THESIS ABSTRACTS

Masters in Urban & Regional Planning

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School of Planning & Architecture Vijayawada

TITLE: ACCESSING FOOD AND NUTRITIONAL SECURITY IN URBAN AREAS.

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2150400021

Abstract

The Right to Food is recognised in the 1948 Declaration of Human Rights as vital for the enjoyment of all the other rights. However the growth of cities and the inherent inequalities that exist within it rob many people from exercising this right. Low-unstable incomes, frequent fluctuations in basic food prices, unstable fragile food systems and inadequacies in the food delivery system can be stated as reasons for this.

Food security is said to exist when all the people at all times have access to safe, sufficient and nutritious food of their choice. Until now the problem was said to exist only in rural areas with the common assumption being that food in urban areas was always plentiful. This is changing however, with more people moving towards urban areas and the number of urban areas keep increasing making the problem a more urban one. This shift in the focus areas of the problem was plainly evident during the recent food crises of 2007-08 in which the global food prices rose by 83%, in response to the rise in the price of oil in the global markets along with the rapid expansion of the biofuel industry, speculations and fluctuations in the overall crop output. These factors have escalated chronic hunger with estimates that it currently affects over a billion people worldwide. A study by the Food and Agricultural Organization (FAO) on the economic impact of hunger has shown that chronic hunger leads to a loss of over 2.5% - 4.5% of a country's GDP.

Owing to the success of the green revolution, India became food secure in the early 2000's. The country is now having in its stores over 20 million quintals, against the present yearly requirement of 8 million quintals. This however made the production of food heavily dependent on fossil fuels and it is estimated that to produce 1 kcal of consumable food, over 10 kcal of fuel are required. This food is distributed among the poor through the Public Distribution System (PDS), Midday Meal Scheme (MMS) and Integrated Child Development Scheme (ICDS). The National Food Security Act (NFSA) 2013 aims at providing the distribution of food under aforementioned schemes, with a legal backing and increasing its coverage to over two – thirds of the Indian population. Despite being the largest programme of its kind, the food received under aforementioned schemes only accounts for 25% of a person's recommended intake, leading to shortage. Besides this shortage, the nutritional aspect of food security is also not dealt with in the act. An effect of this is high levels of malnutrition among children in India which is currently at 36%.

Solving the problem in urban areas is a challenge due to two reasons: firstly the concentration of population in a small area is very high. Thus a lack of food security spaces

therein makes the population dependent upon food sources which are from far of places. The city of Visakhapatnam is no exception to this situation. Rapid developments in the past few decades have lead to stress on the food systems that supply the city with fresh food. Basic foods like potatoes, onions, and tomatoes are imported from far of places like West Bengal, Nasik and Chittoor respectively. Seasonal shortages have caused food prices to spike which affects the urban poor who are already spending 40% of their income on food. The Rapid Survey on Children (RSOC) conducted in 2013-14 found that 35.4% of the children in Vishakapatnam were suffering from stunting with 12% of them suffering from severe stunting. Malnutrition levels ranged from 30 – 39%.

Thus, in order to better understand this situation in urban areas, the study gauges the Food and Nutritional Security (FNS) of populations living in settlements with a predominantly Below Poverty Line (BPL) population only. In it the work tries to understand how the situation of FNS is varying spatially. For that, regression and correlation analysis are used as tools for study. The study areas are gauged using those tools. Upon it FNS status (PDS, MDS, ICDS, linkages to market areas) is assessed. It is observed that the areas having a higher status in FNS are those located on major corridors. It is inferred that current FNS systems in the city are along major routes only and not uniformly distributed. As a result many of the areas with significant BPL population get neglected. In order to answer this issue a spatial plan and guidelines are recommended.

TITLE: IMPACT OF CITY CORE ON ITS URBAN GROWTH. STUDY AREA: WARANGAL (TELANGANA) AND KAKINADA (AP)

R. T. PAVAN SAI

2150400022

Abstract

Cities are the major economy generating forces and attract millions of people every year. Increase in migration is resulting in the spatial expansion of cities. According to the United Nations Report in 2012, the share of India among the world's increased urban population will be around 15.5%. So, it is safe to assume that the urban sprawl and urban growth, can be considered as the most important policy level agendas if are left uncoordinated. In this regard, the first step in achieving a sustainable future will be understand the urban growth. This is one of the powerful anthropogenic forces that is bringing huge changes in the physical dimensions of cities, affecting its land cover and land uses. These land uses can be divided into distinctive regions. Among them, the city core is the economic center, concentrated with the service and retail activities.

This research investigates the relation between the growth trends and spatial patterns of the city and its core areas. Government of India have selected over 100 cities in the country, to develop them as new SMART Cities. Among those are Warangal city in Telangana state and Kakinada in the state of Andhra Pradesh. Being in the path for new development, these both places are expected to have a very high potential for growth making them ideal choices for the study. As the first step, the urban growth of both the cities are to be quantified. Keeping in mind the accuracy levels of various methods like supervised and unsupervised classifications, the method of Normalized Difference Built-up Index has been selected and carried out, using the Satellite images from Landsat-5, 7 and 8, for the years of 1999, 2011 and 2016. Before these calculations are carried out, the acquired images are atmospherically corrected to remove any kind of reflection errors in those images. Once the NDBI is calculated, the accuracy is checked with referring around 40 points from the google earth. Now using these images, the amount of urban growth is quantified. After this, the entire study areas are divided into several zones and the built-up densities are calculated in every zone over the years, to identify the growth directions and patterns. Along with this, the Shannon entropy values for all these zones is also calculated to quantify the patterns of the growth in these zones.

Different points in the city, where there is recent growth in the built-up areas are identified with the help of google earth historical imagery option and mental mapping has been carried out with the help of locals in those areas. Stakeholder surveys also had been conducted from various government officials and bureaucrats in the respective cities for understanding the growth reasons and existing structure of the city region. Regarding the city, several maps

and socio economic data has been collected for the analysis. Several classical theories have been reviewed to understand the concept of a Central Business District. Also, various papers that describe a CBD in Indian context also have been selected and the characteristics of a CBD are listed down. With the help of these characteristics, an operational definition has been written. Few parameters had been selected depending on the availability of the Data and the definition. Using Analytical Hierarchy Process and spatially mapping the selected parameters, the city core areas for both the cities are delineated for the past 2 decades.

Various factors categorized under Geographic, proximity and the socio-economic factors, along with the delineated city core area had been selected as variables for the analysis to be carried out. With the help of the Spatial Logistic Regression Analysis, the relation between the CBD area and the growth of the city are identified, thus proving the hypothesis. Along with the CBD area, the role of each variable considered will be a part of the regression analysis thus giving us the clear contribution of all the variables for the Urban Growth. A way forward for the further analysis or research possibilities are discussed explaining the research gaps form the analysis.

TITLE: CULTURAL IDENTITY AND SPATIAL TRANSFORMATION – A CASE STUDY OF KUMBAKONAM

SOWMYA.P.S

2150400023

Abstract

With rapid urbanisation and globalisation there has been tremendous changes in the Cultural identity of Heritage Towns. This is seen from the change in the built form of cities and towns. More importantly in heritage towns historic buildings and tourist places develop with modern buildings spatially very often neglecting the local culture. There is a great need for preservation and conservation of the cultural identity**.** Cultural Identity is generally constructed and developed over time in relation to various aspects of history, region, and place "internalized and lived*' (Kelly, 1993: 4) by its members (Green 1984).

Cultural assets contributes largely to the local economic development and is it improves the yield of tourism. The cultural identity of the place being unique provides opportunities for increasing diversified economy with preservation of the cultural identity which further enhances the development of the town.

