



# Cluster Planning for Regional Development (A Case Study of Seemandhra)

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## Abstract

**Objective / Background of the study:** This research paper analyses the structural shift and economic transitions that have taken place in the regional economy of Seemandhra especially after its bifurcation from Telangana in year 2014. It will determine the direction of the economy and analyze impact of cluster activities in the regional economy. This research attempts to address: Does the use of a cluster-based approach add anything of value to economic development practice in Seemandhra, and if so, how? The main objectives are the analysis of the institutional factors behind long run growth and need for cluster based regional planning framework for Seemandhra.

**Methodology:** Spatial analysis, classifications and potential variables of different data set has been taken into account to understand theoretical evidences of the cluster economy and its impact. The land pooling plan containing details like land use, infrastructure and zoning for regional planning development has been considered. The analytical methods were required for the study of the agglomeration analysis.

**Finding of the study:** The study has derived a discussive approach of cluster economy, which has faced 'turnaround' in economic growth and fiscal performance of Seemandhra (Post 2014) in recent years. The state is facing severe magnitudes of migration because of rising casualization of workforce and unemployment, where the likelihood of migration is positively correlated to size of family. The study focuses on the status of Seemandhra in India for business prospects, list of potential inward and outward investment which will bring make Seemandhra a spatial economic polarized economy. The state needs to focus its developmental policies for cyberenvironments and Knowledge planning of the region.

**Novelty/ Future policies:** The research paper specially caters to the needs of the aspirants to understand the growth and impact of cluster planning in specific region, unlike industrial cluster policies. The study is based on the rate and trend of the cluster pattern in Seemandhra.

**Keywords:** Cluster based regional planning, Agglomeration, Economic Forecasting, regional economy.

## INTRODUCTION

The research paper caters to explain cluster strategies of regional economic development and cluster policies for Seemnadhra. The cluster economy has concerns of local firms seriously while allowing a significant part for traditional marketing. The study focuses on policy analysis and economic forecasting outcomes, which is measuring the changes that occur in regional output income and employment as result of different policies and economic activities.

Known for centuries as ‘Annapurna’, the Seemandhra has a historical record of producing and supplying rice. It adopted Green Revolution quite early. It is the 8<sup>th</sup> largest in area and 10<sup>th</sup> largest populated state of India. The state has been accoladed for achievements education and healthcare services. However, there remains substantial scope for improvement because of policy paralysis. Seemandhra (In the list in medium HDI Index) highlights these disparities in achievement levels. Furthermore, the increased pressure on resources is leading to environmental damage. As Seemandhra’s population rises (5. 46 cores in 2020 widening the base of population pyramid<sup>1</sup>), environmental, global economic and political changes affect each individual and, in this scenario, Seemandhra underline the necessity for the cluster planning at macro and micro level both. The state is acting as a pull factor for regional economies. The GSDP was 9.33 lakh crore in 2019 at the current prices and 14.99 % average growth was recorded in past 5 years (2014-2019)<sup>2</sup> which was the result of construction and revival of IT sector.

However, this growing trend of haphazard constructional development is worsening a number of problems, such as inadequate housing and urban services (water, sanitation, transport and so on), rising land prices, where the challenges of increasing risks of urban hazards are growing more critically. The challenges of poverty, employment, migration, infrastructure and civic amenities are increasing in Seemandhra.

## LITERATURE REVIEW

**R.B. Bhagat** (2008) in his research paper Urbanization in India: A Demographic Re appraisal finds out that poverty in Andhra Pradesh is a subject of considerable current interest and discussion. The Government of

<sup>1</sup> Research papers on Population dynamics & Social affairs (2019-2022) population. Retrieved from census of India gov.in. Accessed from: <https://www.populationu.com/in/andhra-pradesh-population>

<sup>2</sup> N. Rahul (2019) State economy growing faster than Nations. The Hindu. Accessed from:

<https://www.thehindu.com/news/national/telangana/state-economy-growing-faster-than-nations/article29377062.ece>

Andhra Pradesh has expressed a strong commitment to the reduction of poverty in the state, and to this end has been supporting efforts to develop a sound diagnosis and to outline elements of a strategy to confront this major developmental challenge. A recent report produced by the Rural Poverty Reduction Task Force has made an important contribution to our understanding of the multiple dimensions of rural poverty in Andhra Pradesh and to the options and constraints that shape policy aimed at poverty reduction (GOAP, 2000). This note seeks to build on the momentum generated by the Task Force's report by examining more closely the association between material poverty and household characteristics and by addressing two additional themes that may merit further attention in discussions of poverty in Andhra Pradesh. (R. B. Bhagat, 2008)

