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Urbanization: Problems and Remedies

Introduction

- **Process of Becoming Urban:** It is the process of becoming urban, moving to cities, changing from agriculture to other pursuits common to cities, such as trade, manufacturing, industry and management, and corresponding changes of behaviour patterns.
- **Process of expansion:** It is the process of expansion in the entire system of interrelationships by which the population maintains itself in the habitat.
- **A Population shift:** Urbanization refers to the population shift from rural to urban residency, the gradual increase in the proportion of people living in urban areas.



Urbanization is the societal trend where the proportion of people living in cities and towns increases while the proportion of people living in the countryside diminishes. In sociology, the term urbanization is also used to denote a distinct way of life, which emerges in cities due to their large, dense and heterogeneous population. Such a life is distinct from the life and activities of the people living in villages. 'Urban' refers to the geographic territory within or close to a city. Urbanization in India has become an important and irreversible process, and it is an important determinant of national economic growth and poverty reduction.

According to Census of India, there are three conditions to qualify the definition of 'urban'—

1. There should be at least 5,000 inhabitants,
2. There should be density of 400 people per sq. Km or more, and
3. At least 75% of male working population should be engaged in non-farming activities

As per the census definition, 31.16% (37.7 crore) of the Indian population lived in urban areas in 2011. This population is located in 7,933 towns comprising of 4,041 Statutory Towns and 3,892 Census Towns. But the share of urban population which lives in towns and cities that are governed by urban local bodies is even lower at 26%. It is estimated that by 2030, 50 per cent of India's population would reside in urban areas. United Nations estimates that India undercounts its urban population by atleast 12% (based on 2011 Census).

In 1900, 10% of the world's population lived in cities. Today the figure is over 55%, and it will reach 75% by 2050 (UN Urbanization Prospects projections- 2018). The UN estimates that the milestone event – when the number of people in urban areas overtook the number in rural settings – occurred in

Concept

Urbanization is an integral part of the process of economic growth. As is the case in most countries, India's towns and cities have expanded rapidly when increasing number of people migrate to towns and cities in search of economic opportunities. Major enablers of urbanization include:

1. Industrialization
2. Commercialization
3. Social benefits and better public services
4. Employment opportunities
5. Aspiration for modernization and changes in the mode of living
6. Gradual rural to urban transformation

Urbanization yields several positive effects if it happens within the appropriate limits. India's urban areas make a major contribution to the country's economy. Added to the demographic dividend India is passing through, if urbanisation is regulated properly, it can bring positive changes in different parameters as Indian cities contribute to about 2/3rd of the economic output. They are a host to the growing share of the population and the hotspots of FDI and business activities. They are the major originators of innovation and technology and result in technological and infrastructural advancements. They also have the potential to create huge employment opportunities for the young demography- with mean age approaching 27 years and which is one of the youngest in the world. Improved transportation and communication, quality educational and medical facilities are all enablers for a better standard of living in urban areas. The overall quality of life in cities is thus better than in rural areas. The culture of living in 'rented apartments' is prevalent in cities than in villages,

Where people generally live in their own homes. From a societal perspective, 'caste' often transforms into 'class' and there is lesser caste based discrimination in urban areas. An urban society is also more liberal and less orthodox. However, the backwardness in rural society is not because of better quality of services in urban India, but because of lack of availability, accessibility and affordability of services in rural India. The poor have always been discriminated against and have been the neglected child in India's growth story.

The detailed effects of urbanization on the institution of family, caste system and the status of women in society have already been discussed in earlier chapters.

Urbanisation

- **National metro rail policy:** There is a need for a national metro rail policy that will ensure that metro projects are not considered in isolation, but as part of a comprehensive plan of overall public transportation.
- **Manpower training:** Indian cities also need to overhaul their municipal staffing and introduce appropriate skills to achieve administrative efficiency.

- **Waste to Energy authority:** To speed up the process of cleaning up municipal solid waste, NITI Aayog suggests the creation of an authority may be called Waste to Energy Corporation of India (WECI) and placed under the Ministry of Urban Development.
- **Attracting Investment in rural areas.**
- **PM Awas Yojana, 2015:** This yojana was intended to provide housing for all in urban areas by year 2022.
- **AMRUT Mission, 2015:** The purpose of mission is to-
 - To ensure that every household has access to a tap with the assured supply of water and a sewerage connection.
 - To Increase the amenity value of cities by developing greenery and well-maintained open spaces (e.g. Parks).
 - To Reduce pollution by switching to public transport or constructing facilities for non-motorized transport (e.g. Walking and cycling).
- **National Urban Transport Policy, 2016:** The objective of this policy is to ensure safe, affordable, quick, comfortable, reliable and sustainable access for the growing number of city residents to jobs, education, recreation and such other needs within our cities.
- **National Mission on Sustainable Habitat, 2010:** It was aimed at to promote:
 - Improvements in energy efficiency in buildings through extension of the Energy Conservation Building Code (ECBC).
 - Better urban planning and modal shift to public transport
 - Improved management of solid and liquid waste, e.g. Recycling of material and urban waste management
- **National Urban Housing Fund, 2018:** The Union Cabinet has approved the creation of Rs 60,000-crore National Urban Housing Fund to finance the government's Housing for All programme, which aims to build 12 million affordable housing units in urban areas by 2022.

- **Deen Dayal Antyodaya Yojana (DAY), NULM 2011:** This scheme is aimed at addressing the livelihood concerns of the urban poor.
- **Industrial Corridors projects:** The Government of India is developing various major industrial corridors in various states as part of developing greenfield industrial cities in India.
- **India's first monorail, 2014:** It will be open to the public after eight years since it was first proposed by the state of Maharashtra. With this, India will join countries like the U.S., Germany, China, Japan, Australia and Malaysia that run monorails.

