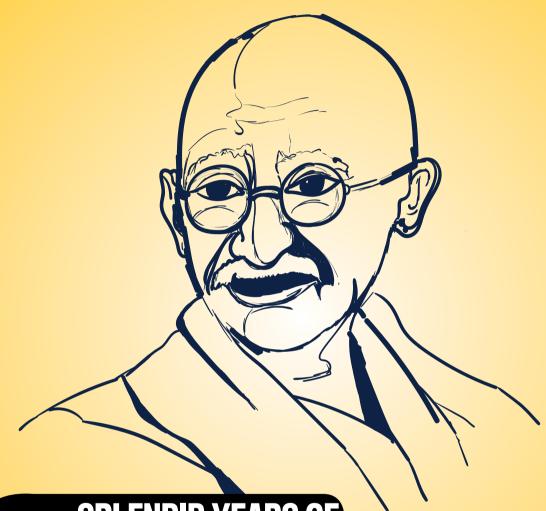
Urban Update Volume VI, Issue VII Volume VI Volume V



SPLENDID YEARS OF SANITATION MOVEMENT

India started the sanitation revolution six years ago and through the years, 'Swachh Bharat Mission' transformed the way sanitation and cleaning are seen in hundreds of thousands Indian villages and over 4000 cities. The major outcome of this initiative is the way municipalities and local governments manage and run sanitation services



Leaderspeak Clean India is people's movement



KNOWLEDGE LAB FOR LOCAL

GOVERNANCE





ALL INDIA INSTITUTE OF LOCAL SELF-GOVERNMENT



Quality is just one of our strengths

AIILSG has begun skill development programmes in Rajasthan and Jharkhand. The institute with its 90 years of experience in the field of capacity building would impart training to youth living in rural areas of these two states to make them employable in various emerging sectors-

Apparel, Beauty & Wellness, Electronics, Healthcare, IT-ITEs, and Renewable Energy.

As per Mou singed, AIILSG will train 16,000 youngsters.

AIILSG IS COMMITTED TO BUILD EMPOWERED INDIA WITH SKILLED HUMAN WORKFORCE

UrbanUpdate

A monthly magazine published by the AIILSG — a project funded by European Union's 'Equi-City' programme for India.

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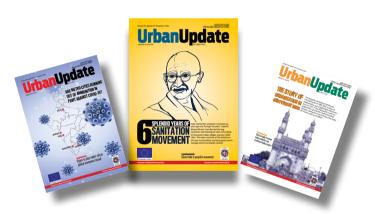
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SWACHH BHARAT; MUCH ACHIEVED, SOME WORK IN PROGRESS



Rajiv Agarwal Editor-In-Chief dg@aiilsg.org

ndia's Swachh Bharat Mission is among the most spoken of public interventions anywhere. In a short span of six years, the nation has achieved transformative changes to enable leapfrog several steps in public health, sanitation, nutrition, and safety. From a situation where 626 million people practiced open defecation (as per a 2012 WHO factsheet), we have achieved 100 percent Open Defecation Free (ODF) status. While the building of a record 100 million rural toilets created the momentum, sharp and sustained awareness building enabled cement success on the ground. Achievement of ODF status is a key measure of the success of Swachh Bharat Mission.

The Clean India programme has been addressing several aspects in order to achieve breakthroughs in livability, hygiene and a salubrious environment. While the ODF plank is one with noteworthy success, in some other areas, it is still 'work in progress'. Cleaning up of water bodies is one. The Clean Ganga mission is at the forefront of this effort. There have been numerous efforts by local bodies, NGOs, and citizens to make the mighty Ganga clean again. However, a combination of factors has made this a stubborn challenge which is evading a sustainable and lasting solution. Practices of the large number of visitors and pilgrims, dumping of industrial waste, and discharge of improperly treated sewage are some worrying elements. While appropriate sewage treatment facilities are being set up, the programme calls for continued injection of large doses of awareness among the common man which can result in behavioural changes to rejuvenate the iconic, most majestic, and highly revered water body in our country. Alongside we need strict monitoring and enforcement so that violations are detected and punished. We must do all it takes to preserve the most magnificent river and indeed every water body.

Another area of the Mission where we need to accelerate progress is with respect to waste management and disposal. While we have very specific and strict rules in the form of Solid Waste Management Rules, 2016 and other legislation, compliance has been less than satisfactory and outcomes modest. Inspite of good amount of awareness building, compliance to elementary processes such as waste segregation has been limited. This prevents composting and recycling thereby increasing landfill volumes and the resulting environmental degradation. Just as the plastic ban initiative gained traction it has likely been rolled back due to the COVID-19 pandemic. The Pandemic has resulted in a preference for 'use-and-throw' cups, plates, spoons, and forks out of concerns for hygiene and safety. We need to restore the momentum and stimulate new thinking and innovation in areas including Extended Producer Responsibility in order to manage waste sustainably. Textile/clothing waste could be an emerging threat as big as plastic. Adoption of a 'Circular Economy' (repair, reuse, remanufacture and recycle) here will not only limit the need for precious non-renewable raw material/resources but also cut down on the generation of waste.

There is a lot to celebrate in our march towards a Swachh Bharat. Yet we need to rededicate ourselves to the unfinished task in some areas. This issue of Urban Update deals with the subject in more detail.



Today there is disconnect between those throughout the world calling for more urgent action and what national leaders have achieved so far

Patricia Espinosa Climate Chief, UN

"



I hope we never have another case (of Covid-19 outbreak) but if we did, we'd have a much better understanding of what people could do, and companies would be reacting much faster in the right way, rather than letting people go

Ratan N TataChairman Emeritus, Tata Sons; Chairman, Tata Trusts



PIN POINT

66



As the whole world is waiting for coronavirus vaccine, tech can play a pivotal & vital role in how govt vaccinates its population, tracks vaccines, monitors doses, & also manages to locate any adverse events

Kiran-Mazumdar ShawExecutive Chairperson, Biocon Limited

4



If you think of the economy as a patient, relief is the sustenance the patient needs while on the sickbed and fighting the disease. Without relief, households skip meals, pull their children out of school and send them to work or beg

Raghuram Rajan Indian Economist





United Nations in India

@UNinIndia

COVID19 has left a negative impact on many of the #SDGs. It has left the world with a health crisis and a social emergency. It has made the goals even more relevant and more important. We need to step up and ensure we imp



UN Development@UNDP

The pandemic has reversed decades of women's socio-economic progress in 8 months. Yet only 12% of the 206 countries analyzed in our Global #GenderTracker with @UN_Women have COVID-19 policy responses to protect gender equality gains



World Bank @WorldBank

Main threats to poverty reduction: #COVID19 is expected to push up to 115 million people into extreme poverty in 2020; Conflict has displaced almost 80 million people; Climate change will drive between 68 and 132 million into poverty by 2030



Mike Bloomberg
Former Mayor of NYC
@MikeBloomberg

Companies need to combat climate change, too. For example, @JPMorgan is pushing clients to align with the Paris Agreement to achieve global net zero-emissions by 2050. It's the right thing to do. But it's also a smart business strategy

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77 Six splendid years of sanitation movement

India started the sanitation revolution six years ago and through the years, 'Swachh Bharat Mission' transformed the way sanitation and cleaning are seen in hundreds of thousands Indian villages and over 4000 cities. The major outcome of this initiative is the way municipalities and local governments manage and run sanitation services. This article tries to highlight some of the best municipal practices adopted in the last six years and some other innovations in sanitation from around the world that can be implemented to improve sanitation standards further and resolve unsettled issues

LEADERSPEAK

28 Clean India is people's movement

Any mission or movement cannot become successful unless people participate in it proactively. Swachh Bharat Mission is that one mission of recent times that has impelled people to keep their surroundings clean and feel proud. Many individual initiatives by the responsible citizens and groups of citizens have given inspiration to many others for keeping their cities, society, neighbourhoods clean



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E-DIALOGUES

Inadequate infra and negligence caused outburst of COVID in India

GIRL POWER PROJECT PICKS UP SPEED IN JHARKHAND'S RURAL AREAS

fter an immensely successful video conference-based inauguration on September 15, in the presence of Badal Patralekh, Minister of Agriculture and

Animal Husbandry, Government of Jharkhand, the Girl Power project has regained the post-COVID lockdown momentum. Launching the project on a virtual platform brought together an important solidarity among the teams, who are unable to meet in conferences physically due to COVID-19 restrictions.

Nevertheless, across India, coronavirus lockdown regulations are relaxing; one might say the country is experiencing relief mixed with apprehension and fear. Travel has opened up and in Jharkhand, the Girl Power project's partner Saunta Gaunta Foundation (SGF) began executing a baseline survey. Other team members are working actively to investigate the appropriate training modules to promote women's entrepreneurship in Jharkhand.

Prior to establishing a strategy for any project, there has to be an understanding

of the present conditions. To achieve that, the Girl Power project, funded by the European Union and led by AIILSG, Saunta Gaunta Foundation (SGF), Magan Sanghralaya Samiti (MSS) and Mahatma Gandhi Institute of Rural Industrialization (MGIRI), designed a baseline survey questionnaire targeting 5,000 women in the state of Jharkhand.

Wisely, SGF has chosen to train women to execute the survey, as the respondents are also women. Our field partner staff, Sebastian Soren, has been the lead trainer for the baseline survey of the community resource persons (CRPs) of 20 civil society organizations (CSOs) in 10 districts of Jharkhand. We have come a long way from where we started, when the CRPs were struggling to download the app due to network problems, and now in mid-October when we have surveyed almost 1,500 women across the project area.

Women are leading this baseline survey, as both surveyors and respondents. The information will be captured across the 10 Girl Power districts in Jharkhand that promise to reveal great insight into the potential for entrepreneurship among women in this region.

All of us are heavily dependent upon

technology, especially during this time of fear in the midst of a pandemic. Partner meetings happen on video conference and the twenty CSOs involved in the project are engaged primarily through mobile phones and laptops. Each CSO is given a Google Form to fill information about women entrepreneurs and policymakers in their district. Whatsapp is the primary method for communication information.

Similarly, the female surveyors are using mobile phones to upload data for the survey, through a software that is completely free to the public. Though it has been a long time now since IT has been hailed as a method for improving rural livelihoods, there is no shortage of new innovations and new applications of the technologies. It remains to be seen how these surveys are uploaded and the kind of technological issues that may take place in the future.

In addition to the collection of information about women producers and entrepreneurs in Jharkhand, the Girl Power team is also encouraging CSO partners to meet with various government officials in their areas. The meetings are taking place with full precautions and are proving to be a great way for the CSOs to get to know local officials and understand the kind of schemes available for women entrepreneurship in Jharkhand.

Harnessing policymakers is an important sub-activity of the entire Girl Power project. There are various government schemes listed online to promote entrepreneurship, such as the Jharkhand State Livelihoods Promotion Society (JSLPS) of the State Rural Livelihood Mission, Skill Mission India, Startup India, Deen Dayal Upadhyay Grameen Kaushalya Yojana, and perhaps many more. Understanding which are active and can be harnessed







by the Girl Power project is the purpose of the meetings with the government.

While we seek to harness the government policies and schemes, we are also in the process of determining the actual requirements of the women of Jharkhand. Through the baseline survey, some in-house knowledge has developed on the kinds of products that can be harnessed for up-skilling and entrepreneurship. Bamboo handicraft, for instance, is commonly known by women in districts across Jharkhand, however, there is great potential for upgrading the handicraft skill through techniques and processing methods.

Women are locally producing baskets and other items and selling on a small scale, yet it remains to be seen what the nature of the training module that the Girl Power partners will develop to bring their products to a wider market will be. Various retailers of women's products have been identified by the Girl Power Market Connect team in Jharkhand, such as Jharcraft, Kusum Jharlac Emporium, Tribe Tree, Viponi, the Tribal Cooperative Marketing Development Federation of India (TRIFED), Shilpkaari and Chotanagpur Craft Development Society. Our hope is, in the long run, that Girl Power beneficiaries' products can reach the showrooms of these various handicraft shops. The Girl Power project has an ambitious goal: establish 1,000 women

Iharkhand. entrepreneurs across However, the project is set up to sequentially achieve this: first, through capacity building of CSOs who work with women, second, by creating a network of CSOs to pass along information, third, to train women on relevant skills with the help of the CSO network. Once women have received these trainings and upgraded their skills or learned new technologies, such as button mushroom cultivation, bamboo handicraft, lac jewelry production or medicinal plant processing by moving sequentially through the activities, while also developing partnerships with the government, the project team members will slowly understand how this connection to the market will take place.

"The theme of this project is partnerships," said Pashim Tiwari, Technical Director, AIILSG. Developing partnerships in the field with 20 CSOs with the guidance of four esteemed and experienced nongovernmental organizations (NGOs), AIILSG, MSS, MGIRI and SGF. Our greatest and most important challenge is to reduce barriers to communication among all the partners and ensure that the information, training modules or market access becomes available to a wide network of CSOs, SHGs and women entrepreneurs in Jharkhand.



MoHUA celebrates 'Swachhata ke 6 Saal, Bemisaal' of SBM-U



NEW DELHI: Ministry of Housing (MoHUA) Urban Affairs organised a Webinar titled "Swachhta ke 6 Saal, Bemisaal" on October 2 to celebrate six years of the Government of India's Swachh Bharat Mission. The celebrations were led by Hardeep Singh Puri, Minister of State (Independent Charge), MoHUA, along with Durga Shanker Mishra, Secretary, MoHUA, and Shri Kamran Rizvi, Additional Secretary, MoHUA.

Puri released a dynamic Geographic Information System (GIS) portal showing different innovative practices of Solid Waste Management (SWM) from various parts of the country. He also released a document on Response of Indian Cities Towards COVID-19 and with the 'Frontline Stories of Resilience: India's Sanitation Champions' prepared by the National Institute of Urban Affairs (NIUA). It is a collection of inspirational stories

sanitation workers compiled by the National Faecal Sludge and Management (NFSSM) Alliance and a Toolkit for Safety of Sanitation Workers prepared by Urban Management Centre (UMC).

The next half of the event focussed on sharing experiences, by selected states, of their past six years towards cleanliness and drawing the blue print of future steps towards "Swachhatam Bharat".

SBM-U was launched in 2014 and has done significant work towards cleanliness and SWM with around 4327 Urban Local Bodies (ULBs) declared Open Defecation Free (ODF) so far. Around 66 lakhs household toilets have been constructed till now across the country, thereby surpassing the mission's target. Moreover, a total of 1,319 cities have been declared ODF+ and 489 cities are in ODF++ category. According to the data

GCC introduces Madras Waste Exchange

Award for the Best City in 'Innovation and Practices' (more than 40 lakh population) was given to Urban Local Body (ULB) of Greater Chennai for The Madras Waste Exchange (online platform). The Greater Chennai Corporation (GCC) has Resource Recovery Centres (RRC) Micro Compost Centres (MCC) across Chennai. RRC segregates waste collected from houses and markets while MCC produces compost from the wet waste. However, the segregated waste from RRC was not getting a good value in the market. Through the online platform, the government aims to bridge the gap between supply and demand of segregated waste from RCC. The Exchange Platform acts as a connection between three entities: Greater Chennai Corporation with buyers of waste, Non-government entities like school, college, office and bulk waste generators with buyers and Greater Chennai Corporation with non-government entities.



