

CLUSTER REDEVELOPMENT

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ABSTRACT

Mankind is urbanizing. The 20th century saw a dramatic growth in urban population. Current models predict that the world will be close to 70% urban by 2050. One of the biggest challenges posed by rapid urbanization is the provision of decent and affordable housing for urban dwellers. To help address these issues, a rather new concept in development, cluster or conservation design, has become predominant in many communities. In response to this phenomenon, one tool that has received an increasing amount of attention is cluster redevelopment. Redevelopment is the process of demolishing existing old society building and reconstructing and Cluster development is the grouping of a particular development's residential structures on a portion of the available land, reserving a significant amount of the site as protected open space. Cluster redevelopment is not just about transforming and redeveloping old and dilapidated buildings in a city but also providing amenities like schools, clubs, open spaces and medical facilities in the clusters. Although at its nascent stage in India, cluster redevelopment is the ideal way to progress in future Cities like Mumbai, Chennai and Delhi have been developed haphazardly without considering traffic.

Keywords: Redevelopment, Urbanization, Grouping, Mazgaon Chawl.

I. INTRODUCTION

Now day the population of urban area is increasing rapidly. The % of migrants to city is very large. There are various reasons behind it. Like there is rapid increase in Industrialization in urban areas, so more employments are available in city. As our country is Globalizing and peoples are changing their living standards. Again there are various facilities available in city. e.g there are good education facilities available in city, so people prefer to move to city. For millennia, the vast majority of people lived in rural areas, but the 20th century saw a dramatic growth in urban population and in 2008, this population crossed the 50% threshold. Current models and projections predict that the world will be close to 70% urban by 2050. One of the biggest challenges posed by rapid urbanization is the provision of decent and affordable housing for urban dwellers. Some towns require building lots of anywhere from a half-acre to five acres for a detached single-family home. Unfortunately, an unintended consequence of this regulation has been that real estate developers have subdivided large parcels of land into smaller plots and leveled forested areas, filled in swamps, and generally degraded the ecosystem of the property in favor of rows of houses, all with their own little front and back yards. Over the past fifty years, residential development has spread across the Illinois landscape, quite rapidly in some areas. As urbanized areas have grown, people have migrated to what have become known as “subdivisions” located in more suburban or rural areas on the outskirts of towns and cities. Much of this type of development has followed a traditional

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design, which some have described as “checkerboard or cookie-cutter housing development.” The residential zoning ordinances in most communities have encouraged such traditional designs by requiring minimum lot sizes, uniform road frontage and lot setbacks, specific road standards, and other standard requirements. In general, the only open space within such developments has been the yards between adjoining privately owned housing lots. As concerns over issues such as “urban sprawl,” open-space preservation, environmental protection, and farmland loss have increased, some home buyers, developers, and community officials have started to question whether the traditional development pattern provides the quality of life that many homeowners now desire. To help address these issues, a rather new concept in development, cluster or conservation design, has become predominant in many communities. In response to this phenomenon, planners, developers, and elected officials have created a number of tools designed to balance growth with the preservation of community environmental and financial assets. One tool that has received an increasing amount of attention in the 1990s is cluster development.

II. REDEVELOPMENT

Redevelopment of properties of existing Co-operative Housing Societies has been a subject of great interest in recent years, both to the societies and to the Builders. With the real estate prices touching a new height, residents in old buildings are now discovering that they have an opportunity to unlock immense value from their property by offering it to a Builder/Developer for redevelopment. Redevelopment is the process of demolishing existing old society building and reconstructing it by appointing a good Builder who can construct and handover new flats to the Society members free of cost with some additional benefits and make profit by utilizing the balance plot potential by constructing additional flats and shops as per approval from respected authority. Redevelopment has become quite popular in Co-operative Housing Societies since it is a most practical, economical and long term solution in a scenario where old structures are proving uneconomical or obsolete; whereas for the Builder it is a cost effective way to construct residential/commercial premises by utilizing the un used potential i.e. the Floor Space Index – Transferable Development Rights with gradual capital investment, in times of heavy land prices and in a situation of unavailability of land in good locations. Redevelopment is nothing but the process of replacing the old one by new one using new technology. It is considered as a very appropriate approach as it gives several benefits to the residents such as affordable housing in the same area facilities matching the modern standard of living and construction using advanced technology and fine material so the reliability of the structure goes up. Evidently the same house and area that has nurtured the earlier generation of the family will serve the same to the present and coming generation promising a complete security. These are some more reason on why old residential should go for redevelopment. To buy a new house in a city like Pune, with the property rate sky-rocketing, looks to be risk for those who are earning moderate income and consequently forced to move in the outskirts of the city; for them the option of the redevelopment is ideal one



Fig No.2.1 Figure shows the real meaning of cluster development, grouping of housing units together.

