CHAPTER –IV

UNIQUE FEATURES OF MAGARPATTA CITY SEZ

4.1 Introduction

We have seen in the earlier chapters that Special Economic Zones in India were shrouded with many tribulations. SEZ policy in this nation raises serious problems like forceful land acquisition and eviction of previous users, inadequate compensation and rehabilitation, loss of revenue, violation of Indian Acts, environmental concerns and so on. However, an initiative like the Magarpatta City SEZ has brought up new hopes in this depressing scenario. The Magarpatta City SEZ is governed by the native peasant for the native peasant. This project provides possible alternative answers to the challenges posed by SEZ’s such as land acquisition and eviction of affected people. The present chapter exclusively tries to explore the features that made the Magarpatta City SEZ one of the unique projects in India. In this chapter, the word unique is related to those aspects related to the SEZ which have not identical to others.

4.2 Magarpatta City SEZ: Farmer’s Direct Investment (FDI)

“What is now called the Magarpatta City SEZ grew out of a dream, an idea. The idea came from a strong feeling amongst those of us who lived in this region to preserve our lands that were on the verge of being acquired either by the government or by the local developers. So, Magarpatta City SEZ was the outcome of farmers, who came together and planned to do something different with their inheritance. We called as FDI (Farmer’s Direct Investment)”

- Mr. Satish Magar, Chairman and Managing Director, Magarpatta Township Development and Construction Company Limited (MTDCCL).

SEZs can be established on any land, including privately procured or in the open market. However, it has been difficult for companies to procure the large, contiguous areas of land they require, particularly in the areas of their choice with sufficient infrastructure and access to urban areas, as well as at attractive prices.
Hence, the government authorities have taken it upon themselves to behave as the “property agent” for the companies. The Land Acquisition Act of 1894 has provided the legal basis for acquiring land for SEZs in particular (See Rawat, Bhushan and Surepally; 2011:3).

The Magarpatta City SEZ model is an innovative land-pooling mechanism that made the original landowners the primary stakeholders in the development company, rather than the traditional outright purchase method adopted by most third party developers. The entire development thus became extremely participatory, from decision making, policy development, and actual execution. The landowners remained attached to their land, and upgraded their lives and standards through a continuous profit model. Most landowners shifted from being farmers to entrepreneurs. The term ‘FDI’ thus gathered a new meaning, from “Foreign Direct Investment”, to “Farmers’ Direct Investment” (See ICC; 2011:5). Therefore, certainly this feature itself has a unique identity, where insiders have become primary stakeholders that avoid issues like mass resistance and movements against land-pooling, which are common features in the case of other SEZ’s.

4.3 Sustainable economic benefits to shareholders

Magarpatta City SEZ presents a positive example of socio-economic sustainability, in which the original landowners were not dispossessed as in other cases of urbanization of other rural areas. Rather, the farmers still own parts of the land (as the commercial buildings are rented out) and most importantly, are the 100% shareholders of the company which runs the township. Continuous financial gains are thus guaranteed. (See Sustainable Habitat in India; 2011:12). The Magarpatta City SEZ annually distributed approximately ₹23 crores as dividends to shareholders (See ICC; 2011:4).

The first IT Park ‘Cyber City Magarpatta’ which became operational in 2003 and created assets for the landowners. Unlike in the case of the residential accommodation, these office buildings have been leased out to various corporate houses, which have resulted in a steady stream of revenues and the lease rent received, is later distributed in the form of dividends among the land owners. Other activities of these farmer-promoters include services like the broad band, cable television, transportation system and food supply, which has enabled the
Magarpatta City SEZ to create a whole new generation of entrepreneurs. Magar is very emphatic, when he claims that the quality of the services is par excellence.

The entire IT Park is owned by the company and not sold, but leased. This idea was to create a perpetual source of income for the farmers. Even after the entire land money has been recovered, there should be some asset from where they can receive an income. Magarpatta City SEZ is also earning regular revenues on account of it being used as a backdrop for many Indian movies and television commercials.

In 2011, MTDCCL employed more than 600 engineers in the company. In addition to the goodwill that it had generated among the landowners, MTDCC had become a project execution company with lots of equipment and capital assets. ‘What started in the year 1993 to protect their own land and get maximum returns, had now taken a giant leap’, claims Mr. Satish Magar. (See Shulka and Laghate; 2012:49).

In nutshell, the farmer, who promoted the Magarpatta City SEZ have not only earned their prices for their land, but they have also earning regular dividend income from their shareholding, rentals, employment generated by MTDCC and also from various work contracts.

4.4 Equity in the distribution of benefits

Magarpatta City SEZ is a unique example of the partnership of the farmer (See Shukla and Lagahte; 2012:53). Farmers technically given their land to the MTDCC, but they still continue to be part the Magarpatta City SEZ on account of the share they hold. Each share is held equivalent to 1m² of land and the book value of each share was decided to ₹100. This business strategy of the company has ensured that a farmer with 1 acre of land holding today earns a dividend of ₹1.5 to 1.6 million per year (See Nair; 2010:33); the participating farmers were also encouraged to buy assets such as residential property, shops in the Magarpatta City SEZ. Equal benefits were also distributed to holding the contracts in the Magarpatta City SEZ. Shareholders of the company are encouraged to bid and undertake contracts for supplying raw material for construction and maintenance work, labour contracts, vending contracts, landscaping and beautification contracts, security contracts and so on. During the last few years, over 300 contracts have
been awarded for various types of development activities. On an average, each shareholder gets two contracts (See Indian Brand Equity Foundation; 2004:6).

