Urban World

Quarterly Publication

RCUES Mumbai

**Regional Centre for Urban & Environmental Studies
All India Institute of Local Self-Government, Mumbai**

Regional Centre for Urban & Environmental Studies (RCUES), Mumbai
(Fully supported by Ministry of Housing and Urban Affairs, Government of India)

Established in 1926, the All India Institute of Local Self Government (AIILSG), India is a premier autonomous research and training institution in India. The Institute was recognized as an Educational Institution by Government of Maharashtra in the year 1971. The Institute offers several regular training courses in urban development management and municipal administration, which are recognized by the Government of India and several State Governments in India.

In the year 1968, the Ministry of Housing and Urban Affairs (MoHUA), earlier Ministry of Urban Development), Government of India (GoI) established the Regional Centre for Urban & Environmental Studies (RCUES) at AIILSG, Mumbai to undertake urban policy research, technical advisory services, and building work capabilities of municipal officials and elected members from the States of Goa, Gujarat, Maharashtra, Rajasthan and UTs of Diu, Daman, Dadra & Nagar Haveli. The Ministry of Housing and Urban Affairs (MoHUA), Government of India added States of Assam and Tripura from February, 2012 and Lakshadweep from August 2017 to the domain of RCUES of AIILSG, Mumbai. The RCUES is supported by the MoHUA, Government of India. The MoHUA, Government of India has formed National Review and Monitoring Committee for RCUES under the chairmanship of the Secretary, MoHUA, Government of India. The Principal Secretary, Urban Development Department, Government of Maharashtra is the ex-officio Chairperson of the Advisory Committee of the RCUES, Mumbai, which is constituted by MoHUA, Government of India.

The RCUES was recognized by the Ministry of Urban Development, Government of India as a National Training Institute (NTI) to undertake capacity building of project functionary, municipal officials, and municipal elected members under the earlier urban poverty alleviation programme-UBSP. The RCUES was also recognized as a Nodal Resource Centre on SJSRY (NRCS) and Nodal Resource Centre (NRC) for RAY by Ministry of Housing and Urban Poverty Alleviation, Government of India.

The AIILSG, Mumbai houses the Solid Waste Management (SWM) Cell backed by the Government of Maharashtra for capacity building of municipal bodies and provide technical advisory services to ULBs in the State. The Water Supply & Sanitation Department (WSSD), Government of Maharashtra (GoM) established Change Management Unit (CMU) in AIILSG, Mumbai from 13th January, 2010 to 30th June, 2014 and also selected AIILSG, Mumbai as a Nodal Agency in preparation of City Sanitation Plans for 19 Municipal Corporations and 15 A Class Municipal Councils in Maharashtra State, under the assistance of Ministry of Urban Development, Government of India. The WSSD, GoM also established Waste Management & Research Centre in AIILSG, Mumbai, supported by Government of Maharashtra and MMRDA.

In August, 2013 Ministry of Urban Development, Government of India empanelled the AIILSG, Mumbai as Agency for providing technical support to the Cities / Towns of States / Urban Local Bodies (ULBs) in the field of Water Supply and Sanitation, Sewerage and Drainage systems.

In July 2015, Ministry of Urban Development, Government of India empanelled the RCUES & AIILSG, Mumbai an Agency for technical support in Municipal Solid Waste Management under Swachh Bharat Mission (SBM) programmes.

In February, 2016, Ministry of Housing and Urban Poverty Alleviation, Government of India empanelled the RCUES of AIILSG, Mumbai for conducting training and capacity building programme for experts of SMMU, CMMUs, COs, Key Officials and other stakeholders of the State and Urban Local Bodies (ULB) level under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY – NULM).

In December, 2017, AIILSG has been empanelled as a training entity regarding implementation of new Integrated Capacity Building Programmes (ICBP) under Urban Missions, viz. Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Swachh Bharat Mission (SBM), Smart Cities Mission (SCM), National Urban Livelihoods Mission (NULM), Housing for All (HFA), Pradhan Mantri Awas Yojana (PMAY) and Heritage City Development and Augmentation Yojana (HRIDAY) for Elected Representatives and Municipal Functionaries.

At present, RCUES and AIILSG, Mumbai is involved in providing capacity building, research and technical support to number of State Governments and ULBs for implementing various urban development missions and programmes launched by the GoI.

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Editorial

Address Climate Change through Behavioral Change

'Hit badly by drought, dam levels at 13%' says one frontpage headline in a leading daily. It points out to the already grim water situation in some parts of Maharashtra. As we head into another summer, in many regions one is staring at some very dry months with nightmares of water shortage and the resulting extreme distress. Spread of disease due to drinking contaminated water, death of cattle and farm distress are widespread in these summer months.

Repeated droughts in several parts and frequent floods in some regions of our country are stark manifestations of Climate Change in our cities and the countryside. The demon of Climate Change is already upon us and has been for some time; it is no more a potential threat of the future waiting to strike. Among the very serious outcomes is the constant rise in sea levels threatening the very existence of several small island nations by drowning with several likely to vanish all together. These, the Small Island Developing States (SIDS) are extremely vulnerable to the devastating effects of Climate Change including sea-level rise, storms and flooding. Considering that these contribute only a miniscule amount to global greenhouse gas emissions, they are indeed placed at a very unfair disadvantage. However Climate Change affects each one of us in several ways presenting different dimensions of disaster risk.

Therefore Climate Action involves participation by each and every individual, across the globe. While substantial debate, dialogue and deliberation is happening among the top leadership of the international community at numerous multilateral fora, progress could be slow and sporadic without very substantial, deep and sustained involvement of the common citizen. But this seems like a distant dream. For the common man on the street, Climate Change is a somewhat abstract idea to comprehend; far less is his ability to measure it and its ill effects. Often, for the citizen, it is difficult to see floods, droughts and landslides as a result of man-made environmental damage or Climate Change; far less to link her own habits, practices and lifestyle choices to such hazardous impacts. The global effort is to limit temperature rise to 1.5 degrees Celsius in order to contain the effects of Climate Change. But limiting warming to 1.5°C requires human-caused CO_2 emissions to fall by about 45 percent from 2010 levels by 2030, and reach 'net zero' around 2050. This demands dramatic and rapid changes in how we go about our daily lives. Therefore, above all, there is urgent need for widespread awareness building. Water conservation, protection of water bodies, resource efficiency (reuse and recycling), energy saving, reducing food waste, use of sustainable transport, and other low carbon options, all have positive impacts on the environment and can go towards easing climate pressure and building a sustainable world. While governments work on stringent legislation for appropriate citizen behaviour in above areas and devise suitable policy interventions, lasting outcomes would be possible only with whole-hearted participation and voluntary compliance by all.

Editorial

Experience shows that school children and the youth can play a powerful role in addressing societal behaviour. This 'catch them young' approach enables us insure the future by turning out environmentally conscious citizens in the decades to come. Moreover these young students can drive transformation in their homes. Climate psychology tells us that 'sustainability leaders' – live examples of individuals and communities who have embraced a more climate conscious lifestyle can drive improved collective actions. Celebrities (like our cricket heroes) can hugely multiply the visibility quotient and acceptance of climate conscious behaviour.

