enrichment in denuded and in low density areas. It will also help plantation in inaccessible and tough terrains which are otherwise difficult for manual plantations. He further said, "Drone based tree planting technology is very promising and holds immense potential for the future. However, this technology requires proven artificial intelligence based system to assess the area for plantation sites and selection of site specific local species. Soil moisture, choice of species, and mechanism of drone seed planting are main deciding factors for a successful aerial tree planting." Vinod Kumar, Additional Principal Chief Conservator of Forests, said, "We are constantly using geospatial technology to precisely map forest boundaries, and monitor forestry resources and assets. Geolocation of blank patches and low density areas can be mapped using latest satellite imageries and data so generated can be directly fed into drone software for auto plantation.

Digital technological solutions

The future of development

NEW YORK: United Nations Development Programme (UNDP) Administrator Achim Steiner, on September 25, said new digital technologies are emerging and converging faster all the time and offering quicker, smarter solutions to tackle the world's toughest challenges.

Steiner further said, "From artificial intelligence to drones, mobile money, and blockchain, digital innovations are already helping us address poverty, hunger, climate change, conflict, and disease. We need nothing less than to reinvent and reimagine what development looks like in the context of this technological revolution."

Around 49 per cent of the world still lacks Internet access, mostly in developing countries, mostly women, and often in countries emerging from conflict. One of the biggest challenges

is getting these game-changing technologies into the hands of those who have been left farthest behind.

Steiner spoke to a United Nations General Assembly side event on "The Digital Future of Development," bringing together a panel of digital innovators: Amani Abou-Zeid, Commissioner, Infrastructure and Energy for the African Union; Rob Nail, CEO and associate founder of Singularity University; Gregory Rockson, CEO and co-founder of mPharma; Natalie Payida Jabangwe, CEO of EcoCash; and Srinivas Nidugondi, EVP and Chief Operating Officer, Mobile Financial Solutions, at Comviva.

UNDP's new digital strategy—the first of its kind in the UN system—charts a course to leverage digital innovation both inside the organisation

and in service lines to countries around the world. With a presence in 170 countries globally, UNDP also launched a public online consultation to help identify development challenges and breakthrough digital solutions.

Top challenges they have identified include the pervasive digital divide, carbon emissions, electronic waste, privacy, and security. Top solutions include awareness-raising, access to quality content, citizen engagement, digital literacy, tree-planting drones, and artificial intelligence for agriculture. The online consultation will continue through October 2, 2019.

UNDP is already working with partners on the ground to deploy digital technologies for development—mapping Mauritius with drones, gauging Philippine citizen feedback with artificial intelligence, and monitoring Mali's post-crisis recovery with drone photography and satellite imagery.

UNDP also helped launch mobile payment for rural villages in Fiji and 3D printing of prostheses for disabled youth in Honduras. In Maldives, facing a grave threat from rising sea levels and coastal storms, drones are helping island communities prepare for and respond to disasters.

In Rwanda, UNDP is working with local partners on an experimental project using data and sensors to help farmers predict climate conditions that affect their crops. And, in India, in partnership with the GAVI vaccine alliance, UNDP is helping the Government digitise entire vaccine stocks and track their movement.





150
Years of Gandhi

GANDHI.city

Mahatma Gandhi's ideas on self-rule, community relations, sanitation, villages, non-violence and peace always invoke inspiration, reverence among people world over. Gandhi was not a great proponent of cities. There were not many cities then but urbanisation is a reality of today's world. We don't know what would have been his thoughts on cities today. Cities have a lot to learn from his philosophy to build self-sustainable communities with a focus on sanitation, education, health facilities, and deep-rooted democratic practices in running urban systems. We can embrace a lot of Gandhian thoughts to improve cities of today



Abhishek Pandey
Editor

As we celebrate the 150th birth anniversary of Mahatma Gandhi, it is worth underlining that he has been inspiring millions of people even after 70 years of his death. That is the impact of Gandhian thoughts and philosophies on the collective consciousness of Indians. Gandhian thoughts on some issues may have limitations in today's times but his philosophy on life, environment and human behaviour remain relevant even today.

In the times of Gandhi, there were only a handful of cities. India was not industrialised. In India after Gandhi, a lot of things in our society changed. The Indian population was a mere 300 million that rose to 1.3 billion in 2019. There was no large-scale industry. A majority of people were living in villages as there were only a few cities which had little space for common Indian as they remained power centre for politicians, bureaucrats and the rich. Perhaps that is why Gandhi was of the view that cities exploit villages and villagers for their advantage. He promoted the idea of self-sustaining communities in villages that do not need to depend on cities for their daily needs.

The time has changed. Cities in different parts of the country emerged

and common man built the foundation of those cities and had a share in their prosperity. This was propelled by industrialisation in the sixties and later after opening up of the economy in the last decade of 20th century. Urbanisation picked up pace but the development was neither inclusive nor sustainable. Hence the slums emerged, pollution level in cities continues to be very high and there was stark difference in access to civic services in the low-income and high-income colonies. Here, Gandhi can come into the picture. Cities can embrace Gandhian ideas to become more inclusive and sustainable.

Gandhi's love for villages

Gandhi always talked of self-reliance and promoted the rural industry. The spinning wheel of Mahatma Gandhi symbolises this idea. Gandhi

envisioned India as a nation of self-sufficient villages. His famous quote, "The future of India lies in its villages" reverberated in the minds of Indian policymakers post-independence. Since Gandhi remained an inspirational force for Indian polity, perhaps, that is why Indian policies largely focused on development of villages in the last seventy years.

In one of the books on Mahatma Gandhi 'Gandhi and His Ashrams', Mark Thomson writes Gandhi wanted to reconstruct the villages which, he felt, were existing merely to be exploited by the cities and dependent on the latter's sufferance for survival. He further says that Gandhi believed that the strained and unnatural situation could only be alleviated when the city people realised their "duty of making an adequate return to the villages for the strength and sustenance which they derive from

"DO YOU KNOW THAT BIG CITIES LIKE LONDON HAVE EXPLOITED INDIA AND THE BIG CITIES OF INDIA, IN TURN, HAVE EXPLOITED ITS VILLAGES? THAT IS HOW PALATIAL MANSIONS HAVE COME UP IN BIG CITIES AND VILLAGES HAVE BECOME IMPOVERISHED. I WANT TO INFUSE NEW LIFE INTO THESE VILLAGES. I DO NOT SAY THAT ALL THE MILLS IN CITIES SHOULD BE DEMOLISHED. BUT WE SHOULD BE VIGILANT AND START AFRESH WHEREVER WE HAPPEN TO MAKE A MISTAKE. WE SHOULD STOP EXPLOITING THE VILLAGES AND SHOULD CLOSELY EXAMINE THE INJUSTICE DONE TO THE VILLAGES AND STRENGTHEN THEIR ECONOMIC STRUCTURE."

Talk with Manu Gandhi(18-4-1947)

‘Swachhta, Samriddhi & Swaraj’ – Gandhi’s dream

The month of October has been one of the most important months since the past five years when the Government of India on October 2, 2014, the 145th birth anniversary of Mahatma Gandhi, launched ‘Swachh Bharat Mission’ which was one of the biggest behavioural change campaigns ever launched by the government. The campaign brought into light Mahatma’s biggest concern – ‘Swachhta’. To know about Gandhi’s dream India and significance of ‘swachhta’ in his life, team Urban Update visited Gandhi Smriti and interviewed Sailaja Gullapalli, Research Associate at Gandhi Smriti

Prateek Singh
Digital Marketing Associate



What were the views of Gandhi on urbanisation?

Gandhi, although having a progressive outlook towards development, thought that a greater stress on urbanisation would ultimately retard the growth of villages. He always emphasised focusing more on the village economy, as he said that if the village economy is strong and people residing in villages are encouraged to produce their own goods, sell them in market and make this their source of income, then they need not to go to big cities in search of livelihood.

Today, the widely promoted government programme—Swachh Bharat Mission, is based on Gandhi’s teachings on sanitation and hygiene, so what exactly was Gandhi’s paradigm on sanitation and hygiene?

Gandhi, during his life span, visited many parts of India and observed that people are not much aware about cleanliness, hygiene and sanitation, which was degrading health standards. So to create awareness amongst people, he started teaching and engaging more people in his cleanliness initiative.

He stayed for almost a year in Champaran to fight for the rights of the Indigo farmers. Not only did he engage people in the non-violent protests but he also engaged his band of volunteers to teach people the importance of sanitation, hygiene and cleanliness.