Indian ULBs lead the way to organic pollutant filtration

Best ULB in East Zone under Best City in 'Innovation and Practices' was awarded to Birgaon, Chhattisgarh (more than 50,000 to 1 lakh) and Jugsalai, Jharkhand was awarded in cities with more than 25,000 to 50,000 population. Birgaon used 'Mushroom Compost Absorption' method for treating heavy metals. Mushroom Mycelia is used as a membrane for filtration of pollutants such as heavy metals using microorganisms present in mushroom and slit. Jugsalai Nagar Parishad came up with the idea of using tea leaves for processing it into highly nutritious compost. This initiative is managed at the ULB level with the help of a Self-Help Group (SHG) named Prerna Mahilla Samiti. Tea leaves are a rich source of nitrogen compound for plants and soil in the form of compost. These tea leaves are collected from approximately 50 tea stalls around Jugsalai. This has also resulted in the reduction of wet waste.

Petland working to achieve responsible waste segregation, recycling

In West Zone, the award for Best City in 'Innovation and Practices' was given to Petland ULB of Gujarat(more than 50,000 to 1 lakh). Petland Municipality Area has deployed Yellow E-Rickshaw for on-call collection of bio-hazardous wastes such as sanitary pads, diapers, personal protective equipment, gloves, masks etc. They have also set up a fertilizer plant for recycling the wet waste collected from households and businesses across the city. The manure is then used for revenue generation by selling it in the markets as well as in municipal gardens and plantations. Thus, the innovation not only works well as an environmentally friendly practice but also helps the municipality in generating extra revenue to use in other developmental activities.

Adopting smart solutions for better SWM at grassroot level





Vita Municipal Council (VMC) won the award for the Best City in 'Innovation and Practices' in the West Zone in the 'more than 25,000 to 50,000 population category. VMC has installed twin bins in the prominent areas. These bins can compress the waste collected to 1/5th of its original size with the help of a preinstalled mechanised motor. This motor is powered by the way of solar sheet installed at its top cover. It automatically sends a Wi-Fi signal to authorities when it gets filled. It serves the purpose of saving time and power, waste reduction and also offers a space for advertisement. This is not only a technologically smart initiative but also makes the people more responsible towards their duty of keeping their city clean.

released by the MoHUA, almost 59,900 toilets across more than 2900 cities have been made live on Google Maps.

Civic authorities have also worked very hard for the tremendous success of SWM-U. Nearly 97 per cent of the wards in India have door to door collection of waste, 77 per cent have source segregation with almost 67 per cent of the waste being processed. Data shows that waste processing has witnessed an almost four-fold jump since 2014 (18 per cent). As per MoHUA' Star Rating Protocol for Garbage Free Cities, six cities (Indore, Ambikapur, Navi Mumbai, Surat, Rajkot and Mysuru) have been awarded 5-star rating. Besides this, almost 86 cities are 3-star and 64 cities are 1-star rated by the Ministry. The last edition of Swachh Survekshan 2020 conducted by MoHUA witnessed the participation of 12 crore citizens. This means that the Mission has evidently transformed this government program into a mass movement.

A true "Jan Andolan", according to MoHUA, the mission has emphasised on providing decent living places to all sanitation workers and informal waste collectors. The mission has brought around 84,000 waste pickers in the mainstream, in line with Mahatma Gandhi's vision of equality and inclusion for all sections of society. Over 5.5 lakh sanitation workers have been successfully inducted into various welfare schemes of the central government.

Capacity building of the ULB officials has been a vital part of the program. In this regard, the Ministry has successfully conducted around 150 workshops across India with almost 6,000 people participating from 3,200 ULBs. These workshops were organised with the help of NIUA. SBM aimed to achieve the vision of Narendra Modi, Prime Minister, Government of India, of having a "Clean India" by October 2, 2019. The urban wing of the mission was implemented by MoHUA to make urban India ODF with modern and scientific waste management techniques.

BRIEFS | NEWSCAN

Kerala gets its first dedicated COVID-19 facility



Pinarayi Vijayan, Chief Minister of Kerala, inaugurated the first dedicated COVID-19 hospital of the state built by the Tata Group. He said that it is the perfect example of how a Public-Private Partnership (PPP) can be put to good use.The facility was built in a span of just 5 months with the use of prefabricated containers. It contains 551 beds and has 36 ventilators for COVID patients in serious conditions. The hospital has an area of 80,000 square feet has been constructed on almost five acres of land in Thekkil village, Kasaragod.

WRD forms committee for assessing groundwater renewability



The Water Resources Department (WRD) of Goa formed a state level committee to assess the groundwater utilisation of the state and asked them to submit the report in six months. The committee will have 11 members to estimate the annual quantity of replenishable groundwater resources and also assess its uses. Central Ground Water Board (CGWB) found out in a study that Goa uses just 34 per cent of its groundwater capacity and continues to remain in the safe zone. There are estimates which show that tourism and growing population can increase this number but the state intends to go by CGWB's number (60,000 hectare metre per day).

\$500 million loan signed between India, ADB

NEW DELHI: India and the Asian Development Bank (ADB) signed a loan agreement of \$500 million to build a modern, high-speed 82-km Delhi-Meerut Regional Rapid Transit System (RRTS) corridor. This is the first allocation of the one-billion-dollar facility which will improve the regional transport and movement in and around the National Capital Region (NCR).

The corridor has a design speed of 180 kilometers per hour and frequency operations of every 5 to 10 minutes. It is expected to reduce the travel time between Sarai Kale Khan in Delhi and Modipuram in Meerut to one hour from the present three to four hours. The first allotment will be used for the construction of one of the three priority rail corridors under NCR Regional Plan 2021, which will connect Delhi to adjoining cities. It will have multi modal hubs to ensure hassle free inter-change with other modes of transportation.

The signatories to the loan agreement were Sameer Kumar Khare, Additional Secretary (Fund Bank and ADB) at the Department of Economic Affairs,



Ministry of Finance, from the side of Government of India and Kenichi Yokoyama, Country Director of ADB's India Resident Mission, who signed for ADB.

The first part of financing will be used for the construction of electrified tracks, signaling systems, multi-modal hubs and stations with design features that are friendly to elderly, women, children and Persons with Disability. The project will also support the National Capital Region Transport Corporation (NCRTC) in drafting action plans on transit oriented development, value capture financing instruments and public-private partnership initiatives, setting up a smart-technology based platform.

Plasma therapy ineffective in reducing COVID deaths: ICMR Study

NEW DELHI: The India Council of Medical Research (ICMR) has found in a study that Convalescent Plasma (CP) therapy is ineffective in reducing deaths from the novel coronavirus. ICMR conducted a study in 39 hospitals across India. An open-label, parallel-arm, phase II, multicentre, and randomized controlled trial from April 22 to July 14 was conducted by the ICMR researchers. In total, 1,210 patients (moderately ill confirmed COVID-19) were screened in 39 trial sites. Of these 39 trials sites, 29 used to be teaching public hospitals and 10 were private hospitals spread across 14 states and Union Territories representing 25 cities. The study was conducted on randomly enrolled 464 participants who were hospitalized and moderately-ill confirmed COVID-19 patients. Out of these, around 235 participants were in the intervention arm and 229 subjects in the control arm. The study indicated that participants were randomized to either control or intervention arm. In the intervention arm, two doses of 200 ml CP was injected with a 24-hour gap. Composite primary result was noted in 44 (18.7 per cent) participants in the intervention arm and 41 (17.9 per cent) participants in the control arm. In 34 (13.6 per cent) participants under intervention arm and 31 (14.6 per cent) under control arm, mortality was recorded.

According to the results of the study, CP was not linked to decrease in mortality. The trial is highly generalized and resembles the real-life setting of CP therapy in laboratory conditions. The role of CP in the maanagement of COVID-19 can be further clarified by a priori measurement of the amount of neutralizing antibody in donors and participants.

UN Chief urges for global efforts to address air pollution

NEW DELHI: Antonio Guterres, Secretary-General, United Nations (UN), emphasized the need for strong global efforts to tackle the problem of air pollution. He also proposed that the production of energy from fossil fuels subsidized by the governments should be shifted to clean energy generation.

In a video message on the first International Day of Clean Air for blue skies, Guterres said that globally, nine out of every ten people breathe unclean air. Air pollution leads to a number of diseases and causes an estimated 7 million premature deaths annually, mostly in low- and middle-income countries. He added that the world should give even greater attention to air pollution as it recovers from the COVID-19 pandemic, underlining that air pollution often threatens the economy, food security, and the environment. Urging for immediate measures to address the deeper threat of climate change, Guterres said that if global warming is limited to 1.5 degrees from pre-industrial levels, it would help to minimize air pollution, mortality, and disease spread. The lockdowns due to COVID-19 this year have significantly lowered pollution, offering a glimpse of cleaner air in many cities. He warned that emissions are increasing again, exceeding pre-COVID levels in some areas. To reduce the emissions from air pollutants, improved environmental standards, policies and law are required more than ever.

Guterres stated that the countries need to end fossil-fuel subsidies and work globally to support transition to clean technology. To support the transition to healthy and sustainable jobs, he urged all countries to use post-COVID recovery packages.

Coronavirus can affect brain: US study

WASHINGTON: A recent study has revealed that coronavirus is capable of replicating inside the brain, and its presence affects every brain cell. According to the study, symptoms of headache, confusion and delirium in COVID patients may be caused due to the coronavirus' suspected ability to enter brain cells, thereby affecting neurological systems in COVID patients.

The research is yet in initial stage but it offered a lot of evidences to support, some of the claims which were untested till now. Andrew Josephson,

Director of the Neurology Department at the University of California, San Francisco, was impressed and praised the techniques used in the research and said that understanding whether or not the brain is directly involved in this is very important. Till now, doctors believed that the neurological symptoms occurring in almost half of the patients could be because of the abnormal immune response known as Cytokin Storm which causes inflammation of brain.

It would not be completely shocking if the SARS-CoV2 virus gets the capability

> of breaching the bloodbrain barrier, which is the wall around the brain's blood vessels and protects from the foreign substances. One of the main believes regarding the theory of invasion of brain by coronavirus is that the brain doesn't have high levels of a protein by the name of ACE2, which helps the coronavirus to stick.



Delhi set to get India's first BS-VI compliant public transport buses

Delhi is all set to launch the country's first BS-VI buses for public transport by the end of this month. A total of 116 BS-VI compliant, air conditioned, low floor, CNG run buses are going to be inducted in the Cluster Scheme fleet over the next few months. The first batch of buses will be rolled out by the Delhi Integrated Multi-Modal Transit System (DIMTS), which operates the Cluster Scheme. These buses are being supplied by JBM Auto Ltd. A JBM Auto spokesperson said that these buses are equipped with Smart Card Ticketing system, Real Time Passenger Information System, Intelligent Transport Management System, CCTVs, wheelchair ramp and other facilities.

India's first Water Taxi to begin in Alappuzha



Kerala has launched the first of its kind water taxi service of the State Water Transport Department (STWD). After feasibility study was done on the vehicle, SWTD ordered four of such boats to use them as taxi for public use. State will first test the service by rolling out this 10-seater taxi in the backwaters of Alappuzha, which is a major tourist region.Shaji V Nair, Director, STWD, said that four boats will be used for the service with all the advanced safety precautions. Boats are built by Navgathi, Kochi based firm, which prior to this has also been behind India's first solar ferry named Aditya.

BRIEFS | NEWSCAN

DPCC shuts down 28 illegal car scrapping units

A total of 28 illegal scrapping units in Delhi were shut down by the Delhi Pollution Control Committee (DPCC) to control rising pollution levels in the city as these illegal units were a considerable contributor to Delhi's air pollution. These units were functioning mainly because according to Vehicles and off-life vehicles Act (ELV), petrol cars which are older than 10 years and diesel cars older than 10 years are not allowed on Delhi roads. This comes after a research by the Central Pollution Control Board (CPCB) revealed that close to 25 per cent of the threat to the environment is caused by scrap chemicals.

India on top in terms of COVID recoveries: MoHFW



Ministry of Health and Family Welfare (MoHFW), Government of India, while quoting statistics given Worldometers, said that India holds the top position in the world in terms of recoveries from COVID-19. It said that India's recoveries account for 19 per cent of the recoveries worldwide. After India, the United States of America accounts for 18.70 per cent of the total COVID-19 recoveries followed by Brazil, with a share of 16.90 per cent, according to Worldometers. Dr Harsh Vardhan, Minister of Health and Family Welfare, said that the government is providing every necessary assistance for the development of a COVID-19 vaccine in the country.

British researchers develop model to evaluate death risk for COVID patients

LONDON: Scientists in Britain have developed a new four-level scoring model for predicting the possibility of death in COVID positive patients. This, according to the scientists, will help doctors in assessing the conditions of COVID patients and quickly decide on the best care for them. The tool, detailed in a research published in the BMJ medical journal on Wednesday, September 9, helps doctors put patients into one of four COVID-19 risk groups – from low, to intermediate, to high or very high risk of death.

The new model is called the 4C (coronavirus Clinical Characterisation Consortium) Mortality Score and uses data such as age, sex, underlying conditions, breathing and blood oxygen

levels. Studies, conducted in order to determine the reliability of the model, showed that the 4C Mortality Score model yielded more accurate results than 15 other comparable models. It also proved to be more useful in clinical decision-making.

The model uses patient information to calculate the possibility of death of a COVID-19 patients and gives scores ranging from 0 to 21. Patients with a score of 15 or more had a 62 per cent mortality risk. However, patients with scores of 3 or less had only a 1 per cent mortality risk. This means that patients with a low score may not be required to be admitted in the hospital while patients with high scores could be expedited for more aggressive treatment.

GOI to implement global emission standards & safety measures in transport vehicles

NEW DELHI: The Government of India said that it is working to implement several global standards on emission and safety measures in transport vehicles, including electronic stability control systems and brake assist systems. The aim is to bring the Indian automotive industry at the level of developed nations in such regulations. The Ministry of Road Transport and Highways (MoRTH) said in a statement that for the expansion of the automotive industry and to increase its contribution to Gross Development Product, the government is moving towards a long-term regulatory road map. It added that MoRTH is working towards finalizing the implementation of standards for electronic stability control systems and brake assist systems by next two years for relevant categories. As per the statement, certain key areas have been identified by the ministry for international standardization in this field. Standards have been informed for vehicle dimensions and safety of construction equipment vehicles as well. Indian Automotive industry has been keeping pace with these developments and has witnessed numerous improvements in recent years in the domain of passenger safety, emission control and connected technology, MoRTH said. Leapfrogging from BS-IV to BS-VI emission norms and thereby achieving parity with Euro emission norms is one such highlight. Furthermore, the much-needed modifications to the Motor Vehicle



Act have been welcomed as a positive step, MoRTH said. Anti-lock braking systems, airbags, speed alert systems, reverse parking assist and crash standards are among others included in the draft notifications for the revised standards.

KSRTC LAUNSCHES TOILET-BUS FOR WOMEN

AS PART OF CORPORATE Social Responsibility, Bangalore International Airport Authority (BAIL) funded Rs 12 lakh for 'Sthree Toile' initiative by Karnataka State Road Transport Corporation (KSRTC). This project converted an old bus in non-use into a toilet-bus having three Indian and two western toilets. 'Sthree toile' is equipped with a sanitary napkin vending machine and incinerator. The solar-powered bus-toilet, specially designed for women, is furnished with solar sensor lights, washbasin, baby feeding and diaper changing areas.







BRIEFS | NEWSCAN

India places second in ABB's "Drive Electric" campaign

ASEA Brown Boveri (ABB), along with Green TV, launched an online campaign on the occasion of World Electric Vehicle (EV) Day. It encouraged drivers across the world to realise the importance of electric vehicles for sustainable mobility and pledge that the next car they drive will be electric. Results show that India placed second with 13 per cent people pledging to switch to an EV. The United Kingdom (UK) topped the list with around 29 per cent people willing to switch to EVs, while the United States of America came third with a total of 11 per cent people signing up for the campaign.

