

Bachelor of Planning, Planning Project-II - 2016

THESIS ABSTRACTS



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Table of Contents

S.No.	Regd. No.	Student	Thesis Title	Page
1	2120200091	Pranav Bharadvaj	Integrating Working & Living Space of Street Vendor, Vijayawada	3
2	2120200092	Bojedla Venkata Phanindra	Urban Growth Modelling in GIS. Study area: Vijayawada	5
3	2120200093	Boorla Venkataramana	Planning for Urban Green Spaces: A Case Study of Vijayawada	6
4	2120200094	Cheruku Saketh Reddy	Aspect of Access and Function for a Convivial Urban Public Green Spaces (Hyderabad)	7
5	2120200095	Farhana K	Spatial Transformation within Core Heritage Area: Kuttichira, Calicut	8
6	2120200096	Dhawal Kataria	Decision Making for delayed Highway Projects: Vijayawada-Machilipatnam NH-9 Project	9
7	2120200097	Kesanakurthi Sai Kirani	Spatial Development Strategies for Small and Medium Towns: Case Study of Krishna District	10
8	2120200098	Savitri Kumari	Participatory GIS in Municipal Solid Waste Management: Ranchi	11
9	2120200099	Vinit Kumar Loharia	Prospect for Transit Oriented Development around proposed Metro Station: Gaziabad	12
10	2120200100	Sarthak Mohapatra	Impact of Surrounding Development on the Lake: Case Study of Chilika Lagoon	13
11	2120200102	Shaik Mohammad Fharooq	Conservation of Ameenpur Lake, Hyderabad	15
12	2120200104	Athulya Satheesh T	Water Tourism: An Exploration of the Role of Inland Water Transport In Tourism Development of Kochi City	16
13	2120200105	Dev Dass Thakur	Impact of Tourism on Rural Livelihood: Case Study of Manali (Himachal Pradesh)	18
14	2120200106	Patil Rohit Valmik	Street led Approach for Development of Slums	20
15	2120200108	Venus Verma	Travel Behaviour of Urban Lower Income Group Households towards works	21
16	2120200109	Madhuri Kalah	Strategies for Developing the Street vendors: Case Study of Cuttack	22
17	2120200110	Navin Kumar	Strategizing Smart Village Concept	23
18	2120200111	Prithivi Mohan	Impact of Urbanisation on River Environment : A Case Study of River Cooum, Chennai	25
19	2120200112	Sreekanth Satheesh	Conflict of Drivers of Eco system Change on Wetlands: A case Area of Ashtamudi Lake (Kollam district, Kerala)	26
20	2120200113	Garima	Travel Behaviour of International Tourists through Time Geography Approach: A Case Study of Agra	27
21	2120200115	Ede Sowmya	Mobility Pattern and Livelihood of Urban Poor-Hyderabad	29
22	2120200116	K. Srilikhita	Potential of Community Based Ecotourism in Araku Valley	30
23	2120200117	Lingamsetty Radhika Rudrani	Financial Assessment of APSRTC-Vijayawada	32
24	2120200118	Mohammed Maaz Ali	Accessibility of public transport for Slum Dwellers: A Case Study of Vijayawada	33
25	2110200069	Gera Chaitanya	Evaluation of Delay Factors in Urban Poor Housing and its effects on Livelihood of Target Population-JNNURM Housing, Vijayawada	35

STUDY OF WORKING AND LIVING CONDITIONS OF HAWKERS.
CASE AREA: VIJAYAWADA
Pranav Bharadvaj (2120200091)

While moving through the busy street and old market one thing which we generally observed was “Street Vendors” who provide their services to the major section of the society at very affordable rates. Vijayawada is the beautiful and fastest upcoming city of new state in Sema Andhra, with the population crosses 10 lakhs. And like other class I and Class II cities Vijayawada is also a victim of this unstoppable growth of Informal Sector who gave birth to informality in the form of Street vending. However, street vending is seen as a nuisance in the urban area and relocating them is seen as the only method to avoid the problems caused by them. In Vijayawada the same process will be adopted to get rid from problem cause by street vendors in the form of congestion. VMC has decided to relocate the vendors into zones. In the 1st phase of relocation hawkers in One Town and Besant road are considered as these two areas witness the maximum of hawking activity in the city and the hawkers leads to congestion in the area. The relocation process is seen as a method of decongestion, but will have a huge impact on the livelihood of the Hawkers/Vendors.

Generally, it is observed that proposing a new vending zone is very difficult job for ULB's, because the hawkers can neither be located in CBD due to high land value nor can be moved to the peripheries as there will be no business opportunity for the vendors.

Though relocation has direct impact on their business and customers but it's an indirect impact on residential space also as, due to which any shift in workplace may lead to shift in the living space. The study is concerned about the scenario and its inter-relationship with respect to street vendors in Vijayawada. After the field visit and surveys, it is observed that majority of the hawkers lives in slums/ squatter settlements located either on rented or on owned parcels which make this study more important as government is also concern about formation of slums. More than 60% of the hawkers are living on rental housing and try to prefer to live near the working place with in close proximity of 1-2 km. Through survey, it is observed that if the proposed vending zone will be far from their house then they will shift their family with in the close proximity with respect to vending zone. This intention of relocation has several factors which force them to move such as increased distance will increase transportation cost, daily commuting for long distance make them tired as they work for more than 12 hrs. as per primary survey, and many other factors..

Hence it can be concluded that if there is shift in work place then it may be a chance that shift in living space will be observed. On this context, these two factors such as working and living space need integrated study. And excluding any one factor may lead to growth in encroachments i.e. if vending zone will be shifted to far from existing zone then shifting of

residential place leads to formation of quarter settlement/slums. This process of encroachment cannot be ignored as if we look at the economic condition of hawkers- they are completely depend on their work space for daily expenditure and does not have any savings to be spent on purchase of land or to construct a house. People with family prefer rental houses to live, if they can afford. Whereas individuals and people who cannot afford rental houses live on roadsides and public places and with time they encroach small parcels of that land and make a living space as per their needs and this process create unauthorized settlements which will attract more houseless people and create a bigger illegal settlement and becoming another issue and concern for respective officials. And in some time these settlements will create another relocation study by government. Therefore to put an end to all these issues, the study aims to provide a solution for the issues caused by relocation, by integrating the working and living space of the hawkers and also upgrading their working conditions.

The study will be studied on some parameters such as distance and time factor, impact of increased distance on profit, impact of distance on activity pattern along with productivity, distance between existing natural vending market and home with respect to proximity and model choice.

So, in brief study is not suggesting any relocation process or criteria, study is concern about new allocated site for vending zone should also give concern on residential space. This study will help in understanding that what are the reasons which make vendors to live in close proximity with respect to vending place and what will be the benefits to the beneficiary if they will relocate by considering both factors for relocation.

Keywords: Street hawkers, Street vendors, Working conditions

URBAN GROWTH MODELING IN GIS. STUDY AREA: VIJAYAWADA

Bojedla Venkata Phanindra (2120200092)

In Vijayawada city, rapid urbanization and urban growth are recognized facts. The emerging capital area with proximity to Vijayawada will have an impact on the urban growth of Vijayawada. Using appropriate techniques of urban growth modelling that can help in making a technically sound urban planning decisions is still critical. This study aims to predict the future growth of Vijayawada by identifying the causative factors for the urban growth of Vijayawada through survey by coupling remote sensing, GIS techniques and Multiple Regression model. This information is expected to support in predicting the future growth of Vijayawada.

The parameters adopted for determining the urban growth is through literature review, people's perception and case specific parameters of Vijayawada. The boundary of the study area is adopted from the urban fringe boundary map of Vijayawada. Consistent set of land cover maps of Vijayawada city during the period 1991,2001,2011,2015 were generated. Pixel based approach by Maximum likelihood algorithm was applied to Landsat images. The study area is divided into 90 zones out of which 80 being the urban area wards and remaining are the surrounding fringe area's village boundaries. Zones are divided in the study area for the integration purposes with GIS. The parameters considered are Number of parks, Number of commercial areas, percentage of Land available in the zone, Number of Medium and small scale industries in the zone, Distance to Highways, Distance to Railway station, Distance to Bus stand, Distance to Bus stops, Distance to Industries, Distance to Indrakiladri, Distance to Playgrounds, No. of Social institutions, Area of Physical Constraints, Number of Uninhabitable areas and Area of environmental protection zones with built-up as dependent factor. As the purpose of the study was to look up just the built-up cover only, the same were extracted from the land cover maps and are heads up digitized as it is the most accurate method to extract the exact area of built-up. Urban area expanded mainly towards north east and south east directions. However, the southern part of the city was posed due to natural constraints.