NITI Aayog recommendations:

It has called for a 3C Framework (Clean, Convenient and Congestion free) for transforming mobility in India. To achieve this, it has laid down the following action-agenda:

1. **Connect Bharat:** NITI Aayog calls for a Safe, Adequate and Holistic Infrastructure (SAHI) for the Indian population including women, elderly and the disabled. Major recommendations for achieving this include increased emphasis on safety and accessibility; leveraging multiple modes of transport –road, rail, coastal and inland waterways, small regional airports, ropeways etc.; higher usage of data for holistic mobility needs.
2. **Optimize travel footprint:** It calls for increased emphasis to reduce congestion caused by passenger and goods flow in urban areas. Major recommendations include Integrated land use through planning residential and commercial complexes in an integrated manner so that travel time is reduced; focused policy-based measures for optimizing travel; and data-based measures such as intelligent transport systems.
3. **Promote seamless public transport:** It calls for an efficient and convenient public transport to address the issue of air pollution and congestion in Indian cities. Major recommendations include Data-driven planning and urban transport, with a clear hierarchy amongst different modes- from non-motorized (pedestrians, cycles) to public and lastly private transport; focus on

multi-modal systems; make public transport affordable, comfortable and accessible for urban India; ensure better adoption.

4. **Adopting green modes and technologies:** It calls for rapid adoption of electric vehicles and nonmotorized transport (NMT). Major recommendations include to improve adoption of non-motorized transport, the routes and paths should be planned so that they integrate seamlessly with public transport. To ensure safety for NMT users by outlining norms & dedicated traffic signals should be a key priority. There should be a clear push towards clean technologies. This has to be enabled through ecosystem development which includes domestic manufacturing, deployment of charging infrastructure etc.

To sum up the discussion, urbanisation in India is trapped in the paradox of rise in working age population and decrease in generation of employment especially in the primary and secondary sectors. This has resulted in stress on built environment as the supply of both land and infrastructure is falling behind demand. Fractured planning structures are incapable of integrated planning for land use, infrastructure planning, and finance across metropolitan areas. Poor land management hinders the capacity of the private sector to be competitive and the ability of the public sector to use land based financial instruments to finance infrastructure investments. Poor urban services like drinking water, wastewater and solid waste disposal especially in nonnotified slums result in severe health and sanitation issues. Inadequate services and incapacity of public transport lead to traffic chaos.

The failures in land markets and regulations are compounded by limited access to housing finance resulting in proliferation of slums. Weak and unpredictable financing frameworks limit the ability of ulbs to manage their resources effectively. Overlapping institutions across three tiers of government diffuse accountability across agencies undermining the development of coherent regulatory frameworks and sustainable service delivery models. Ulbs and local service entities have neither clear responsibility nor the fiscal and

operational autonomy to deliver adequate urban services. Weak Urban Local governments crippled by lack of systems and trained human resources result in mismanaged infrastructure.

Data of urbanisation in India: Census 2011

- Total Urban Population: 37.7 crores
- Rural areas: 83.3 crore
- Level of Urbanization/ Percentage of Urban Population: 31.1%
- Rate of growth of urban population: 2.76% per annum during 2001-2011.
- Most Urbanized state: Goa (62%), Mizoram, Tamil Nadu. Delhi (97.5%) most urbanized among the uts.
- Least Urbanized state: Himachal Pradesh (10%) followed by Bihar, Assam and Odisha.

Ease of Living Index (eoli) 2020

- The Housing and Urban Affairs Ministry has released the final rankings of eoli 2020. The eoli is an assessment tool that evaluates the quality of life and the impact of various initiatives for urban development. It provides a comprehensive understanding of participating cities across India based on quality of life, economic-ability of a city, and its sustainability and resilience.
- **Million+ category:** Bengaluru emerged as the top performer followed by Pune, Ahmedabad, Chennai, Surat, Navi Mumbai, Coimbatore, Vadodara, Indore, and Greater Mumbai.
- **In the Less than Million category:** Shimla was ranked the highest in ease of living, followed by Bhubaneshwar, Silvassa, Kakinada, Salem, Vellore, Gandhinagar, Gurugram, Davangere, and Tiruchirappalli.

Characteristics of indian urbanization

- **Tertiary sector lead growth:** Indian towns are growing more on the basis of tertiary rather than the secondary sector.
- **Main sector for growth:** The growth in the communication sector, transport, services and construction were the main factors for the growth of Indian cities.
- **Contradicting growth:** It has been found in the developed countries that it is the manufacturing sector which led to the growth of cities and further urbanisation in Nation.

- **Southern India:** They are more urbanized than that of Northern and Eastern India. This is because of the historical, socio-cultural and educational resource factors widely available.
- **Globalisation impact:** With the introduction of globalization in India, the development of South India was very high due to high FDI and establishment of various kinds of industries in these states.

Characteristics

India is said to be in the midst of transition from a predominantly rural to a quasi-urban society. The process of urbanization has been characterized by an increase in the number of large cities. Today, the number of urban agglomerations/towns in India is 5161. The most urbanized states are Goa (62%), Mizoram and Tamil Nadu. Delhi (97.5%) is the most urbanized among the uts. An important feature of urbanization in India has been that urbanization has occurred without sufficient industrialization and growth of a robust economic base. Changes in the land-use pattern have resulted in growth of many a 'cities and towns both horizontally and vertically. This urban transformation has mainly been a product of demographic explosion and poverty induced rural-urban migration. Hope for better prospects in cities attracts people to urban areas resulting in high population increase. Stagnation and volatility of agriculture and lack of sectoral diversification has also resulted in a rural to urban push.

Migration accounts for approximately 40% of the growth in urban population, converting the rural poverty into urban one. As migrants show high selectivity in choosing their destination based on known economic opportunities and due to regional division in pace of urbanization, the pressure on selective urban centres has set into motion an urban decay. Urban decay is a sociological concept where cities and towns have degraded to an extent beyond repairs. The 2030 development agenda of the United Nations has emphasized the role of sustainable cities through its Sustainable Development Goal (SDG) 11, i.e., Sustainable Cities and Communities for making cities and human settlements inclusive, safe, resilient and sustainable. However, rapid and lopsided urbanisation in India has led to massive

growth of slums followed by misery, poverty, unemployment, exploitation, inequalities and degradation in the quality of urban life. Today 38% of the total slum population reside in the million plus cities, which also constitute nearly 17.4% of urban households. Moreover, in spite of urban areas being economic powerhouse, they are considered as ecological blackholes, due to absence of adequate green cover.