The tourism activities oriented to the culture of the region creates new markets at local and regional level in terms of arts and crafts, destination imaging and branding and media value. The various heritage buildings and urban form intend to support a vibrant cultural life which attract and sustains the global human and economic flows.

The thesis work aims at establishing the relationship between spatial transformation and cultural identity in the context of Kumbakonam town "the Cambridge of South India" which is a historic temple town in the state of Tamil Nadu . The focus of the study is to identify and quantify the tangible and intangible parameters related to the cultural heritage of the town.

Tangible cultural heritage includes buildings and historic places, monuments, artifacts, etc., which are considered worthy of preservation for the future. These include objects significant to the archaeology, architecture, science or technology of a specific culture. Intangible cultural heritage includes traditional festivals, oral traditions, oral epics, customs, ways of life, traditional crafts, etc.(UNESCO,2003).

The tangible and intangible parameters of culture and its impact on spatial planning are analysed to bring in improvement of the existing conditions. The evaluation of cultural tourism elements will be seen cultural identity and its implication on spatial planning.

Appreciation of the unique character or a strong sense of place of Kumbakonam by tourists in terms of culture, architectural, style, traditions, lifestyle, sensitivity in placing buildings, quality of public surroundings. The various values such as spiritual, cultural, traditional, hospitality, ecological and relationship values which attracts the tourists.

Kumbakonam is a temple town, it was the historical capital during the Sangam period (4th century BC to 2nd century AD) comprises of various factors contributing to its culture. Capacity and potential of cultural identity to attract tourists and sustain the economic growth is being assessed.

The impact of components of cultural identity such as lifestyles, traditions, customs, values on spatial distribution and planning of urban fabric, street pattern and built form; identification of various factors Inert (Building, Architectural Style, Artistic Creation), Everyday (Leisure activities, Lifestyle) and Enacted (Festivals, Carnivals, Traditional Events) contributing to the cultural identity of the place. Evaluation of influence of culture on the quality of life and standard of life which improves the experiences, feelings expressed on various types of culture by the people.

With rapid urbanisation and modernisation cultural identity has been largely been influenced by spatial transformation in terms of change of land ownership, land use change, building use change, native people, migration, to which Kumbakonam is no exception. With several upcoming economic opportunities people shift their profession from traditional to modern bringing out change in lifestyle, space utilization, activity pattern, sense of belongingness to their place,etc

The economic opportunities bring in people from other places to whom the value of the existing culture would not be very closely related thereby spatial transformation influences the cultural identity

The outcome of the study is evolving strategies for cultural oriented spatial development of the town in the form of guidelines for earmarked cultural zones. Earmarking of cultural zones based on priority with specific strategies to conserve and preserve the cultural identity intact irrespective of the spatial transformation is required.

Integrated approach comprising of understanding of the cultural aspects with spatial pattern and also the location it is situated in, its culture, economy, social and historical resource and its surroundings is used. The satisfaction level of visitors and consider the proposed strategies for development of the town in context of retaining the cultural heritage.

Key Words: Culture, Cultural Identity, Heritage, Tangible, Intangible, Spatial Transformation

TITLE: IMPACT OF MARSHLAND DEGRADATION ON URBAN FLOODING

P.AARTHI

2150400024

Abstract

Urbanization, the most common and inevitable phenomenon for the economic development of a city has its share of adverse effects too, one of which is urban flooding. According to the World Bank statistics in 2015, 32.7**%** of the population of India resides in urban areas. The residing population requires development of infrastructure which leads to the increased demand for land resulting in consequences such as encroachment of land that is seldom known or used. Most often these lands are seasonal water bodies (wetlands) that have been dried up for a while. When these smaller acts of negligence occur in a city level, it experiences escalation in impervious surfaces in the natural drainage areas, resulting in urban flooding during monsoons.

A marsh is a type of a wetland, which is categorized under the palustrine type that is defined as the wetlands which is fed by inland water bodies and is populated predominantly by herbaceous vegetation. Although the marshlands are a unique type of ecosystem, they standout to be easy alternatives for vacant lands since they are conventionally considered to be wastelands and most of the times the benefits they provide are disregarded. One of the important ecosystem service that a marshland provides is flood retention, i.e., it acts as a natural reservoir that stores the excessive flood water during the times of heavy run-off and releases the water that has been stored during dry seasons. The case area selected for the study is Pallikaranai marshland in Chennai, Tamilnadu.

Due to rapid urbanization and human interference the last remaining marshland of Chennai city, the Pallikaranai marshland, a unique ecosystem of its kind, which has been authorized as a reserve forest area has been reduced to one-third of its original extent. The marshland which extended more than 80sq.km originally about 30 years back has been reduced to 5.9 sq.km in 2007 and has further reduced to 3.17 sq.km (97.27% decrease) at present. Chennai has a history of urban flooding especially after the 2000s, the recent incident being in November 2015 which is marked to be one of the worst floods the city has ever experienced, recording the second highest rainfall in the decade and the third highest rainfall in the century which is 1025mm during November 2015. Many direct and indirect factors contributed to this, but one of the main reasons was the lack of proper natural drainage. Chennai used to have about 150 water bodies in and around it, but today, the number has been reduced to 27 water bodies (only 18 % remain). The study will focus on ascertaining the services that Pallikaranai marshlands provide to their surrounding areas, analyzing the evolution of landuse in the vicinity

of the marshland, identifying the causes for marshland degradation and its impact on urban flooding and in establishing the situations of influence of the marshlands under optimum conditions within the context of Pallikaranai marshlands. The way forward, will be discussed with respect to the identification of the issues and suggesting suitable recommendations to each of the above mentioned objectives. The study aims to analyze the relationship between marshland degradation and urban flooding with specific focus on the impact that degradation has on urban flooding on the surrounding areas of the marshland.

TITLE: VULNERABILITY OF SLUMS TO LIVELIHOOD SECURITY: A CASE STUDY OF 3 JJ CLUSTERS, DELHI

AKHIL CHIBBER

2150400025

Abstract

Vulnerability has been defined as the characteristics of a person or may be a group of persons i.e. in terms of their capacity to cope with, anticipate, resist and recover from the impacts of natural or man-made hazards or any external event. Vulnerability is also defined as the inability to withstand the effects of hostile environment. Hostile environment refers to livelihood security in this research. As it is also understood from the above definition, it has been agreed in the literature that vulnerability has two sides. First side is the external side of risk, shock or stress i.e. hazard to which an individual or household is subject to and the other side is the internal side which is defenselessness, means lack of coping without damaging loss which refers to insecure livelihood in this research. Having these sides, the concept of vulnerability is described within five categories of livelihood security which are economic, social, education, food and health. The parameters for assessing the vulnerability of slums for different location are within the five categories of livelihood security which are economic security, social security, education security, food security and health security. The technique used for analysis is composite index. The data collection technique being used for the study is Household questionnaire and the method used to derive the sample size is Cochran's sample size calculation method.

Vulnerability assessment is the process of identifying, quantifying, and prioritizing (or ranking) the vulnerabilities in a system. The case area for this study is New Delhi with a total of 675 notified slum clusters spread in different location i.e. near Naalah, green area, open space, industrial area, railway station and other location. Three slum clusters have been taken for this research in different slum locations which accounts for slums along Nallah, along railway track and along green space.