The integration of remote sensing and GIS is done through various tools in the software. They are Subset and clip, Euclidian distance, Raster Calculator, Identity. The results indicated that there is a 50% increase in the Built-up area of Vijayawada by 2050 with a total area of 44611.2 hectares of built-up and push and pull factors for the city are also determined in the study area.

Keywords: Urban Growth, GIS & Remote sensing, Multivariate regression modelling, Vijayawada.

PLANNING FOR URBAN GREEN SPACES: A CASE STUDY OF VIJAYAWADA

Boorla Venkataramana (2120200093)

Due to rapid urbanization, unprecedented population growth in recent decades changed the urban cities as engines of the future growth. Urban local bodies are facing a key challenge in providing and ensuring the civic services, urban infrastructure. Due to this there is an increased responsibility growth path consideration impact on the environment. Open Green public spaces are neglected and unprotected which leads to lack of parks in many cities. City planning department has failed in ensuring public spaces in protection, so most lands are chopped up and sold.

In recent days government of India started many central schemes like SMART cities mission, AMRUT scheme, HRIDAY with a vision for sustainable development and environmentally friendly cities. Main vision of the central schemes are to make cities more vibrant, inclusive. And also to develop the Green growth in the cities. But management of green public space lacking in all the cities. So this thesis entails developing the framework and recommendation to urban local bodies for the development of Green public spaces. Best practices in management of green public spaces, and Reproducing the open public spaces for Public needs. Finally the Thesis brings the best practices in bringing participatory governance like community participation in protection, monitoring, managing the green public spaces. Expected outcome of this thesis is to understand the potential and barriers of park management system in Vijayawada. Management of public space offers the guidelines for the working process in management, monitoring and use of public spaces.

The thesis intended to give various strategies in promoting the green space around the city with responsibilities in creating and improving spaces. It also talks about the efficient and effective ways of spending money of urban local bodies in promoting the green growth of the cities. Community participation involving various range of partners, including housing associations, who will both advise local government and take on responsibilities for certain activities and areas.

Keywords: Urban green spaces, Urban local bodies, Public spaces

ASPECT OF ACCESS AND FUNCTION FOR A CONVIVIAL URBAN PUBLIC GREEN SPACES (HYDERABAD).

Cheruku Saketh Reddy (2120200094)

This thesis evaluates the aspects of access and function of the public green spaces in neighbourhood of Kukatpally (Hyderabad). The literatures have been suggesting various methods to evaluate the access related factors effecting on green spaces. Some of the literatures say about, what makes green spaces friendly in nature. The past studies which were taking place in Hyderabad city are generally focused on the infrastructure of the spaces irrespective of the category of the people, demands and need patterns.

The importance of urban open spaces is decreasing because of rapid urbanisation and people shift of interest from urban opens spaces like public open spaces, green spaces to public private spaces like malls. Interviews for multiple stakeholders have been drawn from a wide range of interests probe the impact on planning of spaces and its functionality. Key determinants for a good urban green space design outcomes are just statutory plans and their implementation through resource consent, wider capacity of attracting and challenging traditional mind sets of people.

This thesis can be considered as the conclusion of challenges faced by a green spaces in urban area's neighbourhood and how to increase the capacity and optimum use of resources for maintaining the green spaces more accessible and usable

Keywords: Green spaces, Access and function, Public spaces

SPATIAL TRANSFORMATION WITHIN CORE HERITAGE AREA: KUTTICHIRA, CALICUT

Farhana K (2120200095)

This thesis is an attempt to showcase the issues of settlement transformation that happens with the transformation of dwelling units as basic units in traditional settlements. Transformation of settlements is seen to be associated with socio-economic changes and modernisation forces whereby people acclimatize their houses to suit their needs and desires. The desire to have a “modern house” may lead to degradation of spatial qualities, and the fulfilment of the desire may contribute to the modernisation of urban settlements. The traditional settlement of Kuttichira in Calicut, Kerala was chosen as a case study to illustrate the process of settlement transformations in historic settlements. Knowledge on the transformation processes acts as an important tool to address the issues of spatial qualities, modernisation of houses, actors in the processes of transformation and use of existing space. The transformation of a house acts as the main lead for transforming the street character which ultimately leads to the transformation of an entire settlement.

The results indicate that transformation activities have been taking place in terms of demolition, extensions and alterations. The desire to modernise their houses compels developers to use modern building resources. The study identifies problems associated with the whole process of housing transformation on the heritage of the area. The problems emerging from this process include: decrease of outdoor space, change in the traditional character of the settlement. Increase of housing density, losing of the visual integrity of the settlement.

The study concludes that the transformation is happening due to the socio-economic changes occurring in the settlement. It is further observed that to date most of the dwellers have done house extensions due to the customs followed within the settlement. The house extensions are being carried out without trying to conserve the heritage of the area. It is in the light of these developments that there is a reason for government intervention to guide the transformation processes in historic settlements. The transformation should be controlled by using conservation of heritage area as a tool for the regeneration of the settlement, so that the settlement is conserved as well as the need of the people are met. The study also suggests specific crisis areas for further investigation.

Keywords: Spatial transformation, Heritage area

DECISION MAKING FOR DELAYED HIGHWAY PROJECTS: VIJAYAWADA-MACHILIPATNAM NH-9 PROJECT

Dawal Kataria (2120200096)

Urbanisation in India has occurred more slowly than in other developing countries and the proportion of the population in urban areas has been only 31 percent based on the 2011 census. The pace of urbanisation is now set to accelerate as the country sets to a more rapid growth. It is very important that the available resources are optimally utilised¹. According to Project Management Institute study over large infrastructure projects, around 50 percent² of the project has seen a time and cost escalation. A failure of the project means wastage of valuable resources and time.

A failure project³ can be defined as a project which could not achieve its objective within the specified time and cost. The failure of project can due to various reasons such as delay in regulatory approvals, land/site handover and acquisition, ineffective project management, delay in decision making, adverse conditions, and many other related reasons. The study will limit itself to one of the prominent reason i.e. delay in decision making. The study will look at cause and effect of delay in decision making on a large project. The cause of poor investment decision is assumed as reluctance to take a timely decision. During this delay, the socio-demographic transition around the project is inevitable and might affect the need of the project and thus will result in poor investment decision.

The decision of taking up any project is based upon its feasibility studies and thus the study will focus on finding loopholes in the feasibility studies. The study will look after Vijayawada-Machilipatnam National Highway-9 project which has been delayed for about 10 years. The study intends to find factors which should be considered while taking up the decision⁴ in the present context. The factors governing the traffic growth such as a. Demographics, b. Economy, c. Land Use and d. Technical aspects will be studied in the present context. The technical aspects include daily.

Keywords: Highway projects, Delays, Decision Making

¹ The challenges of Urbanisation in India (12th Plan), Planning Commission

² Project Implementation status report of Central Sector Projects, MOSPI- IPMD

³ K.K. Chitkara; Construction, Project Management- Planning, Scheduling and Controlling. Tata McGraw Hill Publication.

⁴ The date of making decision.

SPATIAL DEVELOPMENT STRATEGIES FOR SMALL AND MEDIUM TOWNS: CASE STUDY OF KRISHNA DISTRICT.

Kesanakurthi Sai Kirani (2120200097)

According to the estimate by census of India 2011, there are 8000 urban enters including census towns. The people living in large villages has increased from 5% to 17% in the last decade, so a major hike is witnessed especially in class 1 and class 5 towns. The purpose of this thesis is to gain an in-depth understanding upon how urbanization takes place in small and medium towns and its impact on the spatial and socio-economic functions. Another significant aspect of this study is measuring and comparing urbanization between two towns with varying characteristics.