Perspectives in process of urbanization

1. **A socio-cultural phenomenon:** It is a "melting pot" of people with diverse ethnic, linguistic, and religious backgrounds. E.g. Kolkata city development.
2. **An economic process:** The city is a focal point of productive activities. It exists and grows on the strength of the economic activities existing within itself. E.g. Mumbai
3. **A geographical process:** It deals with migration or change of location of residence of people and involves the movement of people from one place to another.

Contributions of the British to the Indian urban developments

1. **Starting of Urban Administration:** In 1687-88, The East India Company started the first municipal corporation in India was set up at Madras. In 1726, Municipal Corporation of Bombay and Calcutta was also set up in.
2. **Panchayat and Municipalities:** In 1882, a resolution was passed and according to which, a panchayat was to be formed at the village level, district boards, taluka boards, and municipalities also came into existence.
3. **Local self-government:** Lord Ripon's resolution of 1882 provided for the introduction of principles of local self-government in the municipalities. The resolution is regarded as the Magna Carta of Local self-government in India. Lord Ripon is known as Father of Local Self Government in India.
4. **Metropolitan port cities:** The formation of three metropolitan port cities of Mumbai (Bombay), Kolkata (Calcutta), and Chennai (Madras).

5. **Hill stations:** Creation of a chain of hill stations such as Darjeeling, Shimla, Mussoorie, Lansdowne etc. In the Himalayan region and In South India.
6. **Civil lines and cantonments:** The modification of the urban landscape of the existing cities with the introduction of civil lines and cantonments.
7. **Modern education:** The Initiation of modern education by establishing some colleges and universities in major urban centers.

Urbanisation: trends in India

1. **Urban Migration:** 20% of the total migration is from one urban area to another urban area. As such, urban migration, rural to urban as well as urban to urban accounts for 40% of the total migration which is one of the causes of urbanisation in India.
2. **Transport and logistics sector:** The government of India has a key focus on the development of the transport and logistics sector which underlines the importance of interconnecting the different modes of transportation: road, rail, sea and air.
3. **Special Economic Zones:** Increasing number of Special Economic Zones in the country dotting the landscape of India.
4. **Expanding Cities:** They are now expanding at a good pace due to the support of private companies in various parts of the country. Developers are building housing projects which will exponentially grow in the years to come.
5. **Infrastructure Projects:** Projects like The Delhi, Mumbai Corridor is an infrastructure program set to support the development of various 'Smart Cities' and industry altogether.
6. **Industrial townships:** State and industry are planning to build more houses and employees close to the factories and manufacturing plants at which they work for less travel time and more productivity.
7. **Airspace utilisation:** India's expected economic growth opens up expansion prospects for Indian airports. Domestic and international passengers are inevitably predicted to double in number in the years to come; in the interim it will help to grow the tertiary sector.

Factors driving urbanisation in india

1. **Better facilities:** People get better facilities in an urban area like education, sanitation, housing, health care, recreation, and living standards to lead a good social life in general.
2. **Social benefits and services:** More and more people are prompted to migrate into cities and towns to obtain a wide variety of social benefits and services which are not presently available in rural areas.
3. **Urbanization and economic growth:** There is a strong relationship between urbanization and economic growth.
4. **Erratic nature of Indian Monsoon:** Indian agriculture is dependent on the monsoon. Therefore in drought situations or natural calamities, rural people have to migrate to cities.
5. **Population movement:** The depressed economic conditions of the area, availability of opportunities, availability of land holdings are the most vital determinants for the population movement.
6. **Poor implementation of rural development scheme:** Most schemes for improving rural conditions are justified on the grounds that they will reduce migration to cities. Yet, economic growth is strongly linked to urbanization.
7. **Lifestyle:** Modernization and drastic change in today's lifestyle of people plays a very important role in the process of urbanization.
8. **Availability of Amenities:** Nowadays, urban areas are becoming more technology savvy with highly sophisticated communication, infrastructure, medical facilities, dressing code, enlightenment, liberalization, and social amenities availability.
9. **Increasing prosperity:** Many localities have become more fruitful and prosperous due to the discovery of minerals, resource exploitation, or certain agricultural activities; hence cities start emerging. It is a well-known fact that the increase in productivity leads to economic growth and higher value-added employment opportunities.
10. **Growth of towns and cities:** The distribution of goods and services and commercial

transactions in the modern era has developed modern marketing institutions and exchange methods that have given rise to the growth of towns and cities.

Problems of urban areas in india

1. **Traffic Problem:** Absence of planned management of traffic and transport is a major problem in urban centres in India. Due to the constant traffic on the road which in turn increases the air pollution and sound pollution in urban areas.
2. **Rising cost of House and Land:** Overpopulation puts pressure on limited urban land areas and severe in those urban areas where there is large invasion of jobless or underemployed immigrants.
3. **Water supply:** Intermittent supply creates a situation where people start to store more water which creates artificial need and throw out water on the day of water supply.
4. **Creation of large Slums area:** Due to the acute shortage of housing in urban areas the less costly urban area made by substandard quality.
5. **Overcrowding:** In a very congested housing area there are five to six people living in one room which encourages diseases and creates conditions for mental illness, alcoholism.
6. **Drainage systems:** Due to the bad financial situation of Municipalities and densification of population there is a prevalent problem of bad sewage drainage in Indian cities.
7. **Bad Sanitation situation:** Removing garbage, cleaning drains and unclogging sewers are the main jobs of municipalities and municipal corporations in Indian cities which they often fail to perform.
8. **Unplanned urbanization:** Rapid urbanization of Indian urban spaces leads to the development of cities without any futuristic urban planning and eventually that becomes unsuitable for living for most of the people.
9. **Decreased Group Solidarity:** Unplanned urbanization has led to the rise of slums which are socially isolated from the society and which resulted in the increased incidences of pathological behaviour in individuals. Solid waste Management Issues: Due to the

Increase in urbanization waste generation, and its unscientific waste handling are becoming the major cause of health hazards and urban environment degradation.

10. Poor road Design: Roads in major cities in India are notorious for being pedestrian-unfriendly, poorly surfaced, congested, and constantly dug up.

11. Problem of Pollution: Our towns and cities have become one of the major sources of pollution. Cities discharge their 40 to 60 percent of their entire sewage and industrial effluents untreated into the nearby rivers systems.