Livelihood is a means of making a living. A livelihood comprises capabilities, assets, access to assets, and activities required for means of living. Even though more than a billion of the urban population live with inadequate basic resources, very little is known about the factors influencing livelihood security of these slum dwellers. There remains a need for the profiling of livelihood security of each slum. In this context, the evaluation of vulnerability in terms of livelihood security is a crucial point in order to understand the ability of a society (studied at individual, household or community level) to anticipate, cope with, resist and recover from the impact of hazards. A person's livelihood refers to their means of securing the basic necessities i.e. food, water, shelter and clothing of life. A livelihood is sustainable when it enables people to

cope with and recover from shocks and stresses (such as natural disasters and economic, health or social upheavals) and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource base. Livelihood becomes vulnerable when it fails to cope with or recover from such stresses and shocks.

From a global perspective, slums are characterized by marginalization, overcrowding, harmful environmental exposure, poverty, insecurity, and lack of access to basic amenities i.e. all features that lead to decreased sustainability, and increased vulnerability. Many of the slum dwellers are vulnerable in that they are dependent on insecure, irregular livelihoods and have few assets with which to respond to crises. Increased demand for urban employment among inhabitants of slum dwellers leads to poor living conditions and livelihood security for them. Thus, there is a need to develop a better understanding of the dynamics of livelihood security, or how slum households in India experience and respond to vulnerability, in order to improve urban planning and service provision. The outcome as a result of this research is development of Vulnerability index for slums with respect to their different locations and thereby developing a risk matrix of slums of different parameters primarily affecting vulnerability of slum dwellers in terms of livelihood security in different slum locations.

TITLE: REVITALIZATION OF URBAN CORE OF VISAKHAPATNAM

G. HEMA

2150400026

Abstract

Revitalization is an act of introducing new life into something. According to a World bank group- PPP Knowledge lab (2014) *"Urban Revitalization refers to a set of initiatives aimed at reorganizing an existing city structure, particularly in neighborhoods facing decline due to economic or social reasons"*. The evolution of urban core is result of a historic process where its characteristics emerged from traditional market centers to present day commercial, retail, institutional and entertainment zones. While urbanization is continuously increasing and extending the boundaries of the city or metropolitan area, increased population, inadequacy of infrastructure, poor urban planning together with other governance challenges are contributing the core areas to decay. When growth becomes stagnant in core areas and contributes to urban decay, revitalization becomes a critical strategy for creating sustainable development in the core areas. **(**Gbadegesin, J.T, Oladokun, T.T, Ayorinde, O.I, 2011). Dating back from the earlier attempt of revitalization through housing act 1949 in U.S, the methods or interventions used to achieve urban revitalization varied according to urban trends and local needs of a place. In this attempt to bring back the vitality to the core, a variety of terms like regeneration, renewal, redevelopment, conservation, restoration, revitalization, reconstruction, refurbishment, renaissance etc. evolved [(1).] The approaches for bringing back the vitality in all these areas varied accordingly based on the needs and priorities of the area. So, the meaning of revitalization can be deduced as a strategic approach to improve physical, social, cultural, economic and environmental conditions of an area or a settlement. The study aims to determine the factors that are implicitly or explicitly affecting the development of the urban core and recommend appropriate strategies of development with respect to the needs of the area and priorities of the communities involved.

From a tiny little fishing village in the previous century, Visakhapatnam has become an industrial hub seeing tremendous growth since India's economic liberalization in the early 1990s. In the seventies and the eighties the city grew rapidly following major investments in industries. The old town was an **educational hub** and was predominantly known for **gold business** with vibrant streets and stood as an eyewitness to many historical events. It is characterized by predominantly high-density low rise built up character [(2)] with narrow streets and congested roads. The problems in core city range from **traffic congestion, real estate and infrastructure aging, obsolete buildings to neglected heritage areas.** These have been contributing to low appreciation of market values, congestion and low property tax collection in the core area of the city. While the perimeter of the city is rapidly expanding, the core area of the city needs to be given focus for development to bring it on par with the radially expanding

areas in terms of facilities and infrastructure. The master plan and the smart city plan of the city are silent about these issues except for the 100' road extension in the old city which is directing to the removal of age old commercial shops in the stretch leaving the entrepreneurs and workers with no other alternative sources of employment.

Revitalization in this study addresses **Spatio-economic and cultural concerns** in the urban core of Visakhapatnam. Spatio-economic concern in this context refers to upgrading the built environment by redeveloping the obscelete buildings and infrastructure, redefining the blocks to improve the access to market by improving connectivity and appropriation of land for various facilities, which includes NMT and parking to decongest the core, providing designated zones for upgradation of existing commercial corridors in terms of accessibility and infrastructure to create increased economic competitiveness, employment and business location. Cultural concern refers to protecting and preservation of heritage buildings, places of cultural significance and reintroducing the elements of place making to promote social integration and acceptability of public, based on their needs and priorities. The analysis for **assessing the approaches required** are done based on parameters identified from readings and comparative studies of **the approaches adopted for Revitalization from various case studies.**

The study area is delineated based on the working **definitions** of core area given by various authors. It consists of 3 wards in the city with an area of 1.74 sq.km and a density of 48492 persons per sq.km. The approaches of **redevelopment, decongestion, densification, conservation and Place Making are appropriated according to the issues identified in the core area.** Around **16 parameters** [(3)] are identified from various studies to select the area for redevelopment. The area which needs redevelopment is identified by designating blocks in the case area which have major problems and ranking for parameters using Delphi technique. A final map with blocks and their respective **weighted index** for the parameters identified is generated and the blocks with highest weighted index are taken for redevelopment. The area is studied for analyzing the existing traffic conditions [(4)] and implications of proposals on the study area. The percapita built up, existing FSI and future growth are calculated and compared to other cities [(5)] to derive densification strategies.

The provisions for on street, off street parking, infrastructure upgradation and Pedestrinization are considered while renewing the road network and proposing densification strategies to accommodate the future growth. Through redevelopment, densification and re-accommodation of commercial spaces with in the same stretch, we can help prevent the loss of the employment as well as protect the character of the stretch. Decrease in number of obsolete and vacant buildings and replenished housing stock with improved infrastructure helps in improving the land values, property tax collections and investments like the other major commercial centers in the city. All these approaches combined, help in bringing back the vitality of the core area of the city.

The study acts as a **frame work for revitalizing the core areas of the cities** which are affected by the similar problems of congestion and urban decline. It also helps in assessing the

functioning of core spaces and suggests strategies or interventions required. This study plays an important role in developing the built environment of traditional urban quarters to increase the overall economic efficiency of the urban core.

Key Words: Urban Decay, regeneration, renewal, redevelopment, conservation, restoration, revitalization, Obsolescence, city core.

1. In cities of Embarcadero, Bilbao and Detroit, regeneration and place making are used as approaches for revitalization while in few countries of Europe and U.S, Urban Renewal, Heritage conservation and redevelopment are used as approaches for revitalization. Attempts for revitalization has been done in many cities in India like Shajahanabad through urban renewal and redesign, Ahmedabad through refurbishment of Infrastructure and land development, Peta Bangalore through designation of activity zones and their respective development norms, Jaipur through urban renewal and redesign.
2. Density of zone-3, Visakhapatnam: 25012 persons per sq.km, central Delhi-35000, Chennai – 25000, Mumbai- 25000 Source: Census of India, built up ranging from G to G+2, FSI ranging from 1.2 to 2, source: Field survey and G.O.168 for new constructions
3. Parameters for redevelopment: Spatial: Age Of settlement, Temporary structures, obsolete buildings, Economic: Low land values, Low property tax, Low rent, Infrastructure: Low approach road width, Low ROW of internal roads, Age of pipelines, Availability of loading bays for commercial, Development: Avg. plot size, Plot coverage, Setbacks, accessibility to fire engine, acceptability of people for redevelopment, Presence of mixed use.
4. Road capacities, Parking demand and demand for Pedestrinization.
5. DCRs and Bye laws of Gandhinagar, Indore, Mumbai and Ahmedabad are studied for densification strategies

TITLE: IMPACT OF IT SECTOR ON RESIDENTIAL GROWTH

KANDULA NAGA SRAVANI

2150400027

Abstract

Industrialization leads to urbanization by creating economic growth and job opportunities that attract people to migrate to cities. The industrial sector is sub categorized **in**to many other sectors like mining & quarrying, Manufacturing, Software & hardware technologies(IT Sector) etc. As per the records, the industrial sector holds a share of 24.2% in the Indian GDP, of which 11.3% is contributed by IT sector. Recent studies show that the rapid growth of IT sector is contributing to transformations in the spatial and structural dimensions of the cities like never before.