Table No.4.1: Comparison of Magarpatta City SEZ with other SEZ’s in India

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Key features</th>
<th>Other SEZs in India</th>
<th>Magarpatta City SEZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land Acquisition Process</td>
<td>➢ Land acquisition is done by the respective state government. ➢ Forceful land acquisition using police force.</td>
<td>➢ Involvement of farmer: willingness to give their land to MTDCC for developing their own Magarpatta City SEZ. ➢ No forceful land acquisition and use of police force.</td>
</tr>
<tr>
<td>2</td>
<td>Compensation to evicted people</td>
<td>➢ Very less compensation as compared to market value ➢ Compensation is given as per the norms of Land Acquisition Act 1894.</td>
<td>➢ No such compensation to the affected native peasant, who gave their land for this SEZ. (There is no question of one time compensation) ➢ Magarpatta City SEZ gave equal shares proportional to land holders which helps for sustainability.</td>
</tr>
<tr>
<td>3</td>
<td>Rehabilitation of evicted people</td>
<td>➢ Government and SEZ owners did not take any responsibility to rehabilitate the affected people because land is acquired for public purpose as per the Land Acquisition Act 1894.</td>
<td>➢ Every native peasant got parcel of land for house or flat within the Magarpatta City SEZ based on their land. ➢ Big landholding peasants got land and they build bungalow, whereas small landholding peasant got 3BHK flats in their apartment.</td>
</tr>
<tr>
<td>4</td>
<td>Monetary benefits to affected people</td>
<td>➢ One time monetary benefits i.e. compensation to the affected people given by SEZ developer through respective state government.</td>
<td>➢ In case of Magarpatta City SEZ, peasant doesn’t get direct monetary benefits. But, this model gives them sustainable source of income from the dividends on share, each share holder benefitted with contract and entrepreneurship activities.</td>
</tr>
<tr>
<td>5</td>
<td>Involvement of affected people in the SEZ</td>
<td>➢ No direct and indirect involvement of affected people in any SEZ.</td>
<td>➢ This SEZ is owned by the native peasant. Magarpatta City SEZ itself called as Farmers’ Direct Investment (FDI)</td>
</tr>
<tr>
<td>6</td>
<td>Do the affected people get jobs, contracts and shares in SEZ?</td>
<td>➢ None of the SEZ in India provide jobs, contracts and shares to the affected</td>
<td>➢ Magarpatta City SEZ is model for development of native poor peasant</td>
</tr>
</tbody>
</table>
people. However, there are examples, where the affected people started their own business after getting their financial shares only outside the concerned SEZ’s (Mundra Port SEZ Gujarat). Therefore, they offer share proportional to land holding as well in house contract and jobs to the involved peasant.

| 7 | Providing jobs to agricultural laborers’ in the SEZ | ➢ SEZ directly does not give any jobs to the laborers, who previously worked in the farms. | ➢ Management of Magarpatta City SEZ took care of their laborers’ to secure guaranteed jobs on different positions. |
| 7 | Propriety to give contracts to the evicted people | ➢ No provisions to offer any contracts to the evicted people. | ➢ Magarpatta City SEZ gave more than 300 different contracts only to those peasants who gave their land to SEZ. |
| 8 | Sustainable income source after losing land for SEZ | ➢ No other sustainable income source except only one time monetary benefits. | ➢ Assurance for sustainable income source to the native peasant from the dividends, contracts and entrepreneurship activities. |
| 9 | Ecological preservation | ➢ Ecological preservation is not visualized in other SEZ’s. | ➢ Magarpatta City SEZ is a model of ecological conservation. |

4.5 Magarpatta City SEZ: Answer for land acquisition

Land acquisition is one of the most crucial aspects of SEZ’s. Long before the nation woke up to the violent protests against ‘forced’ land acquisitions for Special Economic Zones (SEZs), a small group of farmers on the fringes of Pune saw the writing on the wall and decided to act before the process of globalisation and development swallowed up their ancestral farms (See Ganguly; 2010:1).

The land they tilled has been under the Pune municipal jurisdiction since 1960, though it was still an agricultural zone. But in 1982, the Pune Municipal Corporation marked it as a ‘future urbanisable zone’ in its draft development plan, which meant that the government could easily acquire the land under the Urban Land Ceiling Act.

The example of Magarpatta City SEZ shows the possibility of the implantation of an original land consolidation model in India. It is remarkable because, it made the community’s wish for an alternative to forced land acquisition a reality. It was operated with the participation of landowners, and even though
they did not originate from urban backgrounds, they were able to adapt to the evolution of their environment (See Chiravalli N.; 2012:54).

4.6 Ownership on the land

At the time of creation of MTDCC, both preference shares and ordinary equity shares were issued. The preference shares were redeemable after a specific term and their repayment thus led to the end right of shareholder over the land. On the other hand, ordinary equity shares ensure permanent right of shareholder in the company and over land. The most important and unique feature of this model is that the land have remained in the name of the contributing farmer and his family. This has resulted in safeguarding the ownership of the farmer over the land (See Sustainable Habitat in India, 2011:11, Nair; 2010:35, Shukla and Laghate; 2012:54).