Higher tier government institutions can work to put in place necessary legislation to secure appropriate citizen behaviour as also craft an encouraging, enabling policy framework including incentives for green initiatives. Local governments can catalyse community participation and local awareness campaigns to support 'low-carbon' behaviour by the community.

Clearly we must use all measures at our disposal to save our planet; because it is the only planet we have.

The Paradox of Indian Higher Education

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Abstract

India's key strength is its favorable demography - the average age of its population will be 29 years in 2020. The demographic dividend translates into growth in several ways. It holds the promise of an expanding middle class, affordable labour force, productivity growth, and thereby giving rise to greater economic growth.

These dynamics also indicate that India holds an important place in the global education industry with one of the largest networks of higher education institutions in the world. By 2030, with nearly 140 million in the college-going age group, one in every four graduates in the world will be a product of the Indian higher education system. The already existing challenges for Indian higher education – access, equity and quality will only deteriorate unless we significantly transform our higher education model.

Introduction

Over the last two decades, India has remarkably transformed its higher education landscape. It has one of the largest networks of higher education institutions in the world. With well-planned expansion and a student-centric learning-driven model of education, India has not only bettered its enrolment numbers but has dramatically enhanced its learning outcomes. As a result, today, India's 70 million student population is a force to reckon with. Among them are potential thought leaders, researchers and academicians – positioned at the helm of knowledge creation. Among them are entrepreneurs and executives of the future, industry-ready and highly sought after. From among them emerges India's massive workforce, the engine of its US$3 trillion economy.

Despite these strides of progress, India's higher education institutions are not yet the best in the world – India has fewer than 25 universities in the top 200. The promise of excellence and equity i.e. the challenge to provide higher education in cost-effective ways to lead to employment is still a cause for concern to the policy makers.

Significance of the Study

With both the Government and the private sectors stepping up to invest in the Indian education sector, the number of schools and colleges has seen an uptrend over the past few years. The Government's initiative to increase awareness among all sections of the society has played a major role in promoting higher education among the youth. The number of colleges and universities in India reached 39,050 and 850 respectively in 2017-18 and India had 35.70 million students enrolled in higher education in 2017.

Growth in the Number of Universities

467 523 574 624 666 711 753 833 850

2010 2011 2012 2013 2014 2015 2016 2017 2018*

*Current estimate

Graphic© Asia Briefing Ltd.

Year-wise Growth of Students Enrolment in Higher Education (in millions)
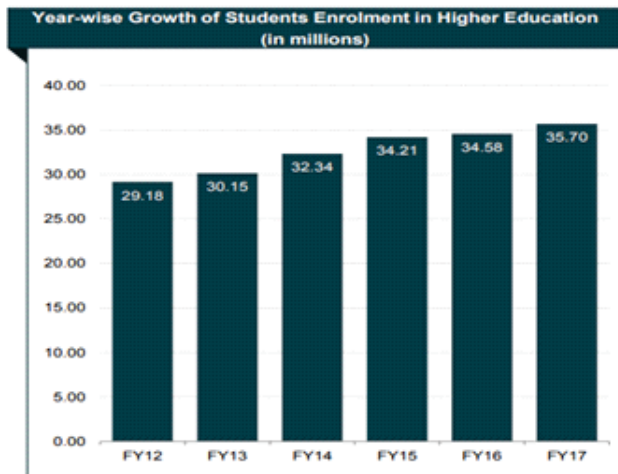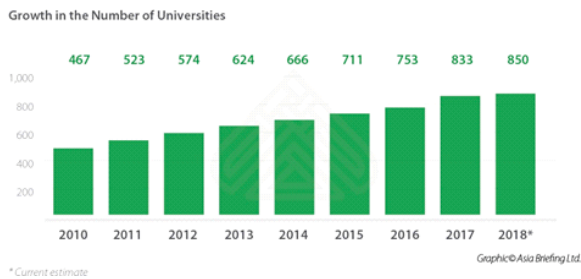
Source: UGC Annual Report 2015-16, UNESCO Global Education Digest 2010, MHRD Annual Report

With almost 45 percent of its population under the age of 25 years, India confronts a massive challenge of increasing access to quality educational institutions to facilitate economic growth in the country. Outsiders also note the entrenched rural-urban divide in India's education sector, where social status, income levels, and gender dictate school and college admissions. Access to quality education in India is also limited to people who can afford it. Also the growth of higher education needs to be in direct proportion to employability to ensure economic growth. All this calls for restructuring of the higher education scenario in India.

Objective of the Study

While India has made significant progress in ensuring access to primary education, the proportion of students who remain in the education system until higher education is considerably less. The paper will study the present scenario of higher education in India with emphasis on the following three parameters:

- Public expenditure in higher education in India.

- The Cost-Quality paradox of higher education in India

- The Skewed higher education-employability ratio

Economics of Higher Education

The education sector in India is poised to witness major growth in the years to come as India will have world's largest tertiary-age population and second largest graduate talent pipeline globally by the end of 2020. The sector is estimated to reach US$ 144 billion by 2020 from US$ 97.8 billion in 2016. Higher education sector in India is expected to increase to US$ 35.03 billion by 2025 from US$ 15 billion in 2016. Around 35.7 million students were enrolled in higher education in India during 2016-17. Government target of Gross Enrolment Ratio (GER) is 30 per cent for higher education by 2020 to drive investments. The spending in higher education sector is expected to grow at 18 per cent from Rs 46,200 crore (US$ 6.78 billion) in 2016 to reach Rs 232,500 crore (US$ 34.12 billion) in the next 10 years.
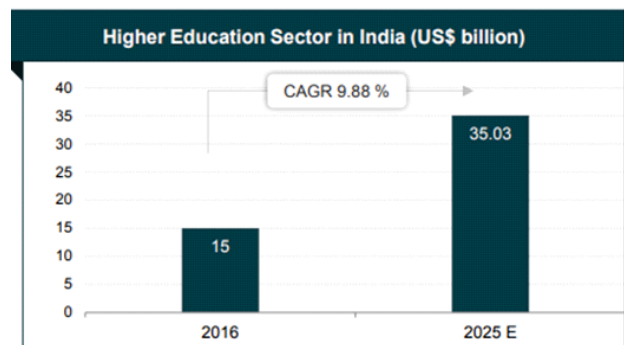
Source: UGC Annual Report 2014-15

Public Expenditure in Higher Education

Through the expansion of the education sector in India over the years, most of the Universities were public institutions with powers to regulate academic activities on their campuses as well as in their areas of jurisdiction through the affiliating system. However, over the years the

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government expenditure on education, as a percentage of the GDP, has been decreasing consistently. Six years ago, that is in 2012-13, education expenditure was 3.1% of the GDP. It fell in 2014-15 to 2.8% and registered a further drop to 2.4% in 2015-16 and 2.6% in 2016-17.

However, given the limited resources, the Government is consistently trying to improve the situation. There has been a significant increase in the share of the state private universities as part of total universities from 3.43 per cent in 2008-09 to 34.82 per cent as of April 2018. Nearly 22 million students (65%) are enrolled in private institutions in various courses.

