

Planning Strategies for Self - Reliant Town

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Abstract - India is currently witnessing a faster increase in urban population and a rapid increase in population due to the convergence of rural population to urban. The proportion of the population has experienced a significant increases which is living in urban areas, especially during the past few decades. The growth of urban population is expansion as much faster since 1981 when it accounted for 24% besides about 38% in 2011. This trend is expected that it will become more conspicuous in the coming years because of industrialization and migration from rural to urban.

In this growing scenario, the rapid urbanization has carry in its wake a number of economic and social as well as civic problems. So that, the small and medium town have become the worst victims in India. The larger proportion of financially strong are lived in urban areas so that, the power of metropolitan centers are more as compared to small and medium towns. The utilization of resources, services and facilities are more concentrated in the developed areas which are help to increase the number of employment and migrations. The town planner of our country should involve a new strategies to develop and growing small and medium towns of the country and deliver more emphasis on them for their appropriate urban growth, so that rural-urban movement contained in them. Thus, immigration will not crowd the developed cities and the pressure will be decreased from the larger cities. Parallel development for urban-rural is to be undertaken and to check immigration to larger and metropolitan cities as self-reliant areas.

Key Words: Convergence, migration, town planner, immigration, self-reliant.

1. INTRODUCTION

By 2050, over than two thirds of the globe population are projected to live in urban areas, and most of this urban growth will happen in lower and lower-middle income countries.

But densely built-up urban spaces tend to come back with challenges of their own. Therefore, there's a necessity to start out ensuring today that these urban areas are going to be safe, inclusive, resilient and sustainable around the areas.

Convenience is that the most objective within the fashion of economic, social and living amenities to run to the people within town, to produce all infrastructure and residential amenities to the people which they required for living purpose.

1.1 Concept of Self-Reliant Town

A self-reliant town can offers a good quality of life to current residents but doesn't reduce the opportunities for future residents and it interacts with nature, about availability of social amenities like healthcare, education and sanitation.

They will be self-sufficient, self-managed and self-governed units, with well-defined and well-designed residential, commercial, retail and recreational areas; self-owned and created infrastructure, integrated waste management systems, water resource management systems, and other amenities in place thus reducing the pressure and dependency on the other cities.

1.2 Characteristics of Self-Reliant Town

1. Resources and services within the town are accessible to any or all.
2. There is access to affordable housing.
3. Public transport is safe and reliable.
4. Areas of open space are safe, accessible and enjoyable.
5. To enhance the standard of life for the people.
6. Making town economically productive and more equitable.
7. Promoting social equity and inclusiveness within the town.

1.3 Urban Sustainability

A city is sustainable if it bring out the different dimensions of development and their approaches:

1. **Economic** – a city with a healthy, productive, and responsible economy.
2. **Social** – a city promoting social inclusion and quality of lifetime of its residents.
3. **Environmental** – a city adopting ecological practices to safeguard its environment.
4. **Institutional** – a city governed in transparent ways, while appealing its residents.



Fig -1: Sustainable development pie chart

1.4 How are sustainable city created?

In other words, to form a sustainable urban environment, it's decisive to live and assess policies, socio-economic factors, infrastructure, resource use, and emissions and the other processes that share to and take advantage of the city's metabolism, accomplishment and quality of life. This may allow town planning authority's officials, and governments to identify areas of opportunity as well as involvement to respond by developing rational sustainability goals with a long-term prospect.

For example, economic productivity and efficiency depends on healthy and happy citizens, who need easy access to healthcare, food, education, security, water, transport, electricity and clean air.

Such a perfect situation are often created when cities build adequate waste disposal systems, green spaces and buildings and public transport and attract employers generating green products from local resources for local markets. Here, the attitude and lifestyle of city-dwellers plays a role.

It is also essential that cities are reduce natural resources utilization (including water, sand and materials like stone and pebbles) and waste production impression, and that they modify land-use efficiencies (exclusively the reuse of greenfield land and brownfield land) so that negative environmental impacts are decreased.

In inclusion of urban system stakeholders must be consider how the resources will get into the city. How far away from the farms that will supply the meat and fresh produce? What mode of transport is used to bring materials? Must water be charged into the city from a low-lying area?