12. Increasing Rural urban divide: As population started heavily toward the urban areas the government focus has also shifted from rural to urban areas. Consequently, rural areas started to witness social changes in land relations, absence of leadership, increasing old age population and absence of social security for them. Increase

13. In Urban crime: Urbanization in India is fast and unplanned which leads to imbalance in resource availability that manifests itself in dearth of space, shelter, food and basic amenities for the rising population.

Social effects of urbanization on india society

Family	<p>➞ Family structure: It is changing from the joint family form to the nuclear family form & small joint family system. 'Egalitarian family' system is replacing the traditional 'Husband- dominated' family type as the wife is being involved in the decision-making process.</p>
	<p>➞ Attachment to Family: According to I.P. Desai, in spite of strains between the younger and older generations, the attachment of the children to their families is never weakened.</p>
Society	<p>➞ Kinship relations: They are weakening and the bonds of community are getting disrupted all over the urbanized area.</p>
	<p>➞ Internal fusion in society: Fusion of sub-castes and castes is happening in urban areas because of inter-sub-caste and inter-caste marriages, democratic politics, jobs etc.</p>

	<p>➞ Caste panchayats: They are weakening all over India due to the perceived less authority of Caste panchayats.</p>
	<p>➞ Caste identity: Caste identity tends to diminish with urbanization, education and the development of an orientation towards individual achievement and modern status symbols. Rules of commensality, untouchability almost non-existent in urban areas.</p>
Women and Girls	<p>➞ Women's status: Social and economic status of women has increased as they started doing blue as well as white collar jobs. Thereby women in urban areas enjoy independence and greater freedom comparatively.</p>
	<p>➞ Education of girls: It is greater in urban areas, but urban women are having more vulnerabilities like safety at workplace etc.</p>
	<p>➞ Women Participation in workforce: Many positive developments took place in the socio-economic lives of women as a result of increasing urbanization, women have taken to white-collar jobs and entered different professions.</p>
	<p>➞ Decision making: Because of living in a comparatively educated and liberal environment, urban women enjoy greater freedom of choice in decision making than that of rural women.</p>
	<p>➞ Workload: The personally and socially enlightened woman is forced to perform dual roles - social and professional which has led to sustenance in workload of women.</p>
	<p>➞ New opportunities and old securities: Urbanization have not brought about any radical</p> <p>➞ Change in the traditional pattern of arranged marriage with dowry.</p>

Impact of urbanisation on the rural areas

1. Rapid social change: In India, urbanisation along with westernisation and modernisation has furthered the process of rapid social change both in the rural and in the urban areas.

2. **Rural to urban migration:** One of the important results of urbanisation is the rural to urban migration. Migration has become a continuous process affecting the social, economic and cultural lives of the villagers widely.
3. **Symbol social prestige:** Rao (1974) distinguishes three different situations of urban impact in the rural areas. In the villages from where large numbers of people migrate to the far off cities, urban employment becomes a symbol of higher social prestige.
4. **Immigrant workers influx problem:** Villages, which are located near the towns, receive influx of immigrant workers and face the problems of housing, marketing and social ordering.
5. **Greater accessibility to some pockets:** In the process of the growth of metropolitan cities some villages become the rural-pockets in the city areas. That villagers directly participate in the economic, political, social and cultural life of the city.
6. **Diffusion of cultural traits, innovation and ideas:** New thoughts, ideologies are diffused from the cities to the rural areas due to increase in communication via radio, television, newspaper, computer, the Internet and telephone.
7. **Non- isolated phenomenon:** The urbanism, which emerges in the cities gradually, reaches to the rural areas, depending on their proximity to the cities. The process of urbanisation has not been an isolated phenomenon.
8. **Increased continuity:** At present, along with the whole gamut of occupational diversification, spread of literacy, education, mass communication etc., continuity between rural and urban areas has increased.
9. **Spillovers effect:** Many modern techniques of agricultural development and many of the institutional frameworks for rural development also generate from the urban centres. The large-scale commercialisation of agriculture has also been facilitated by the process of urbanisation.

Urbanization and twelfth five-year plan

The 12th five year plan document has called cities as "engines of economic growth" and have also noted that urbanization is yet to accelerate as surging growth and employment in cities will prove to be a powerful Magnet to attract people to urban areas.

Administrative reforms commission (arc): 6th report on urbanisation

1. **Adequate infrastructure:** In all towns, advance action for laying down adequate infrastructure should be taken to avoid insufficiency of services.
2. **Enhancing Participation:** Community participation and co-production of services should be encouraged by municipal bodies. This should be supplemented by awareness generation.
3. **Water supply and distribution:** Urban local bodies should be given responsibility for water supply and distribution in their territorial jurisdiction whether based on their own source or collaborative arrangements with other service providers.
4. **Sanitation:** It is a matter of hygiene and public health, it must be given priority and emphasis in all urban areas.
5. **Collection and disposal of garbage:** In all towns and cities with a population above one lakh, the possibility of taking up PPP projects for collection and disposal of garbage may be explored.
6. **Electricity distribution:** Municipal bodies should be encouraged to take responsibility for power distribution in their area.
7. **Transport solutions:** Urban Transport Authorities, to be called Unified Metropolitan Transport Authorities in the Metropolitan Corporations. They should be set up in cities with a population over one million within one year, for coordinated planning and implementation of urban transport solutions with an overriding priority to public transport.

Government initiative on urbanisation

- **HRIDAY Mission, 2015:** It was aimed at-
 - Planning, development and implementation of heritage sensitive infrastructure.