India's Enrolment in Higher Education (In millions)

Central: 0.3 (2006-07), 1.2 (2016-17 est.)
State: 6.0 (2006-07), 11.0 (2016-17 est.)
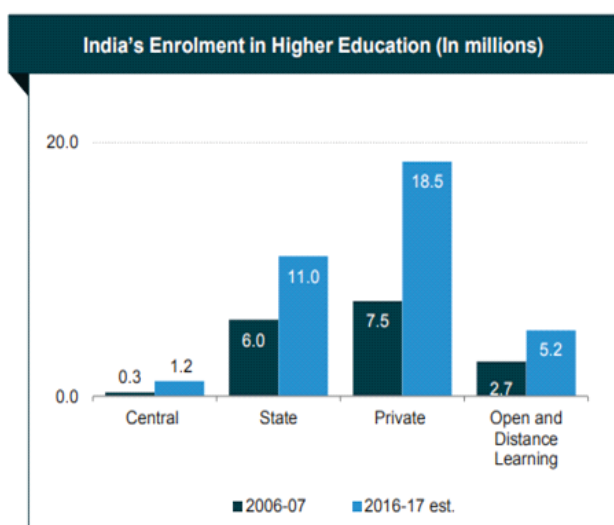Private: 7.5 (2006-07), 18.5 (2016-17 est.)
Open and Distance Learning: 2.7 (2006-07), 5.2 (2016-17 est.)

■ 2006-07 ■ 2016-17 est.

Note: est - estimated;
Source: Census 2011, Ministry of HRD, UGC, AICTE, NCTE, MHRD and INC., UGC Annual Report 2013-14

While government-owned institutions for higher education increased from 11,239 in 2006-07 to 16,768 in 2011-12 (49%), private sector institutions recorded a 63% growth in the same period from 29,384 in 2006-07 to 46,430 in 2011-12, according to the 12th five-year plan document of the erstwhile Planning Commission. This proliferation of large number of institutions, many of doubtful quality, in this sector led to a skewed growth in higher educational institutions.

Cost Quality Paradox of Higher Education

The rising cost of higher education shows a rapid growth in the education sector with a market

worth of around Rs. 7,08,000 crore for current year-2017. Currently, the higher education in India contributes to about 60% and schooling education is around 40% of the market size. It is estimated with the current scenario that the average cost of MBA degree will be around 50-60 Lakhs (INR) by the year 2025; while the cost for an engineering degree will be around 25-30 Lakhs (INR) by then. To add to this the cost in private colleges is very high compared to government institutions.

In public-funded colleges, the fees are financed through loans that make education undesirable for many of those who can't afford the burden of clearing of such huge loans. According to the survey, the middle-class family spends around 60% of salary on their children's education including fees, books, uniforms, transport cost, home tuition fees and in other career advancement works. The study shows that the average parents will have to spend around Rs.30 lakhs in raising a child from pre-school education to higher secondary education by the year-2025.

Reiterating this fact AICTE Vice-Chairman MP Punia raised concerns over the high cost of higher education in India wherein the investments made are so high students are not able to recover them their his entire life, even after qualifying as professionals. Punia said higher education in India is not sustainable as the per capita income was Rs. 60,000 and the cost of studies and expenses associated with it were around Rs. 2 lakh.

This rising cost of higher education makes a lot of parents worried. Most of them can't even think of giving their children a good education because of high costs. Indian parents really need a little relief from such high educational costs. And to add to it, not all institutions offer quality education. Most of these institutions are nothing more than shops selling degrees, according to a report of the National Sample Survey (NSS). While there are a few (institutions) which can be

identified as 'Centres of Excellence', both in the public and private sectors, there are a large number which are mediocre, some of them could well be described as 'degree shops'.

Skewed Higher Education-Employability Ratio

The irony is that despite increasing enrollment in higher education, educational opportunities and traditions that Indian universities have built up since independence have been able to produce graduates, capable only of pursuing limited careers. On the other hand, in the new globally competitive environment that is emerging in the country, the Indian student is now required to develop a multifaceted personality to cope with the rapid changes in the world at large. This is asserted by the study made by FICCI: India turns out about 350,000 engineers and 2.5 million other university graduates annually, yet at any given time five million graduates are unemployed.

WHO ARE INDIA'S UNEMPLOYED?

Data emerging from Census 2011 suggest unemployment rate is high among the better qualified

- No. of people seeking work (in millions)
- Unemployment rate at that education level

Source: The Hindu, based on Census 2011

	No. seeking work	Unemployment rate
Total	116	9.60%
Illiterate	32	7.23%
Literate	84	10.98%
Literate but below matric/secondary	41	8.88%
Matric/secondary but below graduate	27	14.55%
Technical diploma or certificate not equal to degree	1	16.90%
Graduate and above other than technical degree	8	14.42%
Technical degree or diploma equal to degree or post-graduate degree	2	15.73%

The data of Census 2011 analysed by The Hindu shows that of the 116 million Indians who were either seeking or available for work, 32 million were illiterate and 84 literate. Among literates, unemployment rates were higher among the better qualified, highest of all among them 7.2 million people with a technical diploma or certificate other than a degree. Overall, India's unemployment rate grew from 6.8 p.c. in 2001 to 9.6 p.c. in 2011, based on official Census data. A challenge for the country is driving change that will ensure a competitive, skilled workforce

well-equipped for the vagaries of a knowledge economy.

In May 2018, the Times Higher Education World University Rankings, which rates about 1,000 global institutions did not feature even one Indian institute in the overall Top 100. India's poor ranking in global indexes of higher education reinforced a growing sense of crisis, became a matter of national shame and is increasingly being used to drive policy and funding decisions by the federal government.

Recent Initiatives

The Government of India has taken several steps including opening of IITs and IIMs in new locations as well as allocating educational grants for research scholars in most government institutions. Furthermore, with online modes of education being used by several educational organizations, the higher education sector in India is set for some major changes and developments in the years to come. Some recent policy decisions of the government with far-reaching consequences could be the first step to improve these global rankings, with emphasis on quality over quantity:

- Designate a few Indian universities as "Institutes of Eminence".

- Granted "autonomy" to 60 other universities and colleges.

- Replace India's University Grants Commission, the federal body regulating higher education for decades, with an even more centralized and controlling body called the Higher Education Commission.

Also, the total amount of Foreign Direct Investments (FDI) inflow into the education sector in India stood at US$ 1.75 billion from April 2000 to June 2018, according to data released by Department of Industrial Policy and Promotion (DIPP). Some of the other major initiatives taken by the Government of India in the field of higher education are:

- In August 2018, Innovation Cell, and Atal Ranking of Institutions on Innovation Achievements (ARIIA) were launched to assess innovation efforts and encourage a healthy competition among higher educational institutions in the country.

- In August 2018, Government of India launched the second phase of 'Unnat Bharat Abhiyan' which aims to link higher educational institutions in the country with at least five villages. The scheme covers 750 such institutions.