Preliminary analysis on population figures and other relevant parameters from census data of Andhra Pradesh has been used to choose towns for the case study. By observing the trends in the last four decades, two small towns namely Vuyyur and Nandigama (an agro-based small towns in Krishna district) have been selected under the category of census towns.

After a thorough literature review of acts, policies, regulations and related case studies, data collection has been done at three levels. Firstly, through secondary data collected from different sources incorporating detailed census information, production distribution and consumption figures of various units and other data on growth engines of the towns. Then a set of primary surveys have been taken up on commercial establishments, industrial units and households for intricate details on socio-economic conditions. Finally, discussions and interviews have been conducted for a public opinion and knowledge upon the growth drivers, direction and orientation of growth and development, problems/issues being faced by the people.

The analysis done on the spatial and socio-economic parameters in order to formulate composite indices for urbanization through which the towns can be graded to understand their urban scenario and capacity to generate economy, gives a detailed picture of how the towns are functioning as individual urban centres in correlation with the region, and their impact on urbanization and economy of the region at a macro level. Solutions to the urban problems being faced and guidelines for administering the town, monitoring and directing the development process constitute the proposals at the end of the study.

Keywords: Spatial development strategies, Small and medium towns

PARTICIPATORY GIS IN MUNICIPAL WASTE MANAGEMENT: RANCHI

Savithri Kumari (2120200098)

Municipal Solid Waste Management in Indian cities has emerged as a major concern over the past few years. The rising urban population and economic growth in the absence of an effective management system has manifested in the current state of solid waste management in cities which is far from the benchmarks. Municipal Solid Waste (MSW) has become a serious problem in major cities all over India. Therefore, the present study was undertaken to assess the roles of local bodies and enlist the causes of solid waste segregation, collection, transportation and disposal, and finding possibilities of associated problems using participatory –GIS approach. There is an often implicit assumption that PGIS use is effective, in that it accepts the needs, provides underlying local stakeholder interests and therefore is a tool for good governance.

The assessment framework looks at participatory spatial planning performance with respect to key dimensions of good governance, especially the intensity of local people participation and empowerment, equity within communities and respect for indigenous knowledge, legitimacy, and effectiveness. The specific development focus has been given for PGIS in municipal solid waste planning and management for case study in Ranchi city.

Ranchi, which was originally a small town in the 1960s, has grown into a million-plus city in the past two decades due to capital city of Jharkhand, major government departments and offices are situated there. As per Census 2011, the total urban population in Ranchi district is 1,257,340 while that in Ranchi city is 1,073,440. Ranchi has been one of the fastest growing cities in India, having witnessed a growth rate of more than 85% in the last four decades. The growth in infrastructure has not been able to keep up with the pace of growth in population, resulting in lacuna in the level of development of the municipal wards.

The present research focuses on participation. 'Good governance' principles are applied for the assessment process, the geo information inputs and outputs, and the long term outcomes of the PGIS processes. The impacts of PGIS were examined in terms of the types and level of people participation in the process of municipal solid waste management and the geographic information whether the information outputs meets the stakeholder's requirements and service level benchmark limitations or not, to achieve the overall changes in the ward. It was found that PGIS processes contributed, though not comprehensively to good governance, by improving the awareness level for waste segregation, collection and transportation and hence using local knowledge, exposing local people to geospatial analysis and creating some actor empowerment through use of technology. PGIS can promote empowerment by supporting community member's participation in decision making process and actions by enabling user charge payment for municipal solid waste management mandatory. The approach used for one ward of Ranchi city could be replicated in other wards also and the city with similar MSWM problems to enhance policy and management decision-making.

Key Words: Participatory GIS, good governance, and solid waste management

PROSPECT FOR TRANSIT ORIENTED DEVELOPMENT AROUND PROPOSED METRO STATION: GHAZIABAD

Vinit Kumar Loharia (2120200099)

More than half of World's population lives in cities. By 2025, 22% of the urban population will be living in 9 cities. Global statistics show the fact that the recent decades developing trend of population residence in urban places has been running.

Existence of metro stations is as a gravitational field that leads to growth of all kinds of applications in the scope of periphery and station permeation. This, eventually, it gives rise to fragmentation of the physical setting and space in the environment and even results in numerous social problems. The rapidly increasing population has a great impact on the changing mode of the urban transport of the city, sometimes results in poor economy and low productivity. It is the only way to provide opportunities, economic growth, social interactions and over all development of the city.

Ghaziabad is one of the fastest growing city in country with population of about 968,256 as per 2001 census. As it is adjacent to Delhi and Part of NCR huge people travel Delhi for livelihood. From last few Years City is facing the traffic congestion, in order to ease the increasing traffic congestion DMRC and Uttar Pradesh government proposed the metro corridor from Dilshad garden to new bus stand Ghaziabad. The Stretch is proposed on the G.T road which connect Ghaziabad to Delhi, which is one of the important stretch. The average distance between the stations is 1.35km. The direct user benefits such as reduced travel time, but also indirect benefits such as land value, increase, land use densification etc. The project consists of eight metro Station namely Sahid Nagar, Raj Bag, Rajender Nagar, Shyam Park Main, Mohan Nagar, Arthla, Hindon, and New Bus Stand.

In past few cases around Delhi MRTS stations and within influence area, the impact of rapid accessibility can be felt in form of Transit Adjacent Development which create congestion, parking problem, increased land value followed by the transformation of land use. It may lead to unplanned development, so to have planned development there should be proper integration of development with MRTS called as the Transit supportive development.

From the Proposed Stretch Shyam Park and Mohan Nagar Metro Station is selected for the study as one station because of high percentage of mixed land use and old settlement along stretch and other has Major city Bus stand. Existing Situation of Selected station has been studied of Selected TOD parameter such as Land use, Income, Plot Density, Building Height, Building Age, Ownership Status ,Parking, Street Network and Pedestrian around 600 meter radius of both the station. Based on Various guidelines necessary Recommendations is suggested for the land use planning and development controls for both the station to make them TOD.

Keywords: Transit oriented development, Metro stations

IMPACT OF SURROUNDING DEVELOPMENT ON THE LAKE: CASE STUDY OF CHILIKA LAGOON

Sarthak Mohapatra (2120200100)

Motivation for construction of lake comes from the circumstances characterizing life in Chilika known by its social, political and cultural activities. Among many problems rural area was faced to poverty. The conceptualization covers the main aim and interests in forming plans basis where three factors were selected: rural character, new vs. old medium town, inhabitants and rural growth that follows existing land use pattern of rural areas. Chilika lakes lies in the district of Puri, Khurda and Ganjam of Odisha state along the eastern cost of India, and connected to the Bay of Bengal through a narrow sea moth, it is also a lagoon. And like all coastal lagoons, its waters are rich with life. It is the largest brackish Water Lagoon with estuarine character that sprawls along the east coast. It is the largest wintering ground for migratory water fowl found anywhere on the Indian sub-continent.

The traditional resource use structure has transformed considerably during the recent past mainly owing to the growth of population and the resultant increased demand of natural resources in Chilika region. This transformation in resource use practices is particularly significant in the densely populated tracts of surrounding of Chilika. The increasing trends of land use dynamics have been population growth and the resultant speedy transformation of biophysical components into natural resources and partly due to fast urbanization in the area. The land use dynamics have immensely disrupted the fragile ecological system through the devastation of forests and biodiversity, destruction of wildlife habitats, degradation of land, disruption of hydrological system and micro-climatic changes. It resulted into reduction in the productivity of the rural ecosystem and livelihood securities of rural communities, particularly, marginalized groups and the poor in the region. The process of land use changes and their impacts are particularly critical in the densely populated areas of surrounding in Chilika, like the Lake Region of three districts. However, the environmental conditions in close proximity to urban centres like Belunga, Rambha, etc. is attracting people mainly with the availability of alternative means of livelihood and employment in secondary and tertiary sectors. It is, therefore, imperative to evolve a comprehensive framework of land use and development of rural infrastructure and services in the region which will help to restore the ecosystem services.