Even his wife Kasturba Gandhi was actively involved in this movement. Kasturba also used to teach women about these important issues.

Gandhi was the first leader who not only spoke about the importance of independence but also addressed other issues which are still relevant to this day. Even today you can see hoardings of Gandhi cleaning toilets at various places just to make people aware about the importance of cleanliness.

In 2018, the government took the initiative ‘Swachhta se Swachhagraha’, which was inspired by the ideals of Gandhi and was similar to what people saw during Champaran movement but it wasn’t continued. Do you think the implementation of such movements which are inspired by Gandhi can be feasible for urban India?

Yes, we can initiate and implement movements inspired by Gandhi’s ideals in today’s cities. But you have to understand that for each movement to grow and generate the expected results, it takes some time. Initially there is going to be some resistance as people may not readily involve themselves and hence gradual fruition of such projects can be expected. You have to educate people about the campaign’s objectives.

What are the lessons we can learn from Gandhi’s lifestyle, can we implement them in our daily lives?

Implementing or mirroring the principles of Gandhi in your life is not an easy task. Most of us lack the discipline and time management skills he had and hence you need to be extremely determined to adopt a similar lifestyle.

He led a very regimented life. Imagine back in those days he used to

Team 'Bharat'

get up at 3 am, did his daily chores, responded to all the communication he received that too hand held letter many a times, he made sure no letter went unanswered. He used to talk to officials and Indian leaders, set up common place to meet the needful citizens of the country. He used to do his spinning and also taught school children in his ashram, etc. This routine ensured that he was successful in his endeavors and we can take inspiration from this and carry out various task in a day's time.

Good thing about Gandhi's teaching is that he first practiced then he preached not the other way round.

Do you think the idea of 'Swaraj' is rightfully implemented in Indian democracy today?

The political comparison of today's democracy to the time when Gandhi introduced 'Swaraj' is completely different. During that time, we were under colonial rule and hence Gandhi promoted the idea of self-rule to people. Now we are independent and the perception of 'Swaraj' has changed. 'Swaraj' is not just a political policy, it talks about the complete development of a nation, which we don't see today in India. While some sects flourish, growth of others is still gradual. We still have made certain progress in many fields but in some fields we are lagging behind. In order to achieve a strong foothold in the world arena, our nation needs to move forward together.

"IN THE SCHEME OF RECONSTRUCTION FOR FREE INDIA, ITS VILLAGES SHOULD NO LONGER DEPEND, AS THEY ARE NOW DOING, ON ITS CITIES, BUT CITIES SHOULD EXIST ONLY FOR AND IN THE INTEREST OF THE VILLAGES. THEREFORE, THE SPINNING-WHEEL SHOULD OCCUPY THE PROUD POSITION OF THE CENTRE AROUND WHICH ALL THE LIFE-GIVING VILLAGE INDUSTRIES WOULD REVOLVE."

Harijan(30-8-1947)

them, instead of selfishly exploiting them".

In his article in Harijan in 1937, Gandhi wrote, "Today our villages have become a mere appendage to the cities. They exist, as it were, to be exploited by the latter and depend on the latter's sufferance. This is unnatural. It is only when the cities realise the duty of making an adequate return to the villages for the strength and sustenance which they derive from them, instead of selfishly exploiting them, that a healthy and moral relationship between the two will spring up, and if the city children are to play their part in this great and noble work of social reconstruction, the vocations through which they are to receive their education ought to be directly related to the requirements of the villages."

In many of his writings, Gandhi has mentioned that towns and cities exploited the villages and villagers. He expressed his anguish over the phenomenon in many of his works and public speeches. This may sound ironical but it is true that almost every other city in India has a road named after Mahatma Gandhi; popularly known as MG Road. It is very difficult to contain Gandhian ideology just to villages. The canvass of his philosophy and ideas is so immense that it has something valuable for cities too.

Gandhi and his relation with cities

Gandhi's work in cities was significant as he led most of his movements from cities. Gandhi got a large chunk of financial support for his movements from his followers in cities which were businessmen. There is no denying the fact that Gandhi spent important years of his life in the cities of South Africa, Britain and India.

Cities helped in shaping his movements but he could not develop liking for urban life and preferred to build his Ashrams in rural settings. Ahmedabad Ashram was also built in a rural setting but eventually that also came under the city's territory.

In a recent article for a daily English newspaper Ramchandra Guha, a famous historian, writes, "All through his Indian years, too, Gandhi's life was deeply intertwined with the city. It was the merchants of Bombay who most abundantly funded his movements; it was the ordinary citizens of that city who most enthusiastically went to prison on his behalf. Bombay was the epicentre of his first major all-India satyagraha — the Rowlatt Satyagraha of 1919 — as well as of the last — the Quit India movement of 1942."

Guha further details his links with cities saying, "Gandhi's three most famous fasts were conducted in three great Indian cities — in Poona in September 1932, in Calcutta in September 1947, and in New Delhi in January 1948. Before and after these fasts, he visited these cities often, and had many friends and associates in each of them (and a few rivals and adversaries in each of them, too)."

What do the views of a leader who lived in a different era hold significance today? One can find Gandhi and his name almost everywhere on currency notes, street names, busts, pictures, etc. But, the million-dollar question is: can we take his ideas on self-governance, inclusivity, sustainability and several other cross-cutting sectors in the urban domain to build better cities for coming generations. I strongly believe that such endeavor would be the best tribute to the Mahatma. ■

Why was sanitation so important to Gandhi?

Cleanliness and sanitation remained a central theme of Mahatma's teachings. Gandhi compared cleanliness to godliness and even put sanitation above political freedom. Gandhi knew in absence of adequate community sanitation and cleanliness standards, the large population of the country could be at a life-long disadvantage because of related illnesses and malnutrition. This article takes you on a walk down memory lane to assess the relevance of his idea of sanitation in present-day India



Ranjit S Chavan
President, AILSG



As we celebrate the 150th birth anniversary of Mahatma Gandhi along with the completion of five years of Swachh Bharat Mission that was inspired from his idea of sanitation, we must celebrate his idea of sanitation along with several other contributions in building the new India.

Since the launch of the SBM-Gramin and SBM-Urban in 2014, more than 100 million toilets have been built in the country; over 5.9 lakh villages, 699 districts, and 35 States/UTs have declared themselves Open Defecation Free (ODF).

If we go by the numbers, it is a phenomenal success in a short span of five years. The success of the programme has to go through the test of time and see how many of these toilets are still functional and how many people are still using these toilets. The success of this program does not just depend on the infrastructure but also on public habit. For this, we should not stop there but keep making people aware

“To my great grief, I discovered insanitation, both moral and physical...There is defilement of the mighty stream [the Ganges] even in the name of religion,” he wrote. Thoughtless ignorant men and women use for natural functions the sacred banks of the river where they are supposed to sit in quiet contemplation and find God. They violate religion, science and the laws of sanitation

Gandhi shared his experience of KumbhMela in one of his articles for “Young India,” an English weekly he edited from 1919



I learnt 35 years ago that a lavatory must be as clean as a drawing-room. I learnt this in

the West. The cause of many of our diseases is the condition of our lavatories and our bad habit of disposing of excreta anywhere and everywhere. I, therefore, believe in the absolute necessity of a clean place for answering the call of nature and clean articles for use at the time

In May 1925, in an edition of "Navajivan," a weekly newspaper, he wrote about the importance of keeping lavatories clean



An ideal village will be so constructed as to lend itself to perfect sanitation...The very first problem the village worker will solve is its sanitation. If the worker became a voluntary scavenger, he would begin by collecting night soil and turning it into manure and sweeping village streets. He will tell people how and where they should perform daily functions and speak to them on the value of sanitation and the great injury caused by its neglect. The worker will continue to do the work whether the villagers listen to him or not.

In 1937, Gandhi's response to a letter from a villager living in Birbhum, West Bengal, was published in Harijan, another weekly publication. The villager had asked the definition of an "ideal village"



What is so distressing is that the living quarters of the menials and sweepers employed in the viceroy's house are extremely dirty...I shall be satisfied only when the lodgings of the ministers' staff are as neat and tidy as their own,

Gandhi spoke in a speech in New Delhi on September 1946

of the importance of sanitation and the health implications, if we are lacking in it. Since independence, India has lost thousands of young lives because of poor sanitation and lack of clean water in villages and slums in cities. In the present time, when we talk about sanitation, it is not merely related to cleanliness but also linked to economics. It is not rocket science to understand that better sanitation standards will result in longer productive life-spans of our population and reduced expenditure on medical facilities.