- In order to boost the Skill India Mission, two new schemes, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) and Skill Strengthening for Industrial Value Enhancement (STRIVE), have been approved by the Cabinet Committee on Economic Affairs (CCEA), Government of India, with an outlay of Rs 6,655 crore (US$ 1.02 billion) and will be supported by the World Bank.

- NITI Aayog is launching the Mentor India Campaign which will bring leaders and students together at more than 900 Atal Tinkering Labs in India, as part of the Atal Innovation Mission. As of June 2018, 5,441 schools have been selected across India for establishing Atal Tinkering Labs (ATLs) under the Atal Innovation Mission (AIM).

- The Ek Bharat Shreshtha Bharat (EBSB) campaign is undertaken by Ministry of Human Resource Development to increase engagement between states, union territories, central ministries, educational institutions and general public.

- Prime Minister Mr Narendra Modi launched the Skill India initiative – 'Kaushal Bharat, Kushal Bharat'. Under this initiative, the Government has set itself a target of training 400 million citizens by 2022 that would enable them to find jobs. The initiatives launched include various programmes like: Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Policy for Skill Development and Entrepreneurship 2015, Skill Loan scheme, and the National Skill Development Mission.

In the Union Budget 2018, Finance Minister Arun Jaitley announced a new initiative of the government—"Revitalising Infrastructure and Systems in Education (RISE)" to step up investments in research and related infrastructure in premier educational institutions and HEFA, a joint venture company of Canara Bank and Ministry of Human Resource Development which provides financial assistance for creation of educational infrastructure and R&D in India's premier higher educational Institutions, was tasked to fund this initiative. In June 2018 the Union Cabinet approved a proposal for expanding the scope of Higher Education Financing Agency (HEFA) by expanding its capital base to Rs 10,000 crore and tasking it to mobilise Rs 1 trillion by 2022.

Conclusion

Today, India is the largest contributor to the global workforce, its working age population surpassing 950 million. It is no surprise then that, India has emerged to be the world's third largest economy - an achievement underpinned, no doubt, by its unique demographic advantage, but also a prospect that would not have translated into reality if not for the country's pioneering reforms in university education over the past 20 years.

Despite these strides of progress, India's higher education institutions are not yet the best in the world – India has fewer than 25 universities in the top 200. The promise of excellence and equity i.e. the challenge to provide higher education in cost-effective ways to lead to employment is still a cause for concern to the policy makers.

The education sector has seen a host of reforms and improved financial outlays in recent years that could possibly transform the country into a

knowledge haven. With human resource increasingly gaining significance in the overall development of the country, development of education infrastructure is expected to remain the key focus in the current decade. This can only be achieved with effective public-private partnership in the education sector that will pave the way to make India's demographic dividend a boon.

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Strategies for Developing Eco City in India –
Case of Hoshangabad

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Cities in developing countries become overpopulated as a result of rapid urbanization. This has resulted in the ever-growing size of cities, informal settlements environmental pollution, destruction of ecological balance and scarcity of natural resources. Haphazard development and encroachment of eco-sensitive areas, further increasing the risk of natural hazards like flood, landslides etc. In order to overcome these issues, there is a need of more sustainable and ecologically sensitive cities that can help in managing urbanization process by taking the ecological principles as the driving principle for the planning of our city. Till recently there has been many concepts and theories like zero carbon, carbon-neutral city, green city, sustainable cities, and eco-cities. Eco-city can be considered as an umbrella term which covers all the notions. The concept of Eco-City is mostly adopted and seems to be more suited for the cities from developed countries. For the study, several parameters are discussed and compared with ecologically sensitive cities around the world and on the basis of which parameters derived for developing Indian city as an Eco-City.

The case of Hoshangabad, a class II city from India is considered for rationalizing the concept of Eco-City in the context of a developing country. For analyzing the current status of Hoshangabad as per Eco-City benchmarks, primary survey and GIS-based multi-criteria land suitability analysis by analytical hierarchy process (AHP) carried out for more ecologically rational planning of the city. Based on the result of land suitability analysis, Hoshangabad 2031 master plan was also reviewed as per eco-city benchmarks. Then the critical parameters are prioritized and development strategies are evolved to make the city as an Eco-City.
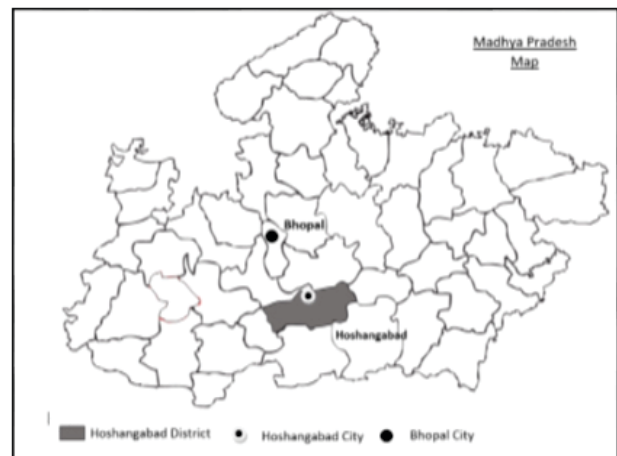
Figure - Location of Hoshangabad in Madhya Pradesh

The total population of Hoshangabad city is 1,17,988 (Census 2011), and the city has 3.15 % annual growth rate. An industrial corridor links both, Hoshangabad and the state capital. The natural setting of Hoshangabad makes it more sensitive towards the environment as it is in Vindhyachal foothill, with the river Narmada flowing along its northern boundary. As demonstrated in (MPPCB) Madhya Pradesh Pollution Control Board report, court cases registered by MPPCB against the Hoshangabad Municipal council for discharging sewer into the

Narmada river without its treatment and another case has been brought to attention against Security Paper Mill, for discharging its untreated effluent into Narmada river states that Hoshangabad city has negative impact of its development on the surrounding environment. Therefore, there is added the need to protect its natural environment along with the development of the city.

For the Study, Eco-City parameters and benchmarks from the international and national case studies were derived. Eco-City parameters considered to assess the current status of Hoshangbad as an Eco-City were;

- Water: Water supply coverage and water quality;

- Sewer: coverage of sewerage network and percentage of total generated sewer treated;

- Stormwater: Percentage of stormwater recycled;

- Solid waste management: solid waste generation per capita per day and % of total waste recycled;

- Green Space: Per capita area of green space;

- Eco-sensitive spatial planning: Conservation of eco-sensitive areas and demarcation as no development zones;

- Pollution: Pollution level as per national standards.

As per the Primary household surveys, compared to the international Eco-City benchmarks, the city lacks in its physical infrastructure at present. The city has a poor sewerage network, the work of laying of sewer lines were initiated but it was a challenge working with the natural terrain, as the slope falls three different directions and it was difficult to establish a single system, as it would increase the dependency on the pumps to lift the sewer at multiple intersections. 70% coverage of municipal water supply and massive water loss because of old and damaged pipelines. The risk of supplied water contamination also increases because of no proper sewer system exist in the city.