The spatial and temporal salinity gradients that exist in Chilika give it the unique characteristics of an estuarine eco-system, exercising a continuous and selective influence on its biota. The transformation of the lagoon towards a fresh water ecosystem was considered as a potential threat to its unique ecosystem. The studies concluded that the tidal influx into the lagoon was considerably reduced because of the shoal formation along the

lead channel and continuous shifting of the mouth that resulted in significant hydraulic head loss. Siltation due to change in the land use pattern is considered to be one of the most important factors for degradation of the Lagoon ecosystem. It was observed that the degradation of the land is prevalent in the catchment area, resulting in decline in the productivity and accelerating the poverty and unsustainable pressure on the natural resources leading to further depletion of the resource and degradation of land.

The study is one of several spatial-temporal land use/cover change analyses that also have to examine patterns and degrees of land use/cover fragmentation. In this study, the number of developed (i.e. residential, commercial, and industrial) and agricultural land use patches increase/decrease over time, indicating an increase/decrease in landscape fragmentation and an overall increase/decrease in the total acreage of agricultural land throughout the case study area. To study the land use change, the study of three decades of satellite images processed to address the change in built up, the changing shore line and decreasing lake area decades to decades. For water quality the study of two years of data analysed that resulted in major change in water transparency, water depth and water quality. Analysing the socioeconomic data of the area resulted in increasing the population, lack of basic infrastructure and education facilities giving priority to pollution and degradation of lake ecosystem. Based on the environmental sensitivity zone the vulnerability assessment was done and taking consideration of all the suitable places for development and suitability analysis for industry, agriculture are given. And also the regulation for lake restricted areas are given in this study.

Keywords: Lake development, Spatio-temporal transformation

CONSERVATION OF AMEENPUR LAKE, HYDERABAD

Shaik Mohammad Fharooq (2120200102)

Water is probably the most essential requirement for economic growth and social development. Rivers, streams, lakes, ponds and other ecosystems have evolved over time to support various plants and animal species. Freshwater ecosystems offer important cultural and recreational resources for human population. Hyderabad is a rapidly urbanizing city it contains more than 532 lakes now only 400 are left. Most of them have been converted into housing colonies due to uncontrolled and rapid urbanization. Many water bodies have disappeared, others shrunk in size. Hyderabad population has grown rapidly and is amongst the most densely populated cities and most of its growth has taken place away from the city core. Ameenpur Lake is located in Pathancheru Mandal which is away from the city core area and urban agglomeration is becoming an issue for the lake. Ameenpur Lake is home to more than 150 residential bird species and also plays host to some migratory birds which breed there during winter. Telangana government is taking steps to recognize the lake as a biological heritage site. Now the lake is under the authority of GHMC and is developed by HMDA. My interest is to study the activities going on in and around the lake, how they are affecting the lake's environment and provide interventions in order to make its biodiversity sustain.

Keywords: Lake conservation, Ecosystems

WATER TOURISM: AN EXPLORATION OF THE ROLE OF INLAND WATER TRANSPORT IN TOURISM DEVELOPMENT OF KOCHI CITY.

Athulya Satheesh T (2120200104)

Tourism is the temporary short-term movement of people to destinations outside the places where they normally live and work, as well as their activities during their stay at these destinations. Tourism sector depends on the travel modes and methods, the culture and heritage, the present environmental conditions and sights, and has a prevalent importance on the city economy, preserving and modifying the factors of tourism, and the social life of the people.

Waterway tourism is a much ignored, yet a very potential activity in the tourism sector. The waterway tourism accounts for tourism activities linked to water including traveling by water ways, with the express purpose of seeing things, and enjoying the water and the connected activities. It forms a full-fledged part of tourism industry and takes into consideration all the factors of tourism. Waterway travel for leisure, sustainable travel considering the environment, tourism improvement of the city, heritage and ethnic identity preservation, accessibility to non-land accessible regions and economic growth are the main advantages of the waterway tourism.

In this context, the research aims to explore the importance of water transport in tourism and to utilize this potential for boosting the tourism sector of the Kochi city by studying the interdependence of tourism and inland waterway in the city and integrating the both; by exploring and identifying the existing tourism spots in the city and the potential spots for tourism development; by identifying the navigable routes and developing a tourism network.

The city of Kochi has plenty of backwaters and there are many large and small islands in these backwaters. At present the water travel in the area is very minimal and the tourists are not depending mostly on the water travel. There are also many islands that are purely out of the city context, where there is no connectivity by road means and also no proper water connectivity. There are tourism potential areas in these villages, where the typical Kerala culture still exists and ethnic tourism can be promoted. Also, the handicrafts and local industries in the area can be portrayed for tourism. These villages can be developed as tourism spots and can be connected through the waterway to the existing tourism spots, creating special routes for heritage spots, special routes for natural green areas, special route for art centers etc.

The literature review explores the concepts of waterway tourism, the shift in the tourism sector, water related tourism activities, the importance of tourism sector of Kochi and the

route design techniques. The theory of experience economy is used where the waterway tourism can be flourished using the techniques of Escapism, Esthetics, Entertainment and Education. The study uses quantitative and qualitative data collected from tourist survey, transport survey, field observation, personal interviews with the stakeholders and secondary data.

The data is interpreted using maps, videos and photographs and the analysis is carried out using statistical and GIS software. The impact of the tourist spots and its magnitude is identified using hotspot analysis and the network for carrying out the tourists is designed using the identification of navigable routes as per the required standards and network analysis.

The tourism spots are mostly located around the waterways and can be connected with the waterways. There are new areas that can be integrated into the circuit, which the tourists are not aware of at present. By developing this, the tourists can be pertained in the city, helping to revive the tourism industry.

The study puts forward solutions in four phases based on the findings from the analysis as (i) developing the existing water transport network for tourism (ii) identifying the spots for tourism development and proposing activities (iii) route design for extending the connectivity for tourism and (iv) guidelines for development.

The research also looks forward to build a platform where the tourists can view and select the tourism spots according to their interest, and then automatically the locations, the travel route along with timings, the cost and distance are generated. This will help in increasing the awareness of the tourists and also helping to promote tourism in the areas where it is not much prevalent now

Keywords: Water tourism, Inland water transport, Tourism development

IMPACT OF TOURISM ON RURAL LIVELIHOOD: CASE STUDY OF MANALI (HIMACHAL PRADESH)

Dev Dass Thakur (2120200105)

In the recent times, it has been observed that the various international organisations and governments across the nations have increasingly realized the importance of the rural tourism. Especially in the case of developing countries, the tourism is playing a major role in the economic growth. The contribution of tourism in India's GDP is at present lower than what is prevailing in the other similar countries. To tap the full potential of the tourism sector Tourism growth potential can be used as a strategy for development of rural livelihood. For this kind of development the concept of rural tourism can play major role in development of rural livelihood especially in a country like India where 74% population resides in its 7 million villages. All over the globe the trend of urbanisation and industrialization is growing at faster rate with urban centric approach along with the stress on urban life styles peoples are attracting them more towards rural areas. Rural Tourism is one of the few activities which can provide a solution to these problems. Besides, there are other factors which are shifting the trend towards rural tourism like increasing levels of awareness, growing interest in heritage and culture and improved accessibility, and environmental consciousness. In the developed countries, this has resulted in a new style of tourism of visiting village settings to experience and live a relaxed and healthy lifestyle.

Due to Substantial changes in the Manali Region including the need for more robust economic activities have led some rural families to turn their occupation into tourism sector as an economic diversification strategy. A qualitative study of selected rural tourism entrepreneurs indicates positive and negative experiences, both economically and in other aspects of their lives.