The master plans of cities like Bangalore and Hyderabad, with a long history of IT based economy have established the fact that there are high levels of residential growth due to development of IT sector. Cities with budding IT growth and diverse economic activity may induce housing growth in the influence area but there has been very low emphasis given by researchers to assess whether the housing growth is due to IT sector employees settling down in the vicinity or not(Cities in Transition: Impact of IT industries in Bangalore). To study the research gap, the city of Visakhapatnam is selected as the case area. This is because the city is in its preliminary stage in terms of IT sector growth when compared to other cities and also it is chosen to become one of smart cities in the India. The upcoming projects and increasing investments in IT sector in the city after the state bifurcation show that there is a strong potential for development of IT sector in the city.

This research aims to analyse the impact of IT sector on residential growth in the city of Visakhapatnam. In order to achieve this, the factors that appropriate the location of IT companies for the study are identified from the literature studies and the study area is delineated accordingly, considering the concentration of IT companies as a major factor .The further analysis is carried out to identify the type and scale of the residential growth within buffers of 200m, 300m and 400m from the IT companies, using parameters like built up area and housing typology. Later the study analyses the existing housing projects and housing supply to the IT employees and verifies whether the increased housing projects are due to the IT employees or not and whether they are in affordable ranges or not. As housing project increase along with the increase in employees but the preference of IT employees is mostly based on the rental housing due to this reason many employees are not located nearer to the work place . The study also analyses the residential growth in the influence area of the IT companies.

To strengthen the analysis, various parameters such as built up area, percentage of

open spaces ,housing typologies, land values ,property values , rental values, income of the employees etc. are studied to identify the problems and issues in the case area and surveys like household surveys , employees surveys and stakeholders surveys are conducted to understand the severity of the problem and needs of the people associated with the study area. The Study is about, when an economic agent like IT companies come in , the housing demand raises by which built up area , Land values ,Property values and rental values changes drastically. The inferences drawn from studying the parameters are used to appropriate variables that influence the residential growth due the IT sector and thus establishing the problems and issues. To the specific issues a policy level frame work is framed to reduce the impact of IT sector on the residential growth and provide houses at affordable range to the employees at the vicinity.

This study helps the spatial planners and policy makers to assess the growth pattern and guide the future development in cities with similar scenarios of IT sector growth.

TITLE: WATER SECURITY IN PERI-URBAN AREAS: A CASE STUDY OF AREA IN HYDERABAD METROPOLITAN AREA

RAJESH.K

2150400028

Abstract

About 80% of the world's population live in the areas with threats to water security. Water Security is said to exist when all the people of a city have access to water in sufficient quantity and quality to meet livelihood needs throughout the year, without prejudicing the needs of other users. Where 800 million people still have no access to safe drinking water and 8 million die each year from water related disasters and diseases. So there is a dire need for to have water secure world which is of great need for a better future: a future in which there is enough water for social and economic development and for ecosystems. The increased urbanization has had an impact on the lives of the people in relevance to peri-urban areas and brought a concern for water security for the inhabitants here. The resulting transformations give rise to conflicts and inequalities in these areas and thus it makes interesting for studying the areas with a high rate of urbanization. Developmental and risk-based approach are applied to increase water security. Key considerations are identified for measuring and assessing dimensions of water security, relevant to selecting indicators, which is useful for developing a water security framework. The dimensions are classified into social, water resources, economic, environmental and risk of water related disasters. My primary focus is on understanding the parameters related to water quality, quanity and water access in peri urban areas to understand the security levels. Data tools like GIS, SPSS, pictorial, tabular modules will be used analyse the spatial distribution of population growth and land use changes. Water security levels are assessed using water security index, where each indicator is benchmarked and compared with the water security framework. Next the relationship between each parameter and peri-urban issues like population growth, landuse changes, increasing water demand and climate challenges are analysed to know the major affecting factors of urbanisation. Finally suitable interventions and strategies are prepared to frame guidelines and for peri-urban areas to remain as water secure. The outcome of the research will help to understand the relationship between water access and peri urban development. The study utility will help in preparation of water resource plans and water assessment studies to prevent peri-urban population from being adversely affected from water related risks and increasing water insecurity.

TITLE: FORMULATING AND MEASURING THE PEDESTRIAN ENVIRONMENTAL QUALITY INDEX – CASE AREA OF BENGALURU

KOVIDA A B

2150400029

Abstract

Walking is an enduring mode of transport and most often termed as "Nature's" mode of transport. Every person is a pedestrian for at least a part of their journey. With rising motorization the share of walking has been on the decline for many years. Research shows that while part of this reason is attributed to increase in number of vehicles, lack of an ideal pedestrian environment also has its part in the decline of walking as mode of mobility. Efforts to compose pedestrian environment in a manner so as to achieve a quantifiable measure are few. Even though globally there are a few research outputs which target to measure "Pedestrian Environment", in India such studies are very rare and uncommon.

This thesis research formulates a Pedestrian Environmental Quality Index with the five main domains which have also been used to outline the phrase "Pedestrian environment". The index will be utilized in assessing the pedestrian environmental scenario at street pertaining to a specific Landuse. The major aim of this research is to prioritize and emphasize the shaping parameters, contributing to pedestrian environment and steering future investments in that direction to eventually benefit the pedestrians and to encourage pedestrian activity.

Pedestrian environment that was outlined with five domains have subsequent indicators which further pronounce their domains. The probable Indicator responses were identified by examining various angles such as the hierarchy of urban roads and pedestrian infrastructure guidelines as designated by the IRC, Universal design friendliness.

I have utilized the Delphi technique to arrive at necessary weightages for the Domains and succeeding indicators. A diverse group of experts comprising of BDA officials, academicians, practicing planners and representatives of transportation related NGO's have responded for assigning these weightages using the Likert Scale. Finally the summation of the product of Domain score, Indicator score and indicator responses for each indicator will give the Pedestrian Environmental Quality Index (PEQI) score. A similar survey was conducted with public in Bengaluru to compare the final weights as given by experts and as given by the general public. As part of a pilot study, observation surveys in streets with high pedestrian activity in 3 BBMP Corporation wards with different land usage each were carried out. Subsequently I calculated the PEQI scores for each of the streets.

The findings being numeric have aided significant comparative analysis and scrutiny amongst various hierarchies of roads and different land uses. These findings have revealed the areas of

concern in many areas, and the streets which require immediate attention. The output of the entire research entails in the documentation of the study into a useful model to planners. The study augments as an extension to our standards in terms of prioritization of various aspects and emphasising the extensively influencing dimension as portrayed in defining pedestrian environment.

