Urban regeneration of ghost cities

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Abstract. Ghost cities are abandoned urban area, town, or city, usually one that contains substantial visible remains. Cities are socio-technical systems, precariously integral, capable of growing as well as becoming smaller and fragmented but still functioning. Even though they have a resilient inherent quality, many cities around the world are witnessing slow death. The reasons could be ecological and social debasement, diminishing opportunities for the young population, moving of financial focuses, poor administration, loss of character and so. Thus, a ghost city is reflected in everything from that point, in its type of capacity and in particular the functionaries – the city dwellers. Ghost cities are relinquished urban zone, town, or city, normally one that contains as yet existing noticeable remains. The greater part of the cities is confronting decline of social, economic, physical and environmental issues. Urban regeneration the practice to overcome the decline of the vitality and viability of town centres across several cities world over. Project handles the issues of decline and urban decay, have structured complex processes of urban regeneration. The regeneration strategies are mainly based on Enhancing & Protecting Social values, Development of Economic values, Improvement of Physical & environmental values. Urban regeneration is interlinked missions creating clean, sanitized, healthy, liveable, economically vibrant and responsive cities propagate Planning as a fundamental tool for sustainable development. Urban regeneration processes focusing on all elements of an area that help contribute to the creation of a more sustainable city and environment.

1. Introduction

Cities are socio-technical structures that are capable of functioning with development or fragmentation. Cities have a resilient in-built quality. But it is observed that many cities around the world are dying slowly. The reasons include environmental and social degradation, falling opportunities for the youngsters, changing economies, weak governance, Character loss, etc. The dying city affects the way a city functions and has great impacts on the city dwellers.

A ghost city is a settlement that has declined and has been completely abandoned, with the consequence that the site's prior importance was no longer recognized by the world. Many lost cities have been overlooked, but some have been revived and planned for. Urban regeneration is a phenomenon of redeveloping a city that has gone through urban decay by strengthening its core aspects.

Every city has a unique character, characterized by features like colour, smell, form, sound, texture and culture, understood as the urban fabric. A city’s unique character is represented by its texture, landscape, a dense weave, a focal node, a captivating maze, etc. Thus, similar to a fabric, a city has a pattern, a print and colour which changes or evolves with time. The city voluntarily or involuntarily...
takes in the cultures and traditions when it tries to accommodate the migrant population and loses its basic character for better or worse.

It is essential to plan for the inevitably transformation of a city. Ministry of Urban Development, Government of India embodies an awareness of a paradigm shift that is taking place in addressing the challenges faced in unplanned urban transition. These interlinked Missions poses an objective of creating clean, sanitized, liveable, healthy, economically vibrant and responsive cities. Urban regeneration practices focus on elements of an area that help in creating a sustainable city.

The research attempts to formulate strategies to regenerate ghost cities by understanding the common features and reasons behind ghost cities. It includes different dimensions of regenerating ghost cities based on the best practices and analyzing different methods used.

1.1. Methodology
The study is conducted as a “desk-top research”, which includes a re-evaluation of literature related to it. The research is purely based on qualitative analysis. Literature review is carried out to understand the basic concept, features and reasons of Ghost cities. Research goes in depth of understanding the concept of urban regeneration and familiarising the similar concepts to the study. Addressing the objectives of the study, literature case studies were carried out nationally and internationally to understand the best practices already done in this field. Sustainable urban regeneration is based on multidisciplinary approach. Strategies derived for regenerating ghost cities are based on the analysis carried out from the best practices and recommended methods of sustainable urban regeneration.

2. Ghost Cities
Ghost cities are relinquished town, town or city. Normally this contains as yet existing noticeable remains. A town frequently turns into a ghost town on the grounds that the financial idleness which was dynamic and has fizzled or it could likewise be because of normal or human-caused disasters, for example, floods, delayed dry spells, government activities, uncontrolled disorder, war, contamination or atomic fiascos. The term can once in a while refer to cities, towns, and neighborhoods that are as yet populated, however relatively not exactly in past years; for instance, those influenced by abnormal amounts of joblessness and carelessness in all areas of development.

