.

# Comparative Evaluation Of Integrated Townships

Amit Ashok Hasape, Prof. Satish S. Deshmukh.

<sup>1</sup> P.G. Scholar, Civil Engineering (Construction & Management), Trinity Academy Of
Engineering, Maharashtra, India

<sup>2</sup> Professor, Civil Engineering (Construction & Management), Trinity Academy Of

<sup>2</sup> Professor, Civil Engineering(Construction & Management), Trinity Academy Of Engineering, Mahrashtra, India

# **ABSTRACT**

An Integrated Township is a self sustainable township to provide Amenities and Facilities (Residential, Commercial, Recreational, Public etc) required by a 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". An integrated township is a self sustainable township mainly initiated by private developers in order to provide, in advance, the amenities and facilities (residential, commercial, recreational, public etc) required by a fully groomed Township. The 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 a lot of metropolitan cities today which are facing chaotic situations due to various problems, few of them like the growing population, migration of people from rural to urban areas, increasing housing demand inadequate infrastructure of the city etc and much such problems-integrated township development is the need of the day. The purpose of the study is to research the development of an integrated township and to analyze its pros and cons.

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 deals with 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

**Keyword:** - Townships, Comparative, Evaluation, Nanded City, Amanora, Magarpatta City.

# 1. Comparative Evaluation Of Integrated Townships

# 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 spiralling 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 within 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.

# 1.1.1 Definition of a Township

A township generally refers to a small geographic area or a self contained real estate property, ranging in size from 10 km² to 150 km². 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.

# 1.1.2 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.

# 1.1.3 Advantage

While there have been several methods of housing production to alternative models like the town planning schemes and land re adjustment schemes, the legislative procedure and provision have been to elaborate comber sum and have taken even more than 10 years for its realization.

While legislative procedure for large scale land and procedure for wholesale housing production in the public sector have been found to be inadequate and similar for new city and town development, have been no different. Master plan preparation and zonal plan preparation as well as its implementation become a very lengthy procedure because of the provision laid down in the legislation.

The alternative approach which, takes care of the loop whole of the above existing model, is the integration of various services and infrastructure catering to a define population

# 1.1.4 Necessity of integrated townships into Pune

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.

<u>Pune</u> is on a fast track in industrial and economic growth. Fuelled by the IT boom, there is a huge demand for housing in the city estimated at about 40,000 houses added every year, the challenge would be to provide basic housing infrastructure with related facilities.

Realizing the challenge ahead, the government of Maharashtra had issued guidelines to allow private participation in designing fully integrated townships with world class infrastructure, modeled on international quality of living standards, at prices that are affordable.

The city is ready to reap a rich harvest for those having the capacity to invest and develop large tracts of land and put in the physical and social infrastructure.

This is what the new Special Township Policy Act of the Maharashtra government stipulates. A minimum area of 100 acre, investment in public infrastructure, such as roads, water, sewage-an integrated approach to development of townships to decongest municipal corporation areas and encourage new settlements in the periphery though higher FSI (floor space index) than what is normally allowed in the municipal limits.

According to state government officials, there are a total of 34 projects that applied for township status and are under consideration. Almost all these project are being designed by overseas architects, have high rises and well-designed and well-defined spaces for living, recreation, commercial space and promise of a much better standard of living.

All this is set to completely change Pune's landscape and would mean a new lifestyle for lakhs of people who can afford to buy these living spaces. Pune is expected to add an estimated 16million sq ft of commercial space over the next five years. IT/ITES sector would be the major growth driver and would account for over 80 per cent of this supply. These are the findings of KPMG in their report, `Indian Real Estate- changing scenario'. The report also points out that based on this commercial real estate supply, it is estimated that new employment for about 1,70,000

would be created. It also noted that an increase in employment would give way for a three-fold derived demand for residential space, approximately 48 million sq ft.

Jai Mavani, Executive Director, Head Real Estate, KPMG India Pvt. Ltd., noted that in the residential property, there is the emergence of a new trend of integrated township promoting the walk-to-work culture. He noted that the residential property continues to remain stable both in terms of rentals and capital value. He noted that Wanowrie is emerging as a new mid-range residential location due to factors such as accessibility to commercial hubs and easy access to social amenities. Areas such as Koregaon Park, Kalyani Nagar continue to be the most expensive location. Within a township you have all your needs taken care of, like schools are close by, banking facilities, shopping markets, recreational facilities and hospitals too are in the vicinity. There is also very less pollution, the working environment is good and the most important thing that there is safety and security.