Survey finds government school toilets lack basic convenience



A survey of government schools conducted by the Comptroller and Auditor General (CAG) has found half the school toilets do not even have a handwashing facility. These toilets were built by 53 Central Public Sector Enterprises (CPSEs) under a scheme launched by the Education ministry and had constructed 1,40,997 toilets. CAG examined the construction of toilets by seven CSPEs across 2048 schools in 15 states. Out of the constructed toilets surveyed, 30 percent were found not in use because of lack of running water, cleaning arrangements, damages or the toilets being used for other purposes. 11 per cent of the total toilets surveyed were nonexistent or partially constructed.

PM Narendra Modi inaugurates and lays foundation stone of 7 infra projects

NEW DELHI: Narendra Modi, Prime Minister of India, on Tuesday, September 15, inaugurated and laid the foundation stone of 7 urban infrastructure projects worth Rs 541 crore in the state of Bihar. Nitish Kumar, Chief Minister, Bihar; Phagu Chauhan, Governor, Bihar; Sushil Kumar Modi, Deputy Chief Minister, Bihar; Suresh Kumar Sharma, Minister of Urban Development & Housing Department, Bihar; and Gajendra Singh Shekhawat, Minister of Jal Shakti, Government of India, also attended the ceremony through video conferencing. Of these 7 projects, four are related to water supply, two to sewage treatment and one to riverfront development, the Prime Minister's Office (PMO) said. The Bihar Urban Infrastructure Development Corporation (BUIDCO) has undertaken the implementation of these projects under the State Department of Urban Development and Housing.

The PMO reported that the sewage treatment plants have been installed at Beur and Karmalichak, in Patna Municipal Corporation under NamamiGange Mission. In Siwan Municipal Council and Chhapra Municipal Corporation, water supply projects built under the Atal Mission for Rejuvination and Urban Transformation (AMRUT) will help local residents get pure drinking water 24 hours a day.

Under AMRUT, PM Modi also laid the foundational framework for Munger water supply scheme which will help the residents of Munger Municipal Corporation to get pure water through pipelines. For Jamalpur Municipality, the foundation stone of Jamalpur water supply scheme under AMRUT was also laid, the PMO said. PM Modi also laid the foundation stone of Muzaffarpur Riverfront Development Scheme, being built under NamamiGange.

Kerala titled "Top Performer" in Start-up Rankings

NEW DELHI: Government of India released the Start-up Rankings in the presence of PiyushGoel, Minister of Railways and Commerce; Hardeep Singh Puri, Minister of State (Independent Charge) for Ministry of Housing and Urban Affairs; and Som Prakash, Minister of State for Ministry of Commerce and Industry. Kerala, along with Karnataka, was recognised as the "Top Performer" for having a sound and strong start-up environment. The state won the title second time in a row and is recognised as the leader in all the fields of innovation. Gujarat, in the 'states' category, and Andaman and Nicobar Islands, in the 'Union Territories' category, were the given the award for the "Best Performers". The State's Start-up Ranking Framework, developed by the Department for Promotion of Industry and Internal Trade (DPIIT) of the Ministry of Commerce and Industry, recognised the Electronics and Information Technology Department of the Government of Kerala as the institutional guide, regulatory change champion, procurement leader, incubation hub and scaling innovation leader. The Ranking Framework assesses the states across seven fields viz., Institutional Support, Easing Compliances, relaxation in Public Procurement Norms, Incubation Support, Seed Funding Support, Venture Funding Support, and Awareness and Outreach.

Dr Saji Gopinath, CEO, Kerala Startup Mission (KSUM) and Ashok Kurian Panjikaran, Head, Business Development of KSUM, are recognised as "Start-up Champions of the State." Kerala has designed extra-ordinary initiatives for the encouragement of women led start-ups such as seed funding, institutional grants, subsidies, etc. The rating framework aims to analyse the innovation ecosystem and start-up culture across various states in a balanced and transparent manner. The scoring is done on the basis of the feedback received by the stake holders. The key objective is to help states in capacity building and to improve the environment of entrepreneurship in the Indian start-up ecosystem.

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Kerala to get one of the first medical device parks in the country



Kerala is soon to get one of the first medical devices park in the nation. According to the Department of Science and Technology (DST), it will focus on the highly risky sector of health device to give a full range of services like Research and Development (R&D), testing and examining. The park will develop a cooperating support system for R&D, testing, evaluation of medical devices, manufacturing support, technology innovation and knowledge dissemination. services provided benefit the medical device industries which will be located inside MedSpark or in other parts of India. This is thought to benefit small and medium-sized medical devices industries.

RTI reveals steep decline in groundwater

In response to an RTI filed by AseemTakyar, an Indian activist, Gurugram's groundwater cell revealed a major drop in groundwater level in the city. According to the report, the groundwater level had fallen from 33.23m to 36.1m in the last two years. Gurugram had been earlier notified by the Central Ground Water Authority (CGWA) to prevent an acute fall in the level of groundwater. Former hydrologist M.S. Lamba cited excessive extraction of groundwater for agriculture, construction, and drinking, in comparison to the water recharged, as the reason for such a sharp decline in groundwater in the state.

'Re-Infection with COVID very rare'

NEW DELHI: Dr Balram Bhargava, Director General, Indian Council of Medical Research (ICMR), on Tuesday, September 15, said that re-infection with COVID-19 is very rare. Re-infection cases of measles have been reported where the body, even after developing anti-bodies, is prone to be affected by the disease again in future. Dr Bhargava added that a similar case of re-infection was reported in Hong Kong where a man got re-infected from COVID-19, which showed the possibility of re-infection. He further said that it is not a matter of concern as it should be noted that whenever re-infection occurs, the earlier symptoms would have been mild. Researchers at the University of Hong Kong reported the first documented



instance of human re-infection last month where a Hong Kong man who recovered from COVID-19 got infected again four and a half months later.

Re-infection with the SARS-CoV-2 is still unknown and has not yet been definitely confirmed in any recovered persons till date and remains a subject of investigation, an expert group at Centers for Disease Control and Prevention (CDC), United States (US) Department of Health in its guidance has noted recently. It added that this does not mean immunity against re-infection with COVID-19 is developed if an individual is once affected with coronavirus.

As per Ministry of Health and Family Welfare (MoHFW), over 38.5 lakh people have recovered from COVID-19 in India, which is one of the highest number in the world. India has constantly maintained a low and declining Case Fatality Rate (CFR) of 1.64 per cent, which is far below the global average of 3.2 per cent. Aim is to reach a national CFR of less than 1 per cent, the MoHFW said.

Gujarat to become country's first state with both CNG, LNG terminals

GANDHINAGAR: Vijay Rupani, Chief Minister, Gujarat, said on Tuesday, September 15, that Bhavnagar will soon become the world's first Compressed Natural Gas (CNG) terminal in the world. This comes after the state government approved sanction of Rs 1,900 crore brownfield project. The terminal will have a capacity of 15 lakh tons annually. The project will be implemented by a consortium of developers, including the Padmanabh Mafatlal Group and one from the Netherlands.

According to the state government, ₹1,300 will be invested in the first phase of the brownfield project which is part of an ambitious mega project. As part of this mega project, focus will be on development of Bhavnagar, where a liquid cargo terminal (45 lakh container capacity), White Cargo terminal and Ro-Ro ferry services terminal would be developed. In order to develop this terminal, dredging and construction of two lock gates will be carried out in the channel and port basin. In addition to this, infrastructure facilities will also be set up on the shore for CNG transportation. As a result of these developments, Bhavnagar port's annual cargo capacity will increase to nine million metric tons.

According to the state government, the project will also create vast employment opportunities for youth residing in Bhavangar and adjoining areas in the fields of logistics, transportation and warehousing. Rupani also announced that due to this, Gujarat will also become the only state in the country to have both a CNG and Liquefied Natural Gas (LNG) terminal.

Ozone treaties "inspiring examples": UN Chief

YORK: Antonio Gutteres, Secretary-General, United Nation (UN), in a message applauded the "Vienna Convention for the Protection of the Ozone Layer" which was framed in 1985. He also appreciated its Montreal Protocol and the Protocol's Kigali Amendment. He said that these treaties on Ozone layer conservation present "inspiring examples" of global political unity towards environment protection. The UN General Assembly has proclaimed the day of September 16 as the International Day for the Preservation of Ozone Layer. This was done in commemoration of the day "Montreal Protocol on Substances that Deplete Ozone Layer" was signed. This year the theme was "Ozone for Life", which clearly depicts its importance for life on Earth and the need to protect the same.

Gutteres added that we should show similar dedication in fighting with the health emergency of COVID, as we have shown in climate conservation. There is a need for more strong and pandemic resilient societies. Vienna Convention was the first such initiative towards climate protection and



preserving the ozone layer. Montreal Protocol was adopted by the countries to replace the emission of aerosols and other harmful gases which contribute towards ozone depletion. Till now almost 90 per cent of these gases have been replaced that has helped the ozone layer to heal.

Working on the Kigali Agreement, countries are trying to find a replacement of coolant gases. Gutteres said that these coolants are posing a great threat towards the goal of climate conservation. If fully implemented the Kigali Agreement can hold the level of Global Warming down by almost 0.4 degree Celsius, he added.

13 CETPs in Delhi functioning at 22% of their total capacity

NEW DELHI: Delhi is home to a total of 13 common effluent treatment plants (CETPs) which have a combined capacity to treat 213 million litres per day (MLD) of industrial effluents. However, during a meeting of the Central Monitoring Committee set up by the National Green Tribunal (NGT), these 13 CETPs are operating at only 20-22 per cent of their total capacity. In other words, only 45 MLD of effluents are being treated and released into drains that later join River Yamuna.

In addition to this, only 11 out of the 13 CETPs were monitored in July this year and seven out of them were found to be non-complying. This means that the seven CETPs discharged treated effluents into the river were not meeting the prescribed standards.

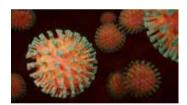
The issue was discussed in August in a meeting of a Central Monitoring Committee that was set up by the National Green Tribunal to monitor 351 polluted river stretches in the country, including the Yamuna. During the meeting, Technical Director of the National Mission for Clean Ganga (NMCG) also informed the committee that there were 11 industrial clusters in Delhi which did not have any CETPs installed. The findings from Delhi and numerous other states were submitted to the NGT in the second quarterly report of the committee.

According to an official from the Delhi State Industrial and Infrastructure Development Corporation (DSIIDC), the CETPs were functioning below their full capacity because the industrial clusters they are located in were producing relatively less wet waste than before. He added that the 11 clusters that are not connected to CETPs produce very low level of effluents.

Brain-eating amoeba infects water supply in Texas

Authorities in Texas issued a Disaster Declaration after a brain-eating amoeba was found in southeast Texas' water supply. The residents in and around Texas received water advisory from The Texas Commission Environmental **Ouality** warning them not to use any water due to the presence of Naegleriafowleri, a braineating amoeba. The amoeba is known to be found in soil, warm lakes, rivers, and hot springs. According to the Centers for Disease Control and Prevention (CDC), it can also be found in poorly maintained water bodies, unchlorinated pools, and warm water discharge from industrial plants.

Loss of smell is the most reliable indicator of COVID-19: Study



research conducted scientists from the United Kingdom (UK) has shown that loss of sense of smell or taste is the most reliable indicator of COVID-19 infection. They said that this should be now recognised globally as the criterion for self-testing, contact tracing and testing. This study examined the health data from the primary care centres from London and has been published in Public Library of Science (PLOS) Medicine. The study found that around 78 per cent of the patients who reported sudden loss of taste or smell in the pandemic, contained SARS-CoV-2 or COVID-19 infection.

BRIEFS | NEWSCAN

Mega anti-pollution campaign launched

Arvind Kejriwal, Chief Minister, Government of Delhi, launched mega campaign against pollution on Monday, October In view of COVID-19, program is named, "YudhPradushankeVirudh". A separate plan for all 13 pollution hotspots of the city has been made to fight with the problem of pollution at its root. According to him, a "war room" is planned to examine all the anti-pollution measures of the government. Delhi government is also planning for a mobile application named "Green Delhi". This application can be used to complaint against any pollution causing activity being carried out around the city.

All cities in Punjab, Haryana declared ODF by MoHUA



In a first, all urban areas in the Indian states of Haryana and Punjab have been declared open defecation free (ODF), according to a statement by the Ministry of Housing and Urban Affairs (MoHUA), Government India. Chandigarh and Haryana are currently processing 91 and 50 per cent of the 482 and 4,985 tonnes per day of waste they generate respectively. The statement by the Ministry said, "Punjab is currently processing 71 per cent of the 4,108 TPD of waste generated." In addition to this, source segregation of waste is being practiced in 77 and 65 per cent of wards in Punjab and Haryana respectively.

Kerala start-up, US foundation develops new ventilators

KOCHI: Sinergia Media Labs (simelabs), Kerala, under Kerala Startup Mission (KSUM), with Ionics 3DP, Chennai and Aruvii, Singapore, tied up with Project Prana Foundation, Massachusetts, USA, to develop a new, affordable ventilator. This low-cost device is capable of ventilating two patients simultaneously which will help the future global fight against COVID-19.

The above mentioned three firm consortium has completed functional model of the device for INDVNTR-100, Bag Valve Mask (BVM) based emergency resuscitator. Derrick Sebastian, Chief Executive Officer, Synergia, said that as an ambu-bag respirator, it offers multiple ventilation schemes. He added that the device works on both mandatory as well as spontaneous modes and is based on a design by Massachusetts Institute of Technology (MIT). INVNTR 200,



on the other hand, is a feature-rich pneumatic design that is available at an affordable cost. Silji Abraham, Advisor, IndVentr consortium, while talking about iSAVE, said that it is a carefully designed and thoroughly tested platform for sharing ventilator. He added that this can immensely improve the healthcare infrastructure which has been put to the test by the COVID-19 pandemic. Shriya Srinivasan, President, Project Prana Foundation, said that her organisation and the consortium will together to offer low-cost ventilators and multiplexing systems to market in India and other neighbouring countries.

Those infected with dengue may develop **COVID** antibodies: Study

NEW DELHI: The study analyzing the novel coronavirus outbreak in Brazil has found some connection between past outbreak of dengue fever and COVID-19. Miguel Nicolelis, Professor, Duke University, led the study which suggested that exposure to dengue fever can induce some level of COVID-19 immunity. He compared the geographical distribution of COVID-19 with that of dengue spread in 2019 and 2020.

Study said that the places with lower COVID-19 infection rates and slow case growth are the locations with intense dengue outbreak in this or last year. This breakthrough finding raises the question of the possibility of immunological crossreactivity between dengue's flavivirussero types and SARS-CoV-2. Miguel said that if the study gets official credibility, this can provide a way for some level of COVID-19 immunological protection by dengue infection or immunization with an efficacious and safe dengue vaccine. He added that the findings are interesting because in earlier studies it was found that patients with dengue antibodies were falsely tested positive for COVID-19, even if they were never infected with the novel coronavirus. The study establishes a significant link between areas showing low COVID-19 infection, mortality and growth rates with areas exhibiting higher levels of dengue antibodies. Brazil has the third-highest number of COVID-19 positive cases in the world. The study team found a similar relation between both the diseases in other parts of Latin America, Asia and islands of Pacific and Indian Ocean.

Delhi hit with second wave of COVID-19

NEW DELHI: Delhi was termed as one of the worst hit cities a few months ago due to the uncontrolled rise in COVID-19 cases. Government efforts and policies have so far been successful in bringing the numbers under control. However, according to data released by the Ministry of Health and Family Welfare (MoHFW), the city is again witnessing a sharp rise in the daily COVID count.