Gandhi's focus on sanitation

Mahatma Gandhi had mentioned in his works that he had realised early in his life that the prevalent poor state of sanitation and cleanliness in India and particularly the lack of adequate toilets, in the then largely rural India, needed as much attention as was being devoted toward attainment of Swaraj.

When Gandhi was in South Africa, he assisted the authorities in Durban when the plague was reported to be imminent and had undertaken "house to house inspection" of the Indian community. Gandhi started his movement for sanitation in India in 1915 after he came back from South Africa.

Indian population has grown 7 to 8 times since then and the demography of the country has changed, more cities

have emerged, and socio-economic structures have been modernising and moving towards the global standards of developed countries. The complexities of sanitation problems and waste management have also changed.

In those days, his movement on sanitation largely covered provision of sanitary latrines in homes and the safe disposal of human waste as manure, rural sanitation, and the social issue of 'untouchability'. Gandhi also stressed on waste recycling. He defined waste or dirt as "matter displaced", and persisted that, as far as possible, all wastes should be appropriately recycled as useful resources. The situation may have changed but his idea of sanitation remains relevant event today. At the conceptual level, Gandhi was remarkably modern and remains equally relevant today. He interlinked the issues of sanitation, cleanliness and hygiene with the issues of waste generation and its management.

Swachh Bharat Mission is just one step forward in the direction of managing waste and keeping India clean. India has a long way to go to become efficient in handling its municipal waste as the waste generated in the country is going up drastically and the landfill sites are becoming mountains of garbage in almost every big city. The government has also launched various manuals

to handle biodegradable wastes, non-biodegradable wastes, construction and demolition wastes, and 'hazardous' wastes (e.g. hospital and medical wastes) but their strict implementation needs to be enforced in small towns and cities.

The road ahead

The celebration of his birth anniversary was marked by a series of announcements. Prime Minister of India Narendra Modi announced that plastic is a major threat to all of them, so we have to achieve the goal to eradicate 'single-use plastic' from the country by 2022. This is a welcome move and will surely help in keeping the country clean.

The Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti, GoI launched the 10 Year Rural Sanitation Strategy (2019-2029), which focuses on sustaining the sanitation behavior change that has been achieved under the Swachh Bharat Mission Grameen (SBM-G), ensuring that no one is left behind, and increasing access to solid and liquid waste management.

All of us need to join hands together to build the nation he dreamt of. And, these efforts and initiatives should not be limited to celebrating his 150th birth anniversary but it should become part of our daily lives and only then, we can pay an honest tribute to the Father of the Nation. ■

Need vs Greed: Mahatma the Environmentalist

Kumar Dhananjay
Consulting Editor

Mahatma Gandhi once famously said that 'the earth has enough resources for our need but not for our greed'.

This statement of the Mahatma has often been quoted in recent times as we battle environmental degradation and climate change crisis. This statement of Gandhi also brings forth his deep concern for nature and the environment. It will be apt to note that he was in practise and vision among the world's early environmentalists.

All the efforts since 1970s, be it Stockholm Conference or Rio Earth Summit or these days as the world struggles to implement Paris Accord have all happened much later than the time Gandhi expressed concerns about the environment and its effects. Environmentalists and movements across the world today are deriving inspiration from Gandhi's vision on the subject. If we take a closer look at movements at home to protect environment and save us from ecological disasters, all are following Gandhian approach and deriving inspiration from it. Be it Chipko Andolan of Sundar Lal Bahuguna or Narmada Bachao Andolan by Medha Patkar and others. Gandhi in his speeches, through his writing and messages to people often expressed his concern for environment, urbanisation and mechanisation.

Gandhi and urbanisation

"I need no inspiration other than Nature's. She has never failed me as yet. She mystifies me, bewilders me,

sends me to ecstasies."– Mahatma Gandhi

Gandhi expressed his views on urbanisation in 1934. He wrote in Harijan "It is a process of double drain from the villages. Urbanisation in India is a slow but sure death for her villages and villagers. It can never support 90 per cent of India's population, which is living in her 7,00,000 villages" (number of villages in 1934). He was a big votary of sustaining cottage industries in villages because he believed that if that is removed then villagers would lose whatever little opportunity existed to make skilled use of hand and head. He wrote "And when the village handicrafts disappear, the villagers working only with their cattle on the field, with idleness for six or four months in the year, must be reduced to the level of the beast and be without proper nourishment either of the mind or the body, and, therefore without joy and without hope".

Mahatma Gandhi was acutely conscious of large scale industrialisation and its perils. He had cautioned the world much before anyone that it will lead to destruction of the environment. In one of his most celebrated works written more than a hundred years ago in 1909, in Hind Swaraj, he had warned about the dangers that the world is facing today in the form of environmental destruction and threat to the planet. He always distinguished between 'need' and 'want' of the human being. He was very clear that we must keep the future generation in mind before the present generation use up all the

natural resources. He once said “The earth, the air, the land and the water are not an inheritance from our forefathers but on loan from our children. So we have to handover to them at least as it was handed over to us.”

Production by the masses

Dr Rajnarayan R Tiwari, Director, ICMR-National Institute for Research in Environmental Health says that “The Gandhian idea becomes still more relevant when sustainable growth and development is to be achieved because he emphasised on production by the masses instead of mass production. According to him this will result in the development of an economic system that can minimise environmental degradation and achieve sustainable development. His idea of Swaraj or self-rule enables a practical sustainable development that can be implemented without compromising the quality of life’.

If we scrutinise history we find that Gandhi was very much aware of environmental pollution and its bearing on human health. He frequently used to express his concern about pathetic working conditions in industry where workers were forced to inhale contaminated, toxic air. He expressed those concerns in Indian Opinion on May 5, 1906 and said “Nowadays, there is an increasing appreciation among enlightened men of the need for open air”. Dr. Tiwari says that Gandhi always emphasized the importance of natural resources and its conservation. He says that ‘this has a direct bearing on the man-and-environment relationship. The importance of Gandhian philosophy is well-felt in the present period in which the lifestyle of human beings has been developed in a direction of high consumerism and generation of waste. This has a two-way impact on nature. Firstly, the rate of depletion of resources has increased tremendously,

and secondly, the presence of toxicity in air, water and soil has increased’.

Conservation of biodiversity

Once English historian Edward Thomson said to Gandhi that wildlife was rapidly declining in India, to which Gandhi replied with sarcasm, “Wildlife is decreasing in the jungles, but increasing in the towns.” He firmly believed that the pursuit of limitless industrialisation by every country posed serious problem ‘for the very existence of not only man but also for all living creatures and all kinds of species on our planet’. What he preached and practised corresponds to what we today call eco-friendly measures and living in harmony with nature.

A thinker with ecological sensibility

His writings and speeches may not have mentioned the subject as it is discussed today but undoubtedly Gandhi was a thinker with ecological sensibility. The Norwegian philosopher, Arne Naess, who gave the world the idea of ‘deep ecology’ had said that it is from Gandhi that he came to the realisation of ‘the essential of all life’.

Vinay Lal, Professor of History at University of California in one of his essays says that ‘he was of the

considered opinion that nature should be allowed to take its course. The environmental crises and “extreme weather events” that are upon us have been precipitated by the gross and appalling instrumentalisation of nature. The earth is not merely there to be mined, logged and hollowed out. However, we have to first preserve the ecological equanimity of the body. Nature’s creatures mind their own business; if humans were to do the same, we would not be required to legislate the health of all species’.

Gandhi had a profound vision about the environment. He cautioned and exhorted Indians to be critically aware of the fallout and blind acceptance of technology and eating up with the west in terms of its living standards. He tried to make people see the adverse link between the western civilisation, the growing consumption practice and the threat to natural resources leading to what we today refer as ‘ecological crisis’. He cautioned against exhaustion of earth’s resources if every country tread the path of the west. Most importantly the thinker with profound ecological sensibility himself practised what he exhorted people to do. ■

'Your future depends on what you do today'

Plastic pollution is currently one of the biggest environmental concerns, which needs to be addressed with the most efficient solutions on urgent basis. Alternatives like jute or paper bags are preferable but we need a replacement which carries the beneficial characteristics of plastic - something that is cheap, durable and waterproof. As the Father of our Nation once quoted, "your future depends on what you do today." Today we need new technologies and innovation that can completely replace plastic, give us the safer and cleaner environment that we wish for ourselves and for our future generations

Shania James
Editorial Assistant



Bakelite was known to be the first true synthetic plastic invented by Leo Baekeland, back in 1907. A material composed of molecules, which is not organic. It was an amazing breakthrough. Bakelite was durable and heat resistant and could be molded into almost any shape. People called it "the material of a thousand uses". However, it turned out to be a harsh reality that 'the material of thousand uses' lasts over thousand years making it one of the major environmental concerns.