Finally, a combine approach to urban governance that will be extends past urban restrictions to the surrounding area is important to promote a sustainable aggressive relationship between their environment and human, ensuring that both quality of life and eco-friendly businesses are advertise, which also sustains economic growth in the long run.

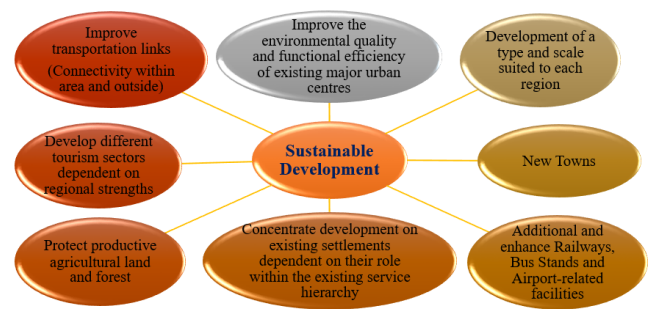


Fig -2: Sustainable development features

The conclusion of suitable urban sustainability indicators and in combo with the models, case studies and other research can inform urban policies adjust toward reaching sustainability goals, and encourage use of indicators allow for ongoing estimate of interventions. That is to say indicators are opener tool for driving science based management and urban planning.

1.5 Indicators for Sustainability

Table -1: Sustainability Indicators

Sector	Indicator	Measures
Economy	Unemployment rates/ Jobs	Unemployment/employment/unemployment rate % of green jobs in the native economy; Average professional education years of labor force
	Economic growth	Annual GDP growth rate; Annual GNP rise rate; Net Export hike rates (% increase of country's total exports - the value of its total imports/annum; Foreign Direct Investments, Capital and Earnings accrued from listed FDI's per annum.
Environment	Green spaces	Percentage of conserve areas/ parks / reservoirs/ waterways/ in relation to complete land area; % of trees in the city in relation to city area and population size.
	Reduce greenhouse gases/ Energy efficiency	Total amount of Green House Gases emissions / city & /capita; % of total energy consumed in the city that comes from renewable sources of energy.
	Mobility	Transportation modal split (% of each mode of transportation like private, public, bicycles, pedestrians); Average commute

		time and cost.
	Water quality/ Availability	Combine amount of water availability; Water quality index per score; Proportion of population with access to adequate, and safe drinking water.
	Air quality	Levels of Particulate Matter (PM10 – mg/m3); Levels of Particulate Matter (PM2.5 – mg/m3)
	Waste/ Reuse/ Recycle	Recycling rate and (Percentage of diverted from waste stream); and volume of solid waste produced.
Social	Complete neighbourhood/ Compact city	Access to local and to neighbourhood services in a short distance; Crime rates; and Measures of income distribution and inequality.
	Housing	% of reachable/ affordable/social/ priority housing; Breakdown of housing sector by property type (owner occupied/ single occupant/family/multifamily etc.)
	Quality public space	% of roadways in better condition; and % of green space (public parks) coverage in relation with the city area and population size.
	Education	Number of schools with environmental education programs and other related subjects and Adult literacy rate.
	Sanitation	% of population with access to waterborne and alternative sanitary sewage infrastructure.
	Health	Mortality rate/ Life expectancy; % of total population with access to health care services.

The current pace and extent of urbanization in India will quickly result in the majority of its population residing in urban areas, which may intimidate its sustainability.

The development of self-capability is a require, while the convenience is in creating growth which is socially inclusive and environmentally friendly.

2.1 Theories of urban landuse

- Landuse can be defined as enterprise or have any development which occupied land.
- It could also be termed as human use of land or human activities such as on land, which means that this idea deal as much with the people as with land.
- Knowledge of how a cities and town will be using its land is initial point for planning the town or city.
- Accurate information regarding a particular type of the land which its being put to use or its aspect, condition, height of building, size of all other buildings and structures and their coverage of entire space is essential for the preparation of development plan.
- The landuse pattern of particular town and city is unique though most of the cities or towns are accommodate residential, commercial and industrial areas.

The compromise of these landuses can be accepted by studying the various theories given by different scholars. Such theories are disclose as follow.