According to the data, the number of positive cases at the end of September hadcrossed the 2.8 lakh mark as compared to 1.77 lakh cases that were recorded at the beginning of the month. The months of July and August had recoded astatic increase of almost 40,000 cases in a month. However, an increment of one lakh cases in September shows that Delhi might currently be witnessing its second wave. This will make Delhi the first state in the country to have been hit by the second wave of the pandemic.

There were mainly five broad reasons behind this sudden surge in cases of COVID-19 in the city. Firstly, avoidance of the safety precautions has been a key reason behind this. According to the officials, around 1,75,000 people were fined by Delhi Police for not wearing masks till August 23. Dr Balram Bhargava, Director General, Indian Council of Medical Research (ICMR), said that the irresponsible behaviour of people and avoiding the masks and security precautions is the major driving force of the pandemic in India.

Secondly, reopening of city has majorly contributed in the spread of infection. According to the guidelines of the World Health Organisation (WHO), avoiding crowded places has been one of the most important safety measures which has helped various countries



in controlling the pandemic spread at an early stage. However, reopening public places such as markets, gyms, clubs, malls, etc has been the driving factor behind the spread of novel coronavirus.

The third reason is Delhi's high dependence on antigen testing, which is not a very reliable method of COVID-19 diagnosis. According to ICMR, around 30-40 per cent of the tests which are antigen based give false results. However, this number is around 70 per cent in Delhi. Ensuring a higher proportion of RT-PCR tests is the only solution to the situation.

Fourthly, there are many limitations in the statistical recording of the cases. Several factors such as incubation period, delay/lag in test results and age of infected patients can heavily influence the surge in daily cases. This limitation can be noted all over the world. Lastly, sudden influx of immigrants from various parts of the country following the unlock in the city has also contributed to the increase in cases. According to the Census 2011, Delhi has the second highest number of inter-state migrants. This sudden influx has forced the already burdened health services in the city to accommodate even more patients.

According to the data released by the Department of Health and Family Welfare, Government of Delhi, the city witnessed its first peak of COVID in June-July this

year. At the time, the number of tests conducted daily were around 18,000, which is half the present number of 35,000 tests conducted daily. Evidently, the first wave of COVID-19 in Delhi was much worse than the second wave. However, Arvind Kejriwal, Chief Minister, Government of Delhi, claimed that the second wave in Delhi has also come to an end.

Delhi's fight against the COVID-19 pandemic has come a full circle from being one of the worst hit areas of the country to controlling the situation and further surge in cases. Moreover, as winter is about to set in some days, the fight is expected to become more difficult and intense for the authorities. The capital of India is also one of the most polluted cities of India and the health sector is already under a lot of pressure due to overstretched healthcare facilities.

A recent study led by Xiao Wu and Rachel Nethery, School of Public Health, University of Harvard, states that even an increase of one microgram per cubic metre of PM2.5 can cause a 15 per cent increase in COVID-19 deaths. Delhi's path to normalcy seems a little too far for now, however, with good governance and public contribution, things will be much easier to manage.









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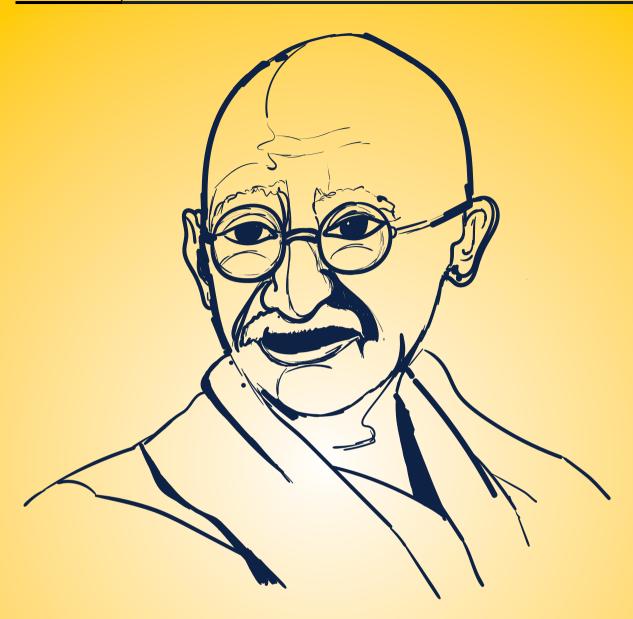
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SPLENDID YEARS OF SANITATION MOVEMENT

India started the sanitation revolution six years ago and through the years, 'Swachh Bharat Mission' transformed the way sanitation and cleaning are seen in hundreds of thousands Indian villages and over 4000 cities. The major outcome of this initiative is the way municipalities and local governments manage and run sanitation services. This article tries to highlight some of the best municipal practices adopted in the last six years and some other innovations in sanitation from around the world that can be implemented to improve sanitation standards further and resolve unsettled issues



ahatma Gandhi has been the inspiration and ambassador of Swachh **Bharat** Mission and his spectacles in the logo of

the mission became the brand of cleanliness and sanitation initiatives in the country. His popularity among the masses helped in reaching out to the last person.

As targeted at the start of the mission, Minister Narendra declared the country open defecationfree on the occasion of the 150th birth anniversary of Mahatma Gandhi last year.

The Prime Minister unveiled the map of India as open defecation-free at the Sabarmati riverfront ground in the presence of more than 20,000 village heads from across the country and also representatives from several countries. Government data tells that in the past five years, the Indian government has built 100 million toilets. It implies that it constructed 38 toilets every minute that had passed since the Swachh Bharat Mission was launched. It is an outstanding achievement and the government machinery certainly deserves compliments for the same.

Swachh Bharat mission has helped in creating awareness among the general public about the sanitation and the negative impacts of open defecation. This was done through a nationwide awareness and communication campaign. The campaign ran several positive messages on the importance of better sanitation and kept sanitation and cleanliness at the forefront.

In 2014, the United Nations (UN) estimated that there is a four-fold return on every dollar invested in water and sanitation and that these savings come in the form of reduced health care costs for individuals and societies around the world. Government of India has spent almost 28 billion dollars on the mission. But the effort for ensuring safe and healthy environment through the mission cannot stop here and the sustained efforts by all stakeholders are required to take this feat to the next level by improving the standard of sanitation and cleanliness in cities and villages of India.

AIILSG'S ROLE IN SBM

India Institute of Local Self-Government (AIILSG) also took up Swachh Bharat Mission projects, conducted training workshops for officials and elected representatives and helped municipal bodies in implementing IEC activities in many cities. Srinagar in Kashmir is one of the cities where Team AIILSG implemented the IEC activities with the help of civil society organizations and local agencies.

AIILSG targeted young students and made them aware of the significance of a clean and healthy environment. They encouraged students to lead the initiative of making cities clean through plogging drives in which students clubbed walking and picking up littered waste from streets and public places. This initiative became an instant hit among the youngsters in Srinagar. And, the outcome of such initiatives was that Srinagar city improved its ranking in Swachhta Survekshan considerably in a matter of one year. In 2019, the city stood at 357th position but in the recent ranking, the city improved its performance and was ranked 36th.

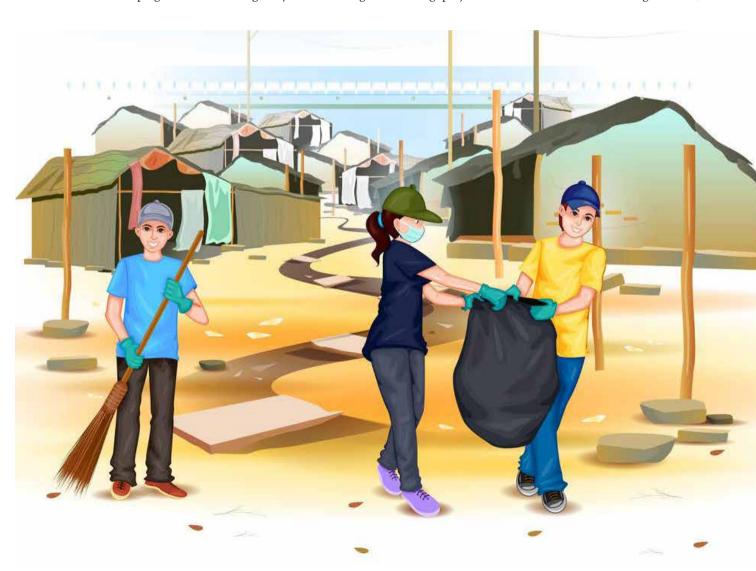
Srinagar Municipal Corporation (SMC) is aiming to improve its Solid Waste Management services focusing on segregation source, improving collection and transportation efficiency as well as scientific processing of the MSW generated in the city. SMC took steps to sensitize the general public about solid waste management through intensive IEC programs in March 2018. Currently, six IEC partners have been empanelled to help handhold SMC to reach out to citizens in 15 out



ABHISHEK PANDEY Editor

of 35 wards. The Project Management Support Unit (PMSU) from AIILSG has also been commissioned to oversee the day-to-day activities of the IEC partners and monitor their performance. IEC programme aims to create awareness among masses regarding solid waste in the city of Srinagar to avoid, minimise and manage solid waste and also to discuss models and techniques which can solve many of the current solid waste problems. All six NGOs closely work in collaboration with the PMSU and under the overall guidance and supervision of SMC. Despite the harsh weather conditions, frequent strikes and conflict-ridden state in Srinagar city, the PMSU team has achieved its targets. The institute took the initiative of felicitating sanitation workers, drivers of dumping vans and holding medical camps for the landfill site workers. The institute has also taken up similar work in Himachal Pradesh, Jammu and Greater Noida.

The institute has organized a series of exposure visits for municipal officials and elected representatives from different parts of the country to the cities where the works are done in the area of sanitation. This has been appreciated and has brought about changes on the ground. Officials from West Bengal, Jharkhand, Chhattisgarh, Himachal Pradesh, and Madhya Pradesh were taken to different parts of the country on exposure visits. In this connection, a visit for officials from West Bengal was organised to Cooper Hospital, Mumbai, to understand Best Practices on Smart Vermicompost system and Organic farming project for Natural Waste. This project is called the "Subhash Dalvi Pattern" for Smart Composting as he initiated the idea. This was a great example of "Zero Waste Campus". The highlight of this training program was a visit to a residential complex in Jogeshwari-Vikhroli Link Road (JVLR), Andheri. This is a noteworthy example of how a large residential society has contributed to the SWM plan of the City by turning itself into a "Zero Waste Campus". The society does not give any extra burden to the Municipal Corporation of Greater Mumbai (MCGM) in terms of waste. In addition to this, the institute also organized hundreds of training programs and workshops for the officials and elected representatives to give them an understanding of Swachh Bharat Mission guidelines,



and best practices. The institute has trained a large number of officials and elected representatives under the capacity building program of Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and SBM.

SUCCESS STORIES FROM ULBS

South Delhi Municipal Corporation used waste for creating replicas of Seven Wonders of the World in a public park. According to the government report, an amount of 110 tonnes of waste was taken from MCD yards and stores all over the capital to recreate these monuments. It took ₹5 crores to construct this park, with ₹1.16 crore only for the Taj Mahal Replica. These monuments made out of waste in the national capital will inspire small cities and towns in the hinterland to recycle waste to their best use.

Indore is one city that has won maximum laurels in its campaign of making the city litter free and clean. The city runs 100 city buses on bio-CNG generated from its decentralized waste to energy plants. This initiative has not just reduced the burden of transporting waste to landfill sites but also ensured clean fuel for public transport and reduced the city's carbon footprint. Chennai in Tamil Nadu became the first city to have an online waste exchange for municipal solid waste. The city generates more than 5,000 tonnes of municipal solid waste in its 15 zones covering an area of 426 sq km. The Madras Waste Exchange is a platform to bridge the corporation's segregated waste and potential buyers such as waste entrepreneurs and the 2,600 scrap dealers across the city, bulk waste generators including schools, colleges and office complexes. The innovation in waste management emerged from every part of the country. Even the small district of Leh launched the Project Tsang-da for waste segregation and reduced the burden on the landfill site. Government of India has compiled various best practices in a booklet and has made it available to the corporations for assessing their local situation and

TEAM AILSG TARGETED YOUNG STUDENTS AND MADE THEM AWARE OF THE SIGNIFICANCE OF A CLEAN AND HEALTHY ENVIRONMENT. THEY ENCOURAGED STUDENTS TO LEAD THE INITIATIVE OF MAKING CITIES CLEAN THROUGH PLOGGING DRIVES IN WHICH STUDENTS CLUBBED WALKING AND PICKING UP LITTERED WASTE FROM STREETS AND PUBLIC PLACES. THIS INITIATIVE BECAME AN INSTANT HIT AMONG THE YOUNGSTERS IN SRINAGAR. AND, THE OUTCOME OF SUCH INITIATIVES WAS THAT SRINAGAR CITY IMPROVED ITS RANKING IN SWACHHTA SURVEKSHAN CONSIDERABLY IN A MATTER OF ONE YEAR. IN 2019, THE CITY STOOD AT 357TH POSITION BUT IN THE RECENT RANKING, THE CITY IMPROVED ITS PERFORMANCE AND WAS RANKED 36TH

to adopt those innovations based on available resources.

FUTURE OF SBM

In the next phase of the SBM, the government is making efforts to make all the cities ODF++. Right now, only 11 per cent Urban Local Bodies (489) have been certified as ODF++. As per the government guidelines, a city, ward or work circle could be declared ODF+ if, "at any point of the day, not a single person is found defecating and/or urinating in the open, and all community and public toilets are functional and well-maintained." ODF++ city goes a step further. The ODF++ protocol adds the condition that "faecal sludge/septage and sewage is safely managed and treated, with no discharging and/or dumping of untreated faecal sludge/septage and sewage in drains, water bodies or open areas."

This time, there is one more target to achieve for ULBs-Water Plus. To achieve safe sustainable sanitation for all, municipalities have to ensure that no untreated wastewater is discharged into the open environment. According to the toolkit released in May this year, a city/ward can be declared as Water Plus provided all wastewater released from households, commercial establishments, drains, nullahs, etc. is treated to a satisfactory level (as per CPCB norms), before releasing the treated wastewater to the environment. Further, the adequate capacity of wastewater and sewage treatment facilities is to be ensured. The infrastructure should be maintained properly and cost recovery is ensured through reuse/recycling of treated wastewater to ensure sustainability. Plastic Waste Management, Garbage Free City, E-waste management and improving infrastructure and capacity at the local level also remains on the cards for the government in the next phase (2020-21 to 2024-25) of the SBM.The targets for the next phase seem as challenging as they were in the first phase. All the agencies have to work together to make sure that these targets are also met in time without losing control over the achieved outcomes.

I am quite sure that the government initiatives and investment in the field of sanitation will help the generations to come and ensure that our future generations grow up in a clean and safe environment.