4.7 Native farmer become entrepreneur through their own SEZ

In Magarpatta City SEZ, the original land-owners have found new occupations in meeting the assorted requirements of the township they have built. The families of the farmers have also managed to move beyond agriculture and into other occupations. Several spin-off subsidiary businesses have emerged such as local companies providing cable TV and broadband Internet, catering and food supply, laundry, landscaping and a local transport system. About 70% of the families are now under tax audits, earning a minimum of ₹ 40 lakh (approximately USD 85,000) a year and paying a total of about ₹ 10-12 crores in taxes as a community (See Dalal; 2008:4).

The peasants of the Magarpatta City SEZ have been full partners in growth. The money from the land was used only for asset creation, then by creating a safety net for the next generations. The peasants use a part of their funds to invest in the land to buy flats and shops in the township. Over 250 entrepreneurs have emerged from the Magar community in non-agricultural ventures. This is possible after training and guidance of Magarpatta Township Development and Construction Company (See Gupta, Dalal, Basu, Joseph; 2012:8). These first generation entrepreneurs account for a gross annual turnover in the range of ₹ 150-200 crore. The business strategy of the company has ensured that a peasant who
had one acre of land at the time of its formation today earns a dividend of about ₹
15-16 lakh per year.

4.8 Model of Gated Community

Gated communities and enclaves have been welcomed for reducing the burden on city corporations and the police by being self-sufficient. They also represent an opportunity for planned development that can provide ecologically sustainable living spaces (See http://fountainink.in/?p=1122). Magarpatta City SEZ is unique, because all its amenities are surrounded inside the wall and the gated community is an urban model (See Apurva; 2008:42).

4.9 Green Hierarchy

At the city level, there are distinct hierarchies of usage patterns of green spaces. They vary from more passive roadside plantations that give green cover to pedestrians and enhance the beauty of the road, to cosy tot-lots, which have sheltered children play areas, to sector level play areas for older children and young adults, to open areas for social assembly and merriment for sector citizens, to a larger city level urban park for all the citizens to access, enjoy and rejuvenate themselves. Magarpatta City SEZ maintains and respects this hierarchy; so every citizen has easy access to surrounding greenery and responsive landscaping, that is actually used and appreciated (and hence it is well maintained). Every residential sector has buildings at the periphery overlooking a centralised open space, in an obvious abstraction of the traditional courtyard planning, thus bringing back the trees and lush landscaping in progressively urban lives, enhancing health and well-being. All parks are open for public uses (See Nair;2010:33).

4.10 Road Hierarchy for Reducing Vehicle-Pedestrian Conflict

Magarpatta City SEZ has a large network of roads (75 Kms.) that facilitate vehicular movement in a planned hierarchical manner and segregated pedestrian movement corridors alongside the carriageways. Special design emphasis is laid on the design and detailing of the pedestrian corridors and footpaths. Shaded and beautiful landscaping is meant to entice citizens into rediscovering the joys of walking to nearby places. Well designed urban signage’s facilitate way finding at
the city level. At stipulated activity areas, there are seating zones near pedestrian corridors, for resting and pausing to enjoy the surrounding city life. Junctions are well treated with traffic calming systems to ensure intercity vehicular traffic, which is wary of the pedestrian priority aspect of Magarpatta City SEZ’s planning. Visual corridors are pre-planned to ensure high visibility during turning, thus ensuring better predictability on incoming pedestrian / vehicular traffic, and thus reducing the possibility of conflict.

4.11 Walk-to-Work / Walk-to-School and College

Under the enthusiastic and focused leadership of Mr. Satish Magar, whose passion for this enterprise emerged and remained strong, the project got underway. Since the whole concept of the township was new and strange to some, there was no precedence upon which the farmers could fall back upon. The farmers had absolutely no requisite educational qualifications or skill sets to equip themselves for decisions like the capital structure, operations or even day-to-day management. Magar met Hafeez Contractor, a well-known architect in Mumbai who consented to take up the project. Along with few others he visited residential localities in San Jose and Santa Clara in the U.S.A., which had the concept of ‘Walk-to work’ and he was convinced with the idea of having a plan with open spaces and the areas reserved for schools and utilities.

As an inclusive development, all city level amenities and features were integrated into the planning, in a manner, such that all these facilities became easily accessible and easily walkable. This forms a crucial planning parameter to Magarpatta City’s success. It is a known fact that more than 90% of the daily trips made from home are for work and for school / colleges. If these trips can be made unnecessary, then precious time and energy is saved for each family, resulting in greater amount of valuable time at home, with family and loved ones. The planning of Magarpatta City has been done in such a manner. Offices are at most ten minutes walking distance away from any residential sector. Magarpatta City Public School and Magarpatta City College are placed a couple of minutes away from their residence, so that the students can walk or cycle from their home in a safe and secure pedestrian priority walkway. Great emphasis has been laid on the design of these roadside pedestrian walkways, keeping various aspects of Universal Design integrated in the engineering of the footpaths. This ensures better
and more effective use of footpaths in the Magarpatta City SEZ, which would be comfortable for the young, old, able and disabled (See Magarpatta City Update;2012:4).

4.12 Access to economic facilities

As an integrated township, Magarpatta City strived to move away from the traditional and outdated planning model of just making residences without developing work centres nearby. Magarpatta City purposefully did not want to follow the unsustainable American vision of Suburbia, where isolated fringe residential colonies housed workers, who travelled great distances to access their Central Business Districts (CBDs), resulting in wastage of time, fuel and reduction in quality of family life. Magarpatta City developed around 6 Million Sq.Ft of commercial offices, banking on the IT boom of the last decade, to create a new city level business destination, for which surrounding residential development became both a sustainable proposition, and a comfortable liveability feature based on the tried-and -tested Live-Work-Play-Learn doctrine.

