



**Department of Planning,
STUDIO BRIEF, Odd Semester, A.Y. 2024-25**

**DISTRICT SPATIAL DEVELOPMENT PLAN FOR
TRIVANDRUM DISTRICT (Kerala State) - 2041**

Studio Name : Regional Planning and Development Studio (PLN711)
Programme & Sem : Bachelor of Planning, Semester Seven
Studio Coordinator(s) : Mr. Rajeev R., Assistant Professor, Dept. of Planning
Dr. Arpan Paul Singh Golla, Assistant Professor, Dept. of Planning

Course Duration: Odd Semester 2024-25
Number of Credits: 15
Subject Category: STUDIO
Total Periods/Week: 15 (See Time Table for details)
Internal Assessment: 50 (minimum pass marks 50%)
End Evaluation: 50 (minimum pass marks 50%) – Jury Exam.
Total Marks: 100 (to be converted to CGPA credit pattern as per regulations)

1. Introduction

The B.Plan. IV Year studio is aimed to apply regional planning techniques for resource-specific baseline studies, detailed 'development sectoral' assessment at a regional level and development of the District Spatial Development Plan of the study region (here District shall be the scale of study region). The students shall be imparted with the knowledge on regional level assessment (all components) through primary and secondary surveys, identification of sources, levels and prioritization of issues, and problem analysis. Students were taken to the case study area to undertake the exercise culminating in the preparation of a DISTRICT SPATIAL DEVELOPMENT PLAN at the district level.

2. Background

Studies reveal that it is urgent that the spatial plans, at all levels, address the concerns related to regional development comprehensively. "The regional plan provides a model for sustainable development of urban and rural settlements to improve quality of life as well as regional land use pattern to protect and preserve good agriculture land, environmental sensitive area and utilize unproductive land for urban areas through an interrelated framework" -URDPFI Guidelines, 2014. The regional plan prepared in various contexts in India and abroad showed a great concern on various depleting natural resources like land, water, forests, biodiversity, flora and fauna of rapidly urbanizing areas of the region. It will address haphazard unplanned development, unauthorized construction, encroachment, unbalanced development with focus on development at the core of the region. There is a need to protect the land from conversion of good agricultural land to non-agriculture uses at random, lack of economic development in setting up industrial activity at meso, micro and mega scale leading to migration outside the region.



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3. Contextual Setting

a. Spatial Planning Process in Kerala

Kerala, with its high population density, rapid urbanization, and environmental vulnerabilities, necessitates a strategic approach to development. District Spatial Development Plans (DSDP) offer a crucial framework for addressing these challenges. By optimizing land use, prioritizing infrastructure, and integrating environmental considerations, DSDPs can foster balanced regional growth, manage urban sprawl, and protect Kerala's unique ecosystems. Moreover, they empower local governments, enabling them to make data-driven decisions and improve the quality of life for residents.

In this context, Integrated District Development Plans (IDDP) have become a crucial component of the state's decentralized planning process. The Kerala Panchayat Raj Act of 1994 and the Kerala Municipality Act of 1994 empowered local self-governing institutions, making IDDPs instrumental in their functioning. An IDDP is essentially a comprehensive blueprint for a district's development. It encompasses various sectors like agriculture, industry, infrastructure, social services, and environment. By integrating these elements, IDDPs aim to achieve balanced and sustainable growth at the district level. They also serve as a guiding document for preparing Local Development Plans (LDPs) at the grassroots level, ensuring alignment with the district's overall vision. The Kerala Government has amended the Kerala Town and Country Planning Act, 2016 in the year 2021 wherein the focus shifted on preparing Spatial Perspective Plans for the District which considers the interconnections between spatial linkage and various sectors, the environment, holistically and Sustainable development as the cornerstone.

b. Case Area: Trivandrum

Trivandrum district, situated in the southernmost part of Kerala, India, is a blend of coastal beauty and undulating hills. Bordering the Arabian Sea to its west and Tamil Nadu to its east, the district covers an area of approximately 2192 square kilometers. Home to a population of around 3.52 million, it stands as the second most populous district in Kerala. Its topography is a mix of sandy loam coastal plains and rich dark brown loam in the hilly eastern regions. The district enjoys a tropical climate with pleasant temperatures throughout the year, making it an attractive destination.

Housing the state's capital Trivandrum boasts a strong foundation in education and healthcare, with renowned institutions dotting the landscape. It has emerged as a significant IT and knowledge economy hub, contributing substantially to Kerala's GDP. The district's varied topography, ranging from coastal plains to hilly regions, supports a diverse range of crops. This agro-climatic diversity is a significant asset for agricultural diversification. Tourism thrives due to its natural beauty, historical sites, and cultural heritage.

However, the district faces several spatial, environmental, and economic challenges. Spatial concerns include the uneven distribution of population and resources, leading to disparities in development between urban and rural areas. Rapid urbanization in Trivandrum has resulted in urban sprawl, encroachment on agricultural lands, and pressure on infrastructure like transportation and housing. This spatial imbalance has also contributed to environmental challenges like pollution, waste management issues, and loss of biodiversity.



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Environmental concerns are significant in Trivandrum. The district is vulnerable to climate change impacts such as sea-level rise, coastal erosion, and extreme weather events. The fragile ecosystem of the Western Ghats, which runs through the district, is under pressure due to deforestation, habitat fragmentation, and human activities. Additionally, pollution from industrial and vehicular sources has affected air and water quality.