2.1 Facts about Redevelopment

Redevelopment is generally described as newborn construction on an old plot which has a pre-existing structure in any Housing Society. It gives an opportunity to refurbish old residential complexes keeping pace with changing lifestyles and facilitates to upgrade the standard of people who are living in old structures and also creates space for new people. Today many Housing Societies in country are in need of extensive structural repairs. The growth in the size of families and their wants has created a need for larger accommodations. Old Housing Societies have certain critical drawbacks which include lack of security, non availability of amusement areas for children, leakage problem, dearth of parking lots and many more. Redevelopment has made a very positive approach that has transformed many Housing Societies in metro citizen to landmark complexes and towers matching the examples world class cities. Redevelopment is the hot issue today as vacant and un-encroached land is now hardly available to carry out further construction. A number of Housing Societies have old and dilapidated buildings that need redevelopment. The cost of structural repairs by demolishing and reconstructing such buildings is often beyond the reach of any Housing Society and flat owners. A Redevelopment arrangement begins with the conception of an idea to redevelop the old building and it ends with the handing over of the agreed constructed area in new building and the corpus money or other monetary consideration to the Society by the Builder. Builder son their part are also on the lookout for properties with un used development rights where they can build a new structure of a few stories higher and sell those additional flats for a tidy profit for them. Builders/Developers, who opt to purchase land and develop the same, Incur huge stamp duty cost on transfer of land. However, when it comes to redevelopment of old buildings, the stamp duty is reduced by a significant extent and this acts as a major benefit for developers.

2.1.2 Reasons of Redevelopment:

1) Construction quality:

Quality of material used in redevelopment is of good standards; the society can be assured that it need not bother for any major repairs or maintenance for next 15 to 20 years.

2) Fund flow:

Corpus fund could be achieved, which would take care of the share of original members when it comes to the higher maintenance cost of the new premises. Otherwise this amount could be utilized for other purposes as per the decision of each individual member.

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3) Space matters:

Apart from the additional 100 to 200 square feet that one would get as compensation from the developer, if any of the families require additional accommodation in the same building, it can be achieved by purchasing additional space from the developer at the best available price or by opting for the larger flats. This would enable the family to live in the same vicinity.

4) Elevator advantage:

Most redeveloped structures have elevators installed. This is a boon for those who were residing on the third or fourth and had to climb stairs several times a day earlier.

5) Greater security:

Modern amenities and electronic gadgets are being widely used making life more luxurious and safe. the adv of having close circuit cameras, intercom system, smoke detectors, fire fighting alarms systems, metal detector etc.

6) Parking solution:

The new complexes and tower have excellent stilt or sometimes underground parking facilities as well. This ease traffic congestion in the society premises, in the process saving precious space and also ensuring disciplined traffic flow in the society premises.

7) Professional touch:

If the society itself takes up to play the role of the developer by appointing the best architect or project management consultant, who take the responsibility of arranging the required finance and the best contractors, it could yield the best returns in the interest of all the society members.

8) Paperwork management:

Documentation and paper work could be generated without much hassle and by employing professionals of the best cadre, through quality control could be achieved.

9) Layout design:

There could be many more adv and benefits that one can derive from a redevelopment such as a bigger room sizes, attached bathroom in bedrooms, concealed plumbing and electrical lines, better planned and designed flats.

III. CONCEPT OF CLUSTER DEVELOPMENT

Cluster development is the grouping of a particular development's residential structures on a portion of the available land, reserving a significant amount of the site as protected open space. We can define it as,

□ 'It is a practice of Low Impact Development that groups residential properties in a proposed subdivision closer together in order to utilize the rest of the land for open space, recreation or agriculture.'

