

Tool for Sustainable Environment Study about Sustainable Regional Plan

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Abstract

Urbanisation creates both drastic positive and negative impact on the environment. This study is made in order to find the functions of sustainable principles in regional plan for the holistic stable integrated development. Urbanisations, industrial revolution, urban sprawl, open spaces as well as the defined settlement patterns are transformed and disintegrated into various forms with different characteristics, so that the nature of environment are also changed. This research is made in order to emphasise the importance of urban planning as a tool to achieve the sustainable environment. Sustainable regional development plays a vital and vivid role for the future generations by protecting the existing present resources.

Keywords: *Development, region, regional plan, sustainability*

INTRODUCTION

The ability of the urban environment to withstand over a period of time requires the sustainability approach. Physical planning is the prime tool in order to achieve the orderly development. Sustainable Regional Development (SRM) is the integration of sustainable principles in regional plan. Brundtland Commission defines that sustainable development is the enactment of the present development interrupting the ability of the upcoming generation. This study is important to check the over exploitation and wastage of natural resources and to curb or prevent the environmental degradation from the rapid urbanisation by regenerating the renewable energy resources for the safe and quality human life through planning. Despite this, it is still broadly acknowledged that there is no one way in which to achieve sustainability.

Sustainability and Integration

Sustainable development is a concern that planners have always had to consider in a spatial context. But in the present, planning development and the

methodologies adopted have not been ended up in the sustainable cities. Whilst, it is widely acknowledged that spatial systems must strive the sustainable aspect which is especially relevant to the Indian context that still have to be overcome. The main goal of sustainable regional planning is to develop the urban environment that promotes and reflects the integration of social, spatial and economic factors. The integration of sustainable concept can be divided into four aspects such as Functional, social, economic and spatial integration.

Social Integration

The one diversified and vibrant population mix has to be considered. The up gradation of the existing urban environment and the promotion of new developments should take place in a wider planning framework that seek to integrate the community and tend to achieve the sustainable settlement. Sustainable social integration includes the catering of different cultures, age group and income groups to achieve the community belongings.

Social integration is beneficial in many ways including:

- Social interaction can be achieved through integration of economic activities.
- The enhancement of available human resources and capacities in communities.

Economic Integration

Economic segregation occurs when different economic classes are spatially divided. This can be seen in the outward migration of higher-income households to the suburbs, while a high concentration of lower income households remain in city centres. Economic Integration can be achieved through the provision of spaces and opportunities that accommodates the full range of economic requirements such as Growth centres, Small-scale selling and Commercial activities. Economic integration can also be achieved through increasing employment opportunities.

Spatial Integration

Regional approach is the nutshell in the integration of various talks, which includes the villages and urban areas. Spatial imbalance and lack of coherence might undermine the objective of economic and social integration. Positive influence of the spatial integration can be influenced by: High levels of connectivity between transport systems, Physical and functional complementarities between areas.

Sustainability and Integration translated into Planning Principles

Sustainable Regional planning relies on defining the planning principles that promotes the need and the importance of applying planning principles to achieve sustainability. These principles are:

- Poverty alleviation and the satisfaction of basic needs
- The environment – physical, social and economic
- Participation and democratic process

- Local economic development
- Accessibility – public transport and pedestrian focus
- Mixed use development
- Green Corridor development
- Densification
- Reducing urban sprawl

All the principles are interrelated and should be applied as a whole in the planning process as to enhance the overall sustainability and integration of developments.

Implication of Sustainable Principles on Regional Plan:

Land Use Action towards Sustainable Development

- Controls the urban expansion in the encroached areas and development on the outlying areas.
- Brown field sites such as land under remediation and redevelopment areas suffers due to the spatial and environmental constraints.
- Introduce home-based occupations and work that reduce the need to drive and/or commute.
- Promote regional planning that respect the regional ecosystems and natural functions including local food production that reduces need for long-range transport of food.

Transportation

- Reduces the need for vehicle trips through infill development, and mixed use development.
- Introduce the use of alternatives to the drive-alone automobile e.g. car-pool, park-&-ride, and public transit etc.

Infrastructure

- Design approaches and regulatory systems that focus on pollution prevention, re-use and recycling.
- Promote innovative greenhouse sewage treatment facilities to minimize or eliminate the use of chemicals.

Shelter

Community development encourages the social cohesion, reduction of isolation and promotes community spirit and insists the sharing of resources. Create clustered residential development, including reduced minimum lot sizes.

Open space / recreation Creates systems of green spaces within and among communities.

Planning processes: Integrally involving local community residents in setting the vision for and developing plans for their communities and regions.

Regional plan binded with four major aspects such as Equity, Prosperity, Health and Sustainability.

The strategies outlined can be achieved by four action areas that represent major challenges and areas of opportunity such as Institutions, Climate change, Transportation & Affordability.

Greensward: So far only protection of natural areas was focused. Now it has been extended for setting up of metropolitan green belt. Metropolitan green belt has been created to protect open spaces that will safe guard the region's environmental infrastructure while encouraging and celebrating resource efficient patterns of growth by preventing suburban sprawl. It also creates a regional network of greenways. Regional Planning approach prefers locally controlled sub-regional commissions that would manage the vital natural systems. Eg: long island pine barren commission.

Centres: This campaign aims for locating new jobs in the centre itself than in the sub-urban to strengthen the region's CBD and enhance opportunities for new commercial and residential development. Eg: Crosstown in Manhattan District. The strategies are,

- Integrate transit improvements.

- To build a Light rail system.
- Improves new commercial and residential development opportunities.

Strengthen inner-city communities, Reclaim derelict sites for development and to Facilitate suburban residential and commercial growth into transit oriented and pedestrian friendly centres.

Mobility: Upgrading the existing transit by creating a regional express rail system and building new routes which will reduce congestion. It can be achieved through physical changes in the roads and tolls and also by improving the commercial transportation.

Workforce: Introducing a system that connects education with work, the new workforce to the mainstream, labour market to jobs with physical and social infrastructure.

Sustainable Regional Planning Approach in Indian Context:

- Lack of Whole to Part approach
- Efforts of the decentralized planning without adequate regional plan with district as regional planning units are expected to yield poor development outcomes.
- Unplanned and unsustainable megacities are booming in India which results in development of slums and industrial developments only on the urban sides and lack of facilities on the rural sides.

CONCLUSION

India, which comprises of geographically a vast area consisting of significant environmental, economic and social variations, is the most suitable place for regional planning to reduce spatial inequalities. The impact of urban explosion and planning for the future should happen in balance by keeping in mind the demands of high growth as well as it should ensure sustainable growth also.

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