"A town for which the reason for being no longer exists “- T. Lindsey Baker, author of Ghost Towns of Texas.

2.1. Similar Concepts
Dead cities- a town or a section of a town that has been abandoned by people due to an epidemic outbreak, an approaching natural calamity, a probable attack from enemy or some other circumstances. The once densely populated city has now become a dead town.

Shrinking cities-or urban eradication are dense cities that have encountered eminent populace loss. Resettlement (relocation from a place) is a typical purpose behind city shrinkage. Since the framework of such cities was worked to help a bigger populace, its support can turn into a genuine concern. Lost cities – City in to terminal decline and turned out to be halfway or totally uninhabited. The areas of many lost cities have been overlooked; however, some have been rediscovered and concentrated broadly by researchers.

Other similar concepts related to ghost cities are Derelict town, Barren cities, sleeping cities, Forgotten Cities, Frozen cities, Inactive cities and abandoned cities.

3. Cities are becoming Ghost
Cities may move toward becoming ghost for a variety of reasons including Natural and man-made catastrophes, Economic and social disaster, War, Disease and sullying, Environmental corruption, shifting financial focuses, Poor administration, Loss of character, Diminishing open doors for youthful populace.
4. Urban regeneration

"Urban regeneration is the attempt to invert that decay by both enhancing the physical structure, and, all the more imperatively and subtly, the economy of those regions. It includes the rebirth or reestablishment of urban regions which tends to financial issues, statistic changes, underinvestment, auxiliary or patterned business issues, racial or social strains, physical decay, and physical changes to urban zones.

In the real terms demonstrates not exactly the administration and planning of existing urban regions as opposed to the planning and improvement of new urbanization. Regeneration of urban space can happen through different systems and typologies of exercises, among which the rule is:

- Re change of neglected properties, brownfield and open structures into new capacities and/or profitable models Improvement of public space.
- Improvement of open space.
- Development of portability and foundations ready to support the renewal of corrupted or clogged zones.
- Area based social mediations to enhance impeded neighborhoods.

Once in a while urban regeneration intercessions are entirely classifiable just in one of these modes. For the most part an effective regeneration process requires more, if not these activity types to be incorporated in an integrated technique including spatial change, social intercession, infrastructural support and administration advancement.

5. Case studies and it’s analysis

Table 1. Case-studies and its Analysis

| Case Study                  | Main Driving Force | Reason To Become Ghost | Sectors Affected By The Decline | Regeneration Process                                                                 | Main Driving Force |
|-----------------------------|--------------------|------------------------|---------------------------------|--------------------------------------------------------------------------------------|--------------------|
| Hampi, Karnataka            | Commerce, pilgrimage centre | War (Vijayanagara empire & Deccan sultunates) | Social Economy | Protection of culture and heritage | Tourism |
|                             |                    |                        | Economic Environment | Tourism promotion | Conservation of existing building | IT |
|                             |                    |                        | Environmental | Real-estate | Cheonggyecheon stream restoration, green public spaces, elevated high-way, eco-friendly water front, pedestrian development | commerce and industry |
| Seoul, South Korea          | Industry           | Political war (South Korea & North Korea) | Social Economy | Cultural activeness, mixed use development, enhanced local communication | Real-estate | IT, commerce and industry |
| Norra Alvstranden, Sweden   | Industry           | Industrial decline     | Social Economy | Communication and knowledge intensive city, mixed use development | IT cluster and office spaces | Mixed use residential apartments, development of river front, Landscaping, shopping centre |
6. Identification of ghost cities

**Reason behind may.......**
Natural and man-made disasters, Economic & social upheaval, War, Disease and contamination, Environmental degradation, Shifting economic centers, Poor governance, Loss of character, Diminishing opportunities for young population

![Diagram showing the identification of ghost cities](image)

**Figure 1.** Identification of ghost cities
7. Prioritization

Figure 2. Prioritization

8. Strategies

Figure 3. Principles of strategies

In most of the cities the problems arising from the decline have been of a social, economic and environmental nature. So, the strategy is based on enhancement and protection of social values, development of economic values and improvement of physical & environmental values.