- Service delivery and infrastructure provisioning in historic city core areas.
 - Preserve and revitalize heritage wherein tourists can connect directly with the city's unique character.
 - Develop and document a heritage asset inventory of cities - natural, cultural, living and built heritage as a basis for urban planning, growth and service provision & delivery.
- ➡ **RURBAN Mission, 2016:** This mission was targeted at-
- Bridging the rural-urban divide-viz of economic, technological and those related to facilities and services, o Stimulating local economic development with emphasis on reduction of poverty and unemployment in rural areas.
 - Attracting investment in rural areas.
- ➡ **PM Awas Yojana, 2015:** This yojana was intended to provide housing for all in urban areas by year 2022.
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- Remedies to urban problems**
- ➡ **Power Utilities:** Municipal bodies should be encouraged to take responsibility for power distribution in their areas. Municipal building bye-laws should incorporate power conservation measures.
- ➡ **Increase job opportunities:** More concentration is needed on the rural areas to provide more job opportunities for rural people through IRDP, NREP, JRY, and such other programs to hold back people in rural areas.
- ➡ **Efficient and Integral City Planning:** Lack of proper planning is one of the major causes of urban problems. Hence, the city administration has to take sufficient care in doing comprehensive planning for the improvement of the city.
- ➡ **Urban governance:** Better urban planning based on models like Transit-Oriented Development (TOD), integrated and accountable transport authority, empowered local bodies, scientific waste management, etc. Can help bring down footprints of urban area challenges.

- **Limited Environment Pollution:** Environmental pollution is becoming a major problem in megacities. The scientific arrangement is to be made to dispose of solid waste, including the garbage.
- **Better Transportation Facility:** For urban public transport, a special purpose vehicle (SPV) with participation of public agencies should be set up.
- **Increasing green cover:** To Increase it especially in urban areas and it must be an indispensable part of urban planning. Other initiatives such as afforestation, the greening of highways, etc. Must also pick up.
- **Amendment of Rent Control Acts:** Laws that inhibit the construction of new houses or giving of houses on rent must be amended. Like Affordable Housing for All Mission the Mission covers the entire canvas of affordable housing, from the slum dweller living in the most inhumane conditions.
- **Public Health Delivery system:** Urban populations, largely the poor, are "ghettoized" and "spaced out" because of the inadequacy in urban public health delivery systems to reach them on account of location, their place of work such as construction sites is necessary.
- **Mohalla clinics (Primary Health Centre):** An initiative of Delhi State Government is an aspirational model that provides a basic package of essential health services including medicines, diagnostics, and consultation free of cost which need to be implemented in other areas.
- **Manual scavenging:** Extensive surveys should be carried out by the State Governments to identify manual scavengers and estimate the number of dry latrines in existence within six months.
- **Sewerage Management:** Sanitation, as a matter of hygiene and public health, must be given due priority and emphasis in all urban areas. Each municipal body should prepare a time bound programme for providing sewerage facilities in slum areas.
- **Financial empowerment:** Local bodies may impose a cess on the property tax or development charges in order to raise

resources for expansion and capacity enhancement of the existing sewerage systems.

- **Incentive grants:** In order to motivate the local governments to generate additional resources for sewerage management, matching grants maybe provided by the Union and State Governments.
- **Societal involvement:** Community participation and co-production of services should be encouraged by municipal bodies. This should be supplemented by awareness generation.

Problems of urbanization and associated government initiatives

The patterns of urbanization in India have been marked by interstate diversities, large scale rural to urban migration, insufficient infrastructural facilities, growth of slums and other related problems. It has also aided westernization, with decline in traditional customs and processes, leading to moral degeneracy. Urbanization has increased the class divide and resulted in a more indifferent and apathetic attitude among the people. The culture of gated societies has turned them into standalone islands of elites, with discriminatory attitude against the lower working class- like plumbers, electricians, house-helps, etc. Some of the other major problems of urbanization faced in different parts of India are as follows:

1. Housing problems and slums

Due to large scale influx of migrants from rural areas, the economic base of cities becomes incapable of dealing with the problems created by the excess demand for housing. Lack of adequate housing in almost every city, results in a huge population living in slums and ghettos, thereby adding to the size of cities. The complex engagement of high cost of living, unemployment and explosive population growth results in the unregulated spread of slums and squatters. This growth is further exacerbated by clustered industrialization, lack of developed land for housing and the inflated prices of land and houses which are beyond the reach of the urban poor. Out of 4,041 Statutory Towns in Census 2011, slums were reported from 2,543 Towns (63%). People

who are living in slums increased from 52 million in 2001 to 65.5 million 2011. There is development of unregulated slums on government properties. As slums are illegal colonies, they do not have any civic amenities like drinking water, sewage, electricity etc. This became a major problem during COVID management especially in urban slums like Dharavi, which saw a huge upsurge of cases on a daily basis. Housing provided by slums also suffers from poor structural quality and low durability. The tenancy is not secure, making people susceptible to harassment and corruption.

Remedies: Development of inclusive cities; improved urban planning; affordable housing; interstate self-registration process to monitor the scale of migration; e-governance; capacity building; population control.

Government Initiatives:

Pradhan Mantri Awas Yojana - Urban: Its objective is to promote 'affordable housing' for weaker sections in urban areas through credit linked subsidy. Central government provides an interest subsidy of 6.5% on housing loans availed by the beneficiaries for a period of 15 years from the commencement of their loan tenure. It aims at rehabilitating the existing slum dwellers with private sector participation using land as a resource.

2. Overcrowding & Poor infrastructure

It is a situation wherein too many people live in a small space. This form of congestion in urban areas is the consequence of overpopulation. In case of India, especially its capital cities and metropolis, it is an aspect that keeps increasing day by day as more people flock to cities in search of better life and opportunities. The influx of people not only cripples the civic amenities but also puts undue pressure on established infrastructures of cities. Inadequate provisions for social infrastructure create socioeconomic traps for the urban poor who can only afford to live in a hand-to-mouth existence with no social mobility, further perpetuating economic inequalities.

Remedies: Augmentation of basic urban infrastructure in water supply, solid waste management, sanitation and urban transport;

local governance; Improvements in local body financing; local capacity building.

Government Initiatives:

A. AMRUT: Atal Mission for Rejuvenation and Urban Transformation: It aims at providing basic civic amenities like water supply, sewerage so as to improve the quality of life for all especially the poor and the disadvantaged. It also focuses on infrastructure creation that has a direct link to provision of better services to the citizens. Its objective is to ensure that every household has access to a tap with assured supply of water and a sewerage connection.

B. Smart Cities Mission: Its objective is to promote sustainable and inclusive cities that provide core infrastructure and give a decent quality of life to its citizens. Area-based development is done to transform older, disorganized parts of cities into model areas.

