

# Comparative Analysis of Integrated Townships

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**Abstract-** *An Integrated Township is a self-sustainable township to provide Amenities and Facilities (Residential, Commercial, Recreational, Public etc.) as required by fully groomed Township. Integrated Townships can be defined as "Housing schemes in public-private partnership to provide affordable housing to various sections of the society in urban areas of the State". The Foreign Direct investment (FDI) in the same sector have paved way to the entry of multinational companies in the local real estate business scenario making the competition tough and very competitive. For most of metropolitan cities today which are facing chaotic situations due to various problems, like the growing population, migration of people from rural to urban areas, increasing housing demand inadequate infrastructure of the city etc. and such problems integrated township development is the need of the day. The purpose of the study is to research of the development of an integrated townships. The first chapter gives an introduction to the topic and talks about the reasons of the study. The second chapter gives an insight into the factors of urbanization and its influence on housing conditions. Followed by the overall view of the real estate scenario as prevailing in India and some of the issues, which affects the whole business scenario along with the real estate market of Pune. An integrated township can't be seen in the isolation of the current real estate scenario. The following chapters deal with the laws and regulations and the need of an integrated township in Pune. The next will be the case studies which give an insight for the research as regards the scope and also its implications on the urban conglomeration. Finally based on the analysis and evaluation of the case studies, guidelines have been recommended for development of integrated townships followed by our conclusions.*

**Keywords-** self-sustainable, foreign direct investment (FDI), public-private

## I. INTRODUCTION

Integrated townships are an important segment and certainly a good business proposition.

They are the way to go because they bring together all the elements that customer's demand which is "walk to work" lifestyle, shopping complexes, facilities for leisure and

entertainment. As the cities are expanding and traffic congestion becoming a common hindrance, integrated townships promise a congestion-free living environment within them and help in decongesting the city. They offer standard of living and ambience, which are much ahead of the times.

Today, owning a home in the city has become a lot more cumbersome and costly now, the only solution for the spiraling prices and increasing interest rates on home loans owns a property in an integrated township coming up in the outskirts of the city. These townships are being touted as the new paradigm of real estate development in India that will help satisfy the growing affluence and aspirations of India's urban population. Though in a nascent stage, these self-contained townships encompassing residential, retail and commercial infrastructure with in a single geographical entity will soon spread across the country. An integrated township on the sub urban areas of a largely populated urban metropolitan city is the new emerging trend in the urban real estate scenario. In general, integrated townships can be defined as "housing schemes in society in urban areas of the state." The idea is conceptualized around the Live - Work-Play-Learn theme. That is, the City is envisaged to provide all the required amenities to live, work, play and learn, making it an integrated community whereby primary & supportive functions interlace to form a smooth self-sustaining city. An integrated township is a self-sustainable township mainly initiated by private developers in order to provide, in advance, the amenities and facilities required by a fully groomed township.

## II. DEFINITION OF INTEGRATED TOWNSHIP:

A township generally refers to a small geographic area or a self-contained real estate property, ranging in size from 10 km<sup>2</sup> to 150 km<sup>2</sup>. A township project can be in a private ownership or a public ownership or both. A township is normally a self-contained unit and includes all the facilities and amenities like schools, hospitals, clubs, shops etc.

**Concept:** An integrated township is essentially a self-contained town normally develop as a satellite town. Resident and commercial space form part of the local apart from a clean

environment, it provides quality unit and good leaving environments.

#### Advantages:

1. Green Housing
2. Energy Efficient Habitat
3. Integrated Waste Management
4. Infrastructure
5. Walk, Work and Play Concept
6. Private Initiative
7. Economics of Scale

#### Objectives:

1. Comparative study of Township.
2. To give Recommendation for better integrated townships.

#### Scope:

The scope of the project is very wide, it includes planning and architectural aspects, engineering aspects, legal aspects, financial aspects, marketing aspects and environmental concern. It gives the detail information about development and appraisal of a project. Live case study enables us to understand various aspects of the project in more sensible and realistic manner for the investment and returns with all risk factors. The Pune's boundaries are growing in all directions. Adding another totally new dimension to the city is the rush of integrated townships into Pune. Pune is on a fast track in industrial and economic growth. Hence, there is a huge demand for housing in the city estimated at about 40,000 houses added every year.