**Report Data Highlights**, Census of India mentions population-driven pressure on croplands, pasturelands and forestlands coupled with abject rural poverty triggered rural outmigration to urban and industrial centers for wage employment. Furthermore, the process of metropolization has always been more accelerated than that of urbanization and had further escalated since the 1980s. The process is expected to gather further momentum over the coming years. Urbanization occurs naturally from individual and corporate efforts to reduce time and expense in commuting and transportation while improving opportunities for jobs, education, housing, and transportation and the major contributing factor is known as rural flight. Thus, in this article, Urbanization is often viewed as a negative trend, but can in fact, be perceived simply as a natural occurrence from individual and corporate efforts to reduce expense in commuting and transportation while improving opportunities for jobs, education, housing, and transportation.

**Pranati Datta** (2006) in National Focus Group on Problems of Scheduled Caste seeks to distinguish stated policy objectives (which may or may not exist with respect to urbanization and population distribution, which certainly may be found with respect to developing social and economic infrastructure) from the implementation of controls, taxes and public investments. While the range of possible policy responses is very wide, it was generally agreed that the focus in this program should be on those concerned with the following kinds of population distribution outcomes:

- a. Rural population retention
- b. Secondary city development and growth
- c. Satellite city and ancillary industry development

## **IDENTIFICATION OF CLUSTER STRATEGY IN SEEMANDHRA**

The growth in the state of Seemandhra was mainly driven by industry and service sectors. The study has identified the priority areas for cluster planning are food processing, software exports, financial services, electronics, power, textiles and tourism. The two rivers Godavari and Krishna are very important for the state,

especially for agriculture. The contribution of agriculture sector in the state GVA was 37.27 % in 2021.<sup>3</sup> Industry and service sector share 23% and 43% respectively in 2018-2019.<sup>4</sup>The state has a latent potential for the development of information technology, biotechnology, automobiles, spices, mines and minerals, Textiles and apparels, IT industry, Bulk drugs and pharmaceuticals, horticulture, poultry farming are the main industries in Seemandhra. As of June 2020, Andhra Pradesh Industrial Infrastructure corporation<sup>5</sup>, the state had 47 special economic zones (SEZs).

**Table 1: Seemandhra: Figures at Glance**

|                                 |                        |
|---------------------------------|------------------------|
| <b>Total Population</b>         | 49634314               |
| <b>Population Density</b>       | 304.5/km <sup>2</sup>  |
| <b>Rural Population</b>         | 70.4%                  |
| <b>Urban Population</b>         | 29.6%                  |
| <b>Largest urban population</b> | Vishakhapatnam (47.5%) |
| <b>Largest Rural Population</b> | Srikakulam (83.3%)     |
| <b>Sex ratio</b>                | 996                    |
| <b>Literacy</b>                 | 67.4%                  |

Source: Census of India 2011, Ministry of Home Affairs, GOI.

The state has increased its GSDP share from Rs. 8,62,975.08 in 2018 to Rs. 9,72,782.11 in 2019. The state is 12<sup>th</sup> rank in FDI inflows (USD 2981.80 million) specially in the sector of infrastructure and real estate development.<sup>6</sup> The 44 mega projects and a large no of MSME were launched. These investments are not aligned as a part of cluster planning therefore failing to generate enough employment to state. This is raising the bar of poverty where the 9.2 % population was below poverty line in 2018-19<sup>7</sup>. Seemandhra, despite being a coastal state has not performed well, having only identified thrust sectors for exports, with no definitive export policy in place.<sup>8</sup> This type of lopsided development has resulted in the widening of regional imbalances in the state.

<sup>3</sup> Express News Service (2021) Agriculture contributes 37.27 per cent to Andhra Pradesh's Gross Value Added <https://www.newindianexpress.com/states/andhra-pradesh/2021/jul/08/agriculture-contributes-3727-per-centto-andhra-pradesh-gross-value-added-2327175.html>

<sup>4</sup> Andhra Pradesh Budget Analysis PDF. (2019). *PRS Legislative Research*. Retrieved 24 July 2019.

<sup>5</sup> Accessed from: <https://www.apiic.in/sezs-in-andhra-pradesh/>

<sup>6</sup> India Brand Equity Foundation. (2021) Industrial Development & Economic Growth In Andhra Pradesh Accessed from: <https://www.ibef.org/states/andhra-pradesh.aspx>

<sup>7</sup>SDGs India Index". NITI Aayog. 31 December 2019.