Solid waste collection is 100% but with very little waste gets processed. The existing dumping site is along the natural drain and during floods, the entire waste ultimately overflows into the river Narmada. Other than waste, untreated sewer and industrial effluents are directly discharged to the drains, with the resulting water quality being of Category D (water considered only suitable for propagation of wildlife, fisheries as per classification by National River Conservation Directorate, Ministry of Environment, Forest & Climate Change) at Senthani and Security Paper Mill (SPM) Nalla from the year 2001 to 2005. Other than water pollution the impact of industrial development has been adversely affecting the air quality, with Suspended Particulate Matter (SPM) in air being 289, which is more than the national ambient air quality standard as per the annual report published by Madhya Pradesh Pollution Control Board (MPPCB).

As per the eco-city benchmarks, the green space per capita should be 12 Sq.mt but city serves only 2 sq.mt per capita green space at present. The city doesn't satisfy the per capita open space requirement but as per the recreational land use proposed in the master plan 2031, it could achieve the per capita requirement as per the standard. The natural forest cover change over the last 15 years in Hoshangabad district has been quantified through supervised classification of Landsat data 2001, 2007 and 2015 and as per the results, around 20% of forest cover has reduced. Along with the depletion of natural resource, there is a constant threat of flood. About 35% of the city is prone to flooding. To assess the suitable land for development, GIS-based land suitability analysis using AHP method was carried out. GIS layers considered for the analysis were:

A. Flood-prone area,

B. Elevation,

C. water bodies, and

D. Natural vegetation cover.

The analysis helped in identifying critical areas. Overlay of land suitability analysis and proposed master plan for 2031 state that there is a need to revise the master plan considering the eco-sensitivity of the area and proposed land uses which are prone to risk need to be replaced.

The strategies recommended for Hoshangabad to develop it as an Eco-City are based on several critical aspects that need priority attention. Firstly, there is a requirement for river bank protection and afforestation along all the natural drains. The sewer system has to be developed, with a separate closed stormwater drainage system and additionally sewer treatment plant should be established. The ghats can serve as economic centers as well as recreational spaces and thus should be developed accordingly, with the incorporation of walkable connections amongst prominent ghats, also through the waterways. The use of solar street lights are recommended along the main leading roads from the railway station to the ghats and in all public buildings. For the long term, the strategies proposed are: the inter-initiation for promoting renewable energy resources like the establishment of solar plant, boosting the public transport system so as to reduce the share of private vehicles in the city, use of CNG as fuel, and a more compact development of the city to support a pedestrian-friendly environment. It is recommended to check the red industrial development in residential and eco-sensitive areas. A more stringent approach is recommended towards enforcement of the Ministry of Environment, Forest & Climate Change (MoEFCC) guidelines and pollution control board specifications for industrial development. The encroachment along the Nalla and rivers need to be removed and relocation of existing unauthorized settlements.

The city has the potential, and it can be developed as an eco-city in near future. It requires the active participation of citizen and government to realise that.

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Outsourcing Maternity?
Women, Labour, and Surrogacy.

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Background

India has been a booming market for commercial surrogacy for close to two decades now. In October 2015, India's medical tourism sector was estimated to be worth US$3 billion, and the Indian Council for Medical Research estimates $450 million of this to be from commercial surrogacy. The laws pertaining to commercial surrogacy in India have had a history of being ambiguous. The first instance of the government's recognition of commercial surrogacy was perhaps in the case of the landmark Baby 'M' trial in 2008. Baby 'M' was born to a surrogate mother through in-vitro fertilisation using the sperm from the intended father and an anonymous egg. A month before the birth of the child, the commissioning couple filed for divorce, leaving the fate of the child uncertain. The commissioning father filed for custody, but surrogacy was not legal in Japan at the time, and under the Guardians Act of 1890, a single man cannot adopt in India. Eventually, the child was handed over to her grandmother by the court, and was also granted a Japanese visa. The Indian court recognised the validity of the surrogate agreement and accorded the commissioning father the status of being the biological parent of the child.

Commercial surrogacy has been legal in India since 2002. It developed as a combination of IVF and egg donation. The Indian Council for Medical Research was the first to lay down a set of guidelines governing the practice of commercial surrogacy. It was published in 2005 as the National Guidelines for Accreditation, Supervision and Regulation of ART (assisted reproductive technology) clinics in India. This was later revised and prepared as a Draft ART (Regulation) Bill in 2008, and again in 2010. In all drafts of these guidelines, one thing was consistent – the proposal to legalise commercial gestational surrogacy. It laid down regulatory criteria, such as the need to register clinics providing surrogacy services, the imperative to maintain confidentiality and the surrogate's right to exercise informed consent. However, in 2016, the Surrogacy (Regulation) Draft Bill was proposed, in complete dissonance with the previous ART bills. Not only does this bill propose an unconditional ban on surrogacy against payment, but it also reduces the understanding of ART to surrogacy alone.

Most countries in the world prohibit commercial surrogacy, while they do permit altruistic surrogacy, or surrogacy done without a payment in return. Some of the common legal loopholes in the international surrogacy laws include the ambiguity on transnational surrogacy, questions of citizenship of the begotten children, and the status of parenthood. Therefore, a child born to a surrogate who is not of British origin but whose intended parents are, will be rendered stateless at birth and will have to apply for citizenship in the UK. Ukraine allows commissioning couples of other nationalities to enlist the services of surrogates within the country, but the service is not extended to same-sex couples. These

inconsistencies in the law have been the cause of serious concern for activists and feminists alike, who believe disparities in international law are putting vulnerable women more at risk by forcing them to become migrants in an alien host country, alongside with being surrogates.

The Draft Surrogacy Bill proposed in the Parliament permits only childless heterosexual couples, married for at least five years, with a demonstrable history of infertility to get a surrogate. The surrogate has to be a 'close relative', must be married herself, and must have a child of her own. The surrogate must carry the foetus to term not against a payment, but merely for purposes of altruism. The Bill also bans transnational surrogacy, permitting only Indian citizens to engage in surrogacy within India.

Two predominant themes that will be explored in this paper, are as follows:

• Attempting to understand how the binary of domestic labour and commercial labour is challenged through commercial surrogacy.

• To understand the way technology interfaces with women's bodies in the business of surrogacy. One of the questions that to this paper attempts to address is whether technology has enabled, mediated, or produced the business of surrogacy, and the consequences that the intervention may have on women's bodies, particularly their reproductive capacities.

The understanding of women's childbearing and childrearing role as reproductive labour was first pushed forward by the socialist feminists in the 70s. Contesting the dominant binary that existed in classical political philosophy between productive and unproductive labour, feminists argued that women's engagement with domestic activities including childbearing was labour, and must not be couched under the rhetoric of feminine duty, or filial responsibility.

Hiring Motherhood for a Fee

Most discourses on surrogacy begin by juxtaposing two evidently exaggerated images: One, a morally overdeterministic rhetoric of motherhood, such as "mothering and pregnancy are acts of love", and "children are priceless". This is then pitted against the rather dystopian image of reproductive brothels, baby machines and baby farms. What is startlingly absent from these polarised opinions is the idea of surrogacy, and motherhood by extension, as labour. Paid mothering has existed in societies from long before, in the form of wet nurses, boarding mothers (temporary foster mothers to care for children in shelter homes), baby farmers (hired by parents to raise illegitimate children in secret), governesses, nannies, etc. Why then does surrogacy problematise the economics and politics of hiring maternal services?