Keywords: *Pedestrian Environment; Quantifiable; Delphi technique; Likert Scale; Prioritization; Domains; Indicators; Indicator responses.*

TITLE: VARYING RELATIONSHIPS OF URBAN GREEN SPACES (UGS) ON URBAN DEVELOPMENT USING SPATIAL METRICS: AHMEDABAD

MURTAZA KANDWAWALA

2150400030

Abstract

Urban population of India is about to rise to 50% by 2030 as per census of India, 2011 estimates and their well-being is our prime concern. Human has innate desire to be close to nature however he modernize himself and kindled earnestly in increasingly cramped and compact city.Often, habitation is preferred towards cities which have natural features such as open spaces, water bodies or forests, viz; city of Patna, Vijayawada, Panaji, etc. at macro level and there are high chances that this scenario is simulated at micro levels, i.e., neighbourhood levels. This thesis will be first of its attempt in doing so by enumerating the relationship between urban green spaces and nearby urban form at city scale and neighbourhood scale.

Ahmedabad city has been chosen for this empirical study due to high level of infiltration of people over the last decade maintaining its high urban green spaces than other cities.Ahmedabad is the 3rd fastest growing city as per Forbes magazine in the world in 2010.Ahmedabad has 202 public parks and gardens covering 1.92 sq.km area of land-use (other green spaces have not been accounted in this area). The city of Ahmedabad, is been more compact in its form and has more public parks density than Bangaluru and Hyderabad as per study conducted by CEPT university.

The analysis includes a Temporal analysis of land use/ landcover of Ahmedabad over a period of last 16 years with the help of Landsat image data and Ahmedabad Municipal Corporation land use maps. The parameters of dependent variables of urban development are population densities, no of households, density of housing, compactness index, mixed land use, diversity of land use and other landscape metrics of urban form. The independent variables of urban green spaces include greening density, size, shape index, area is to perimeter ratio, fractal dimensions, under of public parks in 1000m window (patch density and diversity), patch richness, isolation and fragmentation, etc. incorporated with the help of GIS technologies & spatial metrics. The primary survey covers the qualitative aspects like visitor's perception, willingness to stay near the green space and ground truth realities.

The correlation analysis at first is carried out to eliminate the chances of double count variables among themselves and then Factor analysis eliminates the chances of insignificance correlation among the two major variables. The process is looked for city level and then selecting the best wards for further depth analysis with varying indicators at neighbourhood level. At last, the study helps to predict the possibilities between urban green spaces and urban development for

future perceived densities with the best combination macro & micro level results. The study is limited to last 16 years only for public parks, playgrounds and multipurpose open spaces (vegetation) and has limitation with the Landsat resolution of 30*30 sq.m pixel. Further, scope of sub pixel analysis is not carried out due to academics & time constrains.

Significant results concluded that vegetation greater than 900 sq.m should be well distributed all around the wards covering all corners mixed with larger and smaller sizes having a Standard Variation of 6.31 with Mean Proximity Index of the vegetation as 149 and Mean Patch Size as 1.5 hectare, thus, Mean Nearest Neighbour (MNN) = 450 m that helps to increased nearby population. Also, organised green space leads to landuse diversification and transformation over the years due to its fragmentation with space seen in selected ward for study at lower scale. The proposals are simulated by taking one sample ward within AMC and one town in AUDA.

The result has practical implications for policy making for urban green spaces and urban planners in guiding the need of Development or Master Plans and Local Area Plans. The policy interventions will help achieving sustainable development goals like compact city development, efficient green space management and improving quality of life of people understanding the importance of green spaces.

The sub pixels analysis can be carried out to get more details about the different classes generated through Landsat imagery. Also, increasing the number of classes and accuracy by object feature classification may help to get more relationships and improved results.

TITLE: PARTICIPATORY APPROACH FOR PLANNING URBAN OPEN SPACES - A CASE OF ERODE CITY, TAMILNADU

NAVEEN SAMPRIYAN J

2150400031

Abstract

UN Habitat and WHO (World Health Organization) highlight open spaces as one of the major Urban Indicators for city health. Most of the cities around the world such as *Adelaide, Johannesburg, Melbourne, Durban etc.,* have a framework for the open spaces in their development plans. Indian cities do not have a comprehensive framework for open spaces. In the absence of a comprehensive policy framework or guidelines for the protection and management of open spaces, there is an ongoing loss of valuable open space resources. This in turn affects the quality of life of people. With increasing population densities and rapid urbanization, there is an increasing pressure on the open spaces that necessitates proper planning.

The 74th Constitutional Amendment Act highlights participatory approach as one of the tools for urban development. The research theme is to explore prospect of public participation in urban open space based on which a standard platform for urban open space operationalization is developed. This study mainly focuses on the issues related to urban open spaces in the study area. It develops a participatory approach/ model framework for urban open space.

Erode city (with class-I population) was chosen as the study area. It is the seventh largest urban agglomeration in Tamil Nadu state. Erode has been chosen as one of the I00 Indian smart cities under Smart Cities Scheme. It has been reported that open space availability is lesser than the norms. So, this study will focus on the existing participatory planning scenario in urban open space planning for Erode city.

The evaluation is done for notified open spaces only, by using different parameters such as quality, accessibility, safety, inclusive planning aspects, conservation and preservation realities, community involvement, management, marketing and fiscal aspects, and mainly quotes from participatory consultation meetings etc. with their emerging trends checked by visual interpretations and user survey. The participatory consultation meetings mainly considered physical dimension aspects, social dimension aspects, and accessibility. From all these indicators, a framework has been evolved for the dynamic urban open space structure for the future development.

Keywords: Participatory approach, Operational framework, Physical dimension, Social dimension

TITLE: ASSESSMENT OF PARTICIPATORY APPRAOCHES FOR PLANNING HAWKER'S SPACE

PRASHANTH GAWANDE

2150400032

Abstract

Hawking is a significant activity in the informal sector which serves as a source of livelihood to many people in most developing countries across the world. The activities of hawkers mostly confronting challenges, different concerns from governments, city authorities and other local bodies. The urban informal sector need to be recognized, valued and supported as participant agents moreover, need to make a part of the planning process. "Informal activity is visible to society but invisible for government" due to lack of participatory planning. Most of the governments have not recognized street vending/ Hawking as effectual activity and viewed as irritants to the city's development. India has recently framed a national policy on urban street vendors, 2009 & street vendors act 2014, which if implemented, will provide security to them. But as on today hawkers are facing constant problems and has no participation aptitude in any kind of development participation. Most of the act & policies look unrealistic. They are not according to the actual need of the people. This shows there is a need of participatory planning.

This research thesis gives emphasis on socio- spatial analysis of the hawkers and explore various approaches that need to be considered for participation of hawkers into planning system to overcome on rapidly growing hawker's problems. This research clearly focuses on the suggesting participatory planning strategies by comparative analysis. Through exploring the participatory approaches concluding that a model of hawker's participation to improve the decision making in planning perspective. This influences to what extend should public be engaged and what approach to choose.

In case of Nagpur, the selected case area, the same problem that hawkers have not been allocated space to operate from. As per a survey by Nagpur based NGO and Town Vending Committee (TVC) of NMC, there are around 90,000 street vendors or hawkers. The number of the street vendors in the city was 23,803 during 2001 and increased to 35,000 street vendors by 2009. There was almost 4 times increase in the number of street vendors during the decade (2001-11). Among all the informal market in the city, three informal markets are selected on the basis of density & it's nature for analysis to check whether the ULB's are performing well or not. The participatory methods, which is public controlled, private controlled & jointly controlled has been analyzed individually on each market. The new framework have been

suggested to improve the efficiency of organizational structure to improve service delivery to Hawkers.

This research can help the other researcher to do a more accurate study on the hawker's participation in planning process according to the different city aspects and helps to develop a framework for the participation in decision making.