Today we are surrounded by plastic objects, from the food containers to the smallest thing like the button stitched on the cloth is made of plastic. Our dependence upon plastic is increasing day by day; we make so much of it, and throw so much of it away.

Out of the 9.1 billion tonnes of plastic that the world has produced since 1950, 6.9 billion tonnes has become waste, and only 9 per cent of that has been recycled. The rest ends up in landfills and in the world's oceans, where plastic pollution is ravaging wildlife, beaches, cities and many more. However, solutions are not impossible to find in this era of innovation and technology. Dependency on plas-

tic makes it hard for people to avoid it as it has somehow become one among the necessities though we do not want to admit it. Nevertheless, scientists and researchers from all over the world have introduced new technologies that can help to replace plastic.

Some innovative solutions

According to a recent UN Environment report "Alternatives to Plastic" biomass based polymers can be efficient if used in closed loop system.

- ◆ In September 2018, crafting plastic studios invented a compostable bioplastic "Nuatan" with the Slovak University of Technology made of cornstarch, sugar and used cooking oil. It is safe enough for fish to eat, lasts up to 15 years, can withstand high temperature and is biodegradable.
- ◆ Scientists from the Centre of Sustainable Chemical Technologies (CSCT) at the University of Bath, China have successfully created a plastic that does not use harmful chemicals, and is biodegradable. It is made of sugar and carbon dioxide. Carbon dioxide is added to a natural substance called thymidine at low pressures and at room temperature.
- ◆ Researchers at Sweden's Lund University developed a thermoplastic made from potato peelings and water that can biodegrade in nature within two months. Potato Plastic makes compostable cutlery, straws and salt bags by heating a mixture of hot water and warm potato starch, pouring the liquid into a mold

and putting it in a fridge to set. The potato starch is taken from peelings from fast food outlets, or potatoes deemed unfit for sale in supermarkets. The design, by a student from Gothenburg, was shortlisted for the James Dyson Award.

- ◆ A United Kingdom based startup Skipping Rocks Lab came up with an amazing invention, an edible water bottle - Ooho, made from seaweed extract. According to the startup, the sustainable packaging degrades in a natural environment in six weeks on average and the proprietary material is cheaper than plastic. The company has won a number of awards including the 2016 UK Energy Globe Award. The water ball can fully be swallowed and digested, as well as hydrating people in the same way as drinking water. The product is made from a seaweed extract and is tasteless, although flavours can be added to it.
- ◆ A French company Lactips developed a patented, milk-based thermoplastic packaging material that is biodegradable and water-soluble at low temperatures through a project called Ecolactifilm. The Lactips packaging film is based on casein – a protein derived from milk with clay and a reactive molecule (glyceraldehyde) which makes the plastic much stronger, but still biodegradable and breaks down harmlessly in water or home compost. The film takes three weeks to biodegrade.
- ◆ A 15-year-old Australian girl, Angelina Arora developed a biodegradable plastic from the protein extracted from the prawn shell. Prawn shells consist of a hard yet flexible protein called chitosan, a version of chitin – the second most abundant organic material on the planet, that is found in fungal cells, insect and spider webs.
- ◆ In 2016, Sarah Munir for Bakeys manufactured edible cutlery made of three flours: rice, wheat,



and sorghum. It helps us change the way we eat and think about waste. We can eat with it and then eat it. The cutlery is fully vegan, preservative free, trans fat free and dairy free. The edible lunch spoon, goes perfect with ice cream, yogurt, and a variety of soups. The spoon itself does not degrade within liquids due to the presence of a large quantity of sorghum, a hearty crop that is strong, abundant, and requires very little energy for cultivation.

- ◆ A company in New York named Ecovative, uses mushrooms to turn agricultural bio-waste into packaging. This company develops an array of environmentally friendly materials that perform like plastics but are made by mushrooms – specifically, by their webs of thread-like roots, known as mycelium, which consume crop waste. These materials can be grown and recycled, as opposed to being drilled, pumped, refined and discarded.
- ◆ An Indian company Papco manufactures eco-friendly containers “Bagasse” made of sugarcane which is stronger than Plastic. Bagasse, the fibrous remains left behind after extracting sugarcane juice, can be used to

make disposable cutlery and containers. Regular plastic plates cost only ₹1.5 but this green ware plates might exceed to ₹4 to 8 though the environmental benefits outweigh any cons.

There is a wide range of applications to reduce our dependence on the unnecessary use of plastics. As per the World Economic Forum, by 2050 plastic waste in the oceans will outweigh the number of fishes. However, the realisation from consumers and policymakers can be the urgent action to stop the flow of disposable plastics and alternatives can have a significant role in reducing our dependence. It is important for individuals and industries alike to make an effort to minimise the negative environmental impacts of their activities.

There are even solutions to reduce the existing plastic pollution. Ideonella Sakaiensis 201-F6, a bacteria founded by a Japanese scientist can digest plastics. All we need is to apply these innovations. It might surprise Baekeland and those early inventors, who spent so long trying to dream up long-lasting synthetic alternatives to nature’s bounty, but many of today’s innovators are returning to nature as they seek solutions for some of our planet’s major environmental challenges, including plastic pollution. ■

Can we shun single-use plastic!

This is the age of plastic we are living in. As plastic cannot degrade, it has been on the planet since its inception and has become a part of our lives to that extent that not a single moment we spend in our day when a plastic object is not around. To fight this menace of everlasting plastic which has damaged our environment largely, the Government of India has implemented a nationwide ban on single-use plastic. How much is it possible for us to remain plastic-free? Is imposition of the ban right at this point of time when the industry is already struggling with the economic slowdown?

Adarsh Som

Senior Reporter

P rime Minister Narendra Modi's Independence Day speech, delivering a loud and clear message to free the country from single-use plastic, has created a stir across the nation. The Government of India has worked on the preparatory measures to implement a nation-wide ban on single-use plastic and as expected the government announced the ban on October 2, the 150th anniversary of Mahatma Gandhi.

Comprehending the situation ahead of it, not only government offices and organisations stopped using plastic cutlery and other single-use plastic materials but the private companies also started contributing to the cause. Big names like Amazon, Flipkart, also announced a ban on using polythene as a wrapping material they have been using till date. Air India joined the initiative by banning the use of single-use plastic in their flights. Similarly, Vistara airlines have also planned to contribute by abandoning single-use plastic cutlery used in its flights. Looking at the current scenario a concern ascends, initiatives taken to curb plastic pollution are no doubt commendable, but are we prepared with the right alternatives, and if yes, then how accessible are the eco-friendly replacements of single-use plastic. Also, are the plastic manufacturers on

the same page with government.

Effect on plastic industry

On October 2, 2019, the 150th birth anniversary of Mahatma Gandhi, Prime Minister Narendra Modi in his speech said that phasing out single-use plastic is essential not only for the environment but also for the safety of aquatic beings which suffer from plastic waste dumped in rivers and oceans. But, looking at the economic condition of the country the Government of India stated that in this time of economic slowdown when the plastic industry is struggling hard to cope up, the government cannot impose a blanket ban on single-use plastic. Small plastic bottles and pharma products will be exempted from the ban as the apt alternatives are not available but, products like plastic bags, cups, plates, straws and small multi-layered sachets used for packaging will be banned.

Industrialists and more important bodies like Federation of Indian Chambers of Commerce and Industry (FICCI) raised concerns saying that due to unavailability of apt alternatives the sales of products wrapped in plastic might drop significantly causing huge losses. FICCI said that completely phasing out single-use plastic will have multifactorial effects. The most probable one would be rise in prices of most edible products as the manufacturers would need to shift to plastic alternatives.

Plastic ban supporters

Although, the plastic industry might face losses which would, in turn, have to be borne by the consumers and a

major chunk of the Indian population has enthusiastically welcomed the Government of India's initiative and many states like Maharashtra, Odisha, Goa, and many more have already banned single-use plastic.