Most countries in the world ban commercial surrogacy, but allow altruistic surrogacy without monetary compensation. Helena Ragone contends that the 'fiction of altruism' is a gendered narrative that is discriminatory in its nature. It feeds off of paternalism that is motivated by caste-based and race-based discrimination. Helene Ragone's book, The Gift of Life, speaks about the construction of altruism as an excess. As Gayle Rubin takes Marcel Mauss's idea of the gift forward by explaining how exogamy isn't practised for the purpose of reciprocation, but for the creation of kinship, similarly, Ragone says that altruism is the result of an excess where sacrifice and selflessness, construct the image of the surrogate as altruistic. Ragone's findings reveal that traditional surrogates are more likely than gestational surrogates to apply the metaphor of the gift to the embryos they carry. All surrogates, however, claim that the payment they receive is insufficient compensation for the service they provide and nine months of pregnancy. For Ragone, this claim illustrates the prevailing belief that "children are gifts and therefore priceless", a view that gives rise to societal

censure of financially motivated surrogates. In stark contrast, sperm donors, who routinely declare financial compensation as a primary motivation, do not face the same societal disapproval. Children are culturally considered priceless gifts and that idea permeates popular discourse as well. Jan Sutton, the founder and spokeswoman of the National Association of Surrogate Mothers (a group of more than 100 surrogates who support legislation in favour of surrogacy), stated in her testimony before an information- gathering session of the California state legislature in 1989: "My organization and its members would all still be surrogates if no payment was involved". The symbol of the pure surrogate who creates a child for love was pitted against the symbol of the wicked surrogate who 'prostitutes her maternity'. Once a surrogate enters a program, she also begins to recognize just how important having a child is to the commissioning couple. She realises that all their material success seems insignificant, as their lives are emotionally impoverished because of the absence of a child. Thus, the surrogate's ability to bear children serves as a levelling device to equalise differences in material status. The surrogate starts seeing herself as a heroic figure who has the power to fill enrich their lives by filling a major void in it. The ideal of altruism is a discursive as well as social construction entrenched deeply in the politics of power structures as surrogates who typically women of colour, women without formal livelihoods, women from specific caste backgrounds, who are taught to romanticise their relative disprivilege. The imperative to altruism must also be read in conjunction with notions of the normative family. The family is often read as "the antithesis of the market relations of capitalism; it is also sacralised in our minds as the last stronghold against the state, as the symbolic refuge from the intrusion of a public domain that consistently threatens our sense of privacy and self determination." Motherhood is a private affair, a matter of the private domain. If maternal labour must be outsourced, or if the process of maternity must be duplicated, it must only be substituted with a sister's or an aunt's or a cousin's labour. Labour, that though duplicates maternal labour, must be performed for free. The fear of the merging of family with the world of commerce can only be put to rest by constructing the ideal of altruism.

Altrusim, therefore, is born out of a necessary excess that is created by the act of selfless maternal labour. Traditional maternal labour is rewarded with the gift that is the child, but an unpaid surrogate's labour, by virtue of it being unmotivated by financial desire, becomes altruistic. That the idea of altruism as a gendered concept has been taken further forward by Amrita Pande in Commercial Surrogacy in India: Manufacturing the perfect mother-worker. Drawing comparisons with the practice of organ donation, she says that in both phenomena, the act is encouraged when it's done for a member of the family and without financial compensation. Pande says that a US study indicated that more than two-thirds of kidney donors were women. Another revealed that while more than 30 percent of wives who were eligible and able, donated to their spouses, fewer than seven percent of husbands eligible to donate did so. This becomes particularly critical in India, where altruism and gendered notions of familial duty, have often been forced onto female relatives, or those in positions of vulnerability, such as domestic workers.

In effect, altruistic surrogacy places on women the obligation to be meek reproductive gift-givers. By eliminating contracts and payments, a policy mandating altruism in surrogacy formally bolsters the age-old belief that women need not be compensated for their reproductive labour. In a surrogacy case, such a clause also fails to consider the reality of the labour involved in gestation, whereby women not only go through immense emotional and bodily pain, but also forgo other forms of livelihood during the months of pregnancy. There seems to be no discussion about such practicalities like maternity leave for surrogates, and at least a payment for the loss of income.

The language of the Law has been consistently dismissive of women's reproductive capacities as viable labour, in the case of surrogacy particularly. For example, in the Fasano case of 1998, the hospital's negligence brought about placing the wrong fertilised egg in Donna Fasano's uterus and resulted in her carrying to term and delivering a child that didn't belong to her or her husband. In a lawsuit that ensued, where the Fasanos handed over the child over to its biological parents but demanded visitation rights, the court dismissed Donna's role in the pregnancy as only "nominal" and denied visitation rights. The court's rejection of Donna's role in the process of childbirth simply because there was no intention to do so, or the process of childbearing and childbirth was brought on sans any love or emotional attachment directed to the child in the womb, devalues her gestational labour.

Amrita Pande posits surrogates as 'mother-worker subjects', where being a mother is constantly at odds with being a worker. The worker takes wages for their job and delivers the service/good/labour. A worker's detachment in delivering the good and moving on to the next task is directly at conflict with a mother's duty towards her child. The surrogate's role as both mother and worker threatens her claim to one or the other of these roles, no matter how religiously she attempts to fulfil both.

Technology and Surrogacy

Feminists have had a somewhat ambivalent relationship with technology. When Shulamith Firestone first remarked that technology alone can liberate women from the tyranny of their bodies, it was a lauded idea. But over time, this neutrality of technology has been contested. Scholars like Judy Wacjman, in Feminism confronts Technology have pointed out how this rhetoric has pushed unsuspecting women into unverified medical trials and have also made medical establishments make guinea pigs out of women. The penetration of technology into the field of reproduction has caused women's bodies a medical project that can be perfected through technological intervention. Infertility is no longer merely a description of a condition, but is a problem needing to be fixed.

One of the central themes in the context of assisted reproductive technology is the role of technology in the process. Some of the questions I hope to be able to address are does technology enable, mediate, or produce surrogacy? In addition to that, it would also be inevitable to wonder whether technology is independent of human intent, and attempt to unpack the professed neutrality of technology.

The understanding of technology as a phenomenon preceding science or industry as we know it has been a more or less accepted idea in academic discourse for some time now. Heidegger in his understanding of technology says that the essence of technology is nothing technological in itself. The essence of technology, therefore, is an enframing; the standing reserve. To be a standing reserve, for example, is not a matter of possessing an aspect or trait such as "being always on call." Instead, it is to be experienced in terms of enframing – that is, in terms of the challenging forth that unlocks, exposes, and switches things about ever anew. Deleuze calls technology an assemblage; a network of human and non-human agents, of which, technology and equipment are only a part. Deleuze calls technology a rhizomatic structure. A rhizome is a lateral growth which has no apparent beginning, no end, or no origin. If you cut it, it continues growing from all directions. What Deleuze attempts to say, therefore, is that the teleology and etiology of technology are hard to separate. All that we are left grappling with is its ontology.