<sup>8</sup> Export preparedness Index. (2020) NITI Aayog. Institute of competitiveness. New Delhi. Pp-36. Accessed from: [https://www.niti.gov.in/sites/default/files/2020-08/Digital\\_ExportPreparednessIndex2020\\_0.pdf](https://www.niti.gov.in/sites/default/files/2020-08/Digital_ExportPreparednessIndex2020_0.pdf)



Cluster planning and cluster strategy in regional economic practice involves significant parts and reasoned decisions which will focus on firms currently in the region and those which can be located there. Cluster strategy points to the concept's potential for encouraging locally-focused development around agglomeration economies of Seemandhra and for increasing understanding of regional economies more generally. In particular, the concept is to identify sets of firms that are potential collaborators, understand connections between local firms and those in nearby regions and prioritize resources. In sum, cluster-based economic development planning approaches can usefully adhere economic development, but it is more important to analyze the techniques of identifying the clusters.

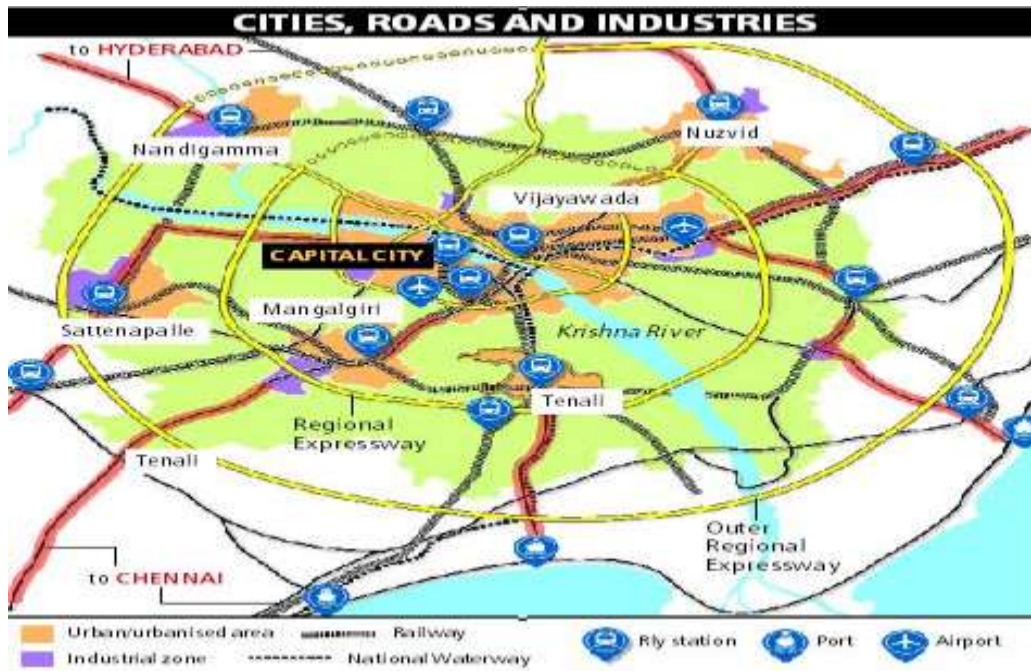
### **REGIONAL PARTNERSHIPS FOR ECONOMIC DEVELOPMENT: LOCATIONAL ADVANTAGES**

The transforming landscape of regional economic development practice has evolved considerably in the past few years. The change has been affected by government policies and private interventions in the market. Therefore, the regional marketing partnerships can be put forth the agglomeration economy in Seemandhra. The capital city, Amravati will act as a hub for business partnerships. Amravati is spread over an area of 217.23 km<sup>2</sup> (83.87 sq mi) and will comprise three mandals Mangalagiri, Thullur and Tadepalle. The construction of the new city will emerge out as the center of economic polarization but the question is that is this going to flourish the economy of traditional crafts, marginalized section and the migrated SC population?

The State is well connected by road, rail, air and sea as Visakhapatnam, Tirupati, Vijayawada, Rajahmundry. Krishnapatnam Port and Kakinada port. Seemandhra is one of the store houses of natural tourism spots. Tourism industry contributes to 7% of the state GDP in 2020. Many religious sites have been developed but the interior locations are being vulnerable to world economies, which needs the planning at micro regional level. Physical and social growth both are necessary for higher human development. On the other spectrum, Andhra Pradesh leaves room for major improvements. Andhra Pradesh might have an enabling business infrastructure, but the state does not have a proper export ecosystem in the place<sup>9</sup>. Figure 1, 2 and Table 2 express the potentiality of Seemadhra and Amravati for cluster planning in regional ecosystem.