Himachal Pradesh government is providing some policies and approaches such as Home stay and Bed and Breakfast policy for promotion of rural tourism to enhance the rural livelihood. But the development of rural tourism is highly uneven place to place and the Himachal Pradesh Government should act more impetuously, to support those rural people involved in tourism activities for their livelihood. At present in Himachal Pradesh tourism is increasing in a very fast rate. Himachal is the one of top 5 tourist destination in India for both domestic and international tourist. 62 lakhs tourist visit here tourist growth has increased upto the increases in domestic tourist inflow 22% and international tourist inflow increased upto 30%,in past 5 years. While tourist inflow growth in Manali had increased upto 28%. Due to this increased demands of tourism is causing the diversification in the occupation of rural peoples. More there is a shift from primary sector to service but rural tourism is not able to

play an intrinsic role in the whole tourism experience with respect to enhance the livelihood of rural people which is desired. This has caused many direct or indirect impacts on the livelihood of the peoples living in rural area. This needs to be improved. To carry out such a task first we need to evaluate the readiness of existing rural livelihood to cater the needs of the tourist visiting the state. For such study Manali Region was deemed to be a suitable tourist destination as it has high growth of tourism influx because of its natural beauty, culture and various tourist activities such as adventurous sports and the destinations for most of those activities are those villages such as Shanag, Solang, Palchan, Ghoshala, Buruwa, and Vashishth and here more people are engaged towards tourism and it has been suffering the extensive population load during the peak tourist seasons. The population load on those villages increases to almost three times during the peak season, which puts immense pressure on the existing tourism infrastructure in the rural area which is causing the growing demand of tourism sector. So as to evaluate the existing impact on rural livelihood with respect to the needs as faced by various tourism based rural activities, this study was carried out. This study shall identify the various shortcomings of the existing Rural tourism system in Manali that hinders the growth of rural livelihood. The areas of concern thus identified should be taken care of by providing appropriate proposals and strategies.

Keywords: Tourism, Rural livelihood

STREET LED APPROACH FOR DEVELOPMENT OF SLUMS

Patil Rohit Valmik (2120200106)

Connectivity within a city is very important as it defines the value of the space. Better the connectivity, the higher the value of the space. Every individual in a city wants to be well-located, but due to geographical constraints, it is very difficult. Planning in the development of the city hence plays a vital role, but still it has its own constraints to find a proper equilibrium. Slums are a very real result of inorganic growth of the city and rather than an asset, they are considered as a disease for the city. Slums are an integral part of a city system but are often spatially segregated and disconnected from the city due to a lack of well-connectedness to the city. Streets play a very important part in the improvement of the quality of life in slums, particularly in densely occupied settlements where the absence of streets is the cause of major problems faced by slum dwellers in the city.

There is a need to build a practical role for streets which acts as a key to link neighbourhoods and economic activities which are adjacent to each other. Streets host economic activities, attract shops, services, and increase residents' identity with their place of residence, bringing an essence of security and development. Street naming and house addressing establish physical landmarks, enabling residents to gain an address and postal code, more over it helps in locating houses easily. Streets also determine new legal boundaries. Streets in slums have multiple functions, more than in other public spaces. This is because in most slums, streets are the only public space available. Streets can act as pillars for the transformation of slums. UN-Habitat has a slum up-gradation approach called street-led city wide slum upgrading which analyses the significance of streets in the development of slums. My interest is to study how streets can play a vital role in transforming and developing slums.

Keywords: Street led development, Slums

TRAVEL BEHAVIOR OF URBAN LOWER INCOME GROUP HOUSEHOLDS TOWARDS WORK

Venus Verma (2120200108)

As the city starts growing, there is a shift of population from rural areas to urban areas, and a gradual shift of increase in population can be observed in the city. Hence the city becomes over-populated and people starts to shift on the outskirts of the city which results in the city to expand. Along with the expansion outside its boundaries, the people have to travel from the outskirts to the centre of the city. Hence the travel behaviour of people living in such areas also changes with respect to its location of the urban form. The case study has been taken up for Vijayawada, its sub urban areas and core city area. Vijayawada is the second largest city in Andhra Pradesh and also called its Business district with the population of 10.48 lakhs (census 2011).

The study analyses the travel behaviour of LIG households particularly of three different locations due to difference in accessibility and service of work trips in terms of mode choice and trip frequency. As the Vijayawada city is a highly concentrated in the centre of the city and people tend to travel from its sub-urban areas to the centre of the city. As the LIG household have difficulty in accessing their work places and have fewer option of transportation, unlike MIG & HIG communities owning private vehicles and capability to bear the transport expanses, these communities are likely to suffer more.

Household interviews were conducted with samples of 35 household for each location and analyses the travel behaviour based upon socio-economic characteristics (Average household size, average number of working members, trip rates, travel expenses etc.) and travel characters (mode choice and trip frequencies) of the settlement areas. The results indicates that the difference in accessibility do effect the travel behaviour of the settlements of the city. The development plan should include the strategies to develop a higher level of accessibility in between these urban locations.

Comparing various socio-economic and transportation indicators between three urban locations of Vijayawada city, workers are largely similar demographically. However those living in the outskirt areas are have low income. Also the use of motorised vehicle is more inside the core city area. The people living in the western suburban area of the Vijayawada city are more dependent on the public transport due to the distance between the city center and the outskirt area is larger and hence they have to travel longer trip distance for their work purpose. The one town area in Vijayawada city is highly commercial area and hence people are living near to their work place have to travel short trip distances for their work purposes.

Keywords: Travel behaviour, LIG, Households

STRATEGIES FOR DEVELOPING THE STREET VENDORS: CASE STUDY OF CUTTACK

Madhuri Kalah (2120200109)

We cannot neglect Urbanization as it is directly proportional to development of a country. The phenomenon of informal sector is part of rapid urbanization experienced by all the developing countries. And the major problem that India facing today is unemployment. As a result of urbanization, people move towards the city in search of employment. Urban centers are not able to provide employment to all workforces, in formal jobs, looking forward for opportunities for earning their livelihood, so, they are forced to find other opportunities in informal sector of urban settlement. The informal sector represents an important part of the economy and the labor market in many countries, especially in developing countries. It plays a major role in employment creation, production, and income generation. Within this informal sector of workforce, street vendors play an important role in employing migrated people. Vending in urban area is characterized by ease of entry, small scale of operation carried out in temporary structure in a variable location without a fixed place or store. Vendors sell their products in unregulated and competitive market environment without observing any fixed hours for vending. Very often, vending is on an illegal basis contrary to the government regulations; it does not depend upon formal financial institutions for its credit needs As initial investment and risk associate for vending daily needs is low, but due to this street vendors large number of problems associated with landuse, security, health and infrastructure social arise. So Cuttack has been chosen for the case study to identify the problems. And this paper provides spatial solutions for Cuttak and measures for regulating urban vendors in other settlements too.

Street vending is an important source of employment for a large number of urban poor and livelihood for nearly 2.5% of Indian population And today, informal sectors became an important source for poor to get employed that requires low skill and small financial inputs.. These poorer sections are able to procure their basic necessities mainly through street vendors, as the goods sold are cheap. And also 2/3 of the total population depends upon these street vendors for their daily needs. In this way one section of the urban poor, namely, street vendors, helps another section to survive. Although due to fast urbanizations, street vendors are taken as a problem in the development of city.

The study has been selected in the old part of the city because of the commercial and business centre. Thesis study focuses on the hawkers and the problems faced them. Newly developed areas remained outside the purview of this study. Market places are near to each other and it is coming under CMC. The area limits is around the old part of Cuttack only. Five stretches has been selected because of narrow streets and are the mostly congested street where around 4000 of street vendors usually do their hawking activities. The study emphasised on socio-economic analysis of the vendors and identifies. These vendors come from nearby areas and neighborhood districts, villages and establish their temporal commercial activities and earn their livelihood. By analyzing vendors and their activities, there is scope for generating and gaining a high amount of revenue for the local authority by providing them needful requirement as per policy and law.

Keywords: Development strategies, Street vendors

STRATEGIZING SMART VILLAGE CONCEPT

Navin Kumar (2120200110)

A country like India needs to focus deeply the idea of a 'Smart Village'. India faces the challenge of rapid urbanization, which to some point is unavoidable as the economic pursuits and goals of the population. For the better life opportunity like jobs, education and living condition people are migrating towards the urban areas which are a measure cause that 60 percent people under age 35 are lived in the urban area. If we compare the urban growth it was 11.4 percent in the year 1901 which increases up to 31 percent in the year 2011 and it is predicted that it will increase up to 41 percent in the year 2031.