□ Cluster Development also known as conservation development is a planning approach that is an alternative to conventional subdivision development. Cluster development differs from a Planned Unit Development (PUD) due the fact that a PUD contains a mix of residential, commercial, industrial, or other uses were as the cluster development primarily focuses on residential area. Dwellings grouped closely together to form relatively compact units. The space between clusters usually is allocated to pedestrian circulation and cooperative recreational use. This pattern normally results in a higher density of land use than that of a conventional subdivision layout. Cluster housing is like joining or clubbing residential properties or lands and building houses

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to have more open spaces. Cluster development is a land use planning concept and tool for subdivision platting, and is an alternative to the so-called traditional planning approach of creating generally equal sized subdivision lots as permitted by the applicable zoning for the area. Cluster development concentrates the physical development of the area to be subdivided to minimize development impacts and to preserve desirable terrain features, sensitive ecological features or open space while still permitting building the number of housing units that the zoning code and map permits being built on the tract of land. Cluster development is not a sword to fight urban/suburban sprawl. It is a tool for better land use as more land is required to meet a growing community's residential housing needs. It is a tool that a community can use to help preserve its physical values which it sees as contributing to the community quality of life. Cluster housing, which is beginning to be considered, uses a different approach. If a town requires that a particular piece of land have a twenty-acre minimum for building sites, a traditional developer would subdivide the land into ten units and build a home on each unit. A cluster development, however, involves concentrating those same ten houses in a single area on perhaps four acres of the land, leaving 16 acres relatively undeveloped, thus preserving natural wildlife habitats and forested areas that can be enjoyed by the residents. Cluster redevelopment is not just about transforming and redeveloping old and dilapidated buildings in a city but also providing amenities like schools, clubs, open spaces and medical facilities in the clusters for the benefit of citizens who opt for such redevelopment.

Cluster housing is a form of planned development whereby residential units are grouped or bunched together through a density transfer in order to provide an improved design, more efficient construction techniques, and community green or open space, shared parking or access, and other amenities that might not be obtainable through conventional development. Medieval villages and basic community design have used this development pattern, but it was not until the 1950s and 1960s that its popularity increased in the United States as a formal building and design concept. Cluster developments increased popularity is due in part to the exhaustion of the conventional large lot developments common in the 1940s and 1950s. The developments of the 1940s and 1950s pushed residential development farther from community areas such as markets and shopping centers, increased the need and cost for public infrastructure, and required large areas, which were becoming more expensive as population growth and property values increased.

3.1 Purposes

The purpose of cluster development is to:

1. To promote integrated site design that is considerate to the natural features and topography
2. To protect environmentally sensitive areas of the development site, as well as permanently preserve important natural features, prime agricultural land, and open space
3. To minimize non-point source pollution through reducing the area of impervious surfaces on site
4. To encourage saving costs on infrastructure and maintenance through practices such as decreasing the area that needs to be paved and the decreasing distance that utilizes need to be run
5. The primary purpose is to create more area for open space, recreation and more social interaction.
6. To help and save the nature. It will protect environment.
7. To make city look good and beautiful. It will help to develop the city.
8. To make proper use of lands, and resources.

9. Opportunity to build social and other skills.
10. To provide a mechanism that permits more flexible housing development and design within residentially zoned property and within zoning districts that permit residential uses.
11. .To saves land for wildlife animals.
12. Also to get more benefits from nature.
13. To build strong relation in the society.
14. To save cost on infrastructure.
15. To get residence in prime location.

3.2 Benefits

The benefits of cluster development as opposed to a convention subdivision include:

- More preserved land for open/recreational space,
- A better setting for community building,
- Possible local agriculture production,
- An optimal arrangement in storm water management;
- Choice of co-residents.
- Considerable power within the home environment to 'do your own thing'

3.3 Design Features

There are various distinct design features in cluster development notably:

- The consideration of natural features/topography,
- Smaller lot size, the use of cul-de-sacs (road with a dead end),
- And the use of certain waste/storm water management techniques
- Leaving more open space
- Water features are maintained,
- Natural areas are maintained, and special attractions for wildlife are incorporated into site plans.
- External fencing for security and building in staff facilities such as accommodation and offices.
- Each dwelling unit shall have individual utility connections.

Along with site design, waste/storm water management design features are a principle aspect of cluster development. Through the maximizing of over land water flow and the strategic use of landforms and plants to slow, hold, and treat runoff it is possible to handle the majority of storm water. As well, there many options in dealing with waste water; techniques such as community drain fields, irrigation systems, and package plants can dramatically reduce the cost of infrastructure, and improve the environment.