Moreover, to support the government's initiative NGOs across the nation are coming forward to make eco-friendly alternatives of plastic bags like jute bags, cloth bags, etc. more accessible to people. Apang Seva Niketan is one such NGO in Nagpur where 12 physically-challenged men and women from the nearby localities make paper and cloth bags which are priced from ₹5 to ₹15. Also, the Centre for Sustainable Development, Eco-Friendly Living Foundation and Mahatma Buddheshiya Sanstha from Nagpur are making cloth bags and promoting them in public parks from the past one year.

Not only NGOs but also many start-ups have started focusing on solutions to the growing plastic problem and have started a whole line of products which are eco-friendly, organic and a perfect replacement for single-use plastic. A few of them have also focused on recycling techniques for reusing the existing waste plastic and turn it into a product which can be utilised in day-to-day life.

Delhi based NGOs like Chintan Environmental Research and Action Group, Swachha, and more have contributed actively to support the cause by coming up with alternate eco-friendly options, promoting them and making them more accessible to people to shun the use of single-use plastic. ■



Words of Mahatma

Indian Swaraj

It has been said that Indian Swaraj will be the rule of the majority community, i.e., the Hindus. There could not be a greater mistake than that. If it were to be true, I for one would refuse to call it Swaraj and would fight it with all the strength at my command, for to me Hind Swaraj is the rule of all people, is the rule of justice. Whether, under rule, the ministers were Hindus or Musalmans or Sikhs and whether legislatures were exclusively filled by the Hindus or Musalmans or any other community, they would have to do even-handed justice.

Environmental Pollution

Today pure water, good earth, fresh air is unknown to us. If we make wise use of these five powers and if we eat the proper and the balanced diet, we shall have done the work of the ages. For acquiring this knowledge, we need neither degrees nor crores of money. What we need is a living faith in God, a zeal for service, an acquaintance with the five powers of nature and a knowledge of dietetics. All this can be acquired without wasting time in schools and colleges.

Sanitation

A sense of national or social sanitation is not a virtue among us. We may take a kind of a bath, but we do not mind dirtying the well or the tank or the river by whose side or in which we perform ablutions. I regard this defect as a great vice which is responsible for the diseases that spring from insanitation, because of the disgraceful state of our villages, our towns and the river banks.

Swadeshi and Gram Swaraj

I suggest to you we are departing from one of the sacred laws of our being when we leave our neighbour and go out somewhere else in order to satisfy our wants... If we follow the Swadeshi doctrine, it would be your duty and mine to find out neighbours who can supply our wants and to teach them to supply them where they do not know how to proceed, assuming that there are neighbours who are in want of healthy occupation. Then every village of India will almost be a self-supporting and self-contained unit, exchanging only such necessary commodities with other villages as are not locally productive.

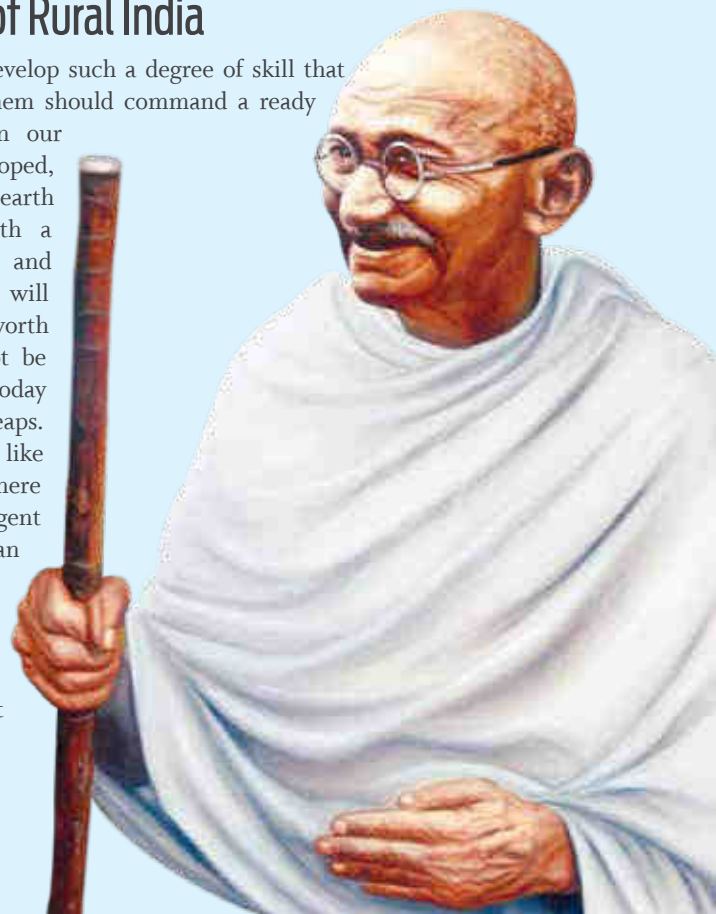
I have no doubt in my mind that we add to the national wealth if we help the small-scale industries. I have no doubt also that true Swadeshi consists in encouraging and reviving these home industries. That alone can help the dumb millions. It also provides an outlet for the creative faculties and resourcefulness of the people. It means direct employment for the unemployed millions. It may harness all the energy that at present runs to waste. It holds the hope to bring a ray of light into the dark dilemma miscalled cottages, of the villagers this is a constructive, not a destructive programme.

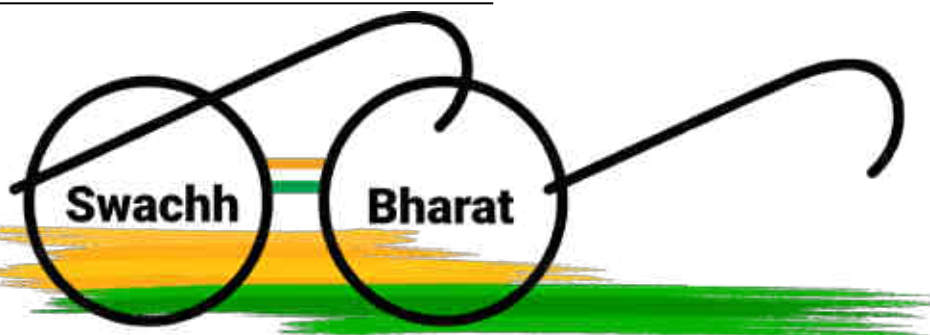
Village Industry and Swaraj

In seeking to revive such village industries as are capable of being revived... I am trying to do what every lover of village life, everyone who realises the tragic meaning of the disintegration of villages is doing or trying to do. Why am I turning back the course of modern civilization, when I ask the villager to grind his own meal, eat it whole, including the nourishment bran, or when I ask him to turn his sugarcane into 'gur' for his own requirements, if not for sale? Am I turning back the course of modern civilization when I ask the villagers not merely to grow raw produce, but to turn it into marketable products and thereby add a few more pies to their daily income?

Regeneration of Rural India

The villagers should develop such a degree of skill that articles prepared by them should command a ready market outside. When our villages are fully developed, there will be no dearth in them of men with a high degree of skill and artistic talent. There will be nothing in life worth having, which will not be had in the villages. Today the villages are dung heaps. Tomorrow they will be like tiny gardens of Eden where dwell highly intelligent folk whom no one can deceive or exploit. The reconstruction of the villages should not be organised on a temporary but permanent basis.





What lies ahead for 'Swachh Bharat'?

Government of India's flagship mission to improve India's sanitation level, the 'Swachh Bharat Abhiyan', was launched with the intent to rid India of the malpractice of open defecation and reinvigorate Gandhi's message of cleanliness and sanitation. With the deadline of the project up with Gandhi's 150th birth anniversary, Urban Update sought to understand the effectiveness and future of the movement from experts

Ashley Paul
Reporter

Akshit Pushkarna
Editorial Assistant

The nation-wide campaign was set to get rid of the practice of open defecation across India on the 150th birth anniversary of the Mahatma with the vision of ensuring hygiene, waste management and sanitation across the country. Official objectives of the campaign were set:

- ◆ To eradicate the system of open defecation in India.
- ◆ To convert the insanitary toilets into pour flush toilets.
- ◆ To remove the system of manual scavenging.
- ◆ To make people aware of healthy sanitation practices by bringing behavioral changes in people.
- ◆ To link people with the programs of sanitation and public health in order to generate public awareness.
- ◆ To build up the urban local bodies strong in order to design, execute

and operate all systems related to cleanliness.