C. Swachh Bharat Mission: Its objective is to build up capacities in urban local bodies to design, execute and operate all systems related to cleanliness, and to create public awareness about sanitation, hygiene and waste disposal. It aims to completely overhaul the scientific processing, disposal, reuse and recycling of the Municipal Solid Waste.

3. Unemployment

The problem of unemployment is highest in urban areas. The urban informal sector comprises a large part of the unorganized non-agriculture sector. Low levels of education and skill in the unorganized sector workers have resulted in their inability to access the opportunities offered by the expanding market. The commercial nature of industries in urban areas increasingly supports mechanization of infrastructure and thus there is lesser generation of employment with economic growth and growth of cities. The continuing relocation of people from rural areas or hinterland to urban areas and incapacity of urban economy to cater to unskilled migrants

results in rise in unemployment. Unemployment eventually results in surge in urban crimes. This underscores the criticality of skills up-gradation to capitalize on better livelihoods opportunities in urban areas.

Remedies: skilling, training, labor-intensive industrialization.

Government Initiatives:

A. Deendayal Antyodaya Yojana-National Urban Livelihood Mission (DAY-NULM):

It involves training urban poor to meet the demand from urban citizens by imparting market-oriented skills through City Livelihood Centers. Social Mobilization and Institution Development through formation of Self-Help Groups (SHG) for training members and an initial support of Rs 10,000 for each group is given. An interest subsidy of 5% - 7% is given for setting up individual micro-enterprises with a loan of up to 2 lakh and group enterprises are supported with a loan of up to Rs.10 lakhs.

B. Pradhan Mantri Kaushal Vikas Yojana:

Skill training of youth is done through the National Skill Development Corporation (NSDC) under the Ministry of Skill Development and Entrepreneurship. A monetary reward is given to trainees on assessment and certification by third party assessment bodies.

C. Prime Minister's Employment Generation Programme (PMEGP):

It is a credit linked subsidy programme being implemented by Ministry of Micro, Small and Medium Enterprises. It aims at generating self-employment opportunities through establishment of micro enterprises by organizing traditional artisans and unemployed youth into groups.

4. Rise in poverty & hunger

The benefits of life in the city are not evenly distributed. As noted by the International Monetary Fund "the process of urbanization has affected rural poverty more than urban poverty". Often only a small percentage of any fast-growing

urban population really gets access to urban opportunities and this number tends to be shrinking further. Urban poverty in India is over 25 percent of the urban population. More than 8 crore people live in urban areas on incomes that are below the poverty line. According to FAO estimates in the report 'The State of Food Security and Nutrition in the World, 2018', 19.59 crore people are undernourished in India. By this measure 14.8% of the population is undernourished in India. As per government criteria for poverty, monthly expenditure of up to Rs 1000 in urban areas (Tendulkar committee, 2009) or earlier nutritional fulfillment of up to 2,100 calories a day for urban area (Lakdawala Committee, 1993) was considered the threshold of poverty. In urban areas, about 57 per cent of the population does not consume the threshold calories. Remedies: Provision of essential services; creation of more jobs; mid-day meals, public distribution system (PDS); address the issue of capability deprivation (Amartya Sen), effective poverty reduction welfare schemes (Abhijit Bannerjee's randomized control trial method). Government Schemes:

A. DAY-National Urban Livelihoods Mission (DAY-NULM)- 'same as discussed in previous sections'.

B. Pradhan Mantri Awas Yojana - Urban: Pradhan Mantri Awas Yojana – Urban- 'same as discussed in previous sections'.

C. Pradhan Mantri Garib Kalyan Anna Yojana: It's a food security welfare scheme announced by the Government of India in March 2020, during the COVID-19 pandemic. The scheme aims to feed the poorest citizens by providing grains through the Public Distribution System, and is implemented by the Department of Food and Public Distribution under the Ministry of Consumer Affairs, Food and Public Distribution.

5. Waste disposal

Large increase in population has led to enormous amount of solid waste generation. Huge quantities of garbage produced by our cities pose a serious health problem and pollution. In recent years,

disposal of electronic waste or E-waste has become a very serious problem. Cities like Bengaluru generate around 5000 tons of solid waste on daily basis. The collection, transportation and disposal of this huge quantity of solid waste poses another serious problem overstressing the stunted capacities of the municipalities. This has resulted in rise in uncollected waste, buildup of waste at public places and dysfunctional waste management.

Remedies: Mandatory waste collection e.g manufacturers' obligation as in E-Waste

(Management) Rules, 2016; provision of penalty for public littering; waste disposal centers, sewage treatment plants.

Government Schemes:

Swachh Bharat Mission-'same as discussed in previous sections'.

The Million-plus Cities Challenge: Proposed by the 15th Finance Commission, it allocates tied funds to 42 urban agglomerations with population of more than a million. The conditions cover factors of ambient air quality (32%) and service-level benchmark for drinking water and solid waste management (68%).

6. Financial crunch in Urban local bodies

The Constitution (74th Amendment) Act, 1992 also known led to the establishment of Urban Local Bodies (ulbs). It was aimed at supplementing the inadequate Constitutional provision for Local Self Government. But according to NITI AYO, only 11 states have so far devolved municipal functions to Urban Local Bodies. Even in these states, Municipal bodies are dependent on state governments for funds and decision making. This weak and unpredictable financing framework cripples their operational autonomy in delivering adequate urban services and hence limits their capacity to manage their resources effectively. As a result, water and sanitation problems persist, and poor status of health and prevalence of diseases continues.

Remedies: Municipal bonds; Credit Risk Guarantee Funds; decentralization of taxation to local bodies; property tax to generate additional revenue at city level; budgetary support to augment existing infrastructure; greater financial

and political independence for the municipalities.

Government Initiatives:

Smart Cities Mission: Its objective is to promote sustainable and inclusive cities on basis of area-based development. Special purpose vehicles have been created to implement projects and mobilize resources.

The objective of the Smart Cities Mission is to promote cities that provide core infrastructure, give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. It shall focus on urban renewal, retrofitting and green field development. It envisages comprehensive development of institutional, physical, social and economic infrastructure in 100 cities by 2022.