# 1.2 AIMS & OBJECTIVES

Comparative evaluation of integrated township

To promote economic development

To facilitate the creation of efficient equitable sustainable urban settlement.

To facilitate public private partnership in urban development

To facilitate capacity building in the private sector in government for urban development

1.3 METHODOLOGY
Development of real estate property requires structured approach and in depth knowledge of various related aspects.
Following step by step study is been carried out to achieve the objectives of this project work.
☐ Study of current real estate scenario and trends in India
☐ Major forces acting on the real estate development
☐ Important issues concerning with the integrated township development with today's context
□ Sources of finance for real estate development
□ Data collection and processing of data
$\square$ Problem formulation – a live case is being taken out and it is analyzed with certain assumptions.
□ Comparison and evaluation of integrated township
□ Market analysis
□ Technical analysis
☐ Financial analysis
□ Environmental analysis
☐ To formulate the final outcome of the study i.e. conclusion and recommendations
1.4 SCOPE OF STUDY
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.
1.5 Highlights of an integrated township development project
☐ This is facilitate by the government as it helps in meeting the current housing demand of India and also generates
employment.
□ This townships developed in the suburban areas of a metropolitan city takes a share of the migrating population
and decongesting the existing population.
☐ Encourages private – public partnerships
□ Implementation of integrated township development is not a lengthy procedure as compared to new town
development schemes.
☐ The government encourages foreign direct investments.

# 1.6 WHAT ARE INTEGRATED TOWNSHIP?

Typically, an integrated township has the following key characteristics and elements:

Social infrastructure: An integrated township always has the basic social infrastructure essentials. They are as follows:

School: A quality school with education up to at least 10th standard is set up within the township, reducing the travelling time between home and school and in turn providing the children with more time for play and studies.

 $\square$  Medicare: A good healthcare facility with at least 50-plus beds and an emergency care is set up within the township, thereby facilitating residents.

Recreation: Adequate space for basic sports such as football, cricket, tennis and badminton, fitness facilities including a gymnasium and swimming pools are set up within the township to enhance social lifestyle.

 $\Box$  Community centre: A spacious, well-decorated community centre with a club house and a function hall is set up within the township.

Infrastructure and services: An integrated township needs to be self-contained in most aspects, essentially on basic infrastructure.

Road network: A well-planned road network both within the township and connecting to the nearest highway or main road is built, thereby easing communication.

Water supply and management: A well-planned and sustainable water management system is built within the township, providing round the clock water supply to residents as well as treating the waste water generated within the township and recycling it. This also reduces dependence on municipal water supply.

Electricity supply and management: Although an integrated township depends on a public or private utility supplier for basic power supply, it has adequate, if not abundant, back-up power for both homes and common areas during temporary or scheduled power cuts or disruptions by the utility supplier.

Communication infrastructure: Good quality telecom services are also made available within the township and nearby.

Estate management: An integrated township should incorporate a well-equipped estate management.

Garbage and waste management: Good garbage collection, aggregation, treatment and disposal system is a must for a healthier and eco-friendly township.

Infrastructure maintenance: Proper and regular maintenance of roads, pathways, parks, electrical and plumbing infrastructure, children play areas and common areas including community centre is essential for a well-developed integrated township.

Security: Superior estate security and safety for all residents is a critical element of an integrated township. Shopping and entertainment: An integrated township is incomplete without shopping centres and entertainment areas.

☐ Entertainment: Quality cinema or multiplex, popular games and kid entertainment facilities should be established within the township.

□ Shopping: Well-stocked grocery stores as well as shopping centres including branded garment stores, electronic goods should be established within the township.

□ Food courts: Good quality and hygienic food courts with ample menu options should be established within the townships to cater to the taste buds of all types of residents.

Proximity to workplace: While the intent of an integrated township is always to have the workplace and the residential dwelling in close proximity, in the current context of double-income families, it is practically impossible to achieve this objective fully. However, it can establish adequate, well-equipped office space infrastructure and offer lower rentals to attract companies, banks and corporate houses and create ample opportunities for residents. Apart from this, to smoothen communication between the township and the workplace for rest of the residents, the location of the township should be such that it is easily accessible from various parts of the city.