The core issue of the first edition of the movement was to eradicate the malpractice of open defecation in India. The age old practice of open defecation has been widespread in India for centuries. Some religious texts propagated that building a toilet inside the house simply means making it impure and brings disrespect to the Gods one worship at home and is therefore, an impure and condemned act. The issue is India's biggest health hazard to date and one which has been targeted to eliminated since a long time. Many experts believe that the problems caused by open defecation are the reason that 50 per cent of Indian children are malnourished. Getting rid of it would also prove to be economical. An independent survey was conducted by UNICEF across 10,000 households in 12 states of the country to measure the economic impact of sanitation at household level. The cost-benefit ratio of a household found in the study was 430 per cent in fully ODF communities. 'Swachh Bharat Abhiyan' has been

widely popular, owing to the massive promotional campaigns carried out by the government and on-paper, the achievements made by the government in effecting behavioral change in people by sensitising them to the issue reflect the success of the mission. Official figures have claimed the following progress:

- ◆ 58,46,107 Individual Household Latrines (IHHLs) and 4,99,000 community & public toilets have been built in urban India
- ◆ 10,07,70,270 IHHLs have been built in rural India
- ◆ 699 of India's 731 districts are open-defecation free (ODF), covering 599,963 ODF villages
- ◆ 35 states and union territories are open-defecation free
- ◆ 63.3 per cent of rural population in India is said to practice Solid and Liquid Waste Management (SLWM)

In addition to this, the government also aimed to use human excreta for energy generation and production of natural fertilizers. All in all, the policy, if implemented successfully, would end the practice of open defecation in India through awareness campaigns and by making IHHL and public toilets available to the entire population of the country.

To better understand the effectiveness and future of the project, Urban Update spoke with Sushmita Sengupta, Programme Manager, Water & Sanitation, Centre for Science and Environment (CSE), who has led researches on Swachh Bharat Abhiyan's



effect across India.

On paper, the Swachh Bharat Abhiyan (SBA) has depicted tremendous outcomes. But how, in your opinion, has the movement fared at the ground level?

The issue of open defecation has not been raised at such a scale in India. Our country has been tackling the issue of sanitation since 1986. Various programs have been implemented over the course of time but none have actually met the deadlines set. This is actually the first time when public toilets have been constructed throughout the nation at this scale. As a result, 100 per cent toilet coverage has been reflected in the data. When the research team from CSE travelled to various parts of India, our observations were mixed. Huge numbers of toilets have been built without a doubt, but the question of sustainability still arises. We need water and suitable technology for management and disposal of sewage. Government claims toilets are connected to pits or septic tanks. Mismanagement of sewage can be caused when either of these waste management technologies fails to follow norms. We think the next edition of SBA should be focused on the treatment and management of waste.

Swachh Bharat Abhiyan has been touted as the world's biggest behavioral change campaign. How do you sustain this behavioral change that the government claims to have instilled in citizens with this Abhiyan?

We have seen that this campaign has been readily accepted and followed in many parts of India. In our visit to Churu's Taranagar block we found that people were in fact demanding the construction of toilets for the safety and security of women and in Faridabad, people required it for health purposes. But, there are also places where people have gone back to the practice of open defecation too. In Jhansi, where toilet coverage has been provided, people weren't using it and still going out. So the behavioral change aspect is true to a certain extent. The program could have focused more on the information, education and communication (IEC) aspect in order to promote the usage of the public toilets better.

Another aspect of sustaining this behavior change is to efficiently manage these toilets like I have said before. If the toilets are clean and working, people would be encouraged to use them.

Bihar still hasn't achieved the ODF status while some states have achieved the ODF++ status. What are the challenges faced by the state?

We surveyed the villages near Ganga in Bihar for our study because if the technology used there is not correct the river would get polluted. We observed that the toilets developed there were not suitable for use. They were using toilet beds in areas where the water level was low, causing overflowing of excreta. So, maybe the usage was low because the toilets that were available weren't apt.

What are the improvements that can

still be made to improve the sanitary conditions of Indian cities?

PM Modi said in his speech on October 2, that achieving ODF would be the first step in the cleaning of India. For other aspects of improving sanitation, like solid and sewage management, more needs to be done and focusing on them should be the next priority for the movement. If you go through the National Annual Rural Sanitation Survey of 2017 and 2018, the focus is only on the hygienic maintenance of toilets rather than complete maintenance of sanitation in villages and hence other aspects of maintaining hygiene like solid waste management, cleanliness etc. get ignored, which is wrong. A few districts in India have done commendable work in focusing on complete sanitation maintenance. For example, Udupi of Karnataka has launched some pilot projects on solid waste management which show promise. Hence, we can see the work on improving other aspects of sanitation is also being done. It is just not highlighted enough.

Will the scheme continue? What can possibly be the government's focus further if the campaign continues?

The mission would definitely continue. The major concern for us is the sustainability because if the proper management of the recently developed public convenience is ignored, then the whole exercise would be futile. Other aspects like the ban on single-use plastic, which is a major concern for urban and rural India, solid waste management, amongst others would be focused upon in the second edition of the 'Swachh Bharat Abhiyan'.

In conclusion, would you rate the program as a success?

Compared to the other plans launched since 1986, 'Swachh Bharat Abhiyan' has been the most effective in improving the cleanliness and sanitation of the country. We only believe if the mission needs to be completely successful, the second edition of the mission must work on the management of the toilets built during the first five years. ■





‘Goa’s development plan focuses on opportunities beyond tourism’

Pramod Sawant, Chief Minister of Goa, speaks about his plans for development of Goa, job creation, smart cities and coordination issues between the Special Purpose Vehicle and Corporation of City of Panaji, and a host of other issues including tourism and security



Kumar Dhananjay
Consulting Editor

You took over the reins of Goa after one of the tallest leader of the state Mr. Manohar Parrikar passed away. What is the vision that you have for Goa and in which direction you want to take the state?

Goa is a tourist state. It’s a huge industry. We need to develop the entire

infrastructure related to the tourism industry. My focus is on the youth, their career and their job opportunity and for that purpose while developing the touristic state it is also imperative that the job-oriented industries should come to Goa, the job oriented touristic projects should come to Goa and of

course we need to develop our state as number one state in the country. That is my vision.

Panaji is being developed as a smart city. How is it going to help the state? Are you pushing it in the direction of tourism only or overall development where there can be job opportunities and other development projects will come to the state as well?

Though tourism industry is backbone of the state but my focus is not just on that. We are developing the state as an IT hub also, for the industrial sector. All these industries should grow in the state of Goa together. That's why we have a good IT policy; we also have good industrial policy. Within a short period, we are coming up with mining Industry policy too. Along with the tourism, we are developing our agricultural, pisciculture and all other related sectors.

Mining is one big factor and a contentious issue in Goa. The state is facing a lot of problems related to mining. Even there are court cases. There have been media reports about illegal mining. How are you going to sort it out?

The matter is sub-judice. We are in touch with the central government. Definitely we will come up with a solution by the month of November.

One thing I realised while speaking to various stakeholders on the issue of smart city project that the municipal corporation and the smart city corporation are not on the same page.

I don't think so. Already the concern of Corporation of City of Panjim has been factored in. Now CCP and the smart city project is working in tandem and there is a complete coordination. I have already given the instructions, henceforth in the coming board meeting MLA of Panaji will be one of the board members of smart city project and also the mayor of Panaji city will be the member of the board.

Ok so that has been sorted out

because that was one of the complaints that the mayor had that corporation is not consulted on the smart city project.

Well that is not the case. All the projects that are undertaken by smart city are awarded by CCP itself.

How is the smart city project going as of now?

It is going according to the plan whatever they had decided. I think definitely they will complete the targets within that period.

Goa is a prominent tourist destination. The question of security also comes in because there have been incidents in the past. There have even been killings and other related crimes. So how are you going to deal with that?

Goa is a state, which believes in Atithi Devo Bhava. We are providing 100 per cent security for all the tourists. Sometimes some incident happens that is not always in our hand but most of the time our all police personnel are out there and they are taking care of all the security and ensure no untoward incident takes place.

There is massive construction activity going on in Goa at the moment. There are concerns about resulting pollution and environmental degradation. How do you propose to balance between development and these concerns which are genuine?