Issues with SCM:

The mission is emerging as too project specific, a small area based "smart technology enclaves" are planned over just 5% of city areas consuming 80% of allocated money, which otherwise could have been spent over whole city. The mission will also perpetuate bias and discrimination in our national planning process. Estimates suggests India will have 40% of its population in cities by 2030. SCM neglects the poor and marginalized populations that contributes their sweat and blood in building cities but rarely find their right to adequate housing honoured. Smart city mission is also plagued by the glaring absence of a rights-based approach. There have been cases of slum clearances for city beautification. The implementation of the mission at the city level will be done by a Special Purpose Vehicle (SPV) created for the purpose thereby overpowering elected ulbs. In a nutshell, citizens and their elected grass root representatives have less power to take decisions in their city planning.

Need is to reinvent mission, from smart city to sustainable city, which requires a change from piecemeal area based intervention to holistic urban planning paradigm, so as to accommodate 600 million of citizens in these cities by 2030. The Mission needs a 'human rights based implementation and monitoring framework' to assess the achievement of targets. It must develop a special focus on the needs, concerns and human rights of the marginalized groups, individuals

and communities. Human-rights based impact assessment (HIA) and environmental impact assessment (EIA) should be mandatory for all 'smart city' projects, before they are approved. There should be meaningful participation and engagement of the people in the selection and execution of smart city projects in all cities. The free, prior and informed consent of all persons likely to be impacted by any 'smart city' project should be obtained before the particular project is approved or selected. The rights to adequate housing, work/livelihood, security of the person and home, water, sanitation, health, food, privacy and information must be protected. It should especially focus on empowering women and weaker sections. These sustainable cities should be based on intra and intergenerational equality. It should also focus on renewable energy, natural ventilation system, green building ratings, green roofs, enhanced mobility through mass transit system, pedestrianization, cycling, car free landscapes, sustainable drainage etc. Modest ecological footprint & reduce, reuse, recycle should be the mantra. Plastic ban, waste segregation, solid waste management, universal sanitation, emission reduction need to be engraved in citizen behaviour.

The mission should align with India's legal commitments under the Paris Agreement and its Intended Nationally Determined Contribution (INDCs), its New Urban Agenda (2016) and Sustainable Development Goal 11: Sustainable Cities and Communities which strives for making cities and human settlements inclusive, safe, resilient, and sustainable. Today, cities need to be protected and developed in a sustainable and inclusive manner, simultaneously equal attention needs to be paid on development of smart villages and other rural transformation related interventions which will not only help arrest excessive urbanization leading to its unplanned, pressurized and sudden growth but also will lead to dispersal of economic opportunities to the countryside.

7. Transport Issues

Indian cities are characterized by increasing levels of congestion, pollution, road accidents and inequality in access to mobility. The need

for better urban mobility in order to build inclusive, safer and more sustainable cities cannot be overstated. As the incomes increase, the purchasing capacity increase and the high-income individuals buy more private vehicles and use less public transport. At the same time, with the growth of cities, the distances to be travelled for work and other reasons increase and there is increasing pressure on public transport. Over the years, this paradox starts to create traffic jams, reducing the utility of private vehicles while increasing crowding in public

Transport.

Vehicular pollution is the biggest contributor to urban pollution. Also, of the 20 most polluted cities in the world, the top 14 are Indian cities. In 2013, 16 Chinese cities (including Beijing) were among the 20 most polluted cities in the world. However, there were only 4 Chinese cities among the top 20 in 2016. On the other hand, in 2013, only 3 Indian cities figured among the top 20 which increased to 14 cities in 2016. Vehicular pollution mainly due to trucks, tempos and other diesel run vehicles is one of the most important causes for pollution in cities. Moreover, combustion in power plants and industries using dirty fuels, like pet coke, FO and its variants, coal and biomass also releases hazardous air pollutants. Garbage burning, road dust; dust due to construction sites etc., add further to the

Particulate pollution. The Annual air quality-Life Index Report by University of Chicago revealed that an average Delhiite lost 9.7 years of life on an average, due to persistent air pollution. High level of congestion has economic implications as well, in the form of reduced productivity, fuel waste, and accidents. Further, there is an acute shortage of parking spaces both on and off the streets in the urban centers. Safety in public transport is another major issue. It is the single biggest factor constraining women's mobility.

Unplanned urbanization in India has led to gentrification of city centers while lower income groups are forced to live in peripheral suburbs which have increased their cost and time for commuting. Most of the lower income groups and urban poor fail to afford private transport and even public transport is becoming expensive by each passing day.

Remedies: Regulation of number of vehicle registration for example in Singapore; odd and even scheme; rapid transits for example- Project Loop; cascading public transports.

Government Initiatives:

- A. AMRUT Mission:** Earlier Jawaharlal Nehru National Urban Renewal Mission (JNNURM, 2005-2014), it attempts to improve the public transport system in large cities through funding of public transport buses, development of comprehensive city mobility plans and supporting city transport infrastructure projects.
- B. National Urban Transport Policy, 2006:** The policy envisages safe, affordable, quick, comfortable, reliable and sustainable urban transport through establishment of quality focused multi-modal public transport systems.
- C. Mass Rapid Transit/ Transport Systems (MRTS):** The metro rail has come up as a favoured alternative of mass transport in Indian cities. In 2017, the government introduced new Metro Policy which aims to improve collaborations, standardizing norms, financing and creating a procurement mechanism so that the projects can be implemented effectively.
- D. National Transit Oriented Development Policy, 2017:** The policy framework aims to promote living close to mass urban transit corridors like the Metros, monorail and bus rapid transit (BRT) corridors.
- E. Sustainable Urban Transport Project (SUTP):** The project in partnership with Ministry of Urban Development and UNDP aims to promote environmentally sustainable urban transport in India.
- F. Promotion of Electric Vehicles:** Indian Government plans to have an all-electric fleet of vehicles by 2030. For promotion of electric vehicles FAME (Faster Adoption and Manufacturing of (hybrid &) Electric vehicles. Under FAME, the central government subsidizes the cost of electric buses and has sanctioned 390 buses in 11 cities (as of April 2018).

G. National Clean Air Programme: It aims to meet prescribed annual average ambient standards at all locations in the country in a stipulated timeframe.