With such types of infrastructure and services, integrated townships will undoubtedly develop the cities across India in more equitable and uniform manner, solving the country's major urban problems such as bad roads, traffic congestions, inadequate water and power supply and poor sanitation system. Metro zone in Chennai, one of our beautiful integrated townships, proves that architectural vision and talent can create sanctuaries of tranquillity and efficiency, right in the middle of urban chaos.

# 1.7 DEVELOPMENT OF TOWNSHIPS IN PUNE:

In past few years the real estate market of Pune has gained momentum in terms of volumes, prices and trends. This growth in the construction activity and transactions is considered a positive sign as it has happened gradually. Most Punekars agree that the rise in prices is a reflection of the improved construction quality and amenities provided in the new projects that have come up in Pune during this period, a view echoed by developers and property

consultants. Most of the development is in the low-rise residential category, which is precisely what people are looking for these days. Under the rules framed by the township development authority, the maximum height permitted is five storeys, so the ambience is quiet and serene. Thus many people are opting for such Townships due to:

Proximity to the Mumbai-Pune Expressway

The new airport

Proximity to the IT Park and also the coming up of many Industries.

People prefer to stay near their offices rather than spend time on travelling i.e. 'work to Work' concept.

Steady growth due to development of cosmopolitan society.

# 1.8FDI,ECBimpact

Government initiatives like the opening up of FDI and ECB windows for local developers are expected to provide a much-needed boost for township development projects.

"In that respect, it will definitely benefit the integrated township segment and the housing sector in smaller cities significantly."

"Changes in the FDI policy for township development have already attracted foreign players like Indonesia's Salim Group, Singapore's Keppel Land Group and UAE's Emaar group to invest in public-private partnerships with state governments and joint ventures with domestic developers," she adds.

The reference number should be shown in square bracket [1]. However the authors name can be used along with the reference number in the running text. The order of reference in the running text should match with the list of references at the end of the paper.

**Eg1:** As per Kong, the density of X increases with Y [3].

Eg 2: It is reported that X increase with Y [2].

# 1.1 INTEGRATED TOWNSHIP DEVELOPMENT TRENDS AND REGULATIONS REAL ESTATE TRENDS IN INDIA

With property boom spreading in all directions, real estate in India is touching new heights. However, the growth also depends on the policies adopted by the government to facilitate investments mainly in the economic and industrial sector. India has displaced US as the second-most favoured destination for FDI in the world. As the investment scenario in India changes, India which has attracted more than three times foreign investment at US\$ 7.96 billion during the first half of 2005-06 fiscal, as against US\$ 2.38 billion during the corresponding period of 2004-05, making India amongst the "dominant host countries" for FDI in Asia and the Pacific (APAC).

The positive outlook of Indian government is the key factor behind the sudden rise of the Indian Real Estate sector-the second largest employer after agriculture in India. This budding sector is today witnessing development in all area such as - residential, retail and commercial in metros of India such as Mumbai, Delhi & NCR, Kolkata and Chennai. Easier access to bank loans and higher earnings are some of the pivotal reasons behind the sudden jump in Indian real estate.

# 1.1 Why to invest in Indian real estate?

Flying high on the wings of booming real estate, property in India has become a dream for every potential investor looking forward to dig profits. All are eyeing Indian property market for a wide variety of reasons:

☐ It's ever growing economy which is on a continuous rise with 8.1 percent

Increase witnessed in the last financial year. The boom in economy increases purchasing power of its people and creates demand for real estate sector.

□ India is going to produce an estimated 2 million new graduates from various Indian universities during this year creating demand for 100 million square feet of office and industrial space.
□ Presence of a large number of Fortune 500 and other reputed companies will attract more companies to initiate their operational bases in India thus creating more demand for corporate space.
☐ Real estate investments in India yield huge dividends. 70 percent of foreign investors in India are making profits and another 12 percent are breaking even.

Indian real estate sector is on boom and this is the right time to invest in property in India to reap the highest rewards. India is one of the fastest growing economies in the world, with an 8% GDP growth in the last three years and with that has flourished the Indian Real Estate industry. In the last fifteen years, and more specifically in the last 3 years, Real Estate in India has observed a boom.

# 1.2 Housing Scenario:

Housing is nothing but permanent shelter for human habitation and shelter is necessary for everyone. Down the age, the problem of providing adequate housing has been a concern for individuals as well as government.