When we talk about urban development, there will be definitely some side effects. If we want something good, we need to struggle too. We are thinking ahead for another 25 years or so. It will take not more than one year to complete our infrastructural projects. We will finish them within this period. These sufferings are for the short period and it will be solved soon.

Are you seeking any technological help to contain environmental degradation?

Whatever care is required to stop the environmental degradation is being taken. To begin with we execute the

construction projects in such a way that it should not harm the environment. If something is happening somewhere, we immediately take action.

You are going to organise Vibrant Goa for the first time. How many delegates are you expecting and is there any target that you have in mind so far as attracting investment is concerned?

Vibrant Goa foundation is an Expo held for the first time in Goa. It is a summit organised for all the investors in Goa from October 17th to 19th. We are already working on it. Delegates from both national and international level are visiting. Definitely, it will be one big event for the state. We cannot say what is the investment target now but almost 400 international delegates have already registered and more than 2000 national delegates have registered. We are going to have G2G meeting and B2B meeting. Students are also involved. There is a huge involvement of people in this program. This will bring good investment to the state of Goa.

So on one side is tourism and other side is industrial development for which Vibrant Goa is happening.

Of course, we have just received an award for adventure tourism and then on the other side for the development of the state we require investment and we are trying our level best.

All India Institute of Local Self-Government is going to organise South Asian City Summit in March 2020 in Goa. More than 300 delegates will attend of which 100 will be from abroad. What message would you like to give to the delegates?

Definitely, we always welcome different types of Summit, different types of programs, which is in the interest of the state. The program organised by AIILSG involves South Asian cities and other countries as well. It is also special as it is involving local bodies. We welcome all the national and international delegates in Goa. ■

Can BS-VI help achieve Indian emission targets?

BS-VI emission norms are set to be introduced in India by April 2020. The progressive emission norms aim to bring down the vehicular air pollution levels and reduce India's carbon footprint. In order to get a better insight about the shift to this cleaner fuel, team Urban Update interviews Sumit Sharma, Director, Earth Science and Climate Change, The Energy Research Institute (TERI)

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Senior Reporter

Air pollution is a major concern in Indian cities and vehicular pollution is among the main contributors. The number of automobiles that are plying on the Indian roads has substantially increased in the past decade, resulting

in more damage to the environment. Foreseeing that this would be a problem in the future, the Indian government had devised a comprehensive regulatory system which would be systematically implemented in the nation to cope with environmental damage. The emission standards, dubbed 'Bharat Stage Emission Standards', were first introduced in 2000 as an adaptation from the pre-existing European emission standards to regulate the output of air pollutants from internal combustion engines and spark-ignition engines equipment, including motor vehicles.

More stringent emission norms were

rolled out in April 2017, when the Bharat Stage IV emission norms were implemented throughout the nation and now, in an effort to reduce the increasing vehicular emissions, further environment friendly norms are to be implemented with the introduction of Bharat Stage VI (BS-VI) from April 1, 2020. The government had decided to directly implement BS-VI in 2020 instead of the pre-decided BS-V. The leap from BS-IV to BS-VI is to bring down the carbon footprint in an effective manner, as India failed to reduce the carbon footprint by 33-55 per cent from the level found in 2005, which it had agreed to accomplish by 2030 with the signing of the Paris Climate Agreement. BS-VI, like its predecessors, is drawn on the lines of the Euro VI norms, which have been already adopted in European countries. But, the Indian norms address one of the major drawbacks of its European counterpart by lowering the emission standards of higher PM (particulate matter) in diesel engines.

The National Capital Region (NCR) has been at the forefront in the implementation of progressive norms as now fuel distribution in Delhi adheres to BS-VI only, according to Prakash Javadkar, Environment



Minister. "From next year BS-VI emission compliant vehicles will also be available," said the minister in an address made to the Rajya Sabha in July, 2019.

Although BS-VI emission norms are designed in such a way that they will most likely bring down India's carbon footprint and push our environment towards a cleaner future but in doing so, it is likely to impact the already declining automobile industry by causing a sizeable initial financial dent. "The ownership cost of BS-VI vehicles vis-a-vis BS-IV will be higher. The cost factor will be a big turn-off for consumers under the current market conditions," Sridhar V, Grant Thornton India Partner told IANS.

This puts forth the question: Exactly how crucial the implementation of the norm is, given the current scenario? How can the general population benefit from this?

In order to better understand this new policy change, our team spoke to Sumit Sharma, Director, Earth Science and Climate Change, The Energy Research Institute (TERI).

How are the new emission norms better than its predecessor?

The major difference between the two is the amount of emissions, especially sulfur levels. Also, the focus will be more on installation of tail pipe treatment devices with the introduction of BS-VI. This is to treat the vehicle emissions before release and delivers a reduction of 80 per cent in the total harmful emissions from the vehicle. Particulate Matter (PM) emissions are reduced to almost a third of the one's emitted from BS-IV engines. Also, NOx (oxides of Nitrogen) gets reduced from 3.5 to almost 0.5 per cent.

Why did the government fast track the implementation of BS-VI?

Bharat Stage (BS) emissions are equivalent to their European counterpart Euro emission norms. Therefore, when Euro 5 norms were

analysed, there wasn't a substantial reduction in the number of certain pollutants like particulate matter and NOx. The move from Euro-4 to Euro-6 did see a decline in such pollutants. The fuel quality for Euro 5 and Euro 6 are the same (10 ppm Sulphur), so you'll end up investing the same in the refinery sector but will not be able to reap the same benefits. The vehicular technology is, however, different for the fuels. So, a move to Euro-5 would have not tapped the full benefits of the emission norms.

How will the BS VI vehicle be different?

BS-VI won't be reducing the emissions of the vehicles that are already plying on the roads today. The cleaner fuel will only contribute by marginally lowering the damaging emissions of these vehicles. However, these vehicles would be scrapped in the near future. And the problem with India is that there are no scrapping centers, officially, as of yet. TERI has been advocating the establishment of such centers across India to phase out old vehicles and provide some incentives for people to switch from older to newer vehicles. This is called fleet modernisation and this will help the automobile industry, but more importantly, it will essentially lower the emissions as we are moving from old technology to new technology.

Can cleaner fuel alternatives like CNG be exploited more and hopefully, be seen as a replacement for the traditional fuels in the future?

There is a common misconception with people that CNG is the cleanest fuel but it is not the case. If you look at NOx emissions, CNG vehicles emit similar amount of NOx emissions as traditionally used fuel driven vehicles do. It only curbs the particulate matter content from the emissions.

Given that Electric Vehicles (EVs) would sooner or later

overtake petrol or diesel vehicles, so why do we continue to focus on the upgradation of petrol and diesel as we are planning to phase out the dependency on these fuels in the near future?

It is only in the past couple of years that the focus on the shift to EVs has taken precedence for the government, which is planning to shift to electric energy in the near future for mobility. So, when the decision to roll out BS-VI was taken in 2016, the electric story wasn't that prominent.

The complete shift to electrics in India is inevitable, but, it won't happen overnight. It will take us at least a few years or decades to completely phase out the existing fossil fuel driven vehicles. The Internal Combustion engine is still in operation until we shift completely to EVs and if it is going to stay, there is a need to curb the emissions of these vehicles.

Is Indian automobile industry economically ready to undergo this paradigm change?

The decision of the implementation of the new norms was taken almost four years back. Also, the economic slowdown in the automobile industry should not be linked with BS-VI. It is not the reason of the economic slowdown. The whole automobile lobby must have made prior arrangements to accommodate the new emission standards graded vehicles. They are already prepared as many companies have already been developing Euro VI vehicles outside of India, which shows that the technology was available. It is just that they need to employ this technology for India. Only thing is that costs might increase due to the introduction of tailpipe treatment devices, which might further lower the sales of the automobile industry. But, we must consider that the health of the population is much more important than the profits and hence, it should be prioritized. ■

Glorious history, regal splendour, soulful pilgrimage, and more

Kumar Dhananjay
Consulting Editor

Indore, a sprawling metropolis and the financial capital of Madhya Pradesh is a mix of the traditional and modern. It is the most developed city of Madhya Pradesh and its strategic location, in close proximity to Mumbai and Delhi has contributed immensely to its rapid development. The city exerts a significant impact upon commerce, finance, media, art, fashion, research, technology, education, and entertainment in the state, yet it has not lost connection with its glorious past which is evident by the numerous historical buildings in different parts of the city. There are many tales and legends that cast a magical spell on you while visiting the city. The opulence of Lal Bagh Palace and a visit to Rajwada Palace leave you completely mesmerised.