We can use some Green Home aspects in designing this cluster housing. We can use eco-friendly materials. Also we can use nature loving materials in building. We should conserve resources by using 'Solar energy' in common areas. We can provide Solar Lamps in common areas. We can also use Solar Heater in common. We can plant different trees there.

IV. CLUSTERS AND CLUSTER-BASED DEVELOPMENT: A LITERATURE REVIEW AND POLICY DISCUSSION

Hal Wolman

Diana Hincapie

December 17th, 2010

4.1 Justification/Importance:

Cluster theory and its application and cluster-based economic development policy, have been in the forefront of regional economic development theory and practice during the past decade. Cluster theory suggests that firms that are part of a geographically defined cluster benefit from being a part of that cluster and that these benefits result in growth in economic output for the region. These benefits accrue as a result of co-location or geographic proximity that, in turn, creates lower input costs for firms through agglomeration economies and facilitates knowledge spillovers that produce innovation and increased productivity. Consequently, firms in clusters that generate these benefits will be more competitive³, and regions with effective clusters will experience greater growth. As this suggests, clusters are important for understanding and improving regional economic growth. It is important for policy makers and practitioners to understand how and in what ways they do so and what actions they can take to enhance economic growth through generating additional cluster benefits. In particular, since analysis of and policies based on clusters have become a feature of much modern regional economic development policy, it is critical for practitioners to understand the dynamics of clusters and the limitations as well as advantages of employing cluster strategies. However, causality may not be clear. Clusters might make firms more productive and thus more competitive, but more productive and competitive firms might come together to form a cluster. See, for example, Duranton (2009, p. 32). that it has, in many respects, become a 'chaotic concept'." Indeed, they list ten different definitions of cluster that they found in their review of the literature (p. 12). In our review of the literature, we found a wide variety of conceptualizations of clusters, some of which focused entirely on inter-firm relationships and some of which included much broader links:

- Krugman, (1991): New economic geography: Clusters as co-location decisions of firms due to increasing returns to scale, lower costs of moving goods across space, etc.
- Rosenfeld (2005): clusters "are simply geographic concentrations of interrelated
- Cortright (2006): "An industry cluster is a group of firms and related economic actors and institutions, that are located near one another and that draw productive advantage from their mutual proximity and connections".
- Glaeser and Gottlieb (2009): "People cluster in cities to be close to something. At their heart, agglomeration economies are simply reductions in transport costs for goods, people and ideas" (p.1005).
- Marshall (1890): Clusters as external economies created by labor market pooling and the benefits of moving people across firms, supplier specialization, knowledge spillovers.
- Porter (1998): "Geographic companies and institutions of sufficient scale to generate externalities." concentrations of interconnected companies and institutions in a particular field, linked by commonalities and complementarities". Clusters include: linked industries and other entities (suppliers), distribution channels and customers (demand), related institutions (research organization, universities, training entities, etc) (see also Porter (2000), p.254 for definition)

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- Saxenian (1994): Clusters as social and institutional phenomena: technological change, organizations, social networks, and other non-market relationship in which markets are embedded: organization within and between businesses, relationship among firms.