TITLE: ROLE OF URBAN GREEN SPACES IN RESIDENTIAL NEIGHBOURHOODS, VIJAYAWADA

SAI SAHITHI CH

2150400033

Abstract

Just like water, drainage, electricity/power, education and healthcare are considered essential public services, the role of parks are equally important in establishing and maintaining quality of life in a community. They contribute to health and environmental wellbeing of a community and a region. There are different types of activities associated with different age groups in a park. The physical elements and activities in the urban green spaces offer many benefits to the citizens, namely health, social interaction and economic value. They provide identity and sense of place to the citizens.

Vijayawada is a municipal corporation, with a population of 10,48,240 and an urban agglomeration population of 14,91,202, as per Census 2011, making it the second largest city in the State with a million plus population. There are currently 6 city level parks and 50 neighborhood parks, and 45 fenced and 35 unfenced open spaces, maintained by Vijayawada Municipal Corporation (VMC). Ever since the bifurcation of the State and announcement of the city as the acting Capital to Amravati, multiple developmental activities have been taking place in the city that are affecting the state of the urban green spaces. Even with the presence of a few notable parks, they are failing to serve as recreational spaces to the citizens rising the question of their functionality.

The study attempts to enhance the role of urban green spaces within residential neighborhoods in Vijayawada. Four wards in Vijayawada Municipal Corporation region have been delineated, which are ward no.76, ward no.5, ward no.13 and ward no. 41. To arrive at the study areas, four parameters have been considered namely, nature of development, population density, percentage of dependent population, plot factor and presence of green spaces.

Four predominant objectives are, to understand the characteristics, efficiency and effectiveness of urban green spaces at the local level; To analyse the needs of the neighborhood with respect to green spaces present in the selected wards. All

stakeholders, such as visitors, experts and households have been taken into consideration to analyse their perceptions towards the green spaces. The study moves on to suggest strategies at spatial, design and at policy level to increase the effectiveness and efficiency of urban green spaces. In order to collect the samples, multi stake holder sampling method has been followed, in which the park visitor's samples have been divided based on gender and further on their age group. While the household samples around the selected parks have been once again divided gender wise and further on their income group.

The above objectives have been addressed based on indicators such as layout and design, effectiveness of function, facilities present, how inclusive they are and the potential they carry. All the indicators have been studied supported by a set of parameters. The indicator 'layout and design' is studied based on parameters such as 'access and entry', 'visibility', 'circulation', where the design aspects of the park are analyzed. While the second indicator, 'Effectiveness of function' has parameters such as 'timing', 'catering to the needs of the people', where the level of utilization of the park by the users is studied. The third indicator, 'Facilities' has parameters such as 'paved pathways', 'benches', 'play structures for children' to see the number of facilities each park accommodates. The fourth indicator, 'Inclusiveness' has parameters such as 'access to all', 'child friendly', 'old age friendly', which measure how inclusive each park is. The fifth indicator, 'Potential', has parameters such as 'waste water usage', 'rain water harvesting', 'multipurpose use', to analyse the existing practices and to derive the parks with scope to include such practices in them.

The surrounding landuses, the building heights and the building footprint have been studied to observe the change or increase in pressure on the green spaces. Big parks, such as community and neighbourhood parks provide more no. of facilitates than small parks. During the field survey it has been observed that most of the parks that have been taken for study don't provide facilities such as drinking water and walking tracks and do not practice rain water harvesting, reuse of waste water and composting.

Based on results that were obtained, strategies have been formulated to enhance the role of urban green spaces with respect to their function. These strategies involve spatial upgradation and introduction of new infrastructure facilities in all the parks taken up for study. This will increase in overall scoring or performance of each park for all the indicators. Thus, resulting in betterment of all the parks with respect to the indicators used for study.

TITLE: IMPACT OF HERITAGE BUILDING AREAS ON SURROUNDING LAND USE. CASE STUDY: BODH GAYA , BIHAR.

SUPRIYA

2150400034

Abstract

Heritage assets are vital aspects for any urban development process. Their importance increases considerably in historical areas, where the heritage sites has ability to motivate tourism. Heritage assets are the economic, cultural and social drivers for a dynamic and sustainable environment. Historical sites with their outstanding built cultural & religious heritage strongly shape the urban areas and form the backbone for a balanced and polycentric settlement structure. As urban growth is concentration of population in urban areas due to supplied services and source of income for the locals and this happens due to the concentration of economic activity, which is an important determinant for the urbanization.

Some of the Land uses within the buffer zone do not confirm to the zonings objectives in the Bodh Gaya town. No proper planned zones in the town that prevails confusion among the local people on demarcation of no construction zone and other development issues. Major residential area concentrated within buffer zone. Excessive commercial concentration within the buffer zone like hotels, guest houses, monasteries, restaurants, shops, etc. Major road passing the buffer zone area. Encroachment on streets, unwanted traffic and noise in the area. The tourist inflow in the year 2016 in Bodh Gaya is around 14 lakhs per annum. The tourist inflow has increased from 2.5 lakhs per annum in 2001 to 14 lakhs per annum in 2016. This has led to the dynamic land use changes in the town. The growing need of international and domestic tourists need certain planned intervention in the town. The Bodh Gaya woefully lacks recreation & health centres, accommodation facilities (lack of stars hotels), conveyance & overall culture & ambience to engage the travellers from diverse nationalities & ethos who gather here. The place is not better maintained because of lack of vision, resources and will of respective Governments. Bodh Gaya attracts tourists from Buddhist countries such as Japan, China, Srilanka, Thailand & Mayanmar but the lack of ambience, facilities and management in the town, ultimately decreases the tourist inflow. Except Mahabodhi Temple, there is hardly much to see in Bodh Gaya.

This thesis emphasizes the influence of historic temple areas on the surrounding land use of the heritage town Bodh Gaya and discusses the role of traditional and new land uses mainly due to tourism & tourist activities and growth of population. How the land use has changed over the years and what are the incompatible land use changes that has brought rapid and abrupt changes in the land use. Identification of those areas where there is a modification of land use,

and unmanaged settlements. The existing social and spatial issues in the historic town are identified based on the primary survey and secondary data sources. Critical parameters that is having more impact on temple and surrounding land use are identified and assessment will be done on the heritage site and its impact on the development of the town. Analysis will be carried based on the available data primary and secondary sources and zone of influence in spatial planning issues are identified. This thesis will help to identify potential areas for tourist's activities other than the religious temple. This study will also help to understand development of further sectors and growth of tourism industry. This will help in receiving more tourists and good environment for tourists as well as locals and ultimately local people will be benefited economically and status of life of people will increase.

Key words : Heritage building, Land use, tourism development and economy.

TITLE: IMPACT OF POLLUTING INDUSTRIES ON THE LIVEABILITY OF SOURROUNDING AREAS, A CASE STUDY OF JEEDIMETLA: HYDERABAD

SANDEEP.B

2150400035

Abstract

Industries basically being a source of economy to the country, environmentally they are perceived as a source of pollution, which decrease the living standards. There is outgrowth of population poured into these industrial locations, there are different industrial development areas proposed throughout the country during 1970's same with Hyderabad where there are eight IDA'S proposed during the same regime, according to the recent reports by mckensy the growth of pharma market in India had increased to five folds from 12 billion to 55 billion, the foreign multinational companies found India to be a boon market for this industry , the industries mainly in this site location are mainly the tableting process takes place in this location jeedimetla , where during this process of tableting heavier gases such as acetone and benzene are released which are neuro toxic gases ,because of cheap labour force and the growth rate of population around these industrial areas are growing tremendously population growth rate of quthubullapur mandal under which jeedimetla falls is around 164% from 1990 to 2001, Jeedimetla is well known as a hub of industries in Telangana with such contrary situations, industrial pollution being a menace to the nearby residents created a hazardous environment.