Economically, Trivandrum faces challenges related to unemployment, especially among youth, despite the growth of the IT sector. The district's economy heavily relies on service sectors, making it susceptible to economic fluctuations. The informal sector remains a significant part of the economy, lacking social security and formal employment benefits. Moreover, the district faces challenges in attracting investments in manufacturing and other industrial sectors.

To address these multifaceted challenges, Trivandrum necessitates a comprehensive district development spatial strategy. Such a strategy would optimize land use, promote balanced regional growth, enhance connectivity, foster sustainable urban development, protect the environment, and improve overall quality of life. With a strategic approach, Trivandrum has the potential to become a model district for sustainable and inclusive growth in India.

At the outset, Final year B.Plan students at SPA Vijayawada have designed a district development roadmap centered on balanced spatial growth, resource optimization, and economic potential. The plan emphasizes inclusive and sustainable regional development by recognizing the pivotal roles of infrastructure and socio-economic factors.

4. Approach of the Study

As part of the preparation of the Spatial Perspective Plan for Trivandrum District, students shall undertake detailed environmental studies to establish a baseline of different components, including physical and natural resource potentials and their utilization, population assignment and settlement patterns encompassing both rural and urban centers and their hierarchy and functional specialization, the district-level transportation system, generalized land utilization patterns, housing and shelter development, conservation of the environment, forests, ecologically sensitive areas, and heritage zones, integrated infrastructure development covering water, energy, sanitation, education, health, recreation, communication, and other utilities, facilities, and services, development of specific areas such as tribal areas, coastal areas, economically backward areas, and areas for the establishment of new towns, situational analysis regarding hazard, vulnerability, risk, and proposals for mitigation and resilience, and spatial development aspects of various sectors including agriculture and rural development and allied sectors, trade, commerce, and industries, tourism, and animal husbandry and fisheries. Eventually, the students will submit or suggest suitable spatial strategies for the holistic social and economic development of the district.

5. Learning Outcomes

The broad learning outcome of this practical on-site research is to sensitize the students towards regional level as an integral part of the planning process; development of skill sets in regional resource management tools and techniques; and planning document preparation within Regional Development Plan paradigm.



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The Regional Plan will be prepared covering in-depth documentation and analysis on (1) Regional Demographics (including details on Regional Economy and Economic Sectors), (2) Land Utilization and Land Cover (LULC), (3) Settlement Hierarchy, (4) Agriculture and Primary Sector development, (5) Industry, (6) Tertiary and Service Industries, (7) Tourism & Heritage, (8) Transportation and Connectivity, (9) Infrastructure (including Physical and Social Infrastructure), (10) Environment (including Natural Hazards) and (11) Governance; and suggest sector-specific strategies and inter-sectoral strategies for achieving balanced and District Spatial Development Plan in the study region and the implementation framework.

6. Studio Module Undertaken

Broadly the studio elaborated below in six cognitive modules delves deeper into the above aspects. This flow helped generate understanding in students of processes and steps that are necessary in regional planning and development for a region/district.

Module	Description	Time Frame*
M.I.	Theoretical understanding: 1. Various approaches to regional plan making and regional development; Appreciate role and relevance of regional planning; Legislative Framework involved in Planning and preparation of District level plans; Tools and Techniques; Study of Regional Plans (National and International).	By end of August first Week (Two-week exercise)
M.II	Baseline Studies /Contextual Understanding for XXXX District: <ul style="list-style-type: none">Study of various districts in Kerala for identifying parameters for Regional Setting studyRegion Overview studies (All districts of Kerala) based on secondary sourced data; Understanding of Regional Setting, Demography, Economy, Infrastructure, Transportation, Natural resource and Environment. Governance; Detailed District level study of Trivandrum District and context setting, leading to Preparation of Base map in ArcGIS and formulation of Vision.Identification of Sub-sectors and Focus area(s).	Partly by second week of August (Two-week exercise) Fully by third week of August (Base map Finalization)
M.III	Preparation for Field level studies on-site <ul style="list-style-type: none">Creation and Assimilation of Baseline Data for all identified sectors.Data Checklist preparation;Complete detailed Maps of each sector at the region/district level. Field Visit & Data Collection	Fully by third week of August Field Visit for 14 days (27th Aug – 08th Sept)
M.IV	MID-SEMESTER WEEK EVALUATION	17th -21st September
M.V	Assimilation and Analysis, including submission of Stage-wise Reports.	Complete by Middle of October (6 weeks exercise)



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M.VI	Finalization of Analysis and Scenario Building for future development and conservation of the region Detailed Regional Level and Sectoral Level Proposals	Complete by first week of November (5-6 weeks exercise)
M.VII	Internal Jury Revision and Finalization of the project report	Third Week of November

In each module the students had the freedom to re-orient the overall studio sub-theme or analytical strategy or addressing of any issues of the region as they deem fit, upon discussion with the Studio Faculty. Assessments were based on reviews held every week/alternative week (at intermediate stages besides the main assessment) by prior notice.

7. Mode of Teaching and Evaluation

- One-to-one and group-level discussions, as required; Classroom presentation; Guest/Expert lectures; Audio-visual materials; Field Studies.
- Continuous and stage-wise assessment of work.

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