1. Concentric Zone Theory.
2. Sector Theory.
3. Multiple Nuclei Theory.
4. Work Home Theory.

2.2 Evolution of Towns

Most of the initial civilization have bound on the banks of some navigable rivers or at any natural harbor or any port. Which is not only provide security to the town and city but also acted as a communicating and connecting link with one civilization to another. Physical Safety and intelligence links are the two main factors which lead to the evolution of towns. The earliest civilizations were seen on the banks of rivers like, Ganga, and Sindhu.

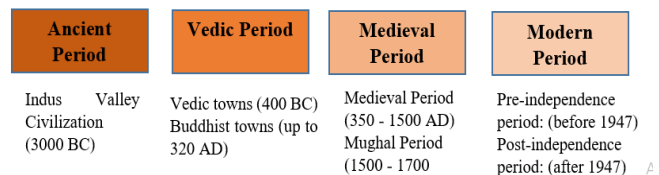


Fig -3: Development of towns periodically

2. URBAN AREAS AND GROWTH STRATEGIES

The last short decades have experienced remarkable urban growth in the developing world, especially in the Asia, South Asia, and Africa. Where a four times increase in the built up urban area (up to 0.8 million square km of cities and towns with million plus populations) from year 2001 to 2031 is projected.

Indian cities occupy 10% of the world’s total urban area and house more than one tenth of the world urban population.

2.3 Town planning in India

Meaning of Town Planning: An art of shaping and accompany the physical necessary growth of the town constitute buildings and environments to meet the different needs such as social, cultural, economic and recreational etc.

To provide healthy conditions for both the rich and the poor to live, to work, and to play, enjoy and to relax, thus bringing about the social and economic and well-being for the majority of mankind.



Fig -4: Role of town planning

2.4 Aim and objective of Town Planning

Table -2: Aim and Objective of town planning

Health	Convenience	Beauty
<p>1) To create and promote the healthy conditions and environments for all the people's.</p> <p>2) To make adjust use of the land for the right purpose by zoning.</p> <p>3) To ensure precise development.</p> <p>4) To avoid encroachment of one zone to over the other zone.</p>	<p>1) The Social, economic, cultural and recreational facilities and amenities etc.</p> <p>2) Recreational facilities and amenities - open spaces, parks, gardens & playgrounds, town halls, community centers, cinema houses, and movie theatres</p>	<p>1) To preserve the individuality and identity of the town.</p> <p>2) To preserve the aesthetics beauty in the design of all elements of the town and the city plan.</p>

2.5 Different types of plan

1. Structural Plan:

- A framework plan is one that available out for attention of the convinced aspect of the environment usually the land- uses and the main movement systems of the location of critical facilities and buildings.

- Such a plan focuses to influence the certain key professional decisions while recognizing that there are many other things which can't and may should not be decided at the outset.

2. Comprehensive Plan:

- The comprehensive and integrated plan seeks to combine in single document the prescriptions for all aspects of the city development.
- It combines an analysis of the city economy. Its demographic characteristics, and the history of its structural development as a preface to plan for how city should evolve over 25 year's period.

3. Developmental Plan:

- Means a plan for the development or redevelopment and to implement or improvement of the area within the jurisdiction of a planning authority.
- It includes a local and regional plan, master plan, detailed development plan and a new town or city development plan

2.6 Development policies for Town Planning

Levels of Policies and Schemes are:

1. Central Planning policies
2. State Planning policies
3. Regional Planning
4. Macro – level planning (Development plans)
5. Micro – level planning (Town planning schemes)

Development Plan and its contents

- Development Plans are processed to achieve a regulated growth of urban settlement which forms a part of the regional and local plans.
- Administration of the development plans are usually urban areas in the case of medium urban settlements and it includes the surrounding inter-dependent areas in the case of major urban settlements.
- The perspective plan period for such development plan is generally 15 to 20 years.

2.6 Development Plan approach: Concept, objective and function

- To model development of a town or city in an orderly manner so as to enhance the quality of life of the people.
- To establish and coordinate the complex relationships bounded by urban land uses.
- To chart a development for growth, evolve and change, be responsive to change and maintain its effectiveness over the time and space, and be subject to continual review.