SBM-Six years of EXCELLENCE

Since the past six years, the Swachh Bharat Mission (SBM) has been a flagship program of the Government of India, aimed at realizing Mahatma Gandhi's dream of 'clean India'. Apart from making toilets accessible to a majority of the population, it has also helped in making cities open defecation free (ODF), the roads clean and bettering the waste collection, segregation and disposal of waste. Urban Update tries to translate SBM's success in numbers

TOP 3 CITIES IN SWACHH SURVEKSHAN 2020 (MORE THAN 10 LAKH POPULATION)

1111373.08111111111300111111111114671111111111327.8111111115467.891111

SLP (State Level Certifications Progress) Average and SS2020 Rankings Score (1500)

Score (1500)

Direct Observation Score (1500)

Citizen feedback (1500) **Total Score** (6000)

IIIIIndore III Surat III Navi Mumbai

COMPILED BY Hitesh nigam | Editorial Assistant DESIGNED BY Meenakshi Rajput | Senior Graphics Desginer















SBM-U AT A GLANCE

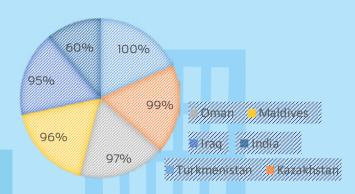
Swachh Sarvekshan is the largest sanitation survey in the world to rank cities on the basis of their cleanliness status. Participation of cities has increased from 75 in 2016 to 4200+ in 2019

SBM-U has led to various policy interventions for strengthening SWM and sanitation systems, to create markets for the by-products of waste management and bridge gaps in sanitation

ODF COMPARISON (%)

☑ ODF status in 2015 ■ Present ODF Status 97.65 95.55 98.72 96.85 93 95.6 90 77.08 80 70 63.85 60 50 4165 40 30 20 10 Uttar Pradesh Rihar Punjab Haryana Maharashtra

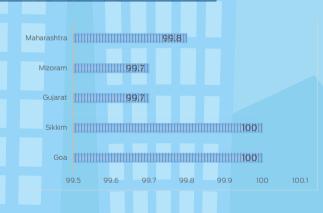
RANKING OF COUNTRIES ACCORDING TO THE BASIC SANITATION STANDARDS



KEY ACHIEVEMENTS OF SBM



TOP STATES OF INDIA IN PERCENTAGE FOR ACCESS TO SANITATION









SBM has aimed to make it a "JAN ANDOLAN" by focussed citizen engagement steps such as Integration of Swachhgrahis, SHGs, RWAs, waste pickers, Swachhta selfie, Swachhta App, etc Approximately 89,545 MT (65% of total waste generated in a day) of waste is being processed per day. Currently, the production capacity of WTE plants is 61 MW and that of waste to compost plants is 31.8 lakh MT

CLEAN INDIA IS PEOPLE'S MOVEMENT

Any mission or movement cannot become successful unless people participate init proactively. Swachh Bharat Mission is that one mission of recent times that has impelled people to keep their surroundingsclean and feel proud. Many individual initiatives by the responsible citizens and groups of citizens have given inspiration to many others for keeping their cities, society, neighbourhoods clean

veryone loves clean surroundings but we as citizens busy in our daily routine life hardly get time to do something about it. But no one hesitates in extending a helping hand to a running campaign for a good cause. Swachh Bharat Mission and people's initiatives in this mission is a perfect example.

People visiting India or Indians going abroad have been witnessing the stark difference between cleanliness standards of Indian cities and cities in developed countries. They always wanted to do something for making their cities, and country clean. The government's initiative gives a push to this desire and people have acted positively.

There are many inspirational personalities and groups of people who have brought about visible changes in the society with their initiatives and deeds.

CITIZEN INITIATIVES

The Akshar School in Guwahati, Assam accepts plastic waste as school fees. This way, the school authorities are not just teaching children about keeping the environment clean and plastic-free but also imbibing in them a habit of recycling from an early age. To reduce the usage of plastic waste, Ashwath Hegde from Bengaluru has come up with an innovative idea and launched a line of bags that takes less than 180 days to biodegrade and dissolve in water in a few seconds. These bags are similar to plastic bags but they are made from natural starch, vegetable oil derivatives, and vegetable waste. Another youngster from Hyderabad, Prashant Lingam is using plastic waste as a construction material for building houses.

A Mumbai based NGO Mumbai Sustainability Centre (MSC) started 'Safai Bank of India' (SBI)in 2018. Through Safai Bank, the organization is reducing the load of millions of plastic wrappers reaching the city's dumping grounds and landfills by collaborating with companies in recycling business. The concept of Safai Bank is so successful that many children have become ambassadors of this bank. A young girl from Gurgaon offers muffins to anyone who brings five multi-layer plastic wrappers and deposits with her.

A citizen forum HSR Citizen Forum has developed a Composting Learning Centre - Swachagraha Kalika Kendra in

Bengaluru. This initiative is supported by the Bruhat Bengaluru Mahanagara Palike (BBMP). It is visualized as a live learning centre for all kinds of composting. It houses most home and community composting solutions available in the market today and many DIY composting solutions as well. One of the BBMP parks in Sector 4 has been developed to make this happen. People from different cities and even countries have visited this learning centre for introducing similar composting in their Resident Welfare Associations (RWA).

To provide a smart waste management solution working on SaaS (Software as a Service) model, Kabadiwala. com was developed by Anurag Asati, an engineer by profession. This platform is a doorstep service that works on organizing the waste sector for individual households to improve





RANJIT S CHAVAN President, AIILSG

the clean environment. The platform organises collection of consumer waste through efficient & cost-effective pickups, and incorporates them into the recycling/vendor network. The initiative promotes the implementation of a cashless digital transaction of wallet to earn Green Points that users could accumulate by recycling of scrap as well as create employment for the unorganized sector by "Best Out of Waste Concepts".

Meena Patankar from Nashik city recycles old newspapers and makes



THE AKSHAR SCHOOL IN GUWAHATI, ASSAM ACCEPTS PLASTIC WASTE AS SCHOOL FEES, ASHWATH HEGDE FROM BENGALURU HAS COME UP WITH AN INNOVATIVE IDEA AND LAUNCHED A LINE OF BAGS THAT TAKES LESS THAN 180 DAYS TO BIODEGRADE AND DISSOLVE IN WATER IN A FEW SECONDS, ANOTHER YOUNGSTER FROM HYDERABAD PRASHANT LINGAM IS USING PLASTIC WASTE AS A CONSTRUCTION MATERIAL FOR BUILDING HOUSES. THERE ARE MANY SUCH INSPIRATIONAL IDEAS WHICH CAN BE SCALED UP FOR LARGER PUBLIC GOOD

stunning paper dolls that are in high demand among locals. A couple from Surat is making biodegradable sanitary pads for women. The famous dabbawalas of Mumbai also ran a seven-day drive and distributed soaps and handwash to spread awareness on the importance of cleanliness and hygiene. Another woman Shilpika Gautam took a sabbatical from her job in the United Kingdom and came to India to highlight the dismal state of the mighty river - Ganga. She paddleboarded her way across the Ganges to raise awareness about just how plastics and filth are choking Ganga.

COMMUNITY PARTICIPATION IS A MUST GOING FORWARD

There are many such stories of individuals who have taken initiatives to keep the environment clean by cycling hundreds of kilometers to spread awareness on sanitation and open defecation to running a persistent campaign on building toilets in every household. We have also seen hundreds of stories where local citizens have run campaigns for making their streets, parks, riverbanks, and beaches clean. There are many heroes of the Swachh Bharat story in every city of India. People have come up with many innovative and low-cost ideas that can be implemented with a little support

from the local authorities and the citizens to make their cities clean.

Many of these initiatives have helped in bringing about behavioural change in public at large. The government's campaign on Open Defecation was targeted at children who, in turn, spoke to their parents and relatives about the ill effects of open defecation. This was also done with social proofing by making open defecation not socially acceptable and eliminating present biases through successful publicity campaigns.

India has progressed in the area of sanitation and waste management under the Swachh Bharat Mission but the nation cannot stop and rest here. We have a lot of work to do to make our country clean and this will not be possible without the support from citizens and civil society. Our institute, AIILSG has also implemented several projects in different parts of the country and used innovative ways of spreading awareness. The sanitary inspector passouts from our institute are trained in developing an understanding of the intricacies of solid waste management, public psyche, behavioural change, the importance of sanitation and hygiene, etc. The institute will continue its legacy of creating an efficient workforce and help urban local bodies in making their operations efficient in the field of community sanitation.

SWACHH BHARAT MISSION & STATE OF INDIAN RIVERS



KUMAR DHANANJAY Consulting Editor

he Government of India, under the aegis of Union Housing and Urban Affairs Ministry celebrated the achievements under the Swachh Bharat Mission in the past six years on the occasion of Gandhi Jayanti on 2nd October. Speaking at a webinar titled 'Swachhata Ke 6 Saal, Bemisaal', Union Minister Hardeep Singh Puri said, "When SBM-U was launched in 2014 by Prime Minister Narendra Modi, it was with the vision of achieving 'Clean India' by October 2, 2019, the 150th birth anniversary of the Father of the Nation." Today, I feel immensely proud, as well as humbled, to see how every citizen of urban India has come together to make that dream a tangible reality.

This spirit of Jan Andolan and Jan Bhagidari the power of collective action and leveraging a healthy spirit of competition is exemplified by the Swachh Survekshan, the annual cleanliness survey of MoHUA," the Housing and Urban Affairs Minister said in a statement.

Underlying the people's participation in the mission, the minister said that in Swachh Survekshan 2020, over 12 crore citizens have participated." We will need to focus on enhancing our processing capabilities along with efficiently managing our construction and demolition waste, and bio-remediating all our legacy dumpsites," Puri said.

CLEANING OUR RIVERS UNDER SWACHH BHARAT **MISSION**

A key aspect of Swachh Bharat Mission is cleaning our rivers which are so polluted. Namami Gange was launched in the year 2014 with a budget allocation of 20,000 crores over the next five years. Separate budget was earmarked for its tributaries of which Yamuna is the biggest, and equally polluted. Several projects were integrated with this program, including making villages and towns open defecation free to ensure that human waste doesn't go into the rivers. There were National Green Tribunal (NGT) orders that said that no construction activity should happen in two km radius and there should be no extraction of water from the river for any construction activity. Way back in 2017 the government had claimed that all the villages along the banks of Ganga running through five states are ODF. Though media reports have disputed this claim through a series of stories that this is not exactly the case while acknowledging the facts that toilets have been built and numbers have gone down drastically. Construction activities are being regularly carried out violating NGT orders, specially in tourist places. So what exactly is the situation and ground reality?

A CASE STUDY OF GANGA AND YAMUNA

Initiatives to clean the Ganga began with the Ganga Action Plan I in 1986. Till 2014, over ₹4,000 crore had been spent. But the river has remained dirty. So when the National Democratic Alliance government launched the Namami Gange in mid-May 2015, there was a new hope. It was the biggest-ever initiative—over ₹20,000 crore was allotted. Prime Minister Narendra Modi made it his personal agenda and set a deadline: "Ganga will be clean by 2019", it has now

been extended to 2020. A deadline likely to be missed again. Now sample this.

A press release of Press Information Bureau, Government of India on 12th March 2020 has given the details of amount of money released by the government to the National Mission for Clean Ganga (NMCG) and subsequently by NMCG to State Governments/State Government Agencies /State Programme Management Groups/Central Public Sector Undertakings (CPSUs)/Other Executive Agencies since inception of the Namami Gange Programme i.e. from 2014-15 to 29 February 2020.

The release also underlines the achievements of Namami Gange Programme. It says

- A total of 310 projects have been sanctioned under Namami Gange Programme for various activities such as sewerage infrastructure, ghats & crematoria, river front development, river surface cleaning, institutional development, biodiversity conservation, afforestation and rural sanitation at a total cost of ₹28,790 crore. Out of these 310 projects, 116 projects have been completed and balance projects are at various stages of execution.
- A total of 152 sewerage infrastructure projects have been sanctioned in eight (8) states (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Delhi, Haryana, Himachal Pradesh) till date to create/rehabilitate MLD sewage treatment capacities and sewer network of 4972 Km at a cost of ₹23,305 Crore along Ganga and its tributaries. Out of 152 sewerage infrastructure projects, 46 projects are completed, 75 projects are under progress and 31 projects are under various stages of tendering. The completed projects have created 632 MLD sewage treatment capacity and

are presently in operation.

Now if we calculate the actual figures only one-third of the conceived projects have been concluded while rest are at various stage of execution. For a good number of projects even the process of tendering has not been completed.

NAMAMI GANGE MISSION GIVES NEW LIFE TO YAMUNA RIVER!

Namami Gange Mission has given a new lease of life to the much polluted Yamuna river in Delhi. Of late, the Ministry of Ganga Rejuvenation-led flagship program Namami Gange Mission has been taking several steps to clean the river and root out waste, garbage from the water body. In 2019, two trash schemer machines were installed for the Yamuna river in order to clean it and hold it free of waste. On a daily basis, around six tonnes of waste are being taken out from the river with the help of these machines. The process starts every day early in the morning and continues till late in the afternoon. After the waste is dug out everyday, by evening the river looks clean. However, the biggest problem area is the pollutants like sewage and industrial waste that flows into the river unabated. However authorities claim that in the coming months the river's water portion from Wazirabad to Kalindi Kunj will most likely become free of waste. The National Mission for Clean Ganga (NMCG) had set up the National Ganga River Basin Authority (NGRBA) which gave the tender for this work to a private firm. The firm is looking after the cleaning of the river with the help of the trash schemer, the report said. In Delhi, the Yamuna river is polluted from Wazirabad to Kalindi Kunj Okhla Barrage. Between Wazirabad to Okhla, the dirty

water from as many as 22 sewerage pipes falls into the Yamuna river. Apart from this, garbage and waste are dumped in many places. Through the Yamuna Action Plan, the Central Government has started nine big projects costing ₹1656 crore.

There is another problem that Yamuna, like Ganga, runs across states. While much of focus has remained on Yamuna in Delhi, in Harvana and Uttar Pradesh the problem persists. In places like Mathura and Vrindavan the water is so polluted that one cannot even think of dipping his hands in the river. However interventions for Yamuna cleaning have been made in Haryana (Panipat and Sonepat) and Uttar Pradesh (Mathura-Vrindavan). A sewage treatment plant project of 180 Million Litres per Day (MLD) has also been approved for Agra.

Rivers are lifelines of an ever growing Indian population. It's a fact that state and local level initiatives have helped in the process to clean state rivers. Gujarat, Madhya Pradesh, Kerala and other states have met success in parts in their efforts to clean their rivers. But according to a recent finding of Central Pollution Control Board, the number of critically polluted segments of India's rivers has risen to 351 from 302 in the last two years. there are two aspects of pollution in rivers. It can be attributed to societal failure as a whole and governance failure especially at local level. Let's look at some of the key points of these two aspects.

SOCIETAL FAILURE

- Domestic wastes and sewage is one of the main reasons of river pollution originating form household.
- Our careless behaviour and irresponsible attitude towards rivers

- has contributed immensely to river pollution.
- Rampant use of fertilisers and pesticides used in fields percolate to rivers. We have completely failed to educate farmers about consequences of indiscriminate use.
- Add to it superstition like bathing in Ganga help in getting rid of all sins. Lack of efforts to develop a scientific temper and remove such superstition has polluted rivers.
- Inability to understand one's duty to keep rivers clean and littering here and there, especially at tourist places has led to dirty rivers.

GOVERNANCE FAILURE

- Studies and data show that the plethora of laws enacted to regulate waste management and protect water quality is not working on the ground.
- Corruption, ineffective implementation and failure of bureaucracy.
- The problems are worsened by the poor infrastructure available in a large number of cities and towns located near rivers.
- Managing sewage requires steady funding of treatment plants for all urban agglomerations that discharge their waste into rivers, and also reliable power supply.
- Country's waterways have also suffered badly in recent years, with vast quantities of municipal and industrial waste discharged into them every day. Governments have failed to stop such industries. Lack of inspections and punishment encourage them to continue dumping in the rivers.

