

Sustainable Cities and Communities

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Abstract

According to the World Bank, more than 50% of the population lives in the urban area globally. Cities contribute around 80% of Global GDP. Hence it is imperative to develop cities sustainably. As cities are home for productive activities and income generation, cities are also affected by spread of informal slum areas, traffic congestion, pollution, lack of housing facilities and many more socio-environmental issues. Cities worked as attraction centre for rural masses, hence the migration from rural to urban increases the burden on existing cities.

Cities are becoming increasingly essential in the fight against climate change as their vulnerability to climate and disaster risk grows. Coastal areas are home to nearly half a billion people, making them more vulnerable to storm surges and sea level rise. There are 100 million people – or 20% of the population – and \$4.7 trillion in assets at risk of coastal flooding in the 136 largest coastal cities. Around 90% of urban expansion in developing countries occurs near hazard-prone areas and is accomplished through unplanned and informal settlements. If we think about just recent conflicts between community and government in India on the issues like Arey Car shed, Taljai Metro project, these are the signs of lack of sustainable city planning and community contribution. Neither politicians nor administrators have clear approach about sustainability. What is sustainable? we need to understand that sustainable means “something we create which can sustain for long time”. It would not only support current generation but also future generation. If we are planning or building anything keeping this definition in mind, we naturally grow towards sustainable environment around us.

What comes in mind when we say sustainable city? It's simple, city with affordable housing, better and rapid transport, clean water supply, sanitation, clean and fresh air and many amenities. To make it happen, in democratic nation like India, each and every citizen should contribute and take a part in sustainable project. Approaching every aspect of life is the way for sustainability, it is a challenge for us to pursue development with environmental preservation. Government should implement sustainable city plan with considering its economic, social, environmental and political needs. Yes! political needs, because regional or local politics is biggest force when it comes to real estate in urban area. We can't deny its presence in city's growth. Instead of making idealistic plan, touch of practicality will help to build more inclusive plan with less conflicts in future. National- International institutions like UNEP (United Nations Environment Program) should have access to connect with local governments. Education institutions and especially young minds must be influenced with sustainable thoughts by studying strategy implementations of these stakeholders.

In ancient literature we called this surrounding as ‘Prakriti’ which is more inclusive term than environment. we need to invoke that term again to realize that Prakriti reside inside of us, we are part of it. It is not something which we see outside, it is something which we are feeling and experiencing for every second. Hence to achieve sustainable city goal, it is time for us to enlighten ourselves with more inclusive approach and to get rid of utilitarian thinking system.

Keywords: Sustainable Cities, Sustainable Development, Green Finance, Urbanisation, Urban Planning, Sustainability

Introduction

Urbanisation is the most dominant factor when development takes place in any country. Either developed or developing one, if we surveys the regional development pattern, we could easily detect that the majority of the production and economic expansion is happening in urban area. Let’s take a look at Indian urban statistics, about three fourth of the GDP contribution is done by urban economy population. Current government is aspiring to achieve \$5 trillion economy dream by 2024. If we really achieve robust growth rate, then according to the CBER report it is possible that India could become \$9 trillion economy in 2030.¹ So just imagine how much urban sector will increase till then. But our cities are not completely flawless just because contributing the economy substantially. Many cities of India are suffering with congestion, traffic issues, lack of affordable housing facilities, expansion of slum areas, destruction of green cover and many more. To attain the UNDP SDG goal of sustainable cities, we have to strike balance between development and sustainable policy making. Just expanding and creating big economic turnover is not sensible way to make city liveable.

Sustainable city includes the clean energy, economic empowerment, low carbon industrialization and Climate action. Why are we pursuing the objective of sustainable cities, weren’t the cities used to nice places? Then what history says about city’s degradation and emerging need of sustainability. According to estimates, cities are responsible for 75% of worldwide CO₂ emissions, with transportation and buildings contributing the most. According to the most recent urban air quality database, 98% of cities with more than 100,000 people in low- and middle-income countries do not fulfil WHO air quality recommendations. In high-income countries, however, that ratio drops to 56%. The database has roughly doubled in size in the last two years, currently comprising 3,000 cities in 103 countries, with more towns recording air pollution levels and acknowledging the health consequences.²

Before proceed towards the sustainable city and community goal, it is important to know where exactly term sustainable comes from. After centuries of resource extraction, the signs of environmental degradation were started to become visible in people’s daily lives. That created a different kind of awareness in some scholar or appropriately in some sensible scholars. Then it became clear to look at the natural resources with different perspective, time comes when each individual should turn from utilitarian economy to sustainable economic approach.