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A cursory glance at the history of some of the most widely used technologies today would indicate that they were born out of anything but noble intentions. The forceps were used to deliberately medicalise the process of delivery so as to eliminate midwives from the economy of childbirth, the ultrasound was an inadvertent outcome of an acoustics project run by the MIT and funded by the military to detect underwater submarine movement, the speculum was invented for men to gain access to the reproductive systems of women's bodies.

The feminist faction has also been largely divided on the question of technological mediation of reproduction. Whether technological intervention de-romanticises motherhood, or if it further enforces essentialist notions of motherhood has been a point of contention. Christine Crowe says that technology makes 'desperate consumers' out of infertile women. Maria Meis argues that technology, in its very foundation, looks at nature as a resource that can be manipulated for human benefit. It's not only anthropocentric, but also androcentric, and its naive to look towards technology for answers to the women question. Feminist scholar Michel Stanworth says that it is simplistic to reject technology and look at women who avail its services as merely blinded by science. It is denying them their agency in making these choices, and pegs them as passive subjects of social conditioning. 'Feminist responses to technology has a tendency to confuse masculinistic rhetoric and fantasies with actual power relations , thereby submerging women's own to reproductive situations in the dominant and victimising masculinist text', she says. But perhaps the most pertinent critique on technology comes from Rosalind Pollack Petchesky in Abortion and Women's Choice: State, Sexuality, and Women, where she says that assuming women to be a homogenous analytical category, and arguing whether they benefit from technology, is an exercise in futility. It fails to realise that women and technology are embedded in the specificities of the socio-cultural milieu they inhabit. What would be a productive discussion to have instead, is attempting to understand how different women interact with technology differently. She proposes that feminists attempt to unpack the politics of how women of colour interface with technology vis-a-vis how white women experience technology; how queer women are affected by technology as opposed to how heterosexual women interact with technology, and so on. That any discussion of technology without locating it in political relations is counterproductive. Petchesky's critique of technology perhaps appears to be the most edifying, as it recognises the power dynamics that come to play when women negotiate with technology, and actors that enable this access to/mediation of technology.

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Call for Research Papers!

The **Regional Centre for Urban & Environmental Studies** is pleased to invite contributions for **Urban World** in the form of articles and research papers from researchers, authors, publishers, academicians, administrative and executive officers, readers and well-wishers on any one the following topics:

- **Smart Cities: Changing faces of India's Urban Spectrum**
- **Access to Safe Water & Sanitation**
- **Sustainable Housing**
- **Innovations in Solid Waste Management**

Articles could be between 2000 to 4000 words. They may contain compatible tables, charts, graphs, etc. We reserve the right to edit for sense, style and space.

Contributions may be e-mailed in digital form as a Word file to the Director, RCUES, Mumbai.

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Noise Pollution

Fazalahmed B. Khan

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The foundation of the present day institutional framework for environmental programmes in India goes back to the establishment of the National Committee of Environmental Planning and Coordination immediately after the historic Stockholm Conference on Environment held in 1972. The Committee was gradually upgraded into a Department of Environment in 1980. Passing of the Environment Protection Act in 1985 led to formation of a full-fledged Ministry of Environment and Forests. Now the subject of Climate Change is also added to the Ministry. The State Governments have also their own Departments of Environment to address the rapidly increasing policy initiatives for protection of the environment.

Noise

Human life begins with a noise of crying by the newborn, the noise being so exhilarating for the parents to hear. All along human beings keep on speaking with each other generating noise. Sound is a sign of life. Sound is a technical term for any form of voice or noise. Sound has various forms- noise, resonance, hum, echo, thud, reverberation, crash, jingle, etc. In this way sound is a generic term. A sound can be pleasing as music or neutral or due to its tone and intensity it can be cause of discomfort or annoyance. The word 'noise' also a generic term has assumed negative connotations. The word is generally considered associated with din, clamour, clatter, blast blare, etc. Opposite of noise is silence. Fact is that noise per se is not undesirable, but its intensity and the place make it undesirable.

Noise Pollution

Section 2 (a) of the Air (Prevention and Control of Pollution) Act, 1981 defines the term air pollutant as under-

"air pollutant" means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

This definition shows that noise becomes pollutant and injurious in certain concentration (or level).

Measurement of Noise and Decibel Levels

Noise is measured in the unit of decibel. Scientists have measured levels of noise on a scale of decibel (db). Human beings normally converse with each other at 50- 55 db. Considering the level of noise and its impact on health, its permitted levels are prescribed, e.g. under Noise Pollution (Regulation and Control) Rules, 2000, level of 75 db during day time and 70 db during night time in an industrial area are acceptable. Such decibel levels in commercial, residential and silence zones are also prescribed. Generally, level above 80 db is considered to be

harmful. But the hard fact that in cities on an average it ranges above 80 db and on festival occasions and at certain spots it increases further. The whole focus of the legislation of regulation and control noise pollution is to keep the level of noise at acceptable levels as prescribed in the Rules.

Doubling effect: A particular scientific fact is that decibel levels when increase do not increase on linear scale. Every 10 dB sound has a doubling effect.

Adverse impact on health: Through studies it is an accepted fact that noise pollution, i.e. exposure to noise above the accepted level has harmful effect on human health, as also on animals and plants. According to the World Health Organization "road traffic is the biggest cause of community noise in most cities, and typically noise levels increase with higher traffic volumes and speeds. Environmental noise exposure is responsible for a range of health effects, including increased risk of ischaemic heart disease as well as sleep disturbance, cognitive impairment among children, annoyance, stress-related mental health risks, and tinnitus. Taken together these risks in high-income European countries account for a loss of 1-1.6 million disability adjusted life years (DALYs) – a standardized measure of healthy years of life lost to illness, disability or early death." WHO portal- Health & Sustainable Development (http://www.who.int/sustainable-development/transport/health-risks/noise/en/)

Legislation for Regulation and Control of Noise Pollution

Fact is that awareness and action regarding environment protection came late on the national and international scene. As regards the noise pollution, it can be said that awareness to control noise pollution came further late as only in 1987 the **Air (Prevention and Control of Pollution) Act, 1981** was amended to include noise pollution among other pollutants. After this

inclusion in 1987, all the provisions of the Act applied to the control and regulation of noise pollution. The rules for regulation and control of noise pollution came further late, i.e. in the year 2000.

Other laws having provisions in respect of control on noise pollution:

Public Nuisance: Loud noise (except at an authorized place like industry, etc.) can be a source of annoyance or harm to the people present at the place, according to the situation, time and intensity. Such situations are covered by section 268 of the **Indian Penal Code:**

Code of Criminal Procedure: Section 133 of the Code of Criminal Procedure, 1973 is in regard to the **"Conditional order for removal of nuisance"**

Motor Vehicles Act: Provision of Sec. 190 (2) provides that any person who drives or causes or allows to be driven, in any public place a motor vehicle, which violates the standards prescribed in relation to road safety, control of noise and air pollution, shall be punishable for the first offence with a fine of one thousand rupees and for any second or subsequent offence with a fine of two thousand rupees.