4.13 Integrated Amenities

All mandatory and necessary social and physical infrastructures are integrated in planning to ensure that the township is self-sufficient and intrinsic. These include:

- School and College
- Multi-Specialty Hospital (Nobel Hospital owned by Magarpatta City SEZ)
- Workplaces (IT Offices, Professional Offices, SEZ)
- Shopping Centres
- Restaurants
- Banks / ATMs
- Gymkhana / Sports Facility
- Cultural Assembly Space
- Security Checkpoints
- City-level Public Parks
- Auto Stands / Bus Stands / Transit Interchange Points
- Greenery and Garden
4.14 Noble Hospital initiative by Magarpatta City SEZ

The Noble Hospital is a multi-specialty, multi-disciplinary, state of the art 250 bed, situated on the Pune-Solapur Highway at Hadapsar over 1.75 acres of land developed by Magarpatta City SEZ. The aim of the hospital is to provide the best of tertiary services in medical facilities not only to Magarpatta citizens, but also to the neighboring population and every section of the society. It provides rural care, family planning programme at an affordable cost. This hospital spreads over ground plus six floors totaling over 1,80,000 square feet and has over 32 departments looked after by more than 70 medical consultants and headed by Dr. Dilip Mane. The Noble Hospital provides treatment for all types of ailments and diseases. The staff patient ratio is 3:1, who are well trained and qualified and has strong social commitment for people from rural areas.

A 64 bed I.C.U. complex for all age groups with a centralized oxygen supply, will be handled by the dedicated medical and paramedical staff round the clock. The unit is capable of handling all types of critical illness; heart attacks, poly trauma, poisoning, paralytic stroke, snake bites and multiple organ failure due to various reasons, which require a high level of organ support. The Brain Lab Navigation system is Pune's first of its kind here. This hospital has computer assisted surgery, which significantly increases precision, with minimally invasive surgery, decreases blood loss with fewer complications. The Noble hospital has insurance tie up with all leading insurance companies. The hospital has its own Noble Health Care for a comprehensive family cover. Concessional health care for physical challenged and senior citizens, periodic rehabilitation programmes, free check-ups and regular follow ups of children who are handicapped and mentally retarded will be conducted (See Magarpatta City Update;2010:12).

The Pathology laboratory collects blood samples from door step, but also delivers reports within a specified time. They also have a 24 hour neuro surgery, angiography and angioplasty cases. The most idolising thing in the hospital is corporate OPD, which is dedicated to the IT professionals, working class and corporate personnel in order to keep ‘the man behind the machine’ healthy. The health check up of corporate personnel, which attends to simple problems like physioaches, mental stress, organ diseases, disorders and psychological problems due to various types of work environment, work
pressure, stress and strain is conducted. The smoking cessation clinic, open at Noble Hospital takes care of smoking related illnesses and mentoring smoking people with medicine and meditation.

About 2000 people visit here for care and treatment daily. The occupancy rate is 90% and above. The Noble Hospital has conducted basic health checkups in many corporate schools. Diabetes and obesity check-up scheme for individuals, free health check-up of rickshaw drivers, construction workers and weaker sections are also conducted. Noble Hospital offers academic services like Post graduate diploma in Emergency Medical Services (PGDEMS) and Post Graduate Diploma in Hospital and Healthcare Management (PGDHHM).

4.15 Walk–to-Recreation: A Healthy practice of Magarpatta City SEZ

In 2006, walk to recreation theme came in full bloom at Magarpatta City SEZ. Magarpatta City SEZ, has a fully equipped gymkhana, playground, Nandbal tennis academy, basketball court, Olympic size swimming pool, Squash court, yoga, aerobics, volleyball and Skating rinks. The gymkhana is managed by ABS Sport Club run by Abhimanyu Sabale. When asked to Abhimanyu Sabale, whether these facilities are used by Magarpatta residents he replied that, facilities can be planned and executed well, but they can only survive if they are used and here. Magarpatta Citizens use all these facilities in all seasons; 95% residents are members of health clubs and 90% attend gymnasiuums regularly (See Apurva; 2006:54).

The Nandbal tennis academy has 25,000 square feet ground with six courts. The Gymkhana has a cardio section, tread mills, cross trainers, strength training and free weight area. Some machines are purchased from USA. The gymkhana is run by certified fitness trainers, who impart knowledge and fitness training along with one to one training by specialists and are counseled by nutritionists. A Disco Jockey (DJ) with a complete console plays nonstop music to entertain the citizens.

Within the Olympic size swimming pool, a kid's pool is situated. The kid's swimming pool, available for Magarpatta City school students is to encourage all round individual development and to inculcate healthy habits at a young age. Other features are well demarcated at Magarpatta City SEZ like kid’s studio, juice bar, group exercise studio, yoga studio, library, pool side cafe, Impression hair and
beauty saloon, pro-shop, squash court, aerobics studio, spinning studio, specialized weight loss studio, soccer field, physio-clinic and independent consulting rooms provide a complete solution for a healthy living.

Deccan Harvest, a multi-cuisine hotel situated here, provides catering and hospitality services to the citizens. Magarpatta Clubs and Resort has been launched under the aegis of Magarpatta City SEZ. Magarpatta Clubs and Resorts have also talked with various hotels chains for the Management of four star property schedule to open within a new township. ‘There are also plans to develop budget hotels in and around the area of Magarpatta City SEZ’, said Mr. Umesh Magar, Director of Projects of Magarpatta City SEZ.