¹ (Gupta, 2019)

² (WHO, 2013)

In its report titled "Our Common Future", the World Commission on Environment and Development (WCED) proposed the most widely accepted definition of sustainable development. The United Nations established this Commission in 1983 as a result of a General Assembly decision to consider environment and development as a unified issue confronting humanity.³ What did this report say? Report put forward some common concerns of the whole world. It directly points out towards the scary future which could become reality if we don't act quickly on the current issues. This common future itself questions the sustainability of the resource utilisation which was happening during those times and unfortunately even today. What is the point if we can't sustain whatever we have achieved? That's why the Brundtland commission comes up with following definition of sustainable development:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Now just ask this question to ourselves that did we achieve this sustainability in our city making? Are we making cities more liveable for future generation or vulnerable for people? I think answer itself gives you the situation of our megacities.

Our cities are facing innumerable problems. Before come to this what was the history of city?

History of the Cities

Harappa and Mohenjo-Daro, both of Indus Valley civilization (3000–1700 BC), are excellent examples of high-level urban design in Indus Valley towns. These cities had public and private sectors. Grid-style streets, and a comprehensive and sophisticated drainage and garbage treatment system. We can see that Mohenjo-Daro and Harappa exhibits the great amount of skilled urban planning. These were the urban areas of Indus valley civilization. Its drainage system, road system and public buildings show how any urban planner should build such things with keeping sustainability in the mind. We cannot find any kind of irregularity in residential structures. But modern city's construction forms are quite irregular. There is senseless spread of the city in our modern era. No perfect connectivity of roads, lack of space and most importantly inefficient waste and drainage system. Ancient cities can work as guiding light for sustainable city goal.

Another example of ancient civilization which can boost the need for sustainable city planning is Caral civilization, Peru. Recently international Union of architects prepared document and letter in the name of Caral, known as Caral letter. Caral city was discovered during 1948 and declared as World Heritage Site since 2009. UNESCO has honoured Caral as ancient engineering marvel.⁴ This civilization is 5,000 year old. Caral encourages the urban planning with harmonious relationship with nature.

What Inputs We could Take from these Ancient Cities?

In the ancient era, city was built in sync with nature. Ancient cities occupied limited area, it never spread or sprawl into nearby forest area. Nature was the uppermost priority for urban planners; they used to

³ (Wikipedia, 1987)

⁴ (NEOLI)

accommodate the structures according to the nature. Unlike us, where we are adjusting our own needs keeping nature out of our perspective.

There's one ancient which is quite interesting. The gravest concern of modern cities is congestion. But imagine if we started building walking pathways in the air. There is such example in the ancient Italian civilization, city named Matera. In Matera, the roof of one house can become street for the public. City was planned in such way, that people can connect to other part without using land.⁵ They can just use roofs of the houses. It will definitely help to reduce congestion.

Modern Urban Problems

It is quite clear now how our ancestors used to live. But don't you think it is quite contradictory to use word modern for our today's urban planning. When there are so many problems in urbanised area, affecting the environment and living standard of the people. Before understanding how we should achieve sustainability, it is important that we must look after the issues faced by current urban era.

1. Overcrowding

The biggest concern for world is population explosion and its burden over modern cities. In the search of good lifestyle, income and employment, many people migrate towards cities. But lack of space and housing creates the worrisome situation in the urban area. Slums are the nothing but the result of overcrowding. The exploitation of natural resources is unimaginable.

2. Sanitation

Naturally, overcrowding leads to the sanitation problems. This overcrowding made it tougher for local governments to develop advanced sewerage system. If we just look around the outskirts of any city, we can find the huge dumping grounds filled with non segregated waste. Lack of urban planning and senseless structure making is the biggest reason behind sanitation issue.

3. Affordable Housing

According to the most recent available data, India's urban housing deficit was 18.78 million dwellings from 2012 to 2017, with 95% of the gap affecting low-income people. According to the Foundations Strategy Group (FSG), there are between 26 and 37 million households living in slums and unlicensed housing in 2016.⁶ This data itself telling the grave situation of Indian cities, if low income groups are not affording the houses in the cities, where do they live? Of course it will overcrowd the slum area and destroy the sustainable way of living.