Time is running out fast. Measures are urgently needed to revive India's many dying rivers, protect its agriculture, and prevent serious harm to public health from contaminated water. Civil society has a key role to play in these efforts. Sustained civil society pressure on governments is vital to ensure that this is done in a timebound manner. India is already facing threat of water crisis according to many reports by the World Bank and even NITI Aayog. A proactive role needs to be played by government and society. \blacksquare

₹ in crore

Financial Year	Final Allocation	Actual releases by Government of India	Actual Expenditure/ Releases by NMCG
2014-15	2,053.00	326.00	170.99
2015-16	1,650.00	1,632.00	602.60
2016-17	1,675.00	1,675.00	1,062.81
2017-18	3,023.42	1,423.12	1,625.01
2018-19	2,370.00	2,307.50	2,626.54
2019-20*	1,553.4	1,553.40	2,254.19
Total	12,324.86	8,917.02	8,342.14

(*Up-to 29 February 2020)

WOMEN & ENVIRONMENT BOTH NEED SAFE MENSTRUATION

When Narendra Modi, Prime Minister of India addressed the issue of inaccessibility of safe and hygienic menstruation to a large portion of women in India, people turned red, for 'secret affairs' of women were mentioned on an international platform. As India swiftly moves towards making pads accessible to women across the nation, menstrual waste is presenting itself as a Brobdingnagian threat to the already depleting environment in the subcontinent

ccording

to

the

POOJA UPADHYAY Editorial Assistant

Health Menstrual Alliance India, single sanitary napkin could take 500-800 years to decompose because the plastic used $_{
m in}$ them is non-biodegradable. National Health Family Survey 2015-2016 estimates that out of the 336 million women menstruating in India, only about 121 million or 36 per cent of menstruating women have access to sanitary napkins. The data not only reflects the reality where a large part of the female population in the country still does not have access to safe and hygienic menstrual practices but also on the huge amount of menstrual waste generated

> that goes untreated. WaterAid India, non-government organisation, estimated that these 121 million girls and women dispose of 21,780 million pads annually, which creates major challenge for the country's waste management system.

> > MENSTRUAL AWARENESS AND COVID

From a time when

progressed to a time where an Indian food-delivering organisation, Zomato, introduced a policy where women employees can avail up to 10 days' period leaves in a year. Deepinder Goel, founder and CEO of Zomato, said in a note sent to the organization's employees that female colleagues expressing that they are on their period leave should not be uncomfortable for any man.

whispered

breaths about their periods, India has

under

A study titled 'Menstrual Hygiene Management among Adolescent Girls in India' said that out of 100,000 girls in India, almost 50,000 did not know about menstruation until the first time that they got their periods. The 2016 study further describes that many girls even think that they are dying or have caught a horrible disease due to the pain and blood during their first periods. The number of workshops conducted in schools has increased over the years to make girls au fait about menstruation. These workshops also teach girls about safe and hygienic menstruation practices involving usage of sanitary pads instead of cloth or sand/ ashes and the correct way of disposal of used pads.

Even though, in rural India, girls still drop out because of lack of menstrual awareness and hygiene management, the number of such girls has started dropping. Programmes by the central and state governments providing free sanitary napkins to teenage girls in



government schools every month may be one of the most significant reasons. Government of India imposed a nation-wide lockdown on March 25 this year, but sanitary napkins were not in the list of essential items which were exempted from the restrictions. When grocery stores in urban localities started running out of sanitary napkins, the government decided to add them to the list of essential items. Villages faced acute shortage of pads during the lockdown. Only 15 per cent of the women in India had access to sanitary napkins during the lockdown. Schoolgirls also lost access to the free pads that they were receiving from their schools. Many women and girls were reported to have switched back to cloths and ashes.

MENSTRUAL WASTE SEGREGATION, TREATMENT AND DISPOSAL

Women wrap their cloth pads or sanitary napkins in paper and dispose of it. Ministry of Drinking Water and Sanitation (MDWS) released data on menstrual waste management showing 28 per cent of the used pads are thrown with routine waste, 28 per cent are thrown in open, 33 per cent are disposed of via burial and 15 per cent are burnt openly.

The pads thrown with routine waste are segregated manually by waste pickers who are thus exposed to several pathogens causing hepatitis and tetanus. The used pads dumped in the open become accessible to animals. Being 90 per cent plastic and consisting body fluid waste, these pads can harm animals to a large extent. The pads, when buried in landfills, contaminate the soil, block the underground water cycle, and harm microorganisms for they have antibacterial chemicals and nonbiodegradable material. Incineration of used pads is a sustainable management method if done properly, but pads are burnt openly which adds to air pollution. However, environmentfriendly boxed incinerators have been devised in recent years which still await their introduction into the waste management cycle.

In Pune, Red Dot Campaign was started by **SWaCH** (Solid Waste Collection and Handling) in collaboration with the Pune Municipal Corporation and KagadKach Patra Kashtakari Panchayat, a waste-pickers union. The campaign aimed to spread awareness on ways to dispose of sanitary waste in the city. The residents were asked to first wrap sanitary napkins and diapers in paper and mark them with a red dot which ultimately helps the waste-pickers while segregating them. This is a step forward in ensuring waste generators segregate waste into three categories- wet, dry and domestic hazardous waste. Sanitary napkins, along with things like injections, have been added in the hazardous domestic waste category by Solid Waste Management (SWM) Rules 2016.

According to the Central Pollution Control Board's guideline on Management of Sanitary Waste, deep burial, composting, pit burning and incineration (provided that it is a low-cost, small-scale, electric, and high-temperature biomedical incinerator) are some of the methods that should be adopted to dispose of such waste. However, the guidelines are not properly implemented.

Dr B Mangalam resides in Dwarka Sector 7, New Delhi. Every resident of that sector received an official notice from Municipal Corporation of Delhi (MCD) this year directing them to segregate their waste in three partsdry, wet and biohazard waste, while dumping it in three separate dustbins established in front of every house and at the gate. Residents have been asked to dump syringes, sanitary napkins in it. MCD charges the whole locality a fine of ₹10,000 when they receive any mixing between the waste collected from the area. This is a crucial step by the MCD in sanitary napkins' disposal and management.

Sanitary pads from waste collection centres need to be efficiently treated to reduce its negative impact on the environment. According to the World Health Organisation, shredding of pads and then incinerating them at a temperature above 800 degree Celsius is the right way of treatment of menstrual waste. India does not have proper provision for such high-temperature incinerators yet.

A Pune based organization called PadCare Labs has come up with a sanitary napkin disposal system called SanEco. This system breaks down the used pads into its basic components, i.e cellulose and plastic, which can then be recycled into paper or used in plastic components. The waste-to-energy kind of incinerators and systems like SanEco are coming up in India but their introduction into the country's waste management system is still far from reality.

SUSTAINABLE TECHNIQUES FOR MENSTRUAL WASTE DISPOSAL

Starting awareness campaigns on the harmful results of plastic sanitary napkins is a must now. Women in India often are not aware of all the options available to them for the absorption of their period blood, other than pads and tampons. Women can switch to pads made of cotton, banana fibre, bamboo fibre, or water hyacinth plants which are affordable and areeasily biodegradable. Menstrual cups are another sustainable for the absorption option menstruation blood as they are reusable and environment-friendly. Disclosure of the chemical composition of pads by the manufacturers will help users in making informed choices.

The government needs to start awareness programmes and work on sanitary waste disposal management hand in hand with programmes making safe menstruation accessible to women. O P Ratra, plastic management expert, said that plastic is not a health hazard but only an innate material that can be turned into a great asset if managed and recycled properly. Despite forward-looking legislations and machineries, the slow progress in implementing this could potentially mean that India's already scarce natural resources could be further polluted.



MYSORE AND AMBIKAPUR - THE JOURNEYS LESS TALKED ABOUT

Swachh Bharat Abhiyan has made many Indian cities aware of the importance of hygiene and cleanliness. According to the latest ranking by Swachh Survekshan 2020, Mysore, the city of palaces, won the award for India's Cleanest Medium City, and Ambikapur, a small town of Chhattisgarh, achieved the title of India's Cleanest City in the 1 – 10 lakh population category. This was possible not only because of the initiatives made by the governments of Karnataka and Chhattisgarh but it also involved active participation of the public, which is an essential part for the betterment of any city's sanitation standards

SHRILA POKHARIYAL

Editorial Assistant

vsore, earlier known for its palaces and rich heritage of maharajas, is now known to be one of the cleanest cities inIndia.

The credit for Mysore's success in the Swachh Survekshan goes to the early planners and occupants of the city - the kingdoms led by Maharajas. For over hundred years, the city has a steady supply of clean water, wide roads, and an excellently planned underground drainage system. A sewage treatment plant was set up in Mysore by the City Improvement Trust Board in 1910. The excellent infrastructure given to the city by its ancestors, coupled with the policies of the Government of Karnataka, worked to keep the city's legacy of being one of the cleanest cities in India intact.

With a population of approximately one million and a large number of tourists from all around the world, Mysore naturally produces a large amount of solid waste on a daily basis. Thanks to Mysore City Corporation (MCC), the city has a waste management system in place that produces zero waste. The corporation has established ninezero-waste management units which are responsible for treating half of the city's waste. In addition to this, MCC has set up 47 material recovery facilities across the city. More than 2,000 MCC workers work relentlessly to collect, segregate, transport the garbage and sweep the streets every morning. As a result of public awareness campaigns organised by the MCC, 80 per cent of all households in Mysore segregate their waste into red and blue bins. The vegetable waste is sent as feed for stray cattle and the rest of the organic waste is sent to processing plants for producing organic manure.

MCC also uses technology in a smart and practical way to assist in the waste management system of the city. Using technology, the corporation actively tracks garbage collection and disposal vehicles and regularly checks for problems that they might be facing. The Indian Institute of Technology is also developing a software solely for MCC which will help garbage vehicles in keeping a track of their destination, the areas they need to cover for the day and the time they have left to cover them. Residents of Mysore can also use a mobile application called 'SWACCHATA' for recording negligence in cleanliness and/or sanitation services or if they find another resident is found violating a law.

However, technology is futile without active public participation. In the case of Mysore, the people actively participated in the initiatives taken by the government and cooperated with the MCC. Many non-governmental organisations started campaigns to address the issue of cleanliness. Institutions such as the Sri Ramakrishna Ashram also conducted a street cleaning drive every Sunday for forty weeks so that the mission successfully becomes mass movement. Educational institutions and small groups of students also participated diligently in the mission of cleaning and spreading awareness about this mass movement. A number of companies based in Mysore also contributed in making the city clean by developing devices to segregate waste and to convert the biodegradable waste into manure or biogas.

Mysore City has earned reputation of one of the cleanest cities because of the combined efforts of the Government of Karnataka, the Mysore City Corporation and the people of the Mysore. Through a well-oiled, systematic waste management, MCC has saved approximately ₹14-15 crore per annum. The corporation is still working to implement a complete ban on use of

plastic anywhere in the city. With the successful implementation of the plastic ban in the near future, Mysore aims to becomes the first no-plastic city of the country too.

AMBIKAPUR

Ambikapur, a small city in Chhattisgarh, has turned its waste into wealth. The progress of the city in the last 5-6 vears has been commendable and has helped in transforming the small city completely. One of the most visible changes to the city's infrastructure has been the removal of the large waste dumping site, located adjacent to the city's entry.

The initiative to make this city clean was first made by Ritu Sain, a 2003-batch IAS officer. As the newly appointed Collector of the Surguja District in Chhattisgarh, her first mission was to clean up the city under her jurisdiction. One of her most advantageous and successful initiatives was to adopt a model of circular economy, because of which the city is now a 'zero-waste society'. In a circular economy, waste is renewed and turned into something useful, which may or may not be used for other purposes too. In this way, waste remains inside the loop and chances of pollution andwaste production are eliminated.Like many towns in India, Ambikapur too encountered the issue of improper segregation, collection and disposal of solid waste. Through a successful solid liquid resource management (SLRM) model, it is now a landfill-free city. There are 17 SLRM centres in Ambikapur and each has to two e-rickshaws. These e-rickshaws are required to collect waste from over 600 households in the neighbourhood of the SLRM centre.

LIKE MANY TOWNS IN INDIA, AMBIKAPUR TOO ENCOUNTERED THE ISSUE OF IMPROPER SEGREGATION, COLLECTION AND DISPOSAL OF SOLID WASTE. THROUGH A SUCCESSFUL SLRM MODEL, IT IS NOW A LANDFILL-FREE CITY. THERE ARE 17 SLRM CENTRES IN AMBIKAPUR AND EACH HAS TO TWO E-RICKSHAWS

The SLRM model has not only helped in changing the city's landscape but has also helped a large number of women in becoming economically self-sufficient. The city's corporation employs over 600 women for ensuring that the city remains clean. In addition to this, the corporation has also collaborated with self-help groups consisting of 500 female workers and 123 supervisors to help in the various cleanliness initiatives that the city is undertaking. The women are initially trained for 15 days and are then divided into three groups - one for waste collection, one for segregation and one for disposal.

The SLRM project also demanded a behavioural change in the people of Ambikapur, hence Information, Education and Communication (IEC) was very necessary. The Municipal Corporation Ambikapur distributed red and green garbage bins to make people aware of the importance of proper waste segregation before they dispose of it. MCA also organised awareness campaigns in schools to sensitize children about the importance of cleanliness.

Through CCTV cameras installed at every SLRM Centre, the process of waste management is monitored continuously. An android app is also installed in the head office of the corporation. The workers who collect the beneficiary fee from the houses carry a device comprising a touch pad and a mini printer. In order to ensure transparency between the people and the MCA, the worker prints an electronically generated receipt immediately and hands it over to the respective citizen. This helps the corporation in keeping a record of all transactions electronically.

The stories of both Mysore and Ambikapur, although lesser known, are inspiring. Both the cities have shown that the most important factors in achieving a goal are the will to work and proper coordination between all the stakeholders. The experiences of Mysore and Ambikapur have useful learnings to offer for other cities and to enable India realize the dreams of a Swachh Bharat.

STATE OF PUBLIC TOILETS IN INDIA

Construction of toilets to make them universally accessible is one of the most important aspects of the Swachh Bharat Mission. According to the data of Swachh Bharat Mission-Urban (SBM-U), government has constructed around 5,95,146 Public Toilets (PTs) and Community Toilets (CTs) across the nation. However, the real state of public toilets is grimmer at ground level

HETESH NIGAM

Editorial Assistant

atest data shows that the Government of India has completed around 117 per cent of its mission with respect construction public and community toilets across nation. However, a latest survey by the Ministry of Housing and Urban Affairs (MoHUA) shows that almost 55 per cent of the public toilets in Delhi are either in unusable condition or extremely dirty. Moreover, there are

evident differences in data provided by government agencies and civil societies.

INADEOUATE INFRASTRUCTURE

Government of India's advisory on construction of PTs and CTs states that there should be adequate lighting and water, proper cleaning and adequate urinals. For a CT, facility area to wash clothes is also equally important. However, all these requirements are hardly met in the premises of a PT or

Lack of proper infrastructure plays a very important role in letting toilet built under SBM-U remain dirty and

unusable. Since the government floats third party tenders for maintenance of these toilets and since there is virtually no one overseeing their work, the parties that are allotted the tenders often misuse the money given to them to make profits. This not only leads to the wastage of public funds but also jeopardizes the health and well-being of those communities/people using these community/public toilets. Geeta, a domestic helper living in slums of Sri Niwaspuri, Delhi, said, "Due to heavy public usage, the toilet seats are damaged and have also not been repaired since long. This is why we are forced to defecate at night in the open. We know that this is not safe but we have no other option."

