Composite Index Assessment for Peri Urban Area: Olpad Taluka, Surat.

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Abstract— **The planned development in India has been based on the notion of the ensuring balanced regional development. Given the enormity and diversity of the country, this was an important objective in the planning exercise. To study the utility services of "Existing Olpad Taluka" such as education facilities, healthcare facilities, transportation services, public utilities, commercial services, administrative for socio services. To study is done to address the present problem and issues arising in the existing Olpad Taluka regarding the social services. The ultimate aim of any planning process is to raise the living standard of poor as well as to provide the healthy environment to the local people in which they can live peacefully, comfortably and wok efficiently with minimum friction. In the light of the above, this medium town has developed with a view to reduce the migration of population from rural areas to major urban areas, and also to provide the basic facility such as social facilities in these villages of Olpad Taluka.**

Index Terms— **Composite Index, Rank, Social Services**

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I. INTRODUCTION

The growth of any city, village or settlement is totally depends upon, the opportunities which are given to the people in term of the economic development and accommodation with liberalization, privatization and globalization of India's economy, the rate of urbanization has accelerated across all categories of human settlements. It has resulted in drastic changes in the scenario of land development, not only within the administrative limits of towns and cities but also in their fringe areas. As a result there is an urgent need to ensure planned and orderly development in these areas to achieve the objective of ensuring health, safety, convenience and comfort of prospective residents of these areas. Therefore, there is a strong case now to lay down the threshold size of proposals for development of lands situated in the Peri-Urban Area. services are becoming a major challenges to concerned authorities. Existing services are increasingly coming under pressure from population growth due to both internal and migration. The mounting population has resulted in even expanding city boundaries and increment in sub-urbanization of the cities in both developing as well as developed countries. An important phenomenon associated with it is the development of urban sprawl, or sub-urban sprawl that raises several questions relating to the sustainability of the urban development.

I. COMPOSITE INDEX

The indexing it means the set of variables has multiple uses; it helps in assessing current level of development, monitors the trends and identified target areas. As in the study the Olpad Taluka has been taken for the development, by dividing the whole area into various zones and by using Composite Index ranking the target zones and villages have to be finding out.

The use of composite index is mainly to give the weight age to the various parameters in any case. If there different variables and have to choose from these available variables or have to change them in the order according to their importance and necessity the Composite Index ranking is very helpful tool. Like if the study is to find the Human Development Index (HDI), the country sprawl index it means a comparison between the different countries with various development parameters. The ranking composite index produced allows to rank the cases and to examine the index structure. The ranking producer arranges the cases according to the score they receive when are used as index composed from many indicators.

The ranking producers offer the following information.
•	The index composition and the weight of each indicators.
•	The list of cases (arrange in ascendant or descendant order) according to the index score (the colors code is similar to the produced standards).
•	The map with the cases colored according to the place in the index hierarchy.

The selection of variable is extremely important in any such experience there are two basic requirements for selection in the computation of composite index. First, the variable should have a direct link with the level of development, the other relate to measurement error. To be precise, there are a number of methodological issues and data quality related to such exercise. There is no doubt that in such presentation selection of indicators is very important and would play very crucial role in understanding the development process – be it economic or demographic. Under such conditions measurement of the indicators and its conceptual link development must be made explicit.

In this study there are basic eight variables had to be chosen, which are directly related to the development of the any developing region they are suitable ranked in descending order and given a weight age as per their important and necessity.

II. PURPOSE OF THIS STUDY

While planning of developing area, a special care must be taken not only for preserve their tradition, customs but also to motivate them with the changing time and development process.

III. PROBLEM DEFINITION

The purpose of this study is to highlight and to suggest the suitable measures to improve the living conditions through need based planning approach. So as for their needs or the basic functional services are carried out and by giving them suitable rank and also by evaluation the sub-services with various grades as per its importance and necessity all the 105 villages of Olpad Taluka had found composite index value by using equation on the basis of these C.I values villages are identified and given proposals for these particular villages as well as for these various zones which are divided for as per population distribution.

IV. AIM AND OBJECTIVES

o   Aim

Find out the Composite Index Rank for Olpad Taluka - Peri Urban Area of Surat city and work out the planning proposal for the study area as per obtained C.I. value.

o   Objectives
- To study planning efforts in Peri Urban Area
- To identify development indicators.
- To analyses the data base development indicator.
- To grade the existing level of available services by composite index ranking.
- To prepare planning proposal for the study area as per C.I. value.

V. SCOPE OF WORK

1. The study scans through demographic profile and socio-economic developing trend prevailing in the region.
2. As the study mainly focuses on functional services available, all the centers are identified and graded according to the services level.
3. A ranking approach is adopted to decide the service level.
4. Equations are derived to find out the C.I. value form centre to whole region.

VI. METHODOLOGY

It is felt that the approach of this study should be semi – empirical and that the efforts are made to collect the data from the concern department as well as by directly talking to the local people. The inventory study approach has been adopted. Main aim is to study the basic socio – economic services in the developing villages in the Olpad Taluka. Each basic service is derived by giving them ranking according to people's opinion. For better result and to make the study area the region is divided in five zones.

The people's opinions are to be taken by visiting all the zones one by one and their all village's likely 103 villages and by the Taluka Panchayat data are to be collected from the village profile and also from the different branch of the social services like, Health Centre, Education Anganwadis, etc. After that the major villages are to be identified in each zone, which serve the basic services to the surrounding villages. By using Composite index (C.I) ranking all the villages are ranked and they are categorized as per their index value in each zone. After that the overall C.I value of each zone and finally the C.I value of whole Olpad Taluka are to be found out. At last with the result of the index value of villages the most affected villages are to be found and respective zone have given the proposal for the development. The figure shows the methodology chart.
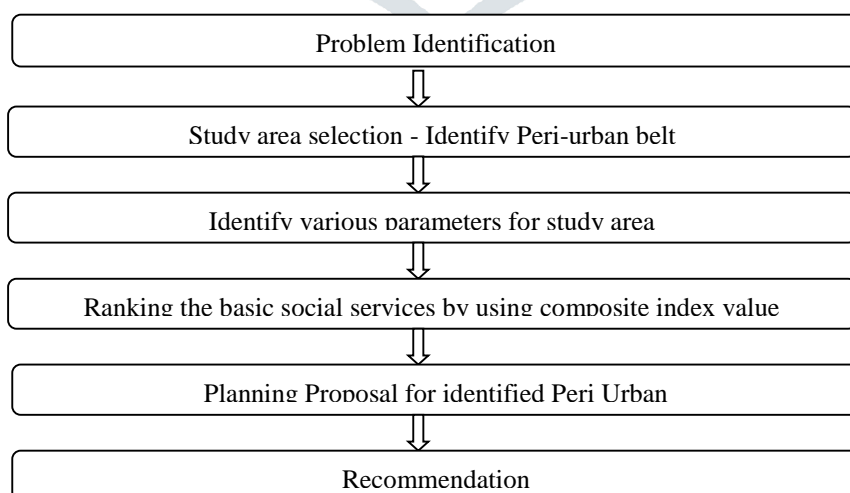

Figure 1 Methodology

REFERENCES

[1] Nisarg Chaudhari "A Study on Vyara Taluka Tribal Area Planning Based on Composite Index (C.I) Ranking", 2009.
[2] Calculation of Composite Index of Individual Living Conditions.
[3] "A composite index of quality of life for the Gauteng city-region: a principal component analysis approach" Department of Economics and Econometrics, University of Johannesburg, November 2013.
[4] Elizabeth A. Stanton, the Human Development Index: A History Global Development and Environment Institute Tufts University February, 2007.