An ideal human settlement should have the potential of encompassing each and every aspect of a satisfactory human life and it must offer its inhabitants sufficient opportunity to flourish by expanding the set of available alternatives and effectively enhancing their productive capabilities. Housing can contribute effectively in fixed capital formation as well as creation of productive employment.

Unfortunately, despite considerable investment and efforts over the successive period, there still exists a major gap between the demand and supply of housing stock in our country. The growth of population in our country gave rise to simultaneous increase in demand for the housing requirements. But these demands could not be successfully met on account of variety of factors. This resulted in a gap between the need and availability of dwelling units and an acutely capital deficient housing sector.

# 1.3 Economy -

While the number of institutional outlets for housing credit has increased considerably during the last decade, volume of funds for the sector as a whole, accessibility of credit to the economically weaker sections and affordability continue to be critical aspects for the housing sector. In addition the housing finance companies have been increasingly exposed to varying opportunities accompanied by challenges in the wake of the ongoing process of economic reforms and financial sector deregulation.

# 1.4 Demand for Housing:

The main determinant of the demand for housing is demographic. However other factors like income, price of housing, cost and availability of credit, consumer preferences, investor preferences, price of substitutes and price of compliments all play a role. Variables in demand for housing are population size and population growth: the more people in the economy, the greater the demand for housing. It is also necessary to consider family size, the age composition of the family, net migration etc. the price of housing is also an important factor.

Introduction related your research work Introd

2 REGULATIONS AND REQUIREMENTS FOR DEVELOPMENT OF INTEGRATED TOWNSHIPS GUIDELINES GIVEN BY 'MAHARASHTRA STATE HOUSING POLICY' (GOVERNMENT OF MAHARASHTRA – HOUSING DEPARTMENT) Preface:

The first ever DRAFT STATE HOUSING POLICY was published on 1st of November, 2006. It made an effort to address the issue of providing affordable housing for the Economically Weaker Section, Low Income Group, Middle Income Group. It also emphasized the need for reforms and liberalization in the Housing Sector as a major challenge. Instead of the role as Provider, the State Government will increasingly play the role as Facilitator and Enabler. It set an ambitious objective of moving from acute shortage of accommodation towards a surplus situation. Special Township Policy:

Government of India has announced its policy to permit 100% Foreign Direct Investment (FDI) for development of integrated township. In order to encourage private investment in housing sector and to facilitate housing at affordable prices, the following incentives will be available for projects under Special Township Area –

- □ Non-agriculture permission will be automatic.
- ☐ Exemption from Urban Land (Ceiling and Regulation) Act, 1976
- ☐ Government Land falling under township area shall be leased out to the developer at the current market rate.
- ☐ The condition that only agriculturist will be eligible to buy agriculture land shall not be applicable in Special Township Area.
- ☐ There shall be no ceiling limit for holding agriculture land to be purchased by the owner/developer for such project.
- There will be floating FSI in the township. Unused FSI of one plot can be used anywhere in the whole township.
- ☐ The stamp duty rates applicable in the Special Township area shall be 50% of prevailing rates.
- □ A Special Township Project shall be partially exempted from payment of scrutiny fee for processing the development proposal.
- □ 50% concession in payment of development charge
- ☐ Development of basic infrastructure and amenities shall be an integral part of the project.

# CHAPTER 4: CASE STUDY 1. M A G A R P A T T A CITY

A



# CITY WITHIN A CITY

WALK - TO - WORK. WALK - TO - SCHOOL & WALK - TO - SHOP.

# About Magarpatta City:

Pune was getting urbanized. Mr. Magar did not want some government order grabbing our land under the garb of developing it. Not that they were politically weak. His father's elder brother Annasaheb Magarhas won five elections from here. He was the MLA (Member of Legislative Assembly) from there for five terms from 1952. He then became an MP (Member of Parliament) during the Janata Party regime. His name helped them when they dealt with the government.

In 1992-93, a lot of unauthorized constructions came up all over the place. It was chaotic. He decided to develop a township in reaction to this in 1994. He told the government that we wanted to develop an integrated township.

He spoke to (the well-known Mumbai architect) Hafeez Contractor and also to local architects. He read the Town Planning Act. He found out how much area has to be left open. He told the architects and engineers what we wanted and they gave us this plan.