Indrapur to Indore

Indore is situated on the Malwa Plateau on the banks of two small rivulets – the

Saraswati and the Kahn (modern name Khan). They merge at the centre of the city where a small 18th century temple of Indreshwar still exists. The city got its name from the God Indreshwar and was called Indrapur which then evolved to Indur. Indur later became Indore during the British rule.

Glorious history

The Holkar dynasty has an indelible print on the history of Indore. The city came under the rule of Maratha Kings of Holkar Dynasty in 1733. Malhar Rao Holkar, the founder of the dynasty was appointed as the Governor of Malwa region by Maratha Peshwa Bajji Rao. By the time his rule ended Holkar state had become independent with Indore as its capital. He was succeeded by his daughter in law Ahilyabai Holkar. She was barely in her teens when her husband passed away. She took over the responsibility of the State and Indore. She was instrumental in planning and building the city. She ruled from her palace fort at Maheshwar. Ahilyabai was a great patron of architecture and spent a lot of money on building temples across the subcontinent. She ruled for thirty long years and brought

a lot of development and peace to what we know today as Indore. Holkar state officially merged with independent India on June 16, 1948.

Financial capital with a laid back attitude

Between July and August I spent considerable time in Indore and I realised that nobody here seemed to be in a hurry. The shops would not open before 11 am and one found little traffic on the roads in the mornings. But for the common people, especially the health conscious ones, the day starts early. Indore has numerous parks, big and small, all well maintained. The weather is lovely except in the months of May and June when it gets hot. Rest of the summer the city receives a fair amount of rain which keeps the temperature down. No matter which hotel you are staying in, there is a park nearby. Sayaji Hotel was my home on all these visits. The park near my hotel was a fairly big one bustling with activity from six in the morning. What makes your walk in the park more pleasant is the activities that you witness inside - gym to Zumba classes and sports you find people of all ages, kids and old alike, trying to keep themselves fit. The city has a vibrant café culture where outlets are open till late in the night where you can enjoy good music with coffee and snacks.

Foodie's heaven

Indore, apart from everything it is, is a foodie's paradise. People jokingly say that Indoris first eat at home and then they go out to eat that is why you have

INDORE HAS A SMALL 18TH CENTURY TEMPLE OF GOD INDERESHWAR. THE CITY GOT ITS NAME FROM THE GOD INDRESHWAR AND WAS CALLED INDRAPUR WHICH THEN EVOLVED TO INDUR. INDUR LATER BECAME INDORE DURING THE BRITISH RULE



these food streets opened till late in the night. If in the morning you find these early road side stalls open and selling tasty poha and jalebi, in the night you have these two remarkable places that dish out delicious food till the wee hours of the morning. One is Sarrafa Bazaar, that operates as a jewellery market during the day and by ten in the night it becomes a food street. The stalls offer a variety of Indian fast food, chaats and Indore specialties like sabudana khichri, dahi-vada, chhole tikiya, makke ka kees and sweet delights like shikanji, jalebi and malpua. The other place is Chhappan. When a friend suggested that we should go to Chhappan and eat, I said let's go assuming that this must be the name of some famous eatery. We landed at this open space full of cafes. Then I was told it's called Chhappan because there are 56 shops at the place. The aroma in the air is too tempting. Food habit in Indore is greatly influenced by Maharashtrian style so you find sabudana vada, vada pav, matar Kachori, etc.. Though the place is mostly vegetarian, there are a few

joints that offer non vegetarian dishes as well. When in Indore do try hot dogs at Johny. There are joints which are quite creative in experimenting with South Indian food. Dosa Craft is the restaurant that offers you dishes like 'jini dosa', 'Chinese Chopsuey dosa' and other kinds of dosas. Next to dosa craft is live tawa ice cream. On the screen they display how they make them.

Traffic mayhem

This is one aspect where the city has to do a lot. It is mayhem on the streets the way people drive cars and bikes. Curiously I asked my colleague who gives them license? Do they go for a driving test? He looked at me and curtly said what was the necessity to go for a test when it is delivered to your home without any test. I once saw that the only gentleman who had a helmet on was a traffic policeman surrounded by men and women on bikes without it. I asked my colleague why is it that no one is wearing a helmet and he told me an interesting story. A few years back the rule was put in place that if

you are not wearing helmet you won't get petrol. So petrol pumps and riders found a way around it. Petrol pumps started renting helmets to bikers for ₹10 to buy petrol and then return it. Later the urban development minister who represented an assembly segment of Indore passed an order that there was no need to wear helmet.

All said and done, Indore has a lot to offer. It is the birthplace of the Indore Gharana of Hindustani Classical music, as well as of the noted playback singer Lata Mangeshkar. Among handicrafts, its exquisite Maheshwari and Chanderi saris are a connoisseur's delight. Indore is an excellent tourist destination. Known for its architectural splendour, a strong historical background has contributed to its rich cultural heritage, which is a fine blend of Malwa, Maratha and Marwari cultures.

The city is also an access point for an MP itinerary to visit the pilgrim towns of Ujjain and Omkareshwar, heritage and temple town of Maheshwar and hill station of Mandu. ■

‘SWARAJ’, the Gandhi way

Mahatma Gandhi introduced the concept of ‘Swaraj’ during the British regime. His ideology of ‘Swaraj’ was to empower people and give them the real meaning of self-rule. ‘Swaraj’ is a bigger term. In political terms it talks about implementation of democracy in its true form right from the grass-root level where at every level there is a public representative, moreover, it is also about overall development of the nation where every section of the society irrespective of religion, caste, race, sex or economical condition are treated equally



Ashok Wankhade
Managing Editor

Gandhi's idea of ‘Swaraj’, in the colonial period was prominently to empower and liberate people and teach them to rule themselves and establish self-control, self-respect and capacities for self-realisation. By teaching people about liberation, Gandhi intended to reject and wholly uproot the British rule in India. But, through the course of time, post-independence, the meaning of ‘Swaraj’ modified to implement better governance in a democratic political structure and promote equality and overall development.

To implement this ideology for making India a true democracy at grass-root level, the 73rd and 74th Constitutional Amendments were passed. As a result, from gram panchayat to the union government there is always a public representative at every level of governance. The 73rd and 74th Constitutional Amendments passed by the Parliament in 1992 laid the foundation of local government system in India. The Indian political structure saw a major change after the amendments came into existence. The amendments not only described the local governing bodies as basic units of democracy but also put forth a provision that all seats must be filled by direct voting and one-third of total number of seats be reserved for women and one-third for SCs and STs, hence, providing equal opportunities to every section of society and promoting equality factor of Gandhian ideology as well.

Gandhi on ‘Swadeshi and Gram Swaraj’

One of the Mahatma's major concerns was to make villages self-sustaining and self-contained units. To fulfill this, Gandhi put forth the ideology of ‘Swadeshi and Gram Swaraj’. One of the similar movements we have seen recently taken

up the Patanjali Ayurveda – a company creating, promoting and selling indigenously manufactured products – Gandhi in his time promoted the idea saying, “It is your duty and mine to find out neighbors who can supply our wants and to teach them to supply them where they do not know how to proceed, assuming that there are neighbors who are in want of healthy occupation. Then every village of India will almost be self-supporting and self-contained unit, exchanging only such necessary commodities with other villages as are not locally productive.”

‘Swaraj’ at present

Gandhi's definition of Swaraj also focused on regenerating reference points, systems, and structures that enable individual and collective self-development. Researchers studying Gandhi's ideology and promoting his views define ‘Swaraj’ as not merely a political structure but an ideology which promotes overall development of a nation. Citizens make the nation and therefore development of each and every individual leads to the development of the nation. Looking at the economically weaker sections of the society today, it can be seen that there are loopholes in the system which restricts the development of poor people on various aspects like skill development, education, hygiene, healthcare, or other aspects.

The Gandhian philosophy has always been the guiding light for the governments to implement the democracy in India and world-wide in an effective manner. Although there are certain loopholes in implementation, the Gandhian ideology, in recent years, has been given prominence and made the very basis of many government schemes and policies launched like Swachh Bharat Mission, Swachhta se Swachhagraha and more. India is taking baby steps towards creating a nation where people can enjoy Swaraj in its true essence. ■

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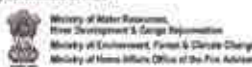
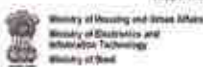
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