Where in terms of literature studies reviewed where for selection of liveability parameters the chief liveability indicators by different agencies such as monocles quality of life , confederation of Indian industries model ,.etc. are taken , for pollution studies the similar scale industrial estates in terms of category of industries and type of industries were reviewed and for this six relevant cases on liveability and pollution in various cities like Chicago, Nigeria ,Mumbai, United states city level ,old industrial area Shenyang and Patancheruvu were reviewed. A total of six indicators and eighteen parameters of pollution and a total of six indicators and twenty-four parameters of liveability were identified

The settlements located in close proximity to industrial areas are effected the most six settlements were selected with in the industrial area proximity which are having different density , type of people living based on the income levels and type of layout observed a clear buffer of 300m,500m and 750 m is drawn from the chimneys, and a buffer from Industrial area boundary is drawn were these are considered for the surveys taken based on the Gaussian

plume equation the survey is conducted in households based on the height from the ground and buffers zones it is falling , water related data (pH & Turbidity) is also collected from these six settlements , selected the key objective of this research is to understand and examine the relation between polluting industries and liveability , , socio economic field survey was conducted through random stratified sampling of representative sampling size 0.5 % households, apart from this a stake holder survey is also taken and complaints are recorded which are of open ended questionnaire to know the problems observed apart from the HH surveys taken critical parameters are identified by forming regression equations between percentage complaining about pollution and score on likarts scale for liveability , based on the results of the spearman's rank correlation analyzing of the critical parameters is done by taking out the negatively affected parameters , the proposals were given for those parameters only further necessary recommendations were given in the design interventions form, the data from HH surveys and stakeholder surveys and for improving the water quality related and governance related aspects., where the liveability scoring given for ROW(Right of way) design are also taken where one more proposal is given about green belt formed with in these settlements , as majority of studies on liveability suggests the type of physical infrastructure that need to be developed for liveability score improvement

As per Asian development bank 2013 report , the impact assessment is a need based approach and in the document it is stated it is mainly for the bureaucrats , whereas bureaucrats mainly focus on the investment needed rather than type of development and issues faced in most cases , a clear cut appraisal for physical infrastructure is done and methods for collecting those taxes through CSR(Corporate social responsibility) is given in the thesis .in order to address the issues related to liveability and impact assessment of the industries on the nearby settlements was done in the identified study area that is jeedimetla, Hyderabad ,Telangana , the present study not only helps this one settlement but also the other seven IDA'S with in Hyderabad urban agglomeration and thesis mainly identifies the linkage between liveability and pollution the area affected , there are about thousands such industrial development areas present across the India and across the globe the present study helps the framing the impact studies and methods to derive the funds through proper CSR mechanism from the industries present with in the industrial area itself , the present study clearly identifies the way in which means of increasing the liveability scores in critical settlements by proper funding mechanisms by taking proximity of industries from settlements into consideration .

TITLE: IMPACT OF METRO STATION ON SOUROUNDING LANDUSE AND LAND VALUES:A CASE OF CHENNAI MRTS

NAVEEN NAIK D

2150400036

Abstract

Public transportation encourage people to travel one place to other place and it also control urban growth. The public infrastructure used within the transportation projects have both direct and indirect benefits. This Direct benefits are like reduced travel time whereas indirect benefits are densification, increase in land use and land values. This benefits of transportation investments are all together put in real estate market in short term whereas land use adjustments happen over a longer time.

The thesis deals with the interaction between the land use and land values system in an urban area having as a case study as Chennai MRTS (Running from 2015) and especially 4 main stations (2 residential and 2 commercial). The research presented in this paper is based on analytical recording of the land use characteristics within a buffer zone of 500 m (influence area) around the metro station.

The large number of case studies estimating the impact of MRTS on property values, there is as yet no research conducted specifically for the Chennai MRTS. This study applies the existing empirical methods, to test for the effect of the Metro on the values of residential and commercial properties. Existing empirical work reveals a large variation in estimating the effect of MRTS on property values. This thesis provides a comprehensive analysis examining the sources of variation and relating these findings to the estimates for the Chennai Metro.

Addition to the existing literature, this study examines how assessing as to residential environment is being affected due to development of a metro station, how land use and land form transformation occurs and how it affects socio-physical nature under influence area of the metro station .The population as well as density change has also been observed within the influence area. Thus, the recommendations and some proposals by setting of guidelines and policies for controlled development around influence area of metro station is being formed for future scenario around metro station.

TITLE: IMPACT OF MINING INDUSTRIES ON SURROUNDING SETTLEMENTS: A CASE OF JAGGAYYAPET MANDAL

PRADEEP M

2150400037

Abstract

India is a mineral rich country, with more than 20,000 mineral deposits. India is the seventh largest country which extensively spreads over an area of 3.29 million square kilometers. In 2010-11, the number of reporting mines in India was 2,628. Andhra Pradesh ranks second pertaining to mining sector in the country and accounts for 40% of the lime stone mine in the country. Lime stone mining succeeds coal mining in Andhra Pradesh marking it as a second extensive resource available in Andhra Pradesh. Mining provides employment to over 5 lakh people in the state. Lime stone industry contributes to major industries such as cement which is preceding to major impact in surrounding settlements.

Mining also has negative impacts on surrounding environments, land use and settlements due to which the people and lively hoods are getting altered. My proposed thesis intends to address the impacts of mining on surrounding settlements. The word settlements will encompass people, their households, livelihoods, surrounding environment both manmade and natural. The objectives of my research emphasize on identification of existing socio economic impacts as well as the physical and spatial changes caused due to the mining activities within the study area. In turn, the environmental consequences on the surrounding settlements will be identified, analyzed and thus the necessary mitigative strategies will be proposed.

Data collection will primarily focus on first-hand information from the residents, on the influence of mining on them and their activities. After the data analysis, the key parameters prompting inconvenience to the residence will be identified. Potential areas with scope for betterment will be identified and possible solutions in the form of recommendations or strategies will be given. The study will have the limitations such as time scale of work.

TITLE: PARTICIPATION OF PUBLIC IN URBAN PLANNING PROCESS A CASE OF CHENNAI.

LAKSHMI MOUNIKA K

2150400038

Abstract

In Urban planning in India, Public participation is considered according to the respective Town and Country Planning Acts which obtain public objections and suggestions after the notification of draft plan. Public participation is very important as per the Act and includes all the stakeholders to involve in the prescribed stages in the planning process.

The main focus of the research is to 'Study the existing public participation and analyze the stakeholder influence in spatial planning in Urban areas. Also to understand the existing legal framework and organizational aspects related to planning and recommendation for intermediate actions. The study also attempts to understand the planning departments and development authorities efforts to involve people in plan making process, also the extent of awareness and participation of public in the local area and town level plan making process. The objectives concentrates on studying the institutional framework, analyze the methods and the extent of usage of public opinion in the master plan. The parameters would include the methods used in terms of the participatory planning, stages involved and the time frame of participatory planning.

The data collected is in primary and secondary data, where the primary data is the first hand information from the government bodies and authorities related to the Chennai Master plan preparation and also the data through surveys on stakeholder meetings held on the preparation of Master plan of Chennai and secondary data from private and other possible sources with the facts and figures.

The study identifies and addresses the issues that are concerned towards public participation in India and the possibilities of rectifying them by formulating framework for effective public participation in Urban Planning process.

TITLE: IMPACT OF FACTORS INFLENCING THE SPATIAL DIFFERENTIATION IN RESIDENTIAL LOCATION ON PRICE -A CASE OF DEVELOPMENT IN VIJAYWADA SUBURBS

ABHISHEK KUMAR SINGH

2150400039

Abstract

The notion that economic activity is not evenly dispersed across the land. Goods, services, resources, production, and consumption are more concentrated at some locations and less concentrated at other locations due to natural endowments and human activity, no two location points have exactly the same access to inputs or outputs. **Residential spatial differentiation,** the tendency for people with distinctive characteristics and cultures to reside close to each other in an area, thereby forming distinctive neighborhoods.