# WHAT MAGARPATTA CITY MEANS FOR YOU?

You will be living in the lush green Oxygen Zone. Your children can walk to the school in the backyard. When they come home they can play in the gardens. You too can spare yourself the trouble of wading through traffic jams and walk to your office. And as your home is close-by, you can see your family for lunch. Then in the evening, the entire family can get-together and choose to spend the evening at any of the recreational centers.

# Putting ideas into action while designing city:

Pune was already famous for its automobile industry. They had good educational institutions and therefore Mr. Magar decided on a knowledge city. He did not go for heavy industry because they were within city limits and he did not want to pollute the place. He wanted the residential complex next to the workplace and this is not possible with heavy industries.

IT was a nascent industry. Whatever is new is always easy to sell. First he had to get the 120 families together. Down the generations, family land had become fragmented due to divisions. He told farmers that we could uplift ourselves. Everyone would get a share depending on the size of their land. Instead of becoming land sellers let us become developers, he said. Farmers trusted Mr. Magar. They approached the government with plan. At that time Sharad Pawar was the Maharashtra chief minister and he was very encouraging. He told them to do it properly and not to take short cuts. The entire process took six years. We



have dealt with four chief

ministers.

# GLIMPSES OF MAGARPATTA CITY

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.

They are trying to replicate this model in two places. In those projects, Magarpatta 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. The big attraction is that landowner has a chance to transform their lives. Because of this project farmers involving in it are financially better off. They have an asset that will give them money always. This money has not only brought financial security, it has brought with it social up liftmen. It has made them proud. They are also working as vendors to the company.

So company started construction in March 2000 with a residential block of 72 apartments. They also started working on the commercial area, which is generally the magnet for townships. At that time, IT was hot so they planned for an IT Park. They felt that there would be a time when a lot of people would want to come back, work and live there.

When Magarpatta Company started in year 2000 we thought that the sale estimate would be between Rs 2000 crore (Rs 20 billion) to Rs 2500 crore (Rs 25 billion). Finally the capitalization turned out to be Rs 5000 crore (Rs 50 billion). It now has gone up to Rs 4000 crore (Rs 40 billion). Company started at Rs 1000 to Rs 1100 per square foot. Now normal flats are at Rs 3750 per square foot and the luxury apartments are priced at Rs 4750 per square foot.

The best investment they made is the creation of second-generation land owner-entrepreneurs and two, Cyber city Magarpatta -- the IT Park which is an asset for the landowners.

# **MISSION:**

Mission is to create a new way of life for the networked society of the new millennium with emphasis on proper environmental control, good living standards, modern educational system and state-of-the-art working conditions with total security.

# VISION:

Our Vision is to create a new way of life for the networked society of the new millennium. With emphasis on proper environment control, good living standards, modern educational system and state-of-the-art working conditions with total security.

# LOCATION:

One great advantage of Magarpatta City is its close location. The city is 7 kms from the Pune Railway



station and 5 kms from the City's business centre. This makes

Magarpatta City easily accessible from anywhere in Pune.

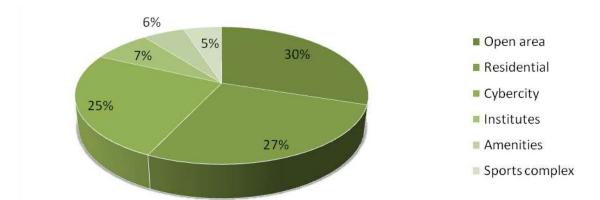
# SITE PLAN:



LAND USE

# PATTERN:

PARTICULARS	Area (acres)	Percentage (%)
OPEN AREA	120	30.00
RESIDENTIA L	108	27.00
CYBERCITY	100	25.00
INSTITUTES	30	7.50
AMENITIES	22	5.50
SPORTS COMPLEX	20	5.00
TOTAL	400	
TOTAL (SQFT)	17,424,068	
FSI UTILIZED	1	



# PIE CHART OF AREA DISTRIBUTION

- > 100% FSI is utilized
- ➤ 1/3rd of the Magarpatta City is under open area
- It is called as a high tech city because of 25% of IT sector of the total area.