So if we creating the smart city we providing facilities to only 30 percent of the total population but if we providing facilities like a smart village then we consider 70 percent of the total population. There is a scheme by central Government called PURA (Providing Urban Amenities in Rural Area) comes under modernizing a village which was introduced by our former president Dr. APJ Abdul Kalam. But if we talk about smart village along with all these there are need to focus on self-sustainability, cost efficiency, making people educated so that they can take part in development process, and the implantation of marketing policies which can make a huge rise in the economy of rural market because unlike other countries in the world we have favourable climate condition to grow various kinds of crops which can't be possible everywhere in the world. So we should utilize the natural benefits instead of transforming the rural area into urban we need to focus on the potential of the rural area.

Before independence the various rural development program was started like Sarvodaya and Rural Reconstruction Mission which continued after independence as a part of Five Year Plans and various committees were also form like Balwant Raj Mehta committee and Ashok Mehta Committee for decentralization of work and power to the local authorities. But still there are many villages in India need urgent attention because Education, Health, and Governance system are still poor. Plans and policies are failing on ground because it lacks contribution of the local people, providing subsidy or 100 days employment is not enough first there should be clear observation about the potential of the particular rural area then there should be plan according to it and that's why farmers are quitting farming which can be a major issue in the future in respect to food security, may lead to price rise in crops and raw materials. Agriculture labours and educated people moving towards the big cities for better livelihood option.

Considering all these in my thesis work I do some research about the natural potential of the village and the people involvement in the types of works there is possibility to utilize the rice

crops in smart way to generate jobs, electricity, processed food, which will help in raising the economy with collaborating environment which includes all types and class of the people from less educated to graduate one. This idea will provide a sustainable way of development which includes the smartness of proper utilizing the abundant resources instead solving solid waste management problem of rice husk we can generate electricity from these waste and can make wooden floor by compressing the husk at very high pressure which will prevent thousands of trees to cut down and we can also make kitchen pots set instead of using plastics because plastics increase the chance of getting cancer. It will promote household industries make people more self-dependent and self-reliance which will stop rural-urban migration. Another major benefit of developing the food processing industry is that the new capital region is coming in Amravati where about 2.5 million people will live by 2050. It's a good opportunity for processed food industry because in this modern era people wants to be processed and healthy food which is easy to cook. When unskilled people moved to the big cities in search of job it again leads to the problem instead of the solution because for unskilled or less educated people it's very difficult to get a job so again they fell in the same situation of poverty. And cities where living space is very less so it generates the problem of slums and other basic amenities like drinking water, health, education and poverty.

So I would like to suggest that increasing population of the India is not the main problem, the core problem is an equal distribution of the resources and facilities in urban and rural areas, its unawareness, lack of technologies and poor infrastructure. Because agriculture is the backbone of Indian economy and if we are not going to make rural India self-dependent and a place of jobs and economy till then the problem will not solve. India is the country where the climate is most favourable for the agriculture sector and there are Rich Bio Diversity, Arable Land which helps to increase the exports, and scope of Agro-based industries which will help to develop the overall economy of the nation.

Keywords: Smart village, Strategies, Agro-based

IMPACT OF URBANIZATION ON RIVER ENVIRONMENT: A CASE STUDY OF RIVER COOUM, CHENNAI

Prithvi Mohan (2120200111)

Urbanisation leads to change in settlement pattern and land use structure, which often take place under informal conditions, will eventually lead to negative consequences for the environment as well as for the water resources. The events and developments that have occurred along the world's coasts, rivers, bays, and lakes depicts the importance of water bodies. Due to rapid urbanization, the increasing in population leads to discharge of waste, formation of slums, change in landuse along the river environment which affects the water quality and the natural environment. In this thesis, the purpose of the study is to assess the "Impact of urbanisation on river environment, a case study of River Cooum" located in Chennai, Tamil Nadu.

The Cooum River is 18km long stretch which flows major urban area of the city. In early period river is used for island transportation, tourism and fishing and other social activities, but existing condition of the river which flows in the city limits, has more toxins than sewer which is 80% dirtier than sewage. At the mouth of the river (near Napier Bridge) the BOD was recorded to the highest of 360mg/L and presence of 55,000 slum households along the bank creating pollution to the river. The three goals of the study are (1) to find out the decadal landuse change and urban growth along the river environment, (2) to identify the change in physical and environmental characteristics and (3) understand the existing slum conditions which affecting the river environment. In this study, Landuse with vulnerable stretch analysis model has been used to examine the relationship between landuse and river water quality because river environment have different landuse pattern along its stretch and the water quality differs in each segment of the river.

Due to increasing in population which result in formation of slums, discharge of garbage and sewerage into river and change in landuse pattern created pressure on urban environment which degrading the river ecosystem. There are 106 sewage outfalls identified in 2014, the estimated waste water discharge is 6,021,648 litres and the garbage thrown along the river stretch. Due to the improper facilities (sanitation, garbage disposal and collection) in the slums, the people behave to throw garbage and discharge waste into the river. The findings from the statistical analyses revealed that there was a significant relationship between land use and river water quality, in the core part of the city near Island ground and river mouth the water gets more polluted >90mg/l which is identified as high vulnerable stretch and along the upper stream near Koyambedu, the water have minimal pollution of <20mg/l because during last decade growth of settlements are being attracted towards this region due to availability of lands.

The results output are to implement the mitigation measures to control the discharge of waste water and regeneration of river water quality by using DEWATS and Bioremediation techniques which reduce the BOD and COD by 85-90% in the river, regulating CRZ II activities along the stretch, promoting tourism activities and community participation river restoration which leads to riverfront development. It is concluded to protect the river water quality and river environment it is essential to create awareness to the public and government bodies should regulate the strict rules and laws against the pollution and nuisance to the water bodies.

Keywords: River environment, urbanisation, development

CONFLICT OF DRIVERS OF ECO SYSTEM CHANGE ON WETLANDS: A CASE AREA OF ASHTAMUDI LAKE (KOLLAM DISTRICT, KERALA)

Sreekanth Satheesh (2120200112)

A healthy Environment is essential for the growth and survival of all living organisms. Lately, the concern on environment calls for a new direction to address developmental issues in a more scientific manner. Sustainable development requires economic growth, social and cultural progress and protection of environment.

Conservation of environment has become a challenge to development due to population growth and resultant consequent pressure on natural resources. As life-sustaining systems are threatened by growing pressure of human activity, it is imperative to become proactive and to contribute to reduce global warming, pollution, scarcity of fresh water and the loss of biodiversity.

The research involves study of the Ashtamudi lake of Kollam district and the settlements surrounding vicinity which is the second largest lake of the state of kerala and is the most deepest it also a supports a wide variety of endangered species of flora and fauna and is also depended on by a majority of population for livelihood purposes such as fishing agriculture and tourism. The upgradation in the level of performance of services of an ecosystem will lead to enhancement of the performance of the wetland and the various services it provides.

The services and benefits which natural resources provide and the various activities (drivers) that have an impact on the performance of these services and their potential have to be understood and tackled effectively in their fullest example as these can complement development if utilised appropriately. The future of mankind is without a doubt linked to the sustenance of plants, animals and ecosystems. Various analysis has been done to denote the status of various prevalent services in the wetland and certain priority zones has been identified which delineates the areas which are suitable for development and those which have to be given a greater prioritisation with respect to conservation.

Finally a strategic framework is given from the former analysis and studies which establishes a sustainable and environmental sensitive framework to replenish the wetland system and decrease the conflict that could lead to its gradual degradation over time.

Keywords: Ecosystem, Wetlands, Lake development

TRAVEL BEHAVIOUR OF INTERNATIONAL TOURISTS THROUGH TIME GEOGRAPHY APPROACH: A CASE STUDY OF AGRA

Garima (2120200113)

In the world, tourism is one of the fastest growing industries. Time geography has helped geographers to model, interpret and analysed activity-travel patterns since the 1970s. The study of Spatio - temporal movement models of tourists are undertaken in variety of disciplines to understand there activity pattern such as tourism, geography, mathematics, economics. Knowledge from these different fields has been difficult to integrate because tourist movement research has been done at different spatial and temporal scales.