Hill and Brennan (2000, p. 67-8): We define a competitive industrial cluster as a geographic concentration of competitive firms or establishments in the same industry that either have close buy-sell relationships with other industries in the region, or share a specialized labor pool that provides firms with a competitive advantage over the same industry in other places.” Nonetheless, there is a common core to the concept. In an attempt to capture the broad meaning of the term (at the expense of brevity) and drawing upon definitions of Michael Porter, Joseph Cortright and others, we define clusters to consist of firms in a region producing similar or related products, utilizing similar processes, or engaging in similar functions (headquarters; R&D), the regional suppliers and customers of these firms, specialized labor skills (occupations) possessed by workers in the region employed by these firms, public and public-private programs that provide services to cluster members (e.g., customized training by community colleges), and institutions (e.g., universities, community colleges, industry and trade associations, public and private sector organizations) whose presence or *interaction*, to the extent it exists (i.e., the extent of interaction is an empirical question), results in cost-savings to firms and/or knowledge spillovers that produce cost savings and/or product or process innovations. What are the implications of our definition? An obvious first question is whether cluster are simply a new and somewhat more accessible term for agglomerations and whether the benefits of clusters are what urban and regional economists have long termed “agglomeration economies”. Cumber and MacKinnon (2004, p. 960) ask, for example, “What is the added value of the cluster approach to existing theories of agglomeration?” It seems clear that our definition – and that of most, but not all, others - incorporates traditional agglomeration economies. But are clusters more than that? Drawing upon Gordon and McCann (2000, p. 515ff), there are really two different forms of clustering, each coming from different traditions and operating in somewhat different ways. The first is what they term “pure economies of agglomeration.” Agglomeration economies result from firms locating in geographic proximity to each other. The cost savings that result from lower input costs and increased productivity are external benefits to firms that come about through their proximity to one another. Gordon and McCann (2000) note agglomeration economies neither presume nor require any cooperation among actors. “The fundamental point here,” they argue (p. 517), “is that a variety of mechanisms by which the external economies are achieved... operate simultaneously, often indirectly, and cumulatively.” The second is the “social network model” of clustering. While Gordon and McCann (2000) assert that this model arises primarily from the sociological literature on institutions, the concept, captured in the term “knowledge spillover” or MAR externalities, named after the three economists most responsible for contributing to the concept (Marshall-Arrow-Romer), is also clearly present in the agglomeration economy literature.

V. METHODOLOGY

This shows the flowchart of methodology of the project. So according to methodology the project will commence in given order. Site visit and survey will be done in given way. First of all identification of problems

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will be there then the literature review will be done following site visit and survey work by asking questions to the residents and then final conclusion from this. In this manner the project work will be completed

5.1 Steps in Methodology

- Identify Research Problem
- Literature Review
- Site Visit
- Questionnaire and Interview
- Data Collection & Analysis
- Conclusion
- Recommendation

Directive under Section 79(A) of Maharashtra Co-operative Societies Act 1960 to all the Co-operative Housing Societies in the State of Maharashtra. Regarding Redevelopment of Buildings of Co-operative Housing Societies.

Date: 3rd January 2009

Whereas, buildings of Co-operative Housing Societies in the State of Maharashtra are being redeveloped on a large scale. A number of complaints were received from members against managements of Co-operative Societies in which redevelopment is taking place. In respect of most of the Co-operative Housing societies, nature of complaints relating to redevelopment is as under-

1. Not taking the members in confidence in the process of redevelopment.
2. There is no transparency in tender process.
3. Appointing contractors arbitrarily.
4. To work by violating provisions of Co-operative Act, Rules and Bye-Laws.
5. No orderliness in the work of Architect and Project Consultant.
6. Not planning Redevelopment Project Report.
7. Not adopting proper procedure in finalizing tenders.
8. There is no similarity in agreements with Developers.

5.2 Utility of cluster redevelopment in Mumbai and Pune

5.2.1 In Mumbai-

Mazgaon Chawl redevelopment

A mega cluster project in Mazgaon to redevelop one of Mumbai's most dilapidated building complex. The Botawala Chawl, constructed in 1917, is located on a sprawling 4,721-sq m piece of land in Central Mumbai in Mazgaon. It comprises 18 buildings, housing some 423 occupants. For the major part of the last decade, the chawls have featured in the city's list of very dilapidated structures. The cluster redevelopment policy under the urban renewal scheme allows developers to redevelop ceased buildings housed in a minimum area of at least 4,000 sq m and gives them benefit of construction rights in the form of an FSI of 4. As per the proposal, the developers, Sarah Housing Development Ltd, can construct around 16,000 sqft of residential and commercial space. While the occupants, mostly mill workers and their families, currently living in 150 sqft rooms will be

eligible to get new flats, the developer can utilize the remaining space to construct residential and commercial complexes to be sold in the open market. The trust moved the HC recently seeking permission to start redevelopment. The court that the state high-powered committee on cluster development had given its nod in January 2012 and the builders had been informed in April. As per the 2010 HC order, they were required to deposit a premium of nearly Rs 4 crore, which is 25% of Ready Reckoner rates for the land. The trust then sought three weeks time to pay the amount.