4.15 Ecological Modernisation: A way towards Eco-friendly practices by Magarpatta City SEZ

In the 1980’s in the western world, the emergence of ecological modernisation in the environmental policy making scenario, the idea of prevention of pollution was integrated into the environmental administrative policy making scheme (Raghavan;2010:324). This was done to avoid looking for solutions after the problem occurred. The Ecological Modernisation concept represents the active participation of actors in the process of environmental policymaking and it involves the merging of these policies into the economic decision making process as well (Hajer, 1995:24). The concept of Ecological Modernisation originated from the works of Huber and Janicke (1982:6). They are considered the founding fathers of Ecological Modernisation approach (Spaargaren;2000:73, Langhelle;2000:76). Ecological Modernisation as a concept, consisted of some essential themes according to Mol and Sonnenfeld (2000:6).They are as:

a) The news that science and technology offers in preventing environmental problems, initially being looked at from the perspective of damaging the environment, could now be seen in a different role, in that they were seen as a means in helping cure the environmental crisis.

b) Dynamics of the market and actors like producers, consumers, environmental organizations etc, were seen as media in bringing about ecological restructuring.

d) Restructuring the society for environmental decision-making process.

e) Regarding the environment and economy as different entities was no longer valid.
(In other words, disregard for the environment and separating the economy and environment as two different entities called for change. Ecological Modernisation revolved around these core presumptions.)

f) At the end of the 1980s, and in the 1990s, the UK and the EU, began to be viewed as a technological solution to the environmental problems caused by urbanisation. There could be laws to regulate it as a part of regular economic trade. This development came later in India, which reacted, to the growing urbanisation in the West in the 1990s. It did this by deciding to regulate urbanisation in the year 2000.

Ecological modernization is often used as a synonym for strategic environmental management, industrial ecology, eco-restructuring, and so on (See Hawken; 1993:24, Buttel; 2000:63). Indeed, the core literature on ecological modernization has tended to give primary emphasis to environmental improvements in the private sector, particularly in relation to the manufacturing industry and associated sectors. Social scientists from a variety of theoretical positions (See Schnaiberg et al.; 1998:110, Andersen; 1994:12) now use the notion of Ecological Modernization to private sector behaviors and argue that it simultaneously increases the efficiency and minimizes pollution and waste.

Instead of viewing the modern society as a bane in helping out with the ecological crisis, it is possible to bring about changes within this modern society, that would help in tackling the environmental situation.

In this context, the theory of Ecological Modernisation has potential co-relevance to the Magarpatta City SEZ, which not only introduces environmental protection practices, but also includes this as one of the important objectives in their policy framework. Therefore, this feature could also be considered as one of the unique features of the Magarpatta City SEZ. The following practices illustrate that how Magarpatta City SEZ has been playing an important role in this regard.

A) Oxygen Zone: mist fountain in the entrance with very colorful lotus and lillies at the entry of the Magarpatta City SEZ provides a soothing feeling to one and all. This pond accentuates the five key elements of nature along with the concept of Rutuchakra¹, the basis around which the Magarpatta City SEZ is planned. Rituchakra is the technique in which flowers, bushes and trees are planted in such a way that city blooms all around year and visual Vasant, Grishma, Varsha, Shrad, Hemant and Shishir become a reality. This concept contributed towards a cooler, more pleasant
and green surrounding (Apurva;2006). A big hoarding titled ‘Welcome to Oxygen Zone’ (See annexure-III plate1) can be seen at the entry point of Magarpatta City SEZ. The message of nature preservation is one of the key components of the Magarpatta City SEZ. ‘One of the most important features of this city is that the built-up area is merely 20%. The 15-20% has been left to amenities such as clubs, courts, amphitheatre, stadium, fountains, traffic circles, biomass plants, transformers and 35% to gardens’, says Mr. Zuber Shaikh an junior architect and planning firm partner of Magarpatta City SEZ. For every 100 square meter, one tree is to be planted. This is a requirement by the Pune Municipal Corporation, but Magarpatta City SEZ plants one tree for every 50 square meter area. (See Pande;2011:6)

Out of the more than 400 acres of land, 120 acres are allocated for gardens. In the Magarpatta City, lawn are extended over 20 lakh square feet with 32,000 trees and bushes occupied area 1.5 lakh square feet. The well designed Aditi garden recreates the experience of a mini forest. There are another 28 small gardens, which adds to the beauty to Magarpatta City SEZ. One of the most serene and significant location in the Aditi garden is the artificial lake body. This lake effectively recharges and raises the ground water levels around here. In the Aditi garden, the colorful flora and fauna enlighten the mind and so many flowering plant species are selected to maintain the flowering in every season. Some of the plant species are Pink Tabebnea, Yellow Tabebnea, Amaltaj, Gulmohor, Copper Pod Tree, Pagoda tree etc. Evergreen Bamboo groves are developed to provide a cool shady retreat, even in the hottest summer months. Thus, the Magarpatta City SEZ has appellation of the true ‘Oxygen Zone’ (See Magarpatta City Update;2011:7).