SEZ	AREA -11.98 HECTORS, IT/ITES SEZ (UC)
CYBER CITY	12 towers of IT offices, employing 35,000 people
MEGA CENTRE	Shopping area with offices & food courts; 5.25 Lac square feet
DESTINATION CENTER	Inside the city, need based commercial set up
PENTAGON – THE ALL- OFFICE BUSINESS COMPLEX	Exclusive IT/ITES corporate office complex
STUDIO APARTMENT	Service apartment – secure center for visitors (UC)
WORKING WOMEN'S	For women working in cyber city (UC)
HOSTEL	
INTERNATIONAL DELUXE	For foreign delegates & visitors (UC)
HOTEL – 5 STARS	
THE MALL	On the boundary of the city to cater out-side

	Magarpatta city's population also
SCHOOL	Up to secondary level
DECCAN HARVEST – MULTI- CUISINE RESTAURANT & COCKTAIL LOUNGE	In the heart of 25 acres Aditi Gardens
GYMKHANA – THE FITNESS JUNCTION	1 Lac Sqft, with all sports facility
NOBEL HOSPITAL	Multi specialty hospital

RESIDENTIAL SET UP	
ACACIA GARDENS	Residential Bungalows 3-5 BHK
DAFFODILS – THE WAY TO	High-rise residential flats  2-3 BHK
LIVE	
ERICA – A LIFE OF ETERNAL	Row houses  3 BHK
BLISS	
GREVILLEA – YOUR	High-rise residential flats  2-3 BHK
PARADISE UNDER THE SUN	
HELICONIA – LIFE IN	Medium rise residential flats  2 BHK
NATURE'S EMBRACE	
COSMOS – HOMES WITH	High-rise residential flats  2-4 BHK
UNLIMITED FRESHNESS	
IRIS – WHERE LIFE FLOWERS	High-rise residential flats  2 BHK
MULBERRY GARDENS -	Independent luxurious bungalow
MAKE YOUR PEACE WITH	
MOTHER NATURE	
JASMINIUM – A HALLMARK	High-rise residential flats  2-3 BHK
OF GOOD	
LABURNUM PARK – YOUR	High-rise residential flats  3-4 BHK
VERY OWN COMFORT ZONE	
ROYSTONEA – LIFE'S BEST	High-rise residential flats  2-3 BHK
MOMENTS	Y AR

# CONSIDERED FACTORS:

# MAXIMUM SECURITY AND SAFETY

Magarpatta City is a walled city, with fortified gates and guarded entrances. No stranger can enter the city, without security clearance. Added to this, the city will be intensively patrolled day and night by security professionals. All the safety norms for fire fighting, electricity, in-city traffic will also be enforced by professionals.

# **ENVIRONMENT**

1/3rd of Magarpatta City's area, about 120 acres is gardens alone. Apart from this there are trees, plantations and green sidewalks dotted alongside the roads. Declared an Oxygen Zone, the City is pollution-free. Adopting eco-friendly practices such as solar water heating, solar lighting and hygienic garbage disposal further preserves the environment.

# **EDUCATION**

Magarpatta City also has education facilities from pre-primary to graduation. Which means your children won't have to go far for schooling and college education. This will be available within walking distance.

# RECREATION

Recreational spots are normally located far off in any city. But at Magarpatta City you have them right



around your home. Amphitheatres, Cultural Centers, Aqua Sports Complexes, Shopping and Entertainment centers, Golf Clubs and more offer you the maximum delight.

# HEALTH

A family's healthcare needs are met by a 200-bed multi specialty hospital in Magarpatta City. The ultra modern hospital will provide the best in

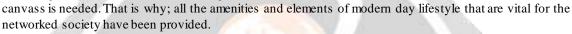
healthcare by eminent medical professionals.

# **INFRASTRUCTURE**

A consistently top quality of construction procedures is maintained at Magarpatta City. Broad wide roads, traffic islands, block parks are designed in accordance with international procedures. Power & water supply too will be through systematic super safe state-of the-art engineering



In line with its mission, Magarpatta City is an effort to ensure a convenient, enjoyable and stress-free life for a family. To achieve this mere neighbourhood won't suffice. A larger





At Magarpatta City your children won't have to travel far to school or college because the city offers educational facilities from pre-primary to graduation within walking distance.

## RECREATION

Normally recreational spots are located far away in a city. But at Magarpatta City they are available right around your home. Sports Complexes, Amphitheatres, Cultural Centres, Aqua Sports Centres, Shopping and Entertainment centres, Golf Clubs, Gardens, Children's Play Areas, Community Centres and more offer you maximum delight.

# HEALTHCARE

Family healthcare needs are met by a 200-bed multi-specialty hospital in Magarpatta City. This ultra modern hospital will provide the best healthcare by eminent medical professionals.