- To explicit physical development of the town or city in relation to its economic and social characteristics based on integrated surveys and studies on the present status and the future growth prospects.
- To arrange for resource mobilization plan for the proposed development and redevelopment works.

Existing Planning Parameters for Development Control are:

- Control density.
- Minimize negative impacts which will be created over the adjacent properties such as vibration, noise, construction activities and to provide privacy.
- Control and regulate the traffic generation and system.
- Greatest utilization of available and the planned infrastructure.

2.6 Challenges for self-reliant town

- Urban planning in India has commonly taken the form of master plans, frequently developed and implemented by specially constituted development authorities which are outside the attention of the local and regional administration and hence not directly liable to the local population.
- The shortage of coordination between urban planning and local governance.
- The challenges of urban housing, exclusively for low-income populations, infrastructure provisions, and the delivery of a variation of urban services including water, sanitation, education, and health, are long-standing interest for Indian policymakers.
- According to the current National Sample Survey reports, there are over 75 million poor people living in the cities and towns of India.
- In terms of services, Indian cities diminish behind on almost all counts. It is predicted that water supply is available for an average of 3 hours per day, across all Indian cities and towns; less than 20 % of waste water is treated; and solid waste management is grossly deficient.
- National benchmarks have currently been developed for the four key service sectors are water supply, sewerage, storm water drainage and solid waste management.

3. ANALYSIS

- In the last decade, India's perspective on urbanization has undergone a paradigm shift, with urban planning being brought to the forefront of development and planning of policymaking.
- The aspect that cities are central to increase the country's economic growth and development is achieve wider acceptance, strengthened by the

increasing addition of the urban sector to India's GDP.

- Even though their positive contribution to urban centers can also lead to inability, congestion, and resource are clash if they are not managed and planned carefully.
- In specific, the provision of common and useful urban services like water, sanitation, sewerage and transportation has already become important factor for the development challenge in most urban centers.
- The idea behind to formulate the modern and useful development to make a sustainable and self-reliant city to improve the overall quality of life and engagement with citizens.
- Accordingly, the purpose of the self-reliant is to drive economic growth and improve the quality of life of people by enabling local area development.

3.1 Planning Strategies

Broad Provisions

- The State Regional and Town Planning Board has a constitution by the State Government for the determination of advising on the delineation of the region for the manage and planned development.
- The framework of metropolitan, regional and local area planning and development authorities for different rural and urban areas within the state to initiate preparation of development plans:
 1. To enforce and implement them properly within the given areas.
 2. Co-coordinating with the different authorities and planning and implementation of physical development programmes under the officials.

Model Law provided 3 steps for the administration of this law are:

- The preparation of present and existing land use map.
- The preparation of describe the development plan, integrated and comprehensive development plan and their enforcement.
- The preparation of detailed schemes of development or redevelopment as anticipated in the plans and their implementation on ground.

4. CONCLUSIONS

Good Governance: The scope of local governments must be strengthened to bring out their responsibility for the proper provision of infrastructure and services to all urban residents. When they planning for the future growth and development as the capacity of provincial, state and national authority's regulating the system to establish facilitating public services.

Legal System: The proper and manageable property rights and security of tenure are critical to sustainable approaches to upgrading the system of any town or city.

Financial System: Approach to credit is the key to unleashing and involving the vast potential of the urban poor to improve their living condition and working environments and their livelihoods.

Social Framework: The Community participation is important in the conception development, financing and upgrading of infrastructure and services is an important element of sustainable programs.

REFERENCES

- [1] <https://www.slideshare.net/upasanaoops5/evolution-ppt-44318958>.
- [2] <https://www.slideshare.net/juhi4shah/town-planing>.
- [3] <https://townplanning.gujarat.gov.in/planning-development-policies/micro-level-planning.aspx>.
- [4] <https://www.slideshare.net/hhaybat/sustainable-cities-himmethaybat>.
- [5] <https://www.slideshare.net/kadabamukund/copy-of-sustainable-urban-development-ppt-presentation>.
- [6] <https://www.geospatialworld.net/blogs/self-sustainable-city-smart-city/>.