**B) Eco-Ethics by Magarpatta City SEZ:** Magarpatta City SEZ is laid with a vision of a progressive environmental outlook. This is unique for its pollution free and clean urban environment, where visitors are impressed by the look of the nature conservative practices. The design of the Magarpatta City SEZ is based on five fundamental principles of the human beings. These are Jal, Vayu, Pruthvi, Agni, Akash (Water, Wind, Earth, Fire and Sky). The five windows on the main entrance gate represent the Vedic message for the conservation of nature and environment (See Magarpatta City Update;2011:7).

**C) Garbage collection and disposal:** Every day, the garbage is collected and treated on the SEZ premises and very little waste is sent out to landfills. The waste is segregated and then used for either vermin-composting or fed to the organic waste
converter or the biogas plant for power generation of power. The non-biodegradable waste is disposed safely and reusable scrap is sold. The township sells entire solid garbage to vendors and earns ₹20,000 a week. Mr. Seema Suryakant Bhosale, who runs the Waste Management Centre (WMC) at Magarpatta City SEZ give the details, that daily 15 tonnes of waste is fed into the organic waste converter to make compost. Magarpatta City SEZ produces 3 tones of vermin-compost in a month. A big vermin-compost plant situated behind the residential plots. The vermin-compost and vermin-wash are used in the gardens and the Aditi nursery.

The Eco-friendly practice of segregation of over 400 tonnes of household and commercial garbage, trash and waste per month is done at source of which, 280 tonnes of bio-degradable waste is used for vermin-culture and bio-composting. Over 120 tonnes of non-biodegradable waste is recycled in a way, which is not hazardous to nature, disposed off safely and the re-usable scrap is sold. Residents are encouraged to segregate garbage at source, in two separate garbage bins (wet and dry garbage) (See Friestedt and Sjovall; 2006:12, Magarpatta City Update; 2013:8).

Figure No. 4.1: Sustainable Solid Waste management by Magarpatta City SEZ.

D) Bio-Gas Plant: Magarpatta City SEZ has a two tonnes capacity bio-gas plant, where bio-degradable waste goes through a process and non polluting biogas is generated. The non-polluting biogas 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. Presently, this bio-gas per day generates 80-100 cubic meters gas, which is converted into over 270 units of electricity. This power is used to operate garden
pumps and runs fans and tube lights in the pantry house (See Magarpatta City Update;2013:8).

E) Solar system at Magarpatta City SEZ: More than 7,000 solar water heater system in the Magarpatta City SEZ, supply hot water to residents, Cyber City, Pantry house, Gymnasium, Hospital, Deccan Harvest hotel and School and Colleges. Magarpatta City SEZ's solar water heating system is Asia's largest solar system runs by a single organisation (See Magarpatta City Update;2013:8, Carrie;2012:5). This project is collaborated with Bipin Engineers Pvt. Ltd., which is one of the leading companies in manufacturing and installation of solar water heating systems. The solar system is installed on the terrace of all apartments, buildings, row houses and bungalows. The system is designed in such a way so as to blend it with gardens and landscapes of the project and personify the complex projected as an Oxygen Zone by Magarpatta City SEZ. A total of 7,160 collectors are installed with a cumulative capacity of 7,75,000 lpd. These systems are installed in such a manner that each unit is connected to only one wing of the building. This helps in equitable distribution of hot water. It also ensures reduction in distribution piping and by extension, heat losses during usage. The saving in Magarpatta City SEZ in terms of electricity as per installed capacity to date is approximately 1,45,48,447 KWH annually and saving in terms of money would be amount to ₹5 Crore annually (US $850000) (See Carrie;2012:5, Pande;2012:8).

Given that Pune’s climate means a requirement of hot bathing water throughout the year, this amounts to huge savings collectively. With every 3 KW of energy saved, it amounts to reduction of approximately 1 ton on the green house gases, that would have otherwise been emitted. Every residential unit has panels erected on the terrace, which are connected to water storage tanks thus ensuring hot water in each and every home. Magarpatta City SEZ has installed close to 7,160 Solar Water Heating Panels, naturally heating 900 Kilo Litres per day, which will materialize into an annual saving of 14548447 KwH resulting in saving 13,483 tonnes of carbon emissions annually (See NMSH, Govt. of India, 2010:23).

F) Recycling of Fly ash: Fly ash is an environmental hazardous waste produced by thermal power plants (See Pande;2012:9). It can be used as a part of replacement of cement and five aggregates, is an insert material and saves energy required for the production of cement. For every tonne of fly ash used in
construction, approximately 1 tone of CO₂ emission in environment is reduced. However, the Magarpatta City SEZ uses 1.5 lakh ton of fly ash within all its constructions and translates it into a huge saving over the same, i.e. 150000 tons of carbon emissions. Here, fly ash bricks are manufactured mechanically by using cement with fly ash, which is better than traditional bricks because of various reasons like controlling of pollution, cost, breakage, wastage, evenness, finish (See Carrie;2012:7). Manufacturing authority of Magarpatta City SEZ inspects the strength of bricks and it is found to be heavier than traditional bricks. One more benefit to use these fly ash bricks is that it absorbs less water and gives a good surface finish.

G) Rain Water Harvesting

Rain Water Harvesting, an eco-friendly method, is extensively practiced at Magarpatta City, wherein rainwater is collected, recharging the ground water, increasing the water table and the use of water that would otherwise have gone down the drainage system, into the ground or been lost to the atmosphere through evaporation.