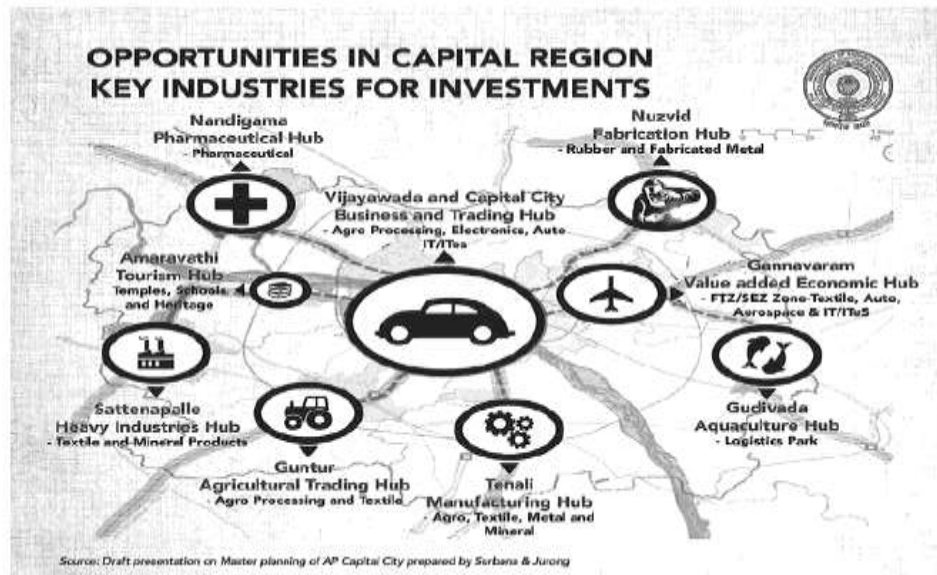
<sup>9</sup> Export preparedness Index. (2020). NITI Aayog. Institute of competitiveness. New Delhi. Pp-30. Accessed from: [https://www.niti.gov.in/sites/default/files/2020-08/Digital\\_ExportPreparednessIndex2020\\_0.pdf](https://www.niti.gov.in/sites/default/files/2020-08/Digital_ExportPreparednessIndex2020_0.pdf)

**Figure 1: City master plan of Amravati and economic forecasting of the capital region**



Source: Blueprint of Amravati, Govt of Andhra Pradesh.

**Figure 2: Potential Variables of cluster planning in Amravati**



Source: Draft presentation on master planning of AP capital city prepared by Surbana & Jurong

**Table 2: Status of Seemandhra in India**

| Index                                                           | Rank of Seemandhra in India | Agency                                                    | Year |
|-----------------------------------------------------------------|-----------------------------|-----------------------------------------------------------|------|
| Ease of doing Business (EDB)                                    | 1                           | Department of industrial production and promotion, GOI    | 2021 |
| Human development index (HDI)                                   | 27                          | United nations of developmental Programme                 | 2019 |
| Literacy Index                                                  | 32                          | Census of India                                           | 2011 |
| Good Governance Index in agriculture and allied (AAS)           | 1                           | Dept of administrative reforms and public grievances, GOI | 2021 |
| Social development and welfare index                            | 3                           | Dept of administrative reforms and public grievances, GOI | 2021 |
| Good Governance Index                                           | 10                          | Dept of administrative reforms and public grievances, GOI | 2021 |
| State Health Index                                              | 4                           | NITI Aayog, Government of India                           | 2019 |
| Sustainable development goals India index                       | 3                           | NITI Aayog, Government of India                           | 2020 |
| Best performing state in Pradhan Mantri awaas yojna -urban      | 3                           | NITI Aayog, Government of India                           | 2020 |
| Best performing tool                                            | Special performance status  | Government of India                                       | 2021 |
| Innovative construction technology                              | Special performance status  | Government of India                                       | 2021 |
| Ease of living index                                            | 1                           | AMRUT ranking, GOI                                        | 2018 |
| New job generation in ITES                                      | 2                           | India Business Process outsourcing promotion scheme, GOI  | 2021 |
| Implementation of Energy efficiency and conservation programmes | 1                           | World bank                                                | 2018 |
| Innovation index                                                | 7                           | NITI Aayog, Government of India                           | 2018 |
| Export preparedness                                             | 20                          | NITI Aayog, Government of India                           | 2018 |
| Policy implementation                                           | 21                          | NITI Aayog, Government of India                           | 2018 |