The main aim of the research is "**to examine the impact of factors influencing the spatial differentiation in residential location on price**." And the objects are :to study the theoretical approaches in spatial differentiation in residential location, to derive factors influencing the spatial residential differentiation,to examine the influence of the above factors on residential prices through empirical and spatial analysis in suburbs of Vijayawada, to analyze the weight age of the factors on spatial residential differentiation and in turn its influence on price, to propose key strategies on the locus of intervention of public and private agencies with respect to the key issues identified.

study the theoretical approaches in spatial differentiation in residential location.

To complete the research many theories are referred, example theories by Ernest Burgess, Hoyt , Robert E.Park, Alonso and many research papers to find out the factors effecting the price of residential units (structural, locational, community, time related and environmental attributes)

To achieve the aim and objectives the followings where done, selection of study areas, sampling , primary survey to identify residential types and community attributes, primary data collection for structural, locational, environmental and time related attributes ,secondary data collection for prices of residential stock surveyed, synthesizing through analysis ,comparison of overall weight age of each factor and price variations, key strategies on the locus of intervention of public and private agencies with respect to the key issues identified.

The study considers the following residential types in apartment buildings based on ownership status: residential flats for sale, residential flats for rent.

The sampling for choosing the residence categories/typology is purely random and on the basis of data availability. Nevertheless, process of sampling and data collection ensures to retain the essence of the study and achieve the objectives. The area of the house type is taken as the measure to further categorize into range for the purpose of analysis. The analysis is

conducted by allotting scores for each factor and comparing overall weight age. The conclusions of the study are drawn based on comparison of overall weight age of each factor and price variations.

TITLE: PLANNING FOR SPATIAL INTEGRATION OF THE STREET VENDOR ACTIVITIES AROUND THE TEMPLE PRECINCT-A CASE STUDY OF UJJAIN

SUJATHA PARMAR

(2140400012)

Abstract

Street vendors are an integral part of urban economies around the world, offering easy access to a wide range of goods and services in public spaces. They sell everything from fresh vegetables to prepared foods, garments and crafts, etc. Street vendors are large and very visible workforce in cities, yet it is difficult to accurately estimate their numbers. Street vendors constitute about 2.5 per cent of the urban population in metropolitan cities. The total number of street vendors in the country have estimated to be more than 10 million.

Street vending activities have very Low barriers to entry, limited start-up costs, and flexible hours some of the factors that draws street vendors to the occupation. Vendors number is likely to increase with the increase in migration of people from rural areas and smaller towns as cities are engines of growth and huge employment opportunities for street vendors but *Insufficient waste removal and sanitation services result in unhygienic market conditions required Provision for basic infrastructure toilets, electricity and water can both improve vendor work environments and make public space safer, more comfortable and aesthetically pleasing.*

In this thesis, the purpose of the study is to prepare spatial plan for street vendor around the temple precinct and provision of services and facilities for street vendor and also for pilgrims coming to temple. Case study of Ujjain city, The main temple Mahakaleshwar Jyotirlinga is one of the most famous Hindu temple and one of the twelve Jyotirlingams,. Mahakaleshwar temple attracts huge number of vendors for selling their products and earn livelihood from informal vending around the temple precinct due to the temple importance. Main Aim of the study is spatially integrated informal vending activities in planned manner around the temple precinct and provide services and facilities required for street vending and pilgrims those coming to the Mahakaleshwar , Harshiddi and Kal Bhairav temple.

Initially identify the temples in the city where vending activity is happened and have huge potential for vendors further selection of Temples for study is Mahakaleshwar temple, Harshiddi temple and Kal Bhairav temple. These temples have huge potential for vendor and capacity to earn livelihood from vending activity around the temple precinct next Area around the temple demarcated and Mapping of Activities related to temple and Pilgrims happening around the temple like selling the product related to temple,processed food,non-processedfood, accessories related to temple, home based product, cloths, services and

facilities etc. surveys were carried out in order to draw opinions from vendors and pilgrims than identify the issues and potential of the area and requirement of vendors and pilgrims than examine the dependency of the vending spaces and identify the activities those depend on the temple further analysis the flow of activities between the vending spaces and Temple, than identify and evolve spatial requirement of the vendors and prepare an integrated spatial plan for Mahakaleshwer temple acquire land for special area plan for planned development around the temple precinct and Spatial guidelines for space requirement for Mahakal temple, Harshiddi temple relocates the street vendor 2km away from the temple and converts the type of activity, Kal Bhairav temple provision of Spatial Integrated plan with supported services and facilities for vendors and pilgrims.

TITLE: PARKING MANAGEMENT PLAN FOR THE CITY OF WARANGAL

VENKATA SWAMY
(2140400018)

Abstract

Vehicle parking is one of the major problems which is being faced almost every day in Indian cities. The number of vehicles is also increasing daily adding to the increasing demand for parking in public places. According to the Road Transport yearbook 2012, there were 79.5 lakhs vehicles on the urban roads in India which had an annual growth rate of over 10% for the 10 year period from 2002 to 2012.This increase in vehicular traffic however does not correspond to the increase in parking spaces for these vehicles which causes an acute shortage of parking spaces both on and off the streets in Indian cities leading to an increases in the time spent searching for a parking spot which further induces traffic congestion, contributing to increased air pollution and driver frustration and accidents**.**

The city of Warangal is second fastest growing city in the state of Telangana and it experienced an average vehicular growth rate of 10-12% for the past 5 years (RTO, Warangal). In the same period, however the parking space available has remain stagnated causing a huge parking demand in the city. This lack of parking spaces is leading to issues such as indiscriminate parking on main roads, encroachment of carriage spaces, lack of traffic sense among citizens, uncontrolled growth of auto-rickshaws along with mixed traffic with multi modes of transport. With the cities growing this fast, it would be difficult for the planners to retrofit parking space after any area is developed and hence it is very much necessary to understand the existing parking conditions and issues in the city and make necessary interventions.

Parking management plan plays an important role in such situation. The aim of this study is to prepare a parking management plan that will help to address and regulate the present and future parking demand in the city of Warangal. To do so, the parking conditions in the Warangal city are studied and analysed along with the changing demographics of the city. My study focused on commercial areas and the scale of work is framed keeping in mind the time limit. In this study Battala bazar and Warangal chowrasta (Ravindra Nath Tagore road, and jayaprakash Narayan road), three stretches have been selected as case study areas. From the literature review, the required parameters (Parking load, parking volume, parking accumulation, parking index, parking duration, parking turnover) for the study are selected. Then the necessary surveys were conducted on working days and non-working days parking usage survey for existing parking facilities, licence plate survey for counts of parked vehicles at 1 hour regular intervals for an 8-hour period, covering both the morning and evening peak periods, road inventory survey for physical characteristics of stretches. Willingness to pay survey was also conducted to know the willingness of the potential users for the new services. As per the collected data, I have done vehicular composition analysis, parking accumulation

analysis, parking turnover analysis, parking index analysis, parking duration, parking (supply &demand) analysis. willingness to pay analysis. Existing parking issues were identified from the analysis and are discussed. The present supply and demand for parking are assessed and with the help of forecasting models the future demand for the parking is established.

Keeping in view the parking scenario and future demand, parking management strategies are proposed. These strategies such as parking pricing, unbundle parking, remote parking, walkability, will promote more efficient use of the available resources and help to achieve a sustainable parking system in the city.