Changes in the way in which transport services are structured and marketed have also had a significant impact on the growth of tourism in particular places and context. The principles and practices of Tourism and transportation planning have been acquiring ever-increasing importance in the former decades, especially in most visited tourism destinations characterized by large or unusual tourist flows. Ensuring comprehensive development, and then limiting the pressure of demand, requires the adoption of an integrated set of strategies that combine both tourism and transport related measures.

This thesis attempts to find the spatial-temporal movement of tourists at destination level and also tries to identify the appropriate measures that can be taken to improve the travel experience of the tourist in the city.

A case study of Agra, Uttar Pradesh is undertaken to study and understand the international tourist's travel pattern. The city's economy is majorly based on the tourism and the allied trades and commerce. On average 13.68 lakhs international tourists visit Agra annually and generates direct revenue of about 68.24 crores annually by only visiting the monuments in the city. There has been a 4.4% rise in the number of foreign tourists visiting India in 2015 as compared to the previous years though, the number of visitors from abroad to Agra has gone down by a substantial 8.4% during the same period. Deteriorating infrastructure and long chaotic traffic jams are leading to decline in number of visitors in Agra (Dev 2016) this kind of issues were raised by several officials of Agra.

To determine the majors factor influencing the travel pattern of tourists, two surveys were conducted in Agra to collect the travel data of tourists between the monuments and places in the City: IVS (International Visitor Survey) and Travel Diaries. The city's existing transportation infrastructure has also been studied through inventories and secondary data

sources to get the clear understanding of the issues and problems on the existing tour routes on the city which needs to be consider for future planning.

This study has identified the major issues and drawbacks in city's transportation infrastructure provisions for the tourists which is reflecting in their deterrence and dissatisfaction with the city. Simultaneously the movement of tourists has been studied on temporal and spatial scale. From there travel pattern and space time prism is found that their activity is concentrated on one side of the city and they are involved in very limited activity offered by the city. Majority of the trips are done by the private vehicles which put burden on the city's infrastructure and already deteriorating transport infrastructure influence their travel experience in the city. It is also found that the tourists are facing problems related to poor management and poor dissemination of timely information of city traffic and tourism.

Through this study it is clearly reflected that cities of this kind requires a traffic and transportation management plan to better manage and provide transportation services while taking tourists' perception into consideration.

This study only focuses on the international behaviour and can be done at larger level for both domestic as well as international tourists. The socio psychological and motivational factors which can influence their travel pattern of the tourists at any destination can be study in future. On the basis of which effective routes can be designed based on significant movement patterns and the corresponding target markets.

The results of this kind of studies can been applied for tourism planning studies in the city and can further be used for detailed activity modelling which helps in service provision to tourists and in designing tourist travel paths. The continuing evolution of urban travel patterns and changing policy goals and priorities requires that transportation researchers and practitioners improve their abilities to plan and forecast the demand for travel. This study will also help in preparing the detail guidelines for the tourist's transportation management plan for the city.

Keywords: Travel behaviour, International tourists, Time-Geography approach

MOBILITY PATTERN AND LIVELIHOOD OF URBAN POOR- HYDERABAD

Ede Soumya (2120200115)

Poverty consists of many interrelated aspects such as food security, shelter security, access to livelihood, needs such as health, education services and one such aspect is transport, which determines the crucial links between housing and labour markets, basic services like health, education, recreation etc. By observing the mobility pattern we will get to know how the poor are accessing their daily needs. In order to improve their livelihood, first we need to see the mobility pattern of poor to access the facilities, if they are able to access we need to observe whether there are affordable by the poor.

In India there is a rapid increase in motorized vehicles from past few decades. The poor are generally dependent on public and human-powered transport modes (NMT – cycles, rickshaws etc.) which are constantly being degraded with the increase of private vehicle usage and poor are unable to afford private motorized vehicles. According to report by market researcher IMRB International, urban population in India spend almost 40% of income is spent on the food, 11 % on transport, 9% on Health and 15 % on education. But people are willing to spend more on education and health rather than transport. In order to improve the livelihood condition of urban poor we need to know the relation between socio-economic aspects and mobility aspects.

This study aimed at enhancing the livelihood opportunities of urban poor by improving the mobility to basic facilities and livelihood needs. To understand the relation between socio-economic aspects and mobility pattern, the case area of Hyderabad has been selected because as per Slum Free City Plan of Action for Greater Hyderabad Municipal Corporation-2013, 12% of Hyderabad is occupied up by slums in which 31.6% of the city's population lives and from the past few decades there is increase in slum population.

Public transport is major mode in Hyderabad. There are several projects related to transport (metro projects and BRTS projects) are going on and there is substantial increase in motorised vehicles. So we need to understand the mobility of urban poor to access different facilities and how accessing these facilities will affect their livelihood.

To conduct this study four slums areas are selected based on different parameters and household surveys has been done based on demographic, socio-economic and travel characteristics. After understanding the issues related to mobility pattern of urban poor based on different parameters, this study gave suggestions to improve the mobility of urban poor in order to access the basic facilities and livelihood needs.

Keywords: Mobility pattern, Livelihood, Urban poor, Basic services

POTENTIAL OF COMMUNITY BASED ECOTOURISM IN ARAKU VALLEY

K. Srilikhita (2120200116)

The tourism sector is one of the fastest growing industries in the world contributing to 11% of global GDP and 7.6% to Indian GDP. In contrast, the problem of poverty is one of the biggest challenges for development planning in India. High poverty levels results in poor quality of life, deprivation, malnutrition, illiteracy and low human resource development. Many researchers have contributed on how tourism can help in poverty alleviation. In many instances, the areas with thriving tourism are also observed to be areas having high incidences of poverty. In such instances, tourism sector often functions are islands of economic activity with little spread effect on the surrounding inhabitants. Particularly, areas where tourism is essentially based on eco-tourism components, chances of such incidences of disparity are more, since most eco-tourism areas have indigenous population with traditional practices often de-linked with the tourism industry. The study area is one of the most beautiful hill stations in the state of Andhra Pradesh called Araku Valley, known for active tourism but having large population of tribes and indigenous practices in the valley and its surroundings. It consists of many different kind of tourist attractions, which contribute in improving the local economy directly and indirectly. Incidentally, more than 90% of the population in the study area is of Scheduled Tribes according to census of India. The process of development has made unprecedented change in the lives of indigenous people though the degree of exploitation and marginalization vary from tribal group to group. The impact of development has been strongest on these populations perhaps more than any other, because these communities have no voice and are therefore easily swept aside by the invisible hand of the market and its proponents.

Ecotourism, being a type of tourism has its potential in generating income and employment and has its promise to protect natural environment for local communities. Hence, such form of tourism can be considered as an important agent for indigenous community development.

The aim of this research was to assess the relationship between community development and tourism development in an ecotourism destination. While there has been much previous research on ecotourism, emergence of participatory tourism development is a relatively new component in present socio-economic, cultural and political conditions. The concepts of Tourism, Ecotourism, Livelihood, Community-based Ecotourism, and community participation in tourism planning set the theoretical context of this study. Later, Indicators and Variables related to tourism as well as Tribal Livelihood are identified after extensive literature review. This helped in understanding the perspective and scenario of the problem much more precisely. Methods and conclusions of the thesis have not only provided critical commentaries about ecotourism development in destination but have also drawn clear identification of how stakeholders can effectively participate to achieve sustainable community-based ecotourism development.

The research was conducted in two mandals namely Araku and Anantagiri both situated in Hilly area of Visakhapatnam district of Andhra Pradesh state. Mixed case study research

methods were applied in the study. Qualitative and quantitative data were collected using techniques such as participant observation, semi-structured interviews, Focused group discussions, questionnaire surveys, and stakeholder perception surveys. These are used as research tools to examine tourism and understand the local communities in the way of different analysis conducted on the basis of set of parameters obtained from literature reviews. This analysis also includes the evaluation of the perceptions of various other stakeholders like hotel owners, travel agents, shopkeepers etc. Detailed understanding of the different tourist spots in terms of their – Attractiveness, Alertness, Approach, Accommodation, Amenities, Ambience and Accord were evaluated using tourists' perceptions and physical verification. The livelihood generating capacity of the tribals were studied on a daily activity pattern and annual occupational pattern basis. Understanding was developed on the different capitals existent in the seven different tribes of the valley. The formal tourism activities and components were studied in terms of the potential and possible role of the tribal population.

