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# To Study Factors Affecting Redevelopment Projects

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**Abstract:** When Stakeholders have needs that must be satisfied. For instance, they need housing; jobs; education; opportunities for recreation; transport; and basic services like water, electricity, clean air and health care. Social planning and policies attempt to take care of the basic social needs. When, Building structure fail, plumbing system fail, water leakage occurs, steel used in building is erode or any other physical problems appears which have higher repairing cost. Redevelopment gives more benefits than repair work. Redevelopment is best option for rise to real estate industry and agriculture industry. Redevelopment solves the problems of decentralization, population density by reusing used land to give maximum output. In major cities like Mumbai, Delhi, Hyderabad, Ahmedabad etc. have not much land to fulfill the problem of decentralization. Redevelopment is the only way to make sustainable solution. Redevelopment has win-win solution for stakeholders and developers.

**Keywords:** Redevelopment, Repair, stakeholders, developers, factors affecting redevelopment,

## I. INTRODUCTION

Urbanization in India began to accelerate after independence, due to the country's adoption of a mixed economy, which gave rise to the development of the private sector. Urbanization is taking place at a faster rate in India. Population residing in urban areas in India, according to 1901 census, was 11.4%.<sup>i</sup> This count increased to 28.53% according to 2001 census, and crossing 30% as per 2011 census, standing at 31.16%.<sup>ii</sup> India's urban growth rate is 2.07%.<sup>iii</sup> Due to high urban growth rate, development of urban area growth increase. But India is agriculture country. Rate of increasing population and urbanization required increasing in land uses so that it indirectly reflects to the agriculture industry. The real estate industry is third largest industry and agriculture industry is first.<sup>iv</sup> As per 2011 census, Gujarat's total population has reached 6.03 crore in 2011 year, while the urban population has raised 6% during last two census, this figure is shows that, Gujarat is one of the fastest growing state in India in terms of urbanization. During 2001-2011 Gujarat's population has increased by 97, 12,611 at the growth rate of 19.17 %.<sup>v</sup>

In Ahmedabad, The most significant change is observed in built-up area. This area has occupied 28 % of the total area of Ahmedabad city 1991 and increased to 70 % of the total area in 2010.<sup>vi</sup>

To solve the problems of decentralization, population density and high growth rate of urbanization. There are two options.

A. Repair

B. Redevelopment

Redevelopment projects can be small or large ranging from a single building to entire new neighborhoods or "new town in town" projects. Redevelopment also refers to state and federal statutes which give cities and counties the authority to establish redevelopment agencies and give the agencies the authority to attack problems of urban decay. Other terms sometimes used to describe redevelopment include urban renewal. While efforts described as urban revitalization often involve redevelopment, they do not always involve redevelopment as they do not always involve the demolition of any existing structures but may instead describe the rehabilitation of existing buildings or other neighborhood improvement initiatives.<sup>vii</sup> Redevelopment helps to improve infrastructure of the city.

- 1) *Definition of Redevelopment:* As per research and literature studied so far redevelopment can be defined as "When a building is no longer in status of serving a basic need and safety to stake holder living in it, and either in unfit condition or has a limited or less life span with structural stability can be considered under redevelopment. Redevelopment under this research means a complete demolition of existing structure and construction of new structure against it."
- 2) *Redevelopment & Project Management:* In future, Redevelopment make remarkable place in real estate industry. Redevelopment helps to user to fulfilled their basic need and increase in their lifestyle. Redevelopment not only gives benefits to user but also to government, neighborhood, and developer. So, study of redevelopment is necessary.

So, project management makes the process of redevelopment easier. To increase value of redevelopment project, project management should be involved from information phase. Before creating terms & condition, it is important to know the factors which affects the life of the building and which are the major problems of society's member. Project management makes terms & condition on the need of developer and stakeholder. Project management calculates costing of the project and also provides finance. The most important in redevelopment, project must be completed before the estimated date which is done only when project management is properly exacted. With help of project management, building can be constructed as green building with its lowest initial cost.

Project management should give best result in many criteria some are

- a) *Financial:* Many projects have issue on their initial funding. Due to insufficient funding, dispute takes place between stakeholders and developers. Project management not only give best solution on dispute but also provide funding from the outer sources.
- b) *Facility Management:* Project management provide best facility to stakeholders and developers. To stakeholders, project management gives best service and tries to solve all the issue having with the older building. And to developers, project management provide tries to use maximum benefits form land which is acquire by old building and tries to give maximum profits from the project.
- c) *Contract:* Project management studies the guidelines of latest GDCR to get maximum benefits to developers and by studying RERA guideline and other local authorities' guideline, make project legally. So this feels safe for developers and stakeholders.
- d) *Green Design:* Project management tries make building green by economical way so that it is sustainable for developers and life time useful for stakeholders.