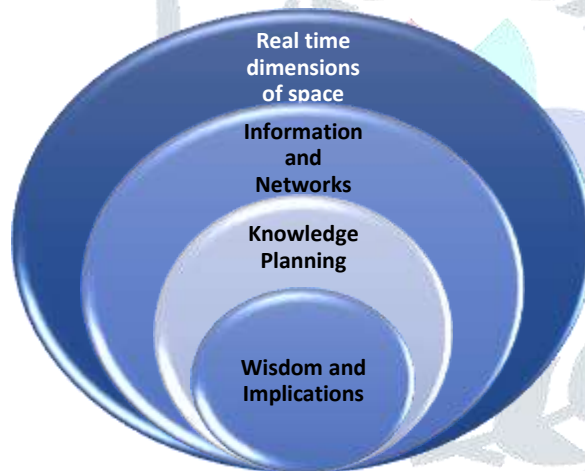
|                    |    |                                 |      |
|--------------------|----|---------------------------------|------|
| Business ecosystem | 13 | NITI Aayog, Government of India | 2018 |
| Export ecosystem   | 19 | NITI Aayog, Government of India | 2018 |
| Export performance | 27 | NITI Aayog, Government of India | 2018 |

Source: Compiled from multiple Reports of Government of India.

## **A PARADIGM SHIFT FROM INFORMATION PLANNING TO KNOWLEDGE PLANNING**

A paradigm shift from “information age” to the “knowledge age,” and its implications in regional planning are now needed. The main implication involves evolution from “e-planning,” based on networks and information, to “knowledge planning” (k-planning), based on Cyber environments and knowledge. This research paper has found out that k-planning will represent a comprehensive planning of urban regional space. K-planning addresses real-time data. Figure 3, have zeroed on the ideas of knowledge planning where the cluster strategies are linked to economies of scale for profit maximization.

**Figure 3: A paradigm shift to K - Planning**



Source: By Author

The analysis of the impacts of cluster planning suggests that cyberenvironment has a futuristic scope in Seemandhra. Seemandhra is now embracing new modes of open data management. The research paper has considered ecosystem management is required in regional planning practice for urbanscape. Research on ecosystem services strives to build stronger linkages between ecological and economic systems in order to improve ecosystem management and human wellbeing.

## **RESULT AND DISCUSSION**

The study investigated the need of cluster economies in Seemnadhra. Here, labor migration is a complex phenomenon. The southern state of Seemandhra figures prominently among the Indian states with high rate of migration from the countryside. Migration from rural area has in fact peaked over the last couple of years due



to successive drought periods which need to be addressed in the local economic development in the bottom-up approach. The capital markets are losing their creditworthiness. A strong bias towards adding physical infrastructure rather than regional sustainable services has been witnessed. The urban environment of the clustered industrial region is deteriorating which is diminishing the standard of lives. The ecosystem-based watershed management approaches have been spared.

**Table 3: Potential Inward & Outward Investments of Seemandhra**

| <i>Potential Inward Investment</i> | <i>Potential Outward Investment</i> |
|------------------------------------|-------------------------------------|
| Automobile industry                | Engineering services                |
| ITES services                      | Cybernet industry                   |
| Renewable energy                   | Petro-chemical industry             |
| Food processing industry           | Business Processing industry        |
| Ecotourism industry                |                                     |

Source: Author

### **SUGGESTIONS FOR POLICY FORMULATION**

During regional-cluster planning it should be ensured that adequate infrastructure is available to support the population. This also results in a higher standard of living for the people of the country as a whole. Some of the regions in Seemandhra have portrayed exemplary examples. They have utilized the cluster of renewable energy for efficient transport, communication, electricity and industrial development. There is a need to reverse the process of development to correct regional imbalances to curb the rising inequality. Agriculture may be given top priority along with infrastructure. It is also necessary to identify backward districts in each of the regions in state and specific area programmes. Both central financial transfers and use of policy instruments will be useful to attract private investment to the backward regions and enhanced allocations for social development.

### **CONCLUSION**

Two major conclusions can be drawn from the analysis in this research paper. One is that there has been significant improvement in the development of Seemandhra. But the relative performance of the state remained stagnant as shown by its ranking in development across states. Second, there seems to be some convergence across districts in Seemandhra, indicating that the more backward districts are catching up with the developed districts. On the other hand, regional disparities have not changed much for human poverty index and gender development index. The main goal of regional planning is to make all amenities and comforts available to the public without imposing many negative effects on society and environment, aptly referred to as “Sustainable

growth". The cluster economies forecast efficient amenities, convenience concentration of resources, educational facilities, social integration.

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