Apart from dream homes, it is these unique value offerings that make Magarpatta City really exclusive. And also the ideal city for a lovely home and a lively lifestyle, right in the centre of Pune. In the lush green Oxygen Zone, that is just 8 kms off the Mumbai-Pune expressway.

# GENERAL AMENITIES AT MAGARPATTA CITY:

GARDEN CITY	Central Garden of 25 acres along with separate internal gardens for every neighbourhood ranging from 0.5 to 2 acres			
CYBER CITY	Hi-tech commercial area for information technology enabled Services.			
SHOPPING	Convenient shopping & other essential services.			
INTERNAL	Broad asphalted roads with landscaped footpaths on either			
ROADS	side.			
JOGGING/CYCLE	Extensive network of jogging & cycling tracks throughout			
TRACKS	Magarpatta City.			
SECURITY	Round-the-clock Centralized Security System.			
GARBAGE DISPOSAL	Eco-Friendly sustainable garbage disposal system.			
PROPERTY MANAGEMENT	Maintenance and upkeep will be looked after by Magarpatta Property Management Division.			



EDUCATION	Education Facilities from primary school to higher education with large Playgrounds.		
SPORTS	Wonder Golf, Swimming Pool, Tennis Academy and Gymnasium.		
HEALTH FACILITIES	Well equipped hospital for medical aid round-the-clock		
BROADBAND CONNECTIVITY	The city is Broadband enabled with Tata Indicom Broadband from VSNL		
CABLE SERVICES	Cable services are provided by the Property Management Services Division		

Magarpatta city is not Special Township but it is same scale city with all same amenities, facilities, infrastructure which is very famous in Pune.

# **Location:**

# Distances,

•	From	Race Cou	ırce				_	3.5kms
•	From	Koregaon	Park				_	4.5kms
•	F	From	City's	business	Centre	( - A	5.0	kms
• F	rom Airp	ort	– 9.0kms					

# Approvals & Sanctions

Magarpatta City is approved by the Department of Urban Development, Government of Maharashtra.

- Magarpatta City is exempted from the provisions of Urban Land (Ceiling, Regulation) Act of 1976.
- Master Plan of Magarpatta City is approved by Pune Municipal Corporation.
- Cyber city has also been registered as Private Information Technology Park with the Directorate of Industries, Government of Maharashtra as a result of which there is 75% exemption in Stamp-duty payable
- Cyber city Magarpatta is approved as an IT Infrastructure Provider by Software Technology Parks of India.





# Eco Friendly Systems: Rainwater Harvesting:

Rainwater harvesting to canalize water from terraces is planned for over 8 natural wells, 515 recharging bores, over 1.25 acres of an artificial lake body and to recharge ground water levels. Inter-locking paving blocks and cutout grass concrete pavers assist in raising groundwater levels. Pune's largest mist fountain enhances the microclimatology here. Waste water is recycled with three sewage treatment plants planned with a capacity of 2 million litres a day and the recycled water is used for gardening purpose via the

conserving drip irrigation and sprinkler distribution system. This keeps the garden lush green and lowers temperatures in the surroundings.



Rainwater Harvesting Garbage Segregation

# Garbage Segregation at Source:

Eco-friendly practice of segregation of over 400 tones of household and commercial garbage, trash and waste per month is done at source of which 280 tones of biodegradable waste is used for vermi-culture and bio-compost. Over 120 tones non-biodegradable waste is recycled in a way not hazardous to nature, disposed off safely and the re-usable scrap is sold.

# **Biogas Plant**:

A two tone capacity Biogas plant is installed here wherein biodegradable waste goes through a process and the non-polluting biogas which is generated is used to generate power to operate a major percentage of the garden pumps. This saves excessive power requirements equivalent to 118 commercial gas cylinders of 19 kilograms capacity per month, which translates to a power generation of over 270 electrical units per day. Over 7,000 solar water heating panels installed on the terraces reduce heat effects on the top floors and are designed to save over 1.75 crore electrical units which potentially translates to more than 13,000 tone of carbon emissions saved every year. An electrical vehicle is used for security. Low power consumption lights are fitted in streets and common areas.