### III. METHODOLOGY

Following methodology used for our research work

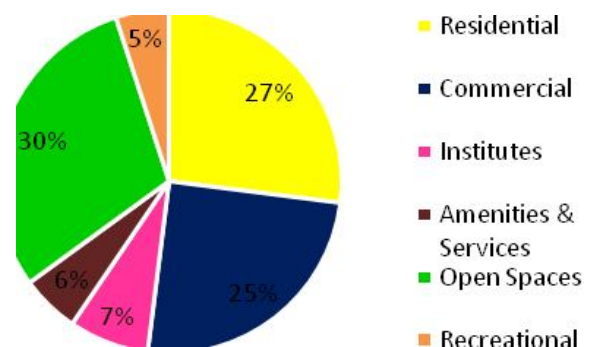
1. Literature Review of similar work which was done earlier.
2. Need of study of that project.
3. Selection of study area based on study.
4. Data Collection through primary and secondary sources like Topographic data, Demographic data, Landuse data, data through primary survey.
5. Data Validation and Analysis
6. Calculating Integrated Index of both the Study Area which are selected.
7. Result and Discussion after calculating Integrated Index.
8. Conclusion based on obtained result and dissuasion.
9. Recommendation.

### IV. PRELIMINARY COMPARATIVE DATA OF TOWNSHIPS

#### Magarpatta City Township:

Magarpatta City is a landmark in Pune. Situated on the road to Solapur, it is a planned city on 400 acres of land. What is unique about it is that it has been developed by a farmers' co-cooperative -- some 120 families consisting of 800 individuals. Construction started in 2000. The entire process took six years. The Magarpatta city has residential complex near to workplace and IT industries. In Magarpatta city, Company will take a 51% stake and 49% will be held by those landowners in proportion to their landholding. Plus, landowner gets a share of the revenue. Because of this project, farmers brought financial security, social upliftment and make them proud. Satish Magar is Chairman and Managing Director of Magarpatta Township. The location of Magarpatta city is closest to Pune city Center and it is 7 kms from the Pune Railway station and 5 kms from the City's business center and 9 kms from Airport. This makes Magarpatta City easily accessible from anywhere in Pune. The population is nearly 25,000 and population density is 62.5 persons per acres.

The Landuse Distribution:



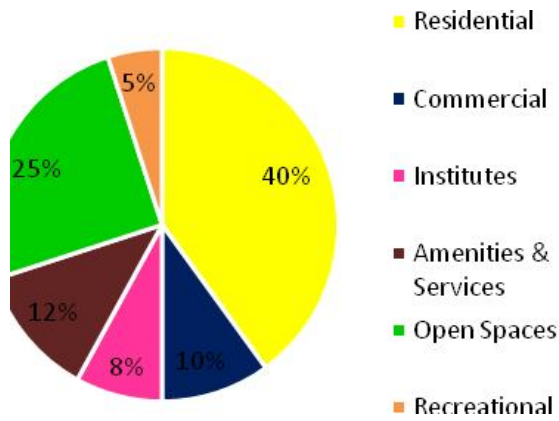
#### Nanded City Township:

Inspired by the internationally renowned Magarpatta City Model, Nanded city Development and construction company Ltd. bring 2 neighborhood's i.e. Sargam and Pancham which is home to 7000+ families and provided with primary schools and high schools and several recreational facilities. The managing director is Satish Magar and Construction Company is Nanded City Development Corporation.

The Nanded City take many other imitative to make city Eco-friendly such as, Eco-Stream Park, Ornamental Landscaping, Prepaid Water and Electrical Meters and Soil and Waste Management.

The Area of township is 700 acres and population is nearly about 60,000 with population density is 85.5 persons per Acres.

The Landuse Distribution:



**V. DATA VALIDATION AND ANALYSIS**

**Integration Index of Township:**

There are 100 sample of Satisfaction Survey was taken from each township to calculate the Integration Index of that township. The integration index was calculated using following formula as-

$$I = K \{A + B + C + D + E / 10\}$$

Where, K is proportionality constant &

- A = Green Buildings, Energy Efficient, Pollution, Built Environment.
- B = Safety
- C = Services, Transportation
- D = Social Infrastructure, Social Culture
- E = Amenities

**Weightage Assign for Parameters:**

**Parameter Rating Scale:**

Scale	Rating
1	Poor
2	
3	Fair
4	
5	Moderate
6	
7	Good

**Integration Index Scale:**

Scale	Level of Integration
1	Very low
2	
3	Low
4	
5	Moderate
6	
7	High
8	
9	Very High
10	