H. Launch of National Air Quality index (AQI): The AQI classifies air quality of a day considering criteria pollutants through colour codes and air quality descriptor. Further, it also links air quality with likely human health impacts.

I. The Indian government has decided to skip Bharat Stage-V and directly move to BS-VI from 2020. It has further agreed to advance the proposed date for Euro-VI from 2026 to 2020.

J. ODD& EVEN Scheme in Delhi: Under the scheme, cars with license plates ending in an odd number and even number are allowed to ply on alternate days. The scheme aims to cut down vehicular traffic by half, thereby reducing air pollution.

8. Environmental issues and disasters

Urbanization has led to serious degradation of the environment. Increased concretization has resulted in increasing temperatures and creation of urban heat islands with extremely low groundwater. Buildings, road, footpaths radiate heat waves in the evening, making nights as hot as days, thereby decreasing the difference between maximum and minimum temperatures, resulting in urban heat island effect. Also very little emphasis is paid on rainwater harvesting, greening and landscaping initiatives, prevention of flooding, conservation of water bodies, desilting of drains, protection of green cover, etc. Excessive tiling especially around trees and on footpaths increases surface run-off and prevents seepage of water naturally into the ground, lowering the already low water tables. Even short-duration rain spells cause urban flooding, with water-logging in many areas and overflowing storm water drains. According to recent study of NITI Aayog, India is facing 'worst' water crisis in history and demand for potable water will outstrip supply by 2030. Even higher rainfall regions like Meghalaya, Shimla are facing this critical situation. Sewage and wastewater drainage into traditional water bodies is further reducing the quality of water.

Also, illegal mining for building material such as sand and quartzite both on the catchment and on the bed of the lake have extremely damaging impact on the water bodies. For example, the Jaisamand Lake in Jodhpur, once the only source of drinking water for the city, has been suffering from illegal mining. Using water bodies to attract tourists has become a threat to several urban lakes in India. Ashtamudi Lake in Kerala's Kollam city has become polluted because of spillage of oil from motor boats. The government does not have data on the total number of urban water bodies in the country. Few cities have recorded water bodies because of court rulings. Union Ministry of Environment & Climate Change had not identified wetlands and no identifications of risks to these wetlands due to pollution of river water. Central Pollution Control Board (CPCB) had not identified the major aquatic species, birds, plants and animals facing risks due to pollution of rivers and lakes.

Remedies: Afforestation, use of porous tiling, avoiding concretization nearby trees, etc., avoiding use of glass on exterior of buildings, better urban drainage system, desilting of canals and drains, early warning system, rainwater harvesting, review safety limits of dams and canals and enhance their storage capacity, rejuvenating traditional water bodies, etc.

Government initiatives:

- A. Integrated approach to sustainable urban planning by empowering Urban Local Bodies in decision making and planning of flood mitigation infrastructure. Ex MMRDA's Venture Capital Funding to tap finances.
- B. Robust anti-encroachment laws.
- C. Sustainable slum management.
- D. Efficient Solid waste management and sewerage lines following Israel and Singapore model and in line with SWM rules 2016.
- E. Flood water draining network, in line with JNNURM vision.

Way forward

- **Set up a municipal services regulator:** An independent utility regulator should be set up at the state level to advise, regulate, monitor and adjudicate on desired levels and pricing of service delivery, equitable access to all urban citizens.

- **Introduce Citizen Charters:** Every municipality in the metropolitan area should produce a citizen's charter. It should contain comprehensive information on service levels for all urban services, time limits for approvals relating to regulatory services such as licenses and permits and the relief available to the citizens in case of non-adherence.
- **Use of Information technology:** It should also be used for time efficient provisioning of urban services.
- **Clarify roles of ulbs and parastatals:** It is necessary to create a sustainable and acceptable platform for ulbs and parastatals to work together. An example of this could be a service level agreement (SLA) led contractual arrangement between the two.
- **Establish State Planning Boards (spbs):** All states must constitute and strengthen State Planning Boards and mandate them with the preparation of state-wide strategic Spatial Development Plans (sdps).
- **Substantially increase investment in the urban sector:** Historically, India has under-invested in urban areas leading to a poor quality of life for urban citizens. To address this, India needs to significantly step-up its investments.
- **Introduce a Local Bodies Finance List in the Constitution:** A Constitutional Amendment to create a 'Local Bodies Finance List' should be made. It should clearly outline the revenue streams for ulbs including tax & non-tax revenues.
- **Encourage pricing of FSI:** It is recommended that beyond minimum FSI given as development rights, additional FSI should be selectively provided and charged for.
- **Create a Municipal Cadre:** A Municipal Cadre, covering the key areas of modern day urban governance and capable of meeting the ever increasing complexities in city management should be created.
- **Addressing supply side gaps:** In capacity building Supply side constraints posed a major hurdle to capacity creation under plan. For addressing supply side constraints, preference should be accorded to re-

orienting and augmenting such capacities in the existing institutions, both at the national and the state level.

- **Facilitate the creation of social/rental housing:** The focus on provision of rental/ social housing stock for the migrant population is a critical element in making our cities more inclusive.
- **Establish/strengthen a Unified Metropolitan Transport Authority (UMTA):** An UMTA's should be setup to focus on creating metropolitan level transportation plans which should be integrated with spatial and land use plans created by MPC/DPC.
- **Comprehensive Urban Transport (UT) Act for legislative support:** A law should be put in place to provide the necessary framework for setting-up umtas including clear articulation of its responsibilities, management of safety issues etc.
- **Universalisation of access to water and sanitation to urban areas:** This involves the universal coverage of all urban populations

for the minimum levels of safe drinking and household-use water along with a clean toilet, sewerage, storm water drainage and solid waste management.

- **100% metering of water supply:** Metering is essential for recovery of reasonable user charges and conservation. It acts as an incentive for those who wish to conserve water and a disincentive to those who waste water.
- **Ensure 24×7 water supply:** Yet another priority is to move towards continuous water supply. Intermittent supply leads to sucking of external pollution into the system during non-supply hours due to inadequate pressure, causing health hazards.
- **Include groundwater in water supply calculations:** While preservation and recharging of groundwater are increasingly receiving attention of city planners, there is a tendency to exclude this source from urban water planning which needs to include groundwater in water supply calculations.