Biogas Plant Vermiculture:

# Vermiculture:

The nursery has vermi-culture and bio-compost pits, which generate manure from garbage segregated at source at Magarpatta City. The manure composted here provides for nourishing these saplings and shrubs. Organic pesticides like Verticillium and Trichoderma are used extensively. Not only are plants, saplings and organic vegetables sold here, a unique facility of a Plant Library is offered whereby just like a book/video library one can enjoy the different plants here at a nominal charge for a limited period providing a refreshing and dynamic feel to ones dwelling.

# Use of Fly-ash Bricks in construction:

Fly ash which is an environmental hazardous waste produced by thermal power plants is used as a part replacement of cement and fine aggregates, is an inert material & saves energy required for production of cement. Usage of fly ash bricks helps in reduction of greenhouse gases, which are depleting the ozone layer. These bricks are better than traditional bricks because of various reasons, like controlling of pollution, cost, breakage, wastages, evenness, finish while manufacturing and more compressive strength. As fly ash bricks are produced mechanically they are economical, good for any type of masonry and absorb very less water. For every tone of fly ash used in construction, approximately 1 tone of CO2 emission in environment is reduced. Magarpatta City is set to consume 1, 30,000 tone of fly ash by the time construction is completed here, translating into a huge saving of over the same, i.e. 1,30,000 tone of carbon emission.

# **Solar Water Heating System:**

Magarpatta City has become home to one of the largest residential Solar Water-Heating systems in the country. The solar panels have been put in all the residential apartments comprising of about 3500 flats in the Phase-I & II. On completion, the total capacity will be in the region of 7 lakh liters per day which will save power to the tune of 37 KWH per day and in monetary terms Rs.3.9 crore a year. This is one of the many environment-friendly practices carried out in Magarpatta City.

# 4. Conclusion

After the detail comparative analysis on the case studies and the survey form analysis filled by the customer, the conclusion has been drawn.

The most important factor in an integrated township is location and location and location and location......

After the location customer give preference to the cost factor of project and the risk factor of the investment.

The other factor which are considered secondarily by the customer is Infrastructure facility, Master plan and all other plans including architecture concept, then amenities and facility which includes basic amenities and facility and also civil amenities and facility.

The importance is also given on the construction specification, total area distribution, environmental sustainable development, safety and technology used by the customer.

As per the study customer expects all the facilities and comforts and the life without stress to be there in a township.

By the comparative evaluation of factors of township we find that the Amanora city is getting more weight age point than Nanded city and Magarpatta city because Due to risk factor and luxurious, planning and construction specification.

From the survey of people preference for selection of township the grading for the township factors are as follows: Location

Cost factor of project
Risk factor on investment
Amenities and facility
Infrastructure facility
Master plan and Architecture plan
Construction specification
Total area space distribution
Environmental sustainable development
Safety and technology used

# 5. Acknowledgement

I take this opportunity to express my deep sense of gratitude to my guide, Prof. A. R. Chavan for his continuous guidance and encouragement during this study. Without his valuable suggestion and encouragement this would not have been possible. It is because of his experience and wonderful knowledge I can fulfill the partial requirement of completing the report within the stipulated time.

I would also like to thank Prof. S. S. Deshmukh HOD, Civil. Engineering

I acknowledge with thanks, the assistance provided by departmental staff, central library and computer faculty staff. I find myself spellbound to acknowledge thanks to my father and mother for their silent support, patience, encouragement and affection without which this work would never have been possible and I thank all my colleagues for their valuable co-operation and coordinate which was available time to time.

# 6. REFERENCES

Books-

- 1. Prasanna Chandra, "projects", 6<sup>th</sup> edition, Tata Mc Graw Hill, New Delhi
- 2. Real properties magazine volume 6 issue 11 September 2009

Drafts-

UDPFI Guidelines – Norms and Standard\

Draft dated 01/10/05, Maharashtra Government Policy

Draft notification, special township policy, government of Maharashtra India

Maharashtra regional and town planning act 1966, Urban Development, Mantralaya, Mumbai 400032, dated 20 th Feb 1991

Maharashtra state housing policy, housing department, Government of Maharashtra, November 2006

Group, I. E. (2007, July 04). *Pune, Newsline*. Retrieved March 30, 2010, from http://cities.expressindia.com/fullstory.php?newsid=244241

Website-

http://www.nandedcitypune.com/home/home.php

http://www.magarpattacity.com/

http://www.amanora.com/home

http://housing.maharashtra.gov.in/english/dcmNew/pdf/HPeng.pdf