In future as special in metro cities, real estate market accept the redevelopment project due to their win-win situation. So project manager should know enough about redevelopment.

- 3) *Research Concept:* As, we know that the urbanization in India have higher grow rate. And also the urbanization and population density are major problems in metro cities like Mumbai, Delhi, Hyderabad etc. Now Gujarat is fastest growing state in India, Ahmedabad is the heart of the Gujarat. And land is limited. India has two major industries which are directly connected with land. One is agriculture industry and other is construction industry. All two industries gave major contribution in India's GDP. We can solve those problems with help of accepting Redevelopment concept. Redevelopment solves the problems of decentralization, population density by reusing used land to give maximum output. In major cities like Mumbai, Delhi, Hyderabad, Ahmedabad...etc. have not much land to fulfill the problem of decentralization. Redevelopment is considered When Stakeholders have needs that must be satisfied. For instance, they need housing; jobs; education; opportunities for recreation; transport; and basic services like water, electricity, clean air and health care. Social planning and policies attempt to take care of the basic social needs. When, Building structure fail, plumbing system fail, water leakage occurs, steel used in building is erode or any other physical problems appears which have higher repairing cost.
- a) *Technical:* When the building is technicality ill or disable to fulfil structural strength, service and higher maintenance cost to stakeholders. Then, redevelopment should be considered.
- b) *Admin/Maintenance:* When the building have higher maintenance cost for stakeholders. And common amenities have higher cost to maintenance. Then, redevelopment should be considered.
- c) *Regulation:* When the building is constructed considering old norms or unauthorized construction is done. For safety purpose or for new norms the building should not be able to serve the fire-safety margin. Then, redevelopment should be considered.
- d) *Social:* When stakeholders are socially connected with building location or locality but building is failed to fulfill the basic needs of the family which have increasing numbers of members. Due to increasing numbers of members in family the existing building is not enough for the family; to fulfil this need redevelopment is the sustainable way.
- 4) *Aim:* Identify factors affecting building and cost aspect with the help of in person survey, by which building must considered Redevelopment.
- 5) *Objectives*
  - a) To study redevelopment concept & relevant policies.
  - b) To identify various factors which are responsible for redevelopment of building?
  - c) To carry out survey of identification from stakeholders, developers and other relevant users.
  - d) To identify most important factors responsible and various cost for redevelopment.



- 6) *Scope*: Availability for finding the urban land for new project containing dwelling & business place in well-developed area are very rare or an expensive one, besides that considering redevelopment for existing old building to build a new better places in a wise decision to make. So I refer residential building for find factors affecting of Ahmedabad city only.

## II. LITRATURE REVIEW

### A. *Repair, Rehabilitation & Retrofitting of RCC for Sustainable Development with Case Studie<sup>viii</sup>*

- 1) *Study*: The construction material mainly reinforced concrete is being used extensively for various types of construction projects. Over a period of time, as these structures become older, we find in them certain degradation or deterioration with resultant distress manifested in the form of cracking, splitting, delaminating, corrosion etc. the present state of concrete structures & the major areas where improvement is needed during its service life stage for sustainable development & also the method of carrying out Repair, Rehabilitation & Retrofitting. In India we are yet to opt for new technologies and materials on large scale to resolve the difficulty of attaining durable repaired structures on long term basis. In fact normal periodical maintenance is often very much lacking & thereby requirement of rehabilitation is also increasing. Time has come to have a structural auditing of all the old concrete buildings/structures, which were constructed during sixties and earlier. Depending on the severity of the environmental effect, the restorative measures can be selected. In poor country like India, we cannot afford to spend money on replacing the building, which is against implementation of green building concept also. As such selection & evaluation of right repair material and protective coatings will save enormous money & time by reducing the frequent repair costs of already repaired concrete buildings/structures. The polymers/admixtures should form a permanent part of original construction and repair/rehabilitation/retrofitting & maintenance of concrete structures in coming years, for long term sustainable development.