Noise Pollution (Regulation and Control) Rules, 2000

These rules are the chief statutory rules made to provide for control and regulation mechanism under the Act. The recital of the Rules, which spells the objective of making the rules, says:

-*Wheareas the increasing ambient noise levels in public places from various sources, inter-alia, industrial activity, construction activity, generator sets, loud speakers, public address terms, music systems, vehicular horns and other mechanical devices have deleterious effects on human health and the psychological well being of the people; it is considered necessary to*

regulate and control noise producing and venerating sources with the objective of maintaining the ambient air quality standards in respect of noise.

The Rules have been amended in between, the latest amendment being done on 10 August, 2017. Broad contents of the Rules are as under:

Under the rules, the following ambient air quality standards are laid down:

Ambient Air Quality Standards in respect of noise are provided in the Schedule to the Rules. (See Table 1)

The rules inter alia, provide for the following:
1) Rule 1 is preliminary.

2) Rule 2 contains definitions.

3) Rule 3 lays down ambient air quality standards.

4) Rule 4 is on **'Responsibility as to enforcement of noise pollution control measures'.** Among other things it says that "the noise levels in any area/zone shall not exceed the ambient air quality standards in respect of noise as specified in the Schedule".

5) Rule 5 is on **'restrictions on the use of loud speakers/public address system and sound producing instruments.'**

6) Rule 5A is regarding **'Restrictions on the use of horns, sound emitting construction equipments and bursting of fire-crackers.'**

7) Rule 6- **'Consequences of any violation in silence zone/area'** provides for punishments for violation of these Rules.

8) Rule 7 is in respect of **'Complaints to be made to the authority'** and action to be taken by it.

9) Rule 8 provides for **'power to prohibit, etc. continuance of music sound or noise'** by

the authority on receipt of complaint or suo moto.

Authorities: The following authorities are appointed as **Noise Authority** by the Environment Department for implementation of the Rules in Maharashtra:

1) Police Commissioner or the Deputy Police Commissioner or the Assistant Police Commissioner in the areas having Commissioner of Police. Thus, all the Police Stations come under this category of Authorities.

2) Superintendent of Police or Deputy Superintendent of Police in other areas.

Noise Pollution in Mumbai

The State Pollution Control Board and the Municipal Corporations have been performing their roles in implementation of the rules. Some NGOs have been playing a very active role in raising the issue and urging the authorities for effective action. Noise pollution levels are continuously measured and monitored. Hard fact is that these reports show that most of the time the decibel levels recorded are above the prescribed levels, and particularly in certain (many) locations and on certain occasions they are found to be above or considerably above the prescribed level. (See Table 2)

Loud Voice against Noise Pollution in Mumbai and around

Among Mumbai there are some individuals and institutions that care for the city and work tirelessly through their voluntary efforts. When talking of noise pollution the name of **Awaaz Foundation** and its founder **Sumaira Abdulali** stands out prominently. She is an environmentalist from Mumbai, India, founder of the NGO Awaaz Foundation and Convenor of the Movement against Intimidation, Threat and Revenge against Activists.

Table 1: Ambient Air Quality Standards

Area Code	Category of Area/Zone	Limits of dB(A) Leq* during night time	Limits of dB(A) Leq* during day time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

Note- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of area may be declared as one of the four above-mentioned categories by the competent
authority.

Table 2 : 5 Noisiest Spots in Mumbai, Monday, 17th September, 2018

Time	Place	dB
10.48 pm	Worli Naka	112.6
8.20 pm	Juhu Koliwada	107.5
9.25 pm	Mahim Church	104
7.40 pm	Linking Road	102.7
8.05 pm	Opp. SNDT University, Juhu	98.2

Note: Standards for these areas on an average are around 60 dB.

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ROUND & ABOUT

Prime Minister receives UNEP Award- Champions of the Earth Award

Protection of the environment is a prime policy and action agenda before the nations of the world. The UNEP instituted an award for the national leaders working on this agenda. The award under the title Champions of the Earth Award is given to the national heads for their achievements in the Policy Leadership, Entrepreneurial Vision, Science and Innovation, Inspiration and Action. Considering a range of policy initiatives and achievements on this front, Prime Minister Mr. Narendra Modi has been conferred with this environmental honour at a special ceremony in the New Delhi in October, 2018.

(Various media reports).

Fire-fighting Robot to be introduced in Mumbai

Urban areas are witnessing rising incidents of fire. Congestions of the lanes and alleys are adding to the woes in fire-fighting including loss of the fire-fighting personnel. The Mumbai Municipal Corporation has acquired a fire-fighting robot, to be presently used on a pilot project basis. The robot is programmed to go through narrow alleys and handle biochemical disasters. With the help of the inbuilt thermal cameras it can see through both smoke and darkness and will help fire-fighters to remotely guide to the source and will protect them from getting harmed.

(Urban Update, October, 2018).

Disaster risk reduction training given by the Institute to officials from Bangladesh

The All India Institute of Local Self-Government is among the premier institutions in providing training and capacity building on various aspects of urbanization. The Institute has its own fire-fighting arm under the name National Fire Institute, which also specializes in disaster management. The Institute in collaboration with the National Institute of Disaster Management organized a five-day training programme for the officials from Bangladesh in Delhi from 12 to 16 November, 2018.

(www.aiilsg.org).

Thane Municipal Corporation proposes a twin city near Thane

Urbanization is on the rise the world over having both positive and negative impacts. One of the most effective policy measures is development of satellite towns around the congested big cities to effectively manage expanding urban sprawl on planned basis. Mumbai Metropolitan Region, after having initiated New Airport Influence Notified Area (NAINA) is poised to have another twin city. Thane Municipal Corporation (TMC) has drawn up plans to develop a self-sufficient twin city spread over 100 sq kms along its fringes as an alternative to accommodate a growing population.

(The Times of India, Mumbai, 15 November, 2018).

World Toilet Day Celebrated on 19 November, 2018
Self-cleaning E-toilets now on Indian Railways

World Toilet Day is celebrated worldwide every year on 19 November, to engage and educate people and their communities to encourage support for sanitation-related issues and to break the stigma around sanitation. The United Nations press release stated that "today 4.5 billion people in the world live without safely managed sanitation and 892 million people still practice open defecation." It was celebrated throughout India on 19 November, 2018. On this occasion a number of sanitation projects were launched and awareness campaigns were organized including launch of Self-cleaning E-toilets on a long route train.

(National Health Portal of India).

In a first Indian Railways, electronic toilets that flush automatically have been introduced on LTT-Cochin Express on 19 November, 2018. The concept though earlier known is to electronically integrate toilet functions resulting in simple to operate pressurized flushing. This is a pilot project to be replicated in other trains in due course.

(The Times of India, Mumbai, 20 November, 2018).

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Urban Policy Research.

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Tailored Training and Capacity Building Programmes in Urban Management and Urban Governance.

◆

Capacity Building for Urban Poverty Alleviation.

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