**Integration Index of Magarpatta City:**

Parameters	No. of Que.	Marks per Que.	Total Marks	Weightage (In %)
A	5	5	25	7
B	5	5	25	7
C	15	5	75	20
D	29	5	145	39
E	20	5	100	27
			<b>370</b>	<b>100</b>

$$I = K \{A + B + C + D + E / 10\}$$

$$I = K \{5.35 + 5.67 + 9.98 + 26.65 + 15.70 / 10\}$$

**I m = K 6.34**

**Integration Index of Nanded City:**

$$I = K \{A + B + C + D + E / 10\}$$

$$I = K \{5.39 + 5.18 + 12.52 + 30.02 + 18.52 / 10\}$$

**I n = K 7. 16**

**VI. COMPARATIVE INDEX OF TOWNSHIP:**

Integrated Index of Magarpatta City Township –

**I m = K 6.34**

Integrated Index of Nanded City Township –

**I n = K 7. 16**

Integrated index of Magarpatta City Township to Nanded City Township

$$I m = K 6.34 / I n = K 7. 16$$

**Im = 0.8854 In**

Integrated index of Nanded City Township to Magarpatta City Township

$$I n = K 7. 16 / I m = K 6.34$$

**In = 1.129 Im**

because more distance from the city center. The availability and condition of CCTV cameras is good in Magarpatta city as compared with Nanded City.

The social infrastructure like clinics, grocery store, pre-primary education facilities etc. are less available in Magarpatta city as compared with Nanded city. Less people participation was observed in both township. The events organized in both township very rarely. The walkability, footpath condition and Street landscaping well maintained in both township. The transit stop is not available in both township. The Nanded city has their own private mode of transport for within township purpose whereas there is no such mode of transport in Magarpatta city.

The services like water supply, electricity, waste collection, telephone, broadband etc. are good in Nanded city as compared to Magarpatta city. Both township has their own Administrative Building for regulating the township. The amenities like cremation ground, spiritual center is absent in both the township.

**VIII. CONCLUSION AND RECOMMENDATION**

**Conclusion:**

The data has analyzed and integrated index is calculated on the basis of selected parameters for Townships. The analysis result concluded that integrated index of Nanded city Township is more than Magarpatta City Township. Main reasons for this is Nanded City Township project is after Magarpatta city and still it is in under Construction.

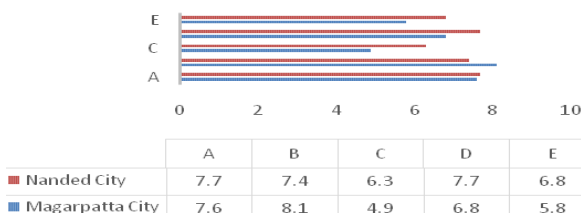
Magarpatta City Township is surrounded by 2 big malls of Pune Seasons and Amanora .as it is very near to Hadapsar, it is easily connected to the prime locations of Pune through public transport also. The ambience and overall infrastructure is amazing though the rates are bit high. But in Nanded city townships the rates of the houses are low. Rentals are lower than Magarpatta which helps if one doesn't mind about transportation and commuting costs. The pricing is very moderate and fair with the developer being realistic about their promises regarding the project. Big one is that this project shall never face any water scarcity.

The current guidelines as per the policy of Special Township may have scope for Design and modifying the Guidelines for planning the self-sustainable township.

**Recommendation:**

**VII. RESULT AND DISCUSSION**

INTEGRATED INDEX SCALE



The light and ventilation, solar energy system and rainwater harvesting conditions are good in both the township. The Nanded city is now under construction, hence the existing development was done in accordance with the building norms and code to make structure energy efficient. The level and frequency of pollution in both township is low because both the township are in outskirts of city. The crime rate is quite more in Nanded City as Compared with Magarpatta city

The concept of integrated townships is becoming popular not just in major cities. An integrated township is a mixed-use project comprising of residential and commercial structures, with all basic infrastructure and amenities like educational institutes, healthcare centers, retail outlets, etc.

These self-sufficient townships are no longer an option but a necessity and this format is expected to drive real estate consumption in the coming years. Integrated townships are large-scale projects that usually sprawl over hundreds of acres of land.

This development model is used by builders when constructing housing projects in city peripheries. These projects also help reduce the pressure on big cities where migration is much more than the availability of quality homes.

The data has analyzed and the modifications in the current guidelines are suggested as per the references, Though the analysis concludes that the current guidelines as per the policy of special township are not sufficient for planning the self-sustainable township.

Even the modified guidelines will also require some detailed information about the environmental sustainability factor as per the guidelines suggested by MOEF (Ministry of environment and forest] Planning guidelines. It is possible to design a self-sustainable township with due consideration of current guidelines with in detailed provisions for each and every requirement with the reference of guidelines given by best building practices, MOEF guidelines, NBC etc.

Integrated townships projects should focus on creating affordable housing and good infrastructure.

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