### B. *Structural Failure of Buildings: Issues and Challenges:<sup>ix</sup>*

- 1) *Study*: Structural failure begins to occur when the material is stressed to its upper strength limit causing to rupture or extreme deformations. The ultimate strength of the material or the system is the limit of the load bearing capacity. On reaching this limit, the construction materials could already been damaged, and their load carrying capacity is suddenly decreased permanently. If the system is properly designed, a local collapse should normally not be a cause of instant or gradual failure of the complete building. The ultimate failure strength of the construction elements should be carefully considered in the design of structures to prevent failure. The natural phenomenon aspect is triggered off by natural occurrences such as earthquakes, typhoons, and tsunami, etc. and when occurred is regarded as the natural disaster. The manmade aspect is borne out of man's negligence in areas of soil type test, building design and planning for extra loads and stress from strong wind and earthquakes for tall buildings, foundation works, quality of building materials, lack of inadequate monitoring of craftsmen and poor quality of workmanship. Appointment of qualified and expert building professionals - architects, and engineers by building clients for design and supervision; Statutory implementation of all physical development planning regulations, acts, bye-laws and codes in the processing of building permit.

### C. *Study of Sustainable Building Based On Life Cycle Cost<sup>x</sup>*

- 1) *Study*: With the economic development, energy consumption is increasingly serious, land resources becoming scarcer and scarcer. Sustainable building can effectively solve the problem of resource shortage. The construction cost of sustainable building and traditional building based on life-cycle cost method is analyzed. The results indicate that there are three main factors which influence the cost of green building, such as construction technology, building materials prices and local conditions. The benefits of sustainable building can be significant, but only if best practices are followed not just at the design/build stage, but throughout the entire building life cycle. Owners can expect their sustainable buildings to enable better business outcomes, such as improved increased asset value, and higher rental and occupancy.

### D. *Employment effects of brownfield redevelopment<sup>xi</sup>*

- 1) *Study*: The purpose of this review is to survey the literature addressing the employment effects of brownfield redevelopment. Economic development has emerged as a potential goal of the environmental cleanup process. The evolving literature (1) addresses the redevelopment and job creation that has followed the numerous cases of environmental remediation; (2) continues to debate whether brownfield redevelopment creates new jobs or leads to the spatial reallocation of existing jobs; and (3) documents emerging efforts to tie brownfield redevelopment benefits to local residents and the un- or underemployed. The existing literature highlights the difficulties of moving from site cleanup to neighborhood revitalization. The literature is clear:



site cleanup alone is typically not enough to stimulate neighborhood regeneration in the most distressed neighborhoods. There are tradeoffs between financial feasibility and tackling the most contaminated sites in the most distressed neighborhoods, and the redevelopment in these neighborhoods generally required large government subsidies. The literature highlights many positive developments and experiments. Apparent successes involve large scale plans that integrate site cleanup with wider community plans, the growing tendency to link jobs on brownfield sites to local residents, increasingly sophisticated subsidies and incentives, and the importance of design that integrates redevelopment with the existing neighborhood. To steer clear of gentrification, redevelopment strategies should focus on attracting employers who will hire local workers.

### III. CONCLUSION

Redevelopment is best option for rise to real estate industry and agriculture industry. Redevelopment solves the problems of decentralization, population density by reusing used land to give maximum output. In major cities like Mumbai, Delhi, Hyderabad, Ahmedabad etc. have not much land to fulfill the problem of decentralization. Redevelopment is the only way to make sustainable solution. In redevelopment, stakeholders and developers both have only profitable aspect. So it's call win-win solution for both.

### REFERENCES

- [1] Kamaldeo Narain Singh (1 January 1978). Urban Development In India. Abhinav IISBN 978-81-7017-080-8. Retrieved 13 June 2012
- [2] Datta, Pranati. "Urbanisation in India". Infostat.sk. Retrieved 13 June 2012.
- [3] Wikipedia article on "Urbanisation in India" dated-27 September 2018
- [4] Article in India Brand Equity Foundation dated-September, 2018
- [5] Economic Growth and Pattern of Urbanization in Gujarat, Author-Dr. Bhavini Pandya Madhukant Patel Dated- April 2013
- [6] Change in land use-land cover and population dynamics: A town-level Study of Ahmedabad city sub-District of Gujarat
- [7] From the article named "redevelopment" dated 30 August 2018 in Wikipedia
- [8] J. Bhattacharjeem, "Repair, rehabilitation & retrofitting of rcc for sustainable development with case studie", Civil Engineering and Urban Planning: An International Journal (CiVEJ) Vol.3, No.2, June 2016
- [9] Mohammed Almarwae, "Structural Failure of Buildings: Issues and Challenges", The Scientific World Journal, January 2017
- [10] Saurabh V. Birajdar, Sunil S. Pimplikar, "Study of Sustainable Building Based On Life Cycle Cost", international research journal of engineering and technology (IRJET), VOLUME: 03 ISSUE: 06 | JUNE-2016
- [11] Marie Howland, "Employment effects of brownfield redevelopment", NCEE Working Paper Series Working Paper # 07-01, January, 2007



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