Talking about third-party tenders, Sulabh International has been at the forefront of government's mission of constructing public and community toilets. According to the data on their official website, Sulabh International has constructed almost 1.5 million 2-pit pour-flush toilets across 27 states in the country. PTs and CTs constructed and maintained by Sulabh International are some of the most well-maintained toilets built under SBM-U in the country. However, availability of PTs and CTs has been in question owing to the huge population size of India. According to the advisory of SBM-U, there should be one toilet for every 1 to 12 persons. However, Dharavi, the largest slum in Asia with almost 8.5 lakh residents, has just about 8000 toilets, according to a survey by The MOJO. Slums are the major users of community toilets across the country. Sarla, a domestic worker living in the slums of East Delhi, said, "Instead of walking for 15 minutes and then standing in queue to use the toilet, we prefer to relieve ourselves in the open at deserted places after its dark."

TOILETS FOR WOMEN AND PWD

Women friendly toilets is also one of the criteria mentioned in the advisory of SBM-U. However, a survey by Pinkishe, an organisation working to



A COMMUNITY TOIL ET IS NORMALLY LOCATED IN OR NEAR THE COMMUNITY AREA AND USED BY ALMOST DEFINED USERS OF THE COMMUNITY WHEREAS PUBLIC TOILETS ARE PROVIDED FOR THE FLOATING POPULATION/GENERAL PUBLIC IN PLACES SUCH AS MARKETS, TRAIN STATIONS OR OTHER PUBLIC AREAS AND USED BY MOSTLY UNDEFINED USERS

Leading by example



PTs which have set an example 1000 people daily. It has eight

and also has a customer feedback system regarding the management of toilet. It contains a sanitary pad

and hygiene are the pre requisite in building a country's strength and such conditions of PTs and CTs of Government of India of making India Open Defecation Free (ODF). However, the management of PTs and CTs is a serious limitation in the execution of this dream on the ground level. Conversion of the government schemes at the grass-root level is the most important task of authorities. Protection of women is a major issue plaguing the country and making safe and secure toilets for women is the first

ensure women empowerment, found that around 90 per cent of women in India avoid PTs as they are 'too dirty to use'. Rohini Mishra, a resident of Delhi, says, "Once I used a public toilet in Connaught Place, one of the most elite and developed areas of Delhi, and suffered Urinary Tract infection due to the dirty seat, after which I never used one again in my life." Besides this, the construction and design of PTs and CTs are also not convenient for use of the People with Disability (PwD), which is clearly mentioned in the advisory of SBM-U. An RTI by Advocate Akeel Usmani revealed that there are around 19 states in India which do not have even one disabled-friendly public or community toilets. This is a disturbing figure for a country with almost 2.21 per cent of PWD population, according to Census 2011.

The needs of a woman are better recognised by a fellow woman, which is why there should be a female caretaker in the PTs and CTs of the country. Mandatory bins for sanitary pads and issues related to the menstrual hygiene are better managed when there is a female caretaker in toilets. However, an imbalance in the ratio of male and female employees is clearly visible in the country.



When the entire world was battling an unprecedented health crisis brought about by the Coronavirus pandemic. there were a number of unsung heroes who were fighting the battles from behind the curtains. They were the people who kept working in the spirit of humanity and continued settingnew standards of brotherhood and togetherness for the society.

TEAM URBAN UPDATE

DURING COVID TIMES

f this global pandemic and lockdown situation has put many in extreme mental, social, physical and financial stress, then it has also brought to light a number of good samaritans to reduce people's sufferings.

From distributing food to feed the poor and hungry to educating children living in slums, these unsung heroes, without caring for their own health and safety, are fighting to bring lives back to normal.

These are our everyday warriors who are restoring humanity's faith by coming up with novel ideas.

Team Urban Update elaborates on the works of some of these unsung heroes.

NASEER AKHTAR **DONATES 330 OUINTALS** OF WHEAT TO ĞOLDEN **TEMPLE**

In what can be viewed as a symbol of brotherhood and communal harmony, Muslim families of Malerkotla, Punjab, have donated 330 quintals of wheat to the Golden Temple, Amritsar, Punjab, to keep the Gurudwara's community kitchen (langar) from stopping in the midst of the nationwide lockdown.

Naseer Akhtar, President, Sikh Muslim Sanjha Foundation, led the initiative of donating wheat to the Golden temple to support them in running the community kitchen, despite the shortage of ration. Akhtar, in conversation with Urban Update, said that there is only one lord who

takes care of every human being in this world. He is called different names in different religions. All humans are the family of god and those people who work for humankind are among his favorites. He went on to say, "Under Islam, there is a teaching which states that feeding any human being of any religion is an act of humanity. Since the beginning of the COVID-19 pandemic, their foundation started distributing rations among the needy and poor. The female members of the organizations used to reach out to the needy women, talk to them and understand their problems and distribute ration among them." Talking about how they thought of helping the Golden Temple authorities, he said that they received an appeal from them which said that

they are facing a shortage of ration and if it continues, they might have to discontinue the langar. "Members of the foundation then started collecting wheat and got an overwhelming response. Every house they visited donated wheat and, with god's grace, they were able to collect 330 quintals of wheat for donating it to the Golden Temple," added Akhtar.

Naseer Akhtar said that 34 COVID-19 positive patients were admitted to the Civil Hospital in Malerkotla and the foundation took the initiative of providing them fruit kits. Initially, there were 7 members in the foundation. their number However, started increasing gradually after the initiative taken to continue the community service in Golden Temple was received positively by all. The foundation is even working on starting a langar service for the daily wagers who, at times, don't get work the entire day and have to return home empty handed.

BENGALURU COP BECOMES A TEACHER FOR THE CHILDREN OF MIGRANTS IN SLUM

Amid the COVID pandemic, students, particularly those from financially weaker families, have been struggling to continue their studies as schools continue to remain shut since March this year. Every morning since August 20, Shantappa Jadammanavar, subinspector in the Bengaluru City Police, has been taking classes for children in a neighbourhood slum in Vinavak Nagar, Nagarbhavi in Western Bengaluru.

Naseer Akhtar President, Sikh Muslim Sanjha Foundation

Shantappa, in conversation with Urban Update, said that during the nationwide lockdown, he noticed that the migrant workers who had come to Bengaluru to earn more were facing an unprecedented financial crisis. In order to help them, he started arranging groceries for the migrants. With the help of sponsors, he was able to distribute 10 lakh groceries kits among them. In addition to this, women from these families were unable to avail regular health checkups. With the help of doctors, Shantappa made sure that their health was not ignored. Due to the lockdown, children were also unable to eat healthy food. For this too, Shantappa worked with sponsors, doctors, and provided healthy, nutritious food to the children.

Now that the lockdown is lifted in almost all cities across India, poor children are still unable to access education due to lack of access to technology. In order to help the children, Shantappa decided to teach them daily between 07:00 AM and 08:00 AM. "I myself was a migrant worker when I had come to Bengaluru many years ago. Thus, I know the ground reality and what problems they might be facing at a time like this. This is why I decided to help them in every way possible," Shantappa said. He said that initially, only 10 students were attending the classes but over time, when he started providing them with books and other stationery items, other children also started joining, taking their number to 40. Shantappa also ensured that during the classes, the



Shantappa Jadammanavar Sub-inspector, Bengaluru City Police

children followed COVID preventive measures like social distancing and wearing masks. If any student did not have a mask, he provided them with one free of cost.

Using just a board and a marker, he teaches children in an open space near the slum area. Apart from teaching them the prescribed syllabus, he makes sure that regular revision of what they have been taught earlier is also carried out. Students from class 4 to 10 join his class. However, because in most families, both parents are working, the children have to bring their younger siblings with them and this causes disturbance in the teaching process. Thus, Shantappa tried to convince the children to not bring their younger siblings along. Nonetheless, these classes are supported by the parents Shantappa continues to try and convince other parents by making them realise that without education, their children might not be able to live a better life in the future.

After witnessing the wholehearted support from the children and their parents, Shantappa wishes to continue teaching them even after the pandemic is over. "After the one hour class, the smile that I see on their faces is priceless. I see how confident they have become, knowing that someone is there to take care of their basic human right to education," he said. Apart from academics, he also tries to inculcate good social etiquettes in the children and tried to give them sound moral education too. He wishes that one day, one of his students received a Bharat Ratna. He has also renamed the students in his class after the names of freedom fighters like Sarojini Naidu, Bhagat Singh, Udham Singh, Subhash Chandra Bose, Gopal Krishnan Gokhale, Khudiram Bose, and local freedom fighters like Sangolli Rayanna. He does so because firstly, he wants such heroes, who were lost in time, to come to the forefront of the society and secondly, he wants to inculcate the personalities and value system followed by those fighters into the personality and sub conscious mind of the children attending his classes.

INADEQUATE INFRA, PUBLIC NEGLIGENCE CAUSED INDIA'S COVID OUTBURST

ndia surpassed Brazil to become the country with the second highest number cases of COVID-19 infection. While the numbers had comparatively remained under control during the lockdown period, their increment have known no bounds since the country's 'Unlockdown' began. Urban Update organised a Webinar on the topic "Is India becoming the COVID capital of the world?" to discuss the reasons for such a drastic increase in COVID cases. Shailaja Chandra, former Secretary, Ministry of Health and Family Welfare (MoHFW), Government of India; Dr Subroto Kundu, former Chief Medical Officer (CMO), Central Health Service; Dr Sylvia Karpagam, Public Health Policy Expert; Dr Antony Kollannur, Health and Nutrition Specialist, UNICEF; and Dr Mathew Varghese, Orthopedic Surgeon, St Stephen's Hospital, Delhi were part of the Webinar's panel. It

was moderated by Kumar Dhananjay, Consulting Editor, Urban Update.

Dhananjay began by COVID-19 related data and said that in India, the fatality count has breached the 75,000 mark while the total COVID positive cases have exceeded the a total of nine lakhs. "Is the sudden surge in cases a result of aggressive testing or because people are tired of the social restrictions and are opting to not follow them?" asked Dhananjay.

Shailaja Chandra began by stating that while discussing COVID-19 data, the size of the Indian population must be kept in mind. She said, "We must analyse COVID's fatality in India by measuring the deaths per million and not by just looking at the deaths in total." She stressed that taking steps to control the pandemic is not the the responsibility of the central government solely. According to the Indian Constitution, public health is a state subject. Thus, the state

government is equally responsible for arresting the spread of coronavirus. She added that the current situation may gradually improve if safety precautions continue to be imposed strictly.

Dr Varghese started by explaining the importance of wearing masks and maintaining social distancing at all times. "A major share of the problem would be addressed if people simply followed basic COVID appropriate behaviours," said Dr Varghese. He then went on to talk about how hospitals have solely focused on addressing positive patients ignoring the needs of non-COVID patients. He added, "The government should have worked on strengthening the health infrastructure in the country. Not doing that has also led to the death of a number of healthcare workers."

Dr Antony talked about Kerala's success in controlling the spread of the pandemic with the help of various committees on disaster and epidemic relief and active tracing of patients. Other states failed to learn the knack and hence suffered badly. He said, "Banning international trave in time by the central government would have worked better instead of imposing a sudden nationwide lockdown." He went on to talk about the issue of the pandemic-induced labour migration and said that the government was unable to handle the issue efficiently. This was also a reason for a spike in India's COVID tally despite the lockdown.

Dr Sylvia addressed Government of India's failure in managing the pandemic. She said that due to the absence of proper public transport, rural areas were incapable of staying safe from the pandemic. Moreover,



E-Dialogue 15.0 | Is India becoming COVID-19 capital of the world?

government record of **COVID** fatalities is also unreliable as they show discrepancies and loopholes in the data collection process. Communalisation of the issue and stigma against the Muslims added to the difficulties in managing the situation. Dr Sylvia added that the government was unable to address the issues of daily wage workers, who were forced to choose between starving or being exposed COVID-19 while going back home. She said, "Community is not solely responsible for this uncontrolled spread of COVID-19 in India. The government had an equal, if not bigger, role to play."

Dr Kundu commented on Delhi's situation and said that the state government's preparedness is better than most other states. This is in part due to the adequate budget allotment of the public health sector in Delhi. Due to the stranded migrant labourers across Delhi, the pandemic could have worsened. The public health infrastructure was however, equipped appropriately to manage the excess inflow of COVID patients. The only drawback was that since the government directed a majority of the hospitals to treat COVID patients, care of patients with other ailments was neglected.

Dr Varghese answered a question regarding the role of the World Health Organisation in tackling the pandemic. He said, "Their role is to guide the countries. The onground work still lies with the concerned medical, municipal and

administrative authorities." emphasised that authorities need to understand the learning and loopholes in the public health system and work on that in order to be prepared in pandemic strikes. another Lastly, Dr Sylvia answered a question regarding her study on the COVID-19 situation. She said that asymptomatic cases were majorly responsible for spreading the pandemic in India. Delay in implementing a model of aggressive testing and discrepancy in contact tracing were the major reasons. Moreover, lack of adequate infrastructure to handle the vast inflow of COVID patients led to neglect of patients with severe symptoms.

PANDEMIC WORSENED UNEMPLOYMENT PROBLEM IN INDIA



E-Dialogues 16.0 | COVID-19 and Unemployment – Cause and Effect

he sixteenth edition of E-Dialogues was on the topic "COVID-19 Unemploymentand Cause and Effect". The panel for the webinar consisted of N Sai Balaji, National President, All

India Students' Association (AISA); Prof Surajit Mazumdar, Centre for Economic Studies and Planning, Jawaharlal Nehru University(JNU); Tikender Panwar, Former Deputy Mayor of Shimla; and Abhishek Pandey, Editor, Urban Update. The webinar was mediated by Kumar

Dhananjay, Consulting Editor, Urban Update.

Dhananjay introduced the topic siting a record by National Crime Record Bureau (NCRB) which reveals that almost 3000 people killed themselves because of unemployment in India whereas independent agencies show this figure at around 14,000. He argued that even before the pandemic, the nation's Gross Domestic Product (GDP) was ever low at 3.1 per cent and the unemployment at a 45 year high. He added, "In the context of the pandemic, more than 2 crore salaried class people lost their job. And after involving the job losses in the unorganised sector, the figure is in the range of 14 crores." He congratulated the youth of the country for taking a step forward in demanding their right, that is employment, and collectively announcing September 17th as National Unemployment Day.

In order to give a direction to the discussion, Dhananjay asked N Sai Balaji to address how grave the situation of unemployment he has found to be among the youth. Balaji started by citing data on students who have died by suicide in different years in the country. He adduced to the gradual increase in number over the past three years. In 2016, students' suicides were 9,400; in 2017, it was 9,900; and in 2018, it was found to be 10,154. He drew attention to the fact that these cases were highest in number in Maharashtra and Tamil Nadu, which happen to be the industrial states.

Balaji mentioned the three things that the youth has been demanding from the government during the pandemic-a fee waiver, postponement employment exams and opportunities. All three of these are related to the problem of job losses. He also referred to the irresponsibility on the part of the government concerning public jobsand said that a lot can be done if the authorities are willing to.

Prof Mazumdar was the next speaker who said that one doesn't get the idea of unemployment by looking at just data on those who are officially deemed to be unemployed. He proposed a comparison system, where the population in India which is employed is put in proportion with the population which is in the workingage group. India only has 35 per cent of the population employed, where over 55 per cent of the population is in the working-age group. He argued that the government is unable to channel the potential of the nation's workforce which may contribute to the country's economy.

He referred to the fact that India is currently witnessing a demand-supply gap in job opportunities, tipping the balance towards an excess of demand. This is why most jobs pay less and may or may not have proper working conditions. Moreover, in the past two decades, farmers' income have remained inadequate which forces them to move to the industrial/service sector, where the job situation is no better. He added, "Unemployment problem is not the only an effect of this but also the cause."