From the analysis of the parameters, this study argues that the participation of local people may ensure long-term operation of ecotourism enterprises. By allowing local people into ecotourism development, local communities can manage to make more benefits from tourism. The findings indicate that the Community-based Ecotourism initiative can be perceived as an important tool for enhancing the psychological, social and political empowerment of the Tribal community. For disadvantaged communities, donor organizations and the public sector should play facilitating roles to empower the communities to negotiate with actors outside communities. The conditions of the protected areas will attract visitors demand if the service quality is improved. The focus area for service quality improvement have been identified by spot specific analysis of each variable and indicator.

It has been argued through this study that, as a result of ecotourism, indigenous populations' living standards and quality of life can be enhanced, and indigenous resources can be protected. In contrast, without community control, more often than not, ecotourism has contributed to unfair distribution of tourism benefits and deterioration of cultural and natural resources in indigenous communities. As a result, empowering indigenous communities to control ecotourism has been advocated as an integral component of sustainable tourism. The thesis concludes that community-based ecotourism has the potential to contribute to a form of sustainable tourism for people living adjacent to protected natural areas when there is an effective collaboration with indigenous people. This is most effectively achieved when indigenous people have the ability to have control over, and make decisions about, the development based on their own interests. The study recommended various Tourist spot specific and tribe specific strategies which resolve the problems arisen along way and also certain proposals which will improve the Tourism in the area by simultaneously developing the local communities. Hence, at the end it concludes that there is potential of community based ecotourism in Study area.

Keywords: Eco-tourism, Community based, Potential development

FINANCIAL ASSESSMENT OF APSRTC - VIJAYAWADA

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Transport is a fastest growing sector. Demand for transportation and its services has increased due to changing trends of demand for mobility and rapid economic development in developing countries. In India public transportation supports our national goals and policies but it is found to be lacking in operation and financing. This thesis aims to enhance the performance of A.P.S.R.T.C financially (in Vijayawada). A methodology has been followed in this process. Firstly, challenges and ways in financing urban public transport are identified through literature review. Aim, objective and parameters for case study area are set. Objective was to study and analyse the present public transport with respect to financial Service level benchmark indicator, case studies and desktop studies. Issues identification is followed by analysis of collected primary and secondary data.

Around 2 lakh passengers per day are being served in and around the city by these buses but still no revenue is generated as the expenditure exceeds income and leads to overall lose to the department. It is shocking to know that 72% of bus users are using bus passes which is another reason behind low revenue collection. Same trends are seen since 2007 and in last 2 years it was worst case as the department went into more losses because of the state bifurcation and its maintenance. In analysis it is found that bus transport is contributing to 17% of the travel demand which should be increased. This can be done by increasing frequency, reducing journey time , improving the comfort levels which people are complaining about.60% of people are ready to pay extra charges for better services. Recommendations as form of guidelines which will help to improve the efficiency levels are reducing investment, leverage and controlling unproductive expenses of the organisation. Innovative financing mechanisms should be adopted by the transport department like urban transport fund ,land value capture, cross subsidy , congestion pricing, parking fares which reduces the use of individual vehicles and Central schemes like Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Urban infrastructure Development Scheme for Small & Medium Towns (UIDSSMT), Viability Gap Funding (VGF) improves revenue generation for PT. Institutional efficiency can be attained by financial management.

Keywords: APSRTC, Financial assessment

ACCESSIBILITY OF PUBLIC TRANSPORT FOR SLUM DWELLERS: A CASE STUDY OF VIJAYAWADA

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Urban transport and urbanization are closely interlinked. Therefore planning for urban transport starts at understanding the urbanization process. India is only 30% urbanized at present, However as per Mckinsey report 2015, it is expected to grow by 50% in 2050. An important characteristic of Indian urbanization has been growth of slum as an integral part of urban system. The urban transport in Indian cities is heterogeneous, reflecting the heterogeneity in socio-economic and land use patterns. There has been an immense migration of people from rural to urban areas in search of employment and to enjoy better quality of life. As they cannot afford in cities tending to form slums, which are part of urbanization especially in developing countries. As urban population increases, Per-capita trip rate also increases.

Rapid growth in vehicle population has put enormous pressure in all million plus cities in India and are yet to grow in the future. This is due to high vehicle ownership and poor supporting public transport facilities. In earlier there has been a in-depth study on how to improve the mobility of goods and services in-order to develop mobility, infrastructure facilities have been provided. Now, the present scenario is different, even after the mobility is improved, the people are not willing to use that particular service. The main reason behind this is due to low accessibility to services. That is there are several other factors that may affect the accessibility levels. That is say that even though the public transport system is flexible, efficient, reliable the people are finding difficult to access any particular mode of choice to travel due to different factors that is affecting the accessibility of people.

The study aims to improve accessibility to public transport and assess its impacts on slum dwellers. The first objective of the study is to understand the existing public transport system in Vijayawada city. The second objective is to analyze the characteristics of travel behaviour of slum dwellers. In this the people perception about the public transport can be studied.

In order to better understand the concept of accessibility. Literature studies have been done in three different themes. From which research gaps have been found and the relevant research questions have been framed. Under the literature studies, several parameters have been listed out which have an impact on accessibility and the whole research is carried out based on parameters.

The research analysis identifies which is the preferred mode of transportation by slum people by establishing a relationship between modes like 2W, 3W and Public Bus through

utility based measures which is model of accessibility. Multiple-Regression analysis is done between different parameters of accessibility with respect to mode choice (Public bus, Auto and Cycle) relationship between the dependent and independent parameters. Nowadays everyone is interested in increasing mobility of vehicles, as a planner we must now consider accessibility as a main entity without which mobility cannot be achieved. We should consider the parameters that are impacting the accessibility of people towards public transport and then we must design a system. Unless the people perceptions are not considered we cannot make a public transport system well structured.

The major findings of the research by using Principal Component Analysis (PCA) Technique concludes that travel distance is the first parameter and foremost important that is affecting the accessibility of the deprived people in the study area .At the same time, the second most important parameter that is frequency of trips is impacting the accessibility of the deprived groups i.e. E.W.S and L.I.G.

This research demonstrates how to tackle the challenges of different levels of issues of accessibility by deprived groups, It also discusses accessibility planning could be developed to solve the various transport problems like congestion, pollution etc.

This study will be helpful to the Government officials, Transport department, Development authorities to understand and analyze the impacts of accessibility of poor people to distant places with respect to mode of selection, which will lead to plan effective public transport management system.

Keywords: Accessibility, Public transport, Slum dwellers

EVALUATION OF DELAY FACTORS IN URBAN POOR HOUSING AND ITS EFFECTS ON LIVELIHOOD OF TARGETED POPULATION – JNNURM HOUSING, VIJAYAWADA

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Delays are unique one in every of the largest issues construction of urban poor housing projects are facing today. The project delays result in several negative effects like lawsuits between house owners and contractors, exaggerated prices, loss of productivity and revenue, and contract termination, effect on living conditions and livelihood concerns of beneficiary population. Thus, comprehensive study on delays in construction of urban poor housing projects is important. Given this background, this thesis worked on identification and ranking of causes of delay in construction and implementation process of housing projects in Vijayawada JNNURM housing. This study identified the causes of delays in urban poor housing projects of central and state government. This thesis suggested an approach to carry out ranking of causes of delay by two different techniques: Relative importance index and average importance index based on degree of severity and degree of frequency and also discuss about the ranking of the causes. This study also focussed on how these delay factors affected the livelihood of the targeted population. Thus results are shown that out of top ten factors how many factors were common in ranking by both methods and the alternatives for each and every factor to reduce the impacts on targeted population were found.

Keywords: Urban poor housing, Delay factors, JNNURM housing