4. Pollution

This is one of the most typical urbanisation impacts. People crammed into small spaces and locations pollute the air, contaminate the water, and pollute the noise and soil. As population increases it will increase density of private vehicles, which will release more pollutants in the air. Pollution leads to health hazards which affect the human productivity. Less productivity eventually turns into least employment opportunities. This is the vicious circle.

⁵ (Lamia)

⁶ (Batra)

5. Traffic Congestion

Cities are the places where people reside and work too. Rarely people move outward for professional purposes. This obviously increases the use private transports. We have already discussed the problem of overcrowding, such overcrowding also happens on the transport aspect. Traffic congestion makes the environment of cities worst and unliveable.

Reasons behind Degradation of Urban Life

1. Lack of Urban Planning

If we look around any metropolitan city, we can find irregular building construction, Insensible road building and unplanned public transport. One of the worst conditions we can see at the outskirts of urban area where we can find mountains of dumps. The reason behind all these is lack of urban planning, there is no proper strategy applied while building urban settlements.

2. Regional Imbalance and Migration

Indian states have major disparity in development status. Some states have attained high level of development, whereas some states are crawling under the poor condition. This large gap encourages the migration from lower developed to higher developed areas. Mumbai, Delhi is the one of the best examples of over-immigration. People from states like Uttar Pradesh, Bihar came to these metropolitan in the search of jobs and better lifestyle. This results into the overcrowding in the metropolitan cities.

3. Population Explosion

One of the basic reasons behind urban degradation is population explosion in the country. We have little space but many people. Such a vast population creates tress on our limited resources. It eventually lead towards insensitive utilization of resources for nation building Then in the process nation succumbs to the unsustainable ways of development.

4. Sustainable Education

We do not have sustainable education curriculum. Students should be educated with the subjects regarding sustainable development. There is no natural touch while studying, which would enhance student's perspective towards sustainable nation building.

Way Forward

The Food and Agriculture Organisation has given many solutions to achieve sustainable city and community goal.

The solutions given by FAO are as follows:

1. Increase Urban Agriculture

One of the biggest concern for urban population is nutritional and food security. Higher level carbon emission and resulting global warming can be tackled through practicing agriculture in urban area. This will increase the food production and decrease CO₂ emission.⁷

⁷ (Food and Agricultural Organisation, 2020)

2. Efficient Waste Management

Each year cities generate tonnes of waste and dump. That could create health and environmental hazards for the public. Hence local authorities should follow the efficient waste management techniques. Segregation and dissolutions should be done in sustainable way. Every governmental authority prioritises recycling method for waste management techniques.

3. Diet Education

We can educate hotel industry about food making and diet. It is very important what material we are using to make cuisine delicious. And most importantly we should make urban area self-sufficient in food availability. So extraction of resources around the urban area will be minimised.

Economic Aspect of Way Forward

1. Promote Green Financing

Any urban settlement or new project cannot be built without financial support. So it is important support must be get with objective of sustainable development. Government and private sector should promote the green securities like green bonds, green debt securities. So people get educated about sustainable projects and inspired to invest in such plans.

2. Financial Autonomy to Local Self Government

Urban issues or town infrastructure related issues come under the jurisdiction of panchayat raj system. We have adopted and included additional schedules in constitution to provide powers to the local self government. With the help of NITI Aayog, certain percentage of budget must be devoted towards spending on sustainable development projects.

3. Subsidy and Tax Holidays to Sustainable Start-ups (CSR)

India launched various schemes like Start-Up India and Stand-Up India for promoting entrepreneur spirit in the country. Authorities should incentivize certain start ups and businesses, wherein they are producing sustainable commodity or having sustainable process of production. Incentives like subsidies and tax holidays will empower sustainable start ups to run with great capital base.

Conclusion

Sustainable city and community is not just aspiration but it is an need of an hour. We as a planet are interrelated to each other. We cannot treat environment as a separate entity, where we declare ourselves as a protector of it. But we are integral part of this 'Prakriti'. Here we are not favouring the environment; here just we are taking care of our own future survival. Hence let's be selfish and endeavour for sustainable world. We have economic tools, legal tools, administrative mechanisms and social power. by utilising these all instruments , we can gain our nature back with its glory. Cities are places where people are largely spending their lifetime, so achieving this sustainable goal must be start with city planning.

So, as democratic nation, our government is elected 'for the people' and 'by the people'. The latter's participation and contribution will play major role in achieving sustainable development goals.