Before the township was established, Magarpatta had 8 wells and 75 tube wells to irrigate the land. The rain water harvesting systems are designed to recharge the well water, which is further supplied to this SEZ. Some part of the collected rain water is stored in artificial lake at Aditi garden, with the major quantity of collected rain water is injected into the 515 recharging bore wells. Because of the rain water harvesting in a summer season, Magarpatta City SEZ has even enough water to maintain their greenery and landscape. Pune’s largest mist fountain enhances the microclimatology in the Magarpatta City SEZ. (See Magarpatta City Update;2012:5)

H) Charging of Ground Water Level and STP Plant

Footpath and landscaping pavers are designed with cutouts, which aid in absorbing the water into the ground. Mounds are created out of the earth and excavated to increase the surface area leading to more water retention. Even the compound got interlocking blocks installed instead of concretising to enable rain water to be absorbed instead of being drained away. This goes in a long way by assisting the soaking up action of earth, preventing flooding situations and raising the ground water table, which once again assists the flora with ample natural water
supply, enhancing the greenery and keeps the temperatures cooler in the Magarpatta City SEZ.

Over 20-lakh litres per day of potable water is supplied through a water treatment plant. This plant has the capacity to treat 40 lakh litres per day. The Water is used in the ratio of approximately 40% for flushing, 30% for domestic use and 30% for kitchen use. The Sewage Treatment plant, processes 0.5 million litres per day, with another 3 million-litre capacity per day is on the verge of completion and another 1.5 million litres per day in the near future. The water here is used for gardening (See Magarpatta City Update;2012:6, Pande;2012:10).

I) Sewage Treatment Plant

Waste water released by apartments, pent houses, row houses, Cyber city, latrines and pantry house, hotels and recreational units undergoes scientific treatment in Magarpatta City SEZ. There are four sewage total treatment plants, which treats 2 Million Liter per Day waste water. Treated water is recycled to horticulture and gardening within the Magarpatta City SEZ.

J) Passive Design Considerations to Reduce Energy Loads of Buildings

The parking below the Cyber City Magarpatta SEZ is semi-raised to assist natural ventilation and to enable exhaust from vehicles to be removed naturally without the help of any mechanical aids. Also, a space between the glass cladding and internal windows is provided in all the IT buildings to enable heat built up to be dissipated naturally – by creating air insulation. (See CSE;2012:6, Magarpatta City Update;2010:4)

The residential neighborhoods are built on the traditional Puneri ‘Wada’ concept to enable natural light and breeze to flow through. Sincere attempts are made to provide cross ventilation in the apartments. All around the compound walls, thousands of trees and shrubs have been planted to reduce the impact of noise and dust from the roads. (See Magarpatta City Update;2010:5)

K) Carbon Credits to Magarpatta City SEZ: Solar water system in the Magarpatta City SEZ has the potential to generate carbon credits value around ₹3.8 crore per year, for which it has to save 48,000 units of electricity per day and 12,000 tonnes of carbon dioxide emission a year (See Down to Earth; 2009:44). This helps the customers who consume this water to save on their electricity bills.
Response by the Pune Municipal Corporation (PMC) over eco-initiative of Magarpatta City SEZ is very realistic. PMC gives 10% rebate on property tax to the residents of the Magarpatta City SEZ. This type of incentives spread messages to other land and SEZ developers. (See Magarpatta City Update;2010:1)

4.17 Awards to Magarpatta City SEZ

Magarpatta City SEZ has won many national and international awards for its uniqueness and novelty. It has won accolades in the 2008 Sidney World Congress of Metropolis. Maharashtra Economic Development Council lists Magarpatta City amongst the ‘Top 10 success stories of the state’. (Carrie A.,2012;4) Magarpatta City has also been identified as a prestigious project along with ‘Konkan Railways, Mumbai-Pune Expressway’ at the infrastructure summit 2002. Cyber City has received first prize for in the IT infrastructure category at the Maharashtra IT Awards. This SEZ has also been mentioned in the Limca Book of Records for having the largest solar water heating system.

4.18 Replica of Magarpatta City SEZ

The above features provide ample evidences towards the uniqueness of Magarpatta City SEZ. These features also motivated few others to replicate this model. We have also found lots of citations refereeing to the uniqueness of Magarpatta City SEZ by Indian and foreign researchers, administrators, planners and developers (Indian Metropolis;2011:86, Kanchan;2013:53, Anna, Kristin;2006, Loksabha Digest, 19 August 2013:19, National Mission on Sustainable Habitat, Ministry of Urban Development, Government of India;2010:23,Optional Reformer Under JNNURM; 2011:3, Dharmadhikary-Yadwadkar;2012:8, Sami;2013:153, Kalam;2010:277).

A) Nanded City SEZ: Participatory model by native farmers

This project is influenced by the Magarpatta City SEZ in Pune. This is also called, the natural extension of Magarpatta City SEZ model. Nanded City spread over 700 acres of lush greenery, apartments, bungalows and villas, hospital, school and recreation facilities. Nanded City was pioneered by the 230 farmer community. Magarpatta City SEZ, took interest in the primary proposal of Nanded City SEZ
developed by the native peasants. In this agreement, Magarpatta City SEZ join the hands for community participation and infrastructure development. For that, the Magarpatta City SEZ shares 51% benefit from Nanded City Project. From this investment and the co-operation from farmers in Magarpatta City, they have the opportunity to grasp the benefits (See Magarpatta City Update: 2009:4).