8.1. Enhancing & Protecting Social values

- Integrated approach by analysis of social and community issues behind the decline of the city beyond.
- Social structure as a guarantee for urban management and urban morphology as a working tool which enhance community participation as key to responsible development.
- Make common grounds rather than encouraging conflict by enhancing and preserving culture, heritage, arts, tourism, innovations, viability, prosperity, competitiveness, opportunity, etc.
• Formation of uplifting frame of mind towards shared coordinated efforts between segments, instead of keeping up an open private division separate.
• PPP- wide range partnership approach, initiatives and policies.
• Holistic approach across local area, recognize and enhance local community input with Build-up on the strength of members of the community.
• Updated telecommunication technology.
• Inclusive mixed-use urban living with an emphasis on area based and local initiatives.
• Smart citizens, smart energy - training and guidelines.

8.2. Development of Economic values
• Approach by analysis the cause of decline in economy and assessment of early attempts at economic regeneration.
• Enhance traditional & indigenous occupations and Improve employability of local people by raising skill levels and providing training.
• The economic model as a driving force for change and Stabilize local government.
• Increment the business prospects for inhabitants by expelling boundaries to work.
• Create and safe guard jobs with Promoting local enterprise development through support for enterprise training, financial and managerial assistance.
• Matching work skills with current and future work opportunities. Economic regeneration integrated with future considerations.
• Partnership approach.
• Economic transition and employment change
• Built up and develop the potential of the indigenous firms and skills in the area.
• Encourage “micro-business” through self-employment.
• Introduce “minimum wage” scheme and changes to the tax & benefit systems, intended to “make work pay”.

8.3. Improvement of Physical & environmental values
• Reform the character and activities, urban land as physical basis of transformation.
• Environmental quality and sustainable development, Energy efficient construction techniques, Improvements and maintenance of landscapes and environment, Sustainable and efficient use of resources, materials, protection of biodiversity, measures to improve air quality, measures to control depletion of ozone layer & global warming.
• Flexible approach to the application of building regulations. Relaxation of regulations
• Grant for the use of derelict and contaminated sites which don’t have any market value.
• Urban mobility as an inherited right, promote public transport, Improvement of transportation facilities & infrastructure, Road system development in response with vehicular growth and population growth, encourage patterns of development which reduce the needs of travel, integrated land-use and transport planning, Energy efficient modes of travel to control pollution. (e.g. cycling, solar cars, hydrogen cars, etc.)
• Enable citizens to gain greater access to services facilities like, health care and hospitals, schools and educational institutions, court, police station, transport hubs, religious buildings, library, museums and parks, town halls, etc.
• Adaptive reuse of infrastructure
• Advance mixed-use improvement, Improvements to lodging stock, Re-portion of occupants assuming any and consideration should be paid to the limitations that the physical stock is presently setting on nearby firms and any significant needs in the arrangement of foundation and administrations.
• High-quality architectural design as a catalyst for a better City
• Promote the use of renewable energy.
• Efficient and innovative technics to control waste disposal and pollution.
8.4. General strategies

- Approach by analysis of current situation and beyond.
- Study about causes and consequences of urban change.
- “Bottom-up” and “Top – down” approach for long term perspective.
- Futuristic and sustainable development with the aware of strength & weakness of the city, maintaining a unique sense of place.
- Realistic and capable of being translated into specific policies, objectives and actions. Emphasis on overall requirements of an area, rather than stressing the potential of an individual project.
- Resolution of issues in a reasonable, requested and positive way; Make the most ideal utilization of normal, financial, human and different assets, including land and existing highlights of the constructed condition;
- Set clear operational objectives which should, where ever possible, be quantified;
- Resilient, future-proof city through citizen engagement.

9. Conclusion

The demand for city centre living has increased considerably in recent years, in response to economic and social factors. Changes and facilities in urban areas lead to the demand for buildings and land within. In most of the cities the problems arising from the decline have been of a social, economic and environmental nature. So, the strategy is based on enhancement and protection of social values, development of economic values and improvement of physical & environmental values. Urban regeneration of a ghost city should consider social, economic and environmental values for a successful regeneration.

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