Fig No. 5.2.1 Figure showing Mazgaon Chawl before Redevelopment

The project deals with redevelopment of eighteen plots in the inner city of Mumbai, and measuring almost 250m of length. The length of the site is expressed through a 250m long linear built form, which grows with acquisition of subsequent plots. The building expands over three phases leaving appropriate recreational grounds to handle the density of the development. The building typology houses rehabilitation and sale component in the same building forming a linear landmark along the site. The class differences of both components are configured through segregation of movements. The built form is sculpted to release voids at different levels, which behave as recreational planes for various user groups. Botawalachawl is a cluster of six two-storey buildings spread over 4,721 square metres housing 423 tenements. Developer Sarah Housing Development Limited said two buildings, which were in a precarious condition, had been vacated and 180 tenants shifted, while preparations were on to vacate two more buildings. Mumbai's over century-old Bombay Development Directorate (BDD) chawls will be struck off the latest heritage list. Other vital cessed buildings or landmarks will also be spared the heritage tag as the state government plans to facilitate their redevelopment. The decision comes as a major



Fig No.5.2.2 Figure showing Mazgaon Chawl After Redevelopment

5.3 Survey Report

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NAME: Mr. Rajendra Gunjal

- Question: what is the area of your house?
- 450Sq.ft.
- Question: what are the amenities you are getting here?
- 24 hrs water supply, open space.
- Question: what is the major problem do you think here?
- Drainage, less carpet area, poor lighting.
- Question: how much rent you pay?
- 450 Rs.
- Question: for redevelopment what kind of arbitration you will prefer? Money or area?
- Area
- Question: what is the source of drinking water?
- P.M.C.
- Question: what is arrangement for sewage & drainage?
- Poor drainage & sewage system.
- Question: do you think cluster redevelopment will help to solve your problem?
- Yes.
- Question: what do you expect redevelopment of your wada?
- Require more area, good drainage & sewage system.
- Question: whatkind of amenities or facilities you would you like to have from builder?
- Lift, fire safety.
- Question: do you think increase in population due to cluster redevelopment will create any problem?
- No.
- Question: what is your option about cluster redevelopment?
- Yes, it is good concept which gives maximum open space.

VI. FUTURE SCOPE

Government should also take some care in this scheme proposal. The rules should make in favor of cluster development. Also sanctioning process which is major issue should be solved. One window fast sanctioning process should be adopted. Extra facilities need to provide to developer so that more people will turn to it.

Many a time's senior citizens are residing in old wadas in Pune and hence it may be essential for them to have a feeling of security, safety, luxury without leaving there own area. In such cases it may be feasible to propose new scheme using cluster redevelopment approach for thousands livin

VII. CONCLUSION

In India most of the cities had haphazard development of cities. Also migration to urban areas is increasing due to various reasons. So there will be need of millions of homes in urban areas. Builders, developers and governments are searching different measures for it. But no rational solution exists to fulfill the housing needs

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so redevelopment is a necessary key to solve the problems. Many issues are there with old buildings. Redevelopment can solve the issues to certain extent. And if cluster development scheme is applied on it then it will be very beneficial to all. Government and local corporations are trying to increase the cluster scheme. They are providing extra FSI and extra facilities to builder so that to increase this concept.

Cluster redevelopment is the measure which should help to solve the many issues of shortage of land in city. Cluster redevelopment finds a way for sustainable growth of city and urban areas. Also it helps to make aesthetically good looking city. Government should give more importance to this scheme it will help to increase the quality of life of the peoples. Cluster development is a tool that a community can use to help preserve its physical values which it sees as contributing to the community quality of life. It is a measure tool for integrated design development. Though people's mentality is not very much in favor of it but still it is increasing in many cities. It will gain more importance in future and will help to solve the problems and to provide good living conditions to residents. The conclusion made from above report is very much in the favour of Cluster Development scheme. By applying cluster development scheme in redevelopment project gives more benefits to both owner and to developer also. Also due to cluster scheme it is possible to do integrated development. There are various numbers of benefits cluster scheme gives to developer and residents with win-win situation.

In 9 SADASHIV project builder and owners decided to apply cluster development scheme. But land acquisition, rehabilitation of existing tenants, FSI, building restriction etc. were the major issues in front of them. But the costing report indicates satisfaction for both, develops as well as residents. Also FSI of 3.0 will be awarded with some extra benefits to builder from governments and Municipal Corporation.

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