Tikender presented perspective stating cities have shifted from a managerial aspect of ruling to more of an entrepreneur approach. He referred to the treatment of migrant workers as second or third class citizens which acts as acatalyst for reverse migration, that is, from cities to villages. He argued that cities are getting developed, but it has nothing to do with creating a viable environment for employment growth. Urban centres are now shifting from being labour intensive to capital intensive. He quoted the development of Smart City Command Centres under the Smart City Mission of the Government of India as an example. It aims at integrating a number of civic services under one roof, which is likely to increase productivity per worker while considerably decreasing job postings. He described how the profit mindedness in the government and growth in machine investment is leading to a state of "irreversible unemployment".

Abhishek started by referring to data released by the Chennai Mathematical Institute (CMI) on state-wise unemployment in India. The vast difference in the condition of unemployment in different states was cited. Unemployment rates in states like Tripura and Haryana is as high as 27.9 and 33.5 per cent respectively, whereas in Karnataka and Tamil Nadu, it drops down to 0.5 and 2.6 per cent. He compared how Himachal Pradesh and Odisha introduced similar 'urban employment' schemes in the pandemic, but Odisha recorded unemployment rates of 1.4 per cent while Himachal Pradesh recorded 15.8 per cent unemployment. He argued that the gap is the result of the difference in implementation of the schemes in the two states.

Panwar added that the crux of a city has to be how the government intends to develop the apropos giving equal emphasis on employment and productivity growth. Kumaremphasised on the issue of policy paralysis, lack of vision, and ways to generate employment in the rural and urban sector. He argued that somewhere, the whole thought process is going helter-skelter at the government level. Abhishek mentioned the improvements that have taken place like double accounting reformsin municipal accounting and the construction of toilets. He said that around 60-65 per cent of those employed in the countrysurvive on 15 per cent of the GDP and added that this is a sign of the gross inequality prevalent in the employment sector. He was of the opinion that we will have to look, discuss and work on a solution to unemployment in urban and rural

CITIES ARE GETTING DEVELOPED, BUT IT HAS NOTHING TO DO WITH CREATING A VIABLE ENVIRONMENT FOR EMPLOYMENT GROWTH. URBAN CENTRES ARE NOW SHIFTING FROM BEING LABOUR INTENSIVE TO CAPITAL INTENSIVE. THE DEVELOPMENT OF SMART CITY COMMAND CENTRES UNDER THE SMART CITY MISSION OF THE GOVERNMENT OF INDIA AIMS AT INTEGRATING A NUMBER OF CIVIC SERVICES UNDER ONE ROOF, WHICH IS LIKELY TO INCREASE PRODUCTIVITY PER WORKER WHILE CONSIDERABLY DECREASING JOB POSTINGS

EFFICIENT MANAGEMENT CAN TURN PLASTIC INDUSTRY INTO A VALUABLE **ASSET MINUS THE HEALTH HAZARDS**



E-Dialogue 17.0 | The Challenges of Plastic Waste Management

rban Update, All India Institute of Local Self-Government (AIILSG) organised a webinar as part of the 'E-Dialogues' Series in association with United Cities

and Local Governments Asia Pacific (UCLG-ASPAC), United Nations Human Settlements Programme (UN-Habitat), and the United Nations Centre for Regional Development (UNCRD). Dr Kulwant Singh mediated the webinar. Amit Jain, Managing Director, IRG Systems South Asia Pvt Ltd; Trish Hyde, Director, Plasticity Global, Founder & Chief Executive Officer (CEO), The Plastics Circle; Tathagata Ghosh, Programme Officer, (UNDP) India; and OP Ratra, Plastic waste management expert were part of the panel for the Webinar.

Dr Singh, while introducing the topic of the webinar, cited that the plastic industry has usage in a wide variety of sectors such as electronics,

healthcare, and therefore is among the fastest-growing market. India is witnessing a rise in production and consumption of plastic, which is good for the market but is a root for a greater concern for the lack of an organised mechanism for plastic waste disposal and recycling. He stated that India generates more than 20,000 tonnes of plastic waste each day.

Amit Jain's presentation showed how the plastic generated finds its way to the water ecosystem through soil, pipelines, or drainage system. He said, "Demography, economic growth & growing purchasing power and domestic private consumption are major drives for plastic consumption, plastic waste generation accompanied by plastic pollution and marine litter in South Asia." Plastic gets transported to the river banks and rivers become major carriers of plastic waste into the marine ecosystem. Inadequate waste management leads to leakage in the Plastic Value Chain, implying that there are major issues in the

collection, transportation, waste treatment, and disposal, which need to be ramped up. According to the Central Pollution Control Board, India generates 3.36 million metric tonnes of total plastic waste per annum. States such as Gujarat, Maharashtra, and Tamil Nadu contribute a large amount to this number. He added that the implementation of Extended Pollution Responsibility (EPR) based Regulation is faltering as no single registry for stakeholders is available and no specific target has been set. The regulation requires the integration of the informal sector into it and strengthening of infrastructure. He suggested that authorities can prioritise different areas based on the data of leakage in the plastic value chain and consider the different types of counter measures. Dr.Kulwant added that plastic waste is not a waste but wealth if properly managed and recycled appropriately.

Trish's presentation was titled 'The Circular Economy of Plastics.' It elucidated the difference between the ideal circular economy and the current circular economy in the plastic industry. The ideal circle involves demand, use, and recovery but today's circle has either plastic collection getting dumped directly or if it is recovered, it gets down-cycled, which is unproductive. She said, "Circular economy is an economic means to address the environmental harm of plastic pollution. It requires both environmental and economic involvement and pragmatism". She emphasised the miscommunication and lack of awareness in market biobased and bio-degradable plastic if packaging papers have added plastic, which can ruin paper and plastic recycling at the same time. All plastics are recyclable but only some are commercially viable for recycling. She displayed gladness on the trend coming among brands where environmental impact equals trust.

Ghosh mentioned the plastic waste management programme, which was started in 2018 in collaboration with Coca-cola and Hindustan Unilever. Waste management in India largely depends on the informal sector and this project aims at bringing 90,000 tonnes of total plastic waste generated into a traceable recycling chain. Four key components of the project include socio-technical model (developing economically sustainable approach addressing national priorities), material recovery system, institutionalising Swacchata Kendra (mainstreaming socio-economic condition of waste pickers with dignity and respect), and knowledge management (communication sensitise citizens and involve them in the waste eco-system).

A Swacchata Kendra (Material Recovery Facility- MRF) under this programme will be equipped with machinery for better efficiency, will have basic amenities such as safe drinking water, toilets, and a safe working environment, and will facilitate waste flow, data recording, and traceability. His presentation waste elaborated inflow from the municipal system collectors, aggregators, independent waste pickers, religious places, commercial activities, etc into MRF where the waste is treated like shredding low-density polyethylene (LDPE-based plastic) which is sent for road-laving composite or treating ghatta material so that it can be further used in agri-pipe making process or connecting other dry waste to appropriate recyclers.

OP Ratra said that India currently stands at the top position in terms of recycling. 60 per cent of the dry waste we generate gets recycled and it is so because of the small rag pickers in the country. The garbage collectors segregate dry waste into different kinds of plastics. It is a skill that they have learned on their own, which makes the informal sector play a crucial role in waste management. There has been an overgrowth of the plastic packaging industry and the plastic used is discarded and is not sent for getting recycled. His presentation added, "Plastics are recyclable according to IS: 14534-1998 and environment friendly". He added that plastic is not a health hazard but only an innate material that can be turned into a great asset if managed and recycled properly.

Dr.Kulwant concluded the session by mentioning how the government can increase investment in plastic waste management by bringing adequate machinery, practicing a seamless plastic value chain. This will create a circular plastic economy and an opportunity for the plastic industry to grow better without harming the environment, thus enhancing the country's GDP.

HALLENGES IN URBAN HOUSIN THE WAY AHE



E-Dialogue 18.0 Housing for All- A Better Urban Future



ffordable Housing is a very important challenge globally and in light of this, United Nations Organisation (UNO) decided the theme of this year's World Habitat Day as "Housing for All- A Better Urban Future." With time, the number of slums has considerably increased. India is a one of the many countries worldwide that are having to face this problem. To discuss about this, Urban Update invited Dr Kulwant Singh, Former Asia Advisor, UN-Habitat; Prof K K Pandey, Coordinator, Centre for Urban Studies, Indian Institute of Public Administration; S K Singh, Member (Administration/ Technical), Real Estate Regulatory Authority and Appellate Tribunal, Bihar; Amitabh Kundu, Fellow, Research and Information System for Developing Countries; and Dr Sanjay Kumar, Co-Founder and Co-Director, AashrayAdhikarAbhiyan. Abhishek Pandey, Editor, Urban Update moderated the webinar.

Dr Kulwant Singh began the discussion by introducing the theme set by the UN-Habitat for this year's World Habitat Day. He presented an overall picture of the need of housing for all and hence realising the Sustainable Development Goals (SDGs). After stating data from the UNO, he said that funds worth close to \$900 billion are required to develop a decent living space for all. He addressed the issue regarding the implementation of schemes related to affordable housing. International financial agencies such as the World Bank have also avoided the issue of housing for long. He offered many solutions to the problem of high deficit in housing such as improving affordability of home ownership, subsidising low income housing to rent or own adequate housing, expanding and improving global housing stock, among others. He said, "We need to implement Housing Action Plan by the combined efforts of local communities, government at all levels, civil societies and international agencies."

K K Pandey began by talking about the role of poor in construction of houses in urban areas. Informal sector is the backbone of the urban economy and hence, their requirements regarding housing must be addressed. People live close to the cities in slums where they don't have access to basic needs which results in the decrease of productivity. Government has taken various steps to provide housing for workers from the informal sector. He said, "Around Rs40,000 crores has been collected as cess from people for the welfare of construction workers. However, almost Rs30,000 crores of this fund remains unspent."

Sunil Kumar Singh threw light at the political history of taking housing as an idea in India in the form of Land Ceiling Act. He advocated the National Urban Housing and Habitat Policy and said that it allowed combined efforts by the private sector and governments at all levels to work for providing housing for poor. He also talked about amendment in the rental laws to make it more inclusive for the housing of informal sector in cities. Builder based construction is not meant for people fromeconomically weaker section (EWS) of the society, hence government should engage to

encourage housing for the poor. He said, "Government should involve Urban Local Bodies (ULB) in this process because only they can help to solve the problem at grass roots level."

Dr Kundu aggressively addressed the fact that data for the number of homeless people in urban area is not reliable. However, it still showsthat close to 18 million people remain homeless in India. He said, "Around 80 per cent of this shortage is due to congestion, which means that people are sharing their space. The actual number of the data is much less than what is calculated." He showed data on how the government allocated resources and pointed out major loopholes in the budgetary allocations. He also praised the Ministry of Housing and Urban Affair's work. He went on to talk about slum rehabilitation and government's support in these areas. He said, "According to my data, equal monthly instalments for slum rehabilitation will add up to approximately Rs 2,000 per month, which is an affordable number as per the opinion of civil societies." The data shows that the living space for slum dwellers has decreased significantly with time. This has largely been the case in South Asian cities. He concluded by saying that maximum amount of subsidy should be allocated to the slum development programmes.

Dr Sanjay Kumar addressed the limitations in government schemes aimed at targeting the poor and homeless people. Inclusiveness of the government policies is the most important factor for their success. He said, "In my experience and study of the topic of affordable housing, the appearance and reality are different. The authorities have avoided the idea of affordable housing for a long time." Even if they are provided shelter through government policies such as rain baseras (night shelters), poor people are devoid of their identity due to lack of citizenship documents. He ended his discussion by saying that 'Housing for All' is a long way ahead for India.

PEOPLE LIVE CLOSE TO THE CITIES IN SLUMS. WHERE THEY DON'T HAVE ACCESS TO BASIC NEEDS, WHICH RESULTS IN THE DECREASE OF PRODUCTIVITY. THE **GOVERNMENT OF INDIA** HAS TAKEN VARIOUS STEPS TO PROVIDE HOUSING FOR WORKERS FROM THE INFORMAL SECTOR. AROUND ₹ 40,000 CRORES HAS BEEN COLLECTED AS CESS FROM PEOPLE FOR THE WELFARE OF CONSTRUCTION WORKERS. HOWEVER, ALMOST ₹30,000 CRORES OF THIS FUND REMAINS UNSPENT



India needs to keep its efforts on to retain ODF status



ASHOK WANKHADE Managing Editor

When Swachh Bharat Mission began in 2014, government agencies and local governments had a humongous task of achieving ODF status. Only a little over 38 percent people had access to toilets and in 2020, it has touched the 100 percent mark. Now, the nation has a big task of retaining this status

ndia has built over 100 million household toilets since the inception of the Swachh Bharat Mission. This is no small feat. The mission made the toilets an important topic of discussions in intellectual discourse in the last few years. Access to toilets is not just linked to sanitation but its

availability ensures dignity, livability, and a healthy environment. On the contrary, open defecation is linked with poverty, malnutrition, and health issues.

REARVIEW

According to the World Health Organisation factsheet 2012, 626 million people practiced open defecation in India. This accounted for 90 per cent of the 692 million people in South Asia who practiced open defecation and 59 per cent of the 1.1 billion people in the world who practice open defecation lived in India. This was a matter of shame for a country that was fledging its muscles to become a global economic power.

The elimination of open defecation was recognized as a top priority for improving the health, nutrition, and productivity of developing country populations and is explicitly mentioned in SDG target 6.2. Though, the United Nations had set the target for 2030 to eliminate open defecation, India has achieved the target 10 years early.

Making India clean was one of the prime objectives of the current government when it came to power in 2014 and this resulted in the launch of the Swachh Bharat Mission. It became a mission for every Indian in the following years and people supported this wholeheartedly. The government did whatever was required to provide toilets to one and all. The government built public and community toilets and also

provided financial assistance for building toilets in every household. The initiative resulted in the construction of 10 crore or 100 million toilets and making all the villages Open Defecation Free. 99 per cent of Indian cities have also become ODF; the review of the ODF status of municipalities in West Bengal is pending as per the information from the Ministry of Housing and Urban Affairs and when this is done, Indian cities will also be 100 per cent ODF.

CHALLENGES AHEAD

The nation has ensured accessibility of toilets for all, now it is the time to ensure that the mission does not stop here. The government agencies should keep running their IEC campaigns so that people do not abandon toilets again. The consistency of communication with the citizens is of paramount importance. The efforts for raising public awareness about operating and maintaining onsite sanitation systems, not just about constructing them are also required. Another challenge is faecal sludge management which needs adequate attention, especially in rural areas.

The nation should raise its sanitation standards and that should also be visible in public toilets. The agencies responsible for the upkeep and management of public toilets should lead by example. We have seen the introduction of many technologies that had a provision of auto cleaning of public toilets, registering reviews from end-users, etc. Such technologies and innovation in the sector should be encouraged further.

And, this cannot be done if the government spending on this mission is curtailed after the celebration of achievements. The mission must go on and touch new heights.





WEEKLY E-NEWSLETTER

Urban Update is a leading magazine on sustainable development of cities brought out by All India Institute of Local Self-Government (AIILSG). Bringing together the experience of the multilateral sector with that of the private sector and the local governments themselves, the magazine focuses on the challenges and solutions for city leaders and local governments.

Urban Update plays a special role — that of a primary, indispensable link among stakeholders that nurtures community. A wellspring of writing and imagery reinforces our vision of evangelizing Urban Infrastructure, Governance, Culture and Sustainability.

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