B) Videocon SEZ follows Magarpatta City SEZ

Farmers in Wagholi and nearby villages (Dist-Pune) decided to mobilise themselves in a bid to deny land for the 1,880-hectare Special Economic Zone (SEZ) being jointly developed by the Videocon group and Maharashtra Industrial Development Corporation Limited (MIDC). The then district collector Mr. Prabhakar Deshmukh, said the attempt was to follow a Magarpatta City SEZ model, where farmers will be made shareholders. Videocon Chairman Mr. Venugopal Dhoot said that, he had not accepted the proposals yet. The SEZ by Videocon is to be set up on over 844 hectares at Lonikand, 568 hectares at Wagholi, 283 hectares at Kesnand and 185 hectares at Bakuri located on the eastern outskirts of Pune.

Mr. Deshmukh said, “Only after talking to the farmers, convincing them and arriving at a consensus, will we go for acquisition. We are trying to follow a Magarpatta City model, where farmers will be made shareholders. The plan is to arrive at a certain price for the land and make the payment in one go. I have asked the MIDC to form a company of the farmers that will look after 15 per cent of the developed land that is to be returned to the farmers, which in turn can be leased to the companies. That will ensure that apart from getting money for their land they will also have a steady source of income.”

On the 15 per cent of the developed land to be returned to farmers at 50 per cent subsidy, Mr. Deshmukh said that, the farmers, in case of fund shortage, were free to auction a part of the land. The rate per acre is to be decided, taking into account various components — the market price, fallow land, irrigated land and single crop and double crop land portion. Over and above, the cash-and-land package, the administration has asked MIDC to set aside land for schools, to be run by institutions where priority will be given to the farmers’ children to whom education will be provided at a subsidised rate (See http://articles.economictimes.indiatimes.com/2007-11-07/news/27687565_1_land-acquisition-midc-kesnand).
4.19 Corporate Social Responsibility by Magarpatta City SEZ

The Motto of Corporate Social Responsibility of Magarpatta City SEZ is 'a serious intent of ensuring that companies retain a firm commitment to values and an ethical business conduct. Right from the inception Magarpatta City SEZ has strongly believed, practiced and enforced transparent and simplicity in all its processes, policies and practices. Right from the fixed price policy, full cheque payment transactions, a transparent sale process, concern to provide the basics and the necessities on priority, respecting, caring and nurturing the environment, to promoting a costless and classless harmonious co-existence for one and all. These practices have become a way of life over all spectrums at the Magarpatta City Public School, in the residential neighborhoods, at Cyber City, Magarpatta City SEZ and the administration staff all over. There is a certain sense of subtle discipline, which is practiced in a very logical and simplistic ways. Similar methods being practiced internationally are modified, adapted and tuned to the local conditions here to make Magarpatta City SEZ, what it is known today 'A role model for the nation' (Magarpatta City Update;2010:16).

A) Work for construction labourer children:

Over 500 children of labourers from infancy upto 12 years of age are given formal and informal education through NGO’s. In the 3rd phase awakening a a Chreche named Jagruti (which means awakening) was built for them in Magarpatta City. These children are provided with nourishing breakfast, lunch, evening snacks, uniforms and toys. They are given regular medical and health check-ups for a healthy life . Their practical training includes basic awareness of the environment, learning alphabets, signage, road signs, greetings, poems, group songs, mannerisms, body cleanliness, dental care and hygiene. Students are taken on theme picnics and study tours to give them an exposure of the outside world. Four children from this Chreche have been nominated for free education in the government aided schools.

B) Vaccination Camp for Children of laborers :

A vaccination camp in association with the Kalyan Charitable Trust., was conducted, where over 600 children of laborers up to the age of 5 years were vaccinated free of charge for Typhoid and Hepatitis-B. Vitamin-A supplements were provided for nourishment of these children.
C) Medical health check-up for construction laborers:

A medical health checkup was held at Magarpatta City SEZ site office for over 2,500 construction workers of the Magarpatta City SEZ from July, 2007. Doctors and consultants from the Noble Hospital ensured that the laborers were examined and diagnosed for blood tests, blood pressure and general.

D) An onsite dispensary: An onsite dispensary is set up to look after the day to day illness, sickness and minor ailments at cost to cost basis. Qualified doctors and their teams are always available to look after them and their families.

Summary

Magarpatta City SEZ was founded by the native peasant community, who were worried of losing both their homes and livelihood, if the area were to be developed as a part of the city. Magarpatta City differs from the other SEZs in India because of its unique features. Magarpatta City SEZ proved a model of Farmers Direct Investment (FDI), as 123 peasant’s families collectively pooled their land. Thus, the Magarpatta City SEZ is an answer to the forceful land acquisition for the developmental projects like SEZs in India. Each peasant family got the shares proportional to its landholding and were made an equity shareholder, which is the most impressive quality of this SEZ. Magarpatta City SEZ helps to promote entrepreneurship skill sets among the peasants and these results in the generation of more than 250 entrepreneurs from the native community. Peasants families have also managed to move beyond agriculture and into other occupations. This gives them a steady, continuous and life long source of income. Magarpatta City SEZ is acknowledged by many thinkers, researchers and institutions, since it carried the traits of inclusiveness, equity, social and economic security without the natives losing their land.

Notes

1. Rutuchakra is the Eternal Time Wheel of Nature.
2. A carbon credits is a generic term for any tradable certificate or permit representing the right to emit one tonne of carbon dioxide or the mass of another greenhouse gas with a carbon dioxide equivalent (tCO\textsubscript{2}e) equivalent to one tonne of carbon dioxide.

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