Overview of Area Planning Proposal for Medium Town: A Case Study of Kamrej Town, Surat District

Yamee Thakkar, Krupesh A. Chauhan

[1]Research Student, Urban Planning, CED, S.V. National Institute of Technology, Ichchanath, Surat, India

[2]Associate Professor, PG in-charge, M. Tech (urban planning),
Department of Civil Engineering, S.V. National Institute of Technology, Surat, India

Abstract: ***India, being a developing country, important objective of all planning exercise should ensure balanced regional development. The ultimate aim of planning process is to raise the living standards of poor as well as to provide healthy environment to the local people in which they can live peacefully, comfortably and work efficiently with minimum friction. The study is done to address the present problems and issues arising in existing kamrej town, the nodal centre in Surat district, regarding infrastructure facilities, present road connectivity and overall land use planning. Presently Surat is witnessing a tremendous growth of urbanization and its impacts on present settlement have been such that the development effort and the growth cannot be balanced. The paper attempts to highlight the present scenario of kamrej town, which comprises of 69 villages, and hence area planning proposals are made to channelize the future growth.***

Keywords: kamrej town, present scenario, proposals for future development

1. Introduction

Economic and social development in India is generally analyzed at the state level. However, many states have an area and a population larger than many countries of the world. These states also include distinct regions with well defined physical, economic and social characteristics. As a result even a state level analysis does not capture different development strands operating in the state. Over time there has been shift in focus from the State as a whole to the district as a unit of planning. Though in many cases, districts also encompass fairly large areas and population with diverse characteristics, it is the most appropriate level for planning purposes, as it forms the core of the administrative structure through which the planned development programs are implemented. So here the selected region is a part of the Surat district a Kamrej Town.

Area plans provide the framework and serve as a policy guide for future growth and development, usually for a specific geographic area. Area plans vary in scope, depending on the geographic area and purpose of the plan. The plans typically include policies that address land use, transportation, community design, infrastructure, public facilities and the natural environment.

2. Literature review

According to UDPFI Guidelines Classification of town for the purpose of this study the town centers have been classified as:

Table 1: Classification of towns based on UDPFI Norms:

Classification	*Population Range Plain Area*	*Hilly Area*
Small Town:	Less than50,000	Less than20,000
Medium Town:	50,000-5,00,000	20,000-less than80,000
Large City:	More than 5,00,000	80,000 and more

It is apparent that the small and medium towns would have to play a critical role in future urbanization policy of the State. In order to play this role, the towns need to be economically viable units. The basic question here is not only of economic regeneration, as in case of cities, but one of economic generation. There has been a major shift in structural economy of rural areas which were pushing rural people to the nearby urban centres. In the light of the above, role of small and medium towns assume a critical position in equitable distribution of the rural population. Throughout the state, these small and medium towns have developed mainly as administrative centres. They were not equipped to provide a strong economic role. With a view to reduce the migration of population from rural areas to major urban areas; to generate employment by creating resource generating ventures in the Small and Medium Towns of the State and also to provide sufficient infrastructure facilities in these towns so that their hinter land is served better.

2.1 Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT) Guidelines – 2005

Urban infrastructure Development Scheme for Small & Medium Towns aims at improvement in urban infrastructure in towns and cities in a planned manner. It shall subsume the existing schemes of Integrated Development of Small and Medium Towns (IDSMT) and Accelerated Urban Water Supply Programme (AUWSP). Allocation of funds among states will be on the basis of the states urban. The scheme will apply to all cities/towns as per 2001 census, excepting cities/towns covered under Jawaharlal Nehru National Urban

Renewal Mission (JnNURM). The components for assistance under the scheme will include all urban Infrastructure development projects including water supply and sewerage. Land cost will not be financed except for acquisition of private land for schemes/ projects in the North Eastern States & hilly States viz. Himachal Pradesh, Uttaranchal and Jammu & Kashmir.

2.2 Norms and Standards for Land Use and Infrastructures

The land use distribution norms are dependent upon the following basic norms for densities and work force:

Table 2: Standards for Population density

Settlement type	*Persons per hector (PPH)*	
	Plain areas	*Hill areas*
Small towns	75-125	45-75
Medium	100-150	60-90
Large cities	100-150	60-90
Metro cities	125-175	-----

Source: UDPFI Guidelines

Proposed Land Use Structure of Urban Centers in Plain Areas

Table 3: Standards for Land use in Plain Areas

Land use category	*Percentage of developed area*			
	Small	*Medium*	*Large cities*	*Metro cities*
Residential	45-50	45-50	35-40	35-40
Commercial	3-Feb	4-Mar	5-Apr	5-Apr
Industrial	10-Aug	10-Aug	12-Oct	14-Dec
Pub.& semi Public	8-Jun	12-Oct	14-Dec	14-16
Recreational	14-Dec	18-20	18-20	20-25
Transport & communication	12-Oct	14-Dec	14-Dec	15-18
Agriculture & water bodies	Balance	Balance	ph Balance	Balance
Total developed area	100	100	100	100

Source- UDPFI Guidelines

3. Methodology

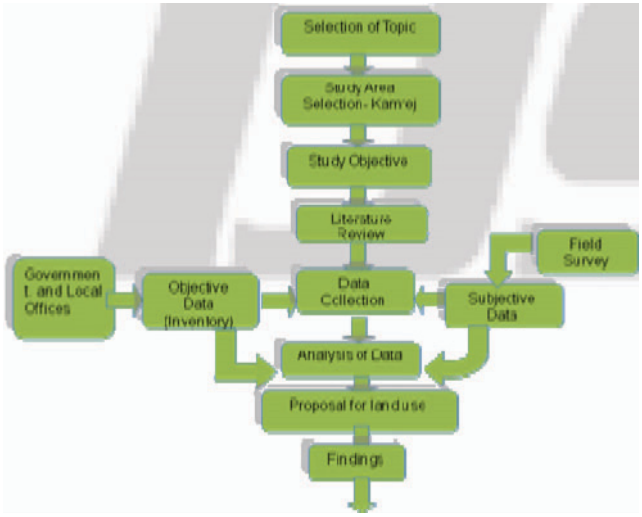


Figure 1: Showing the flow chart of the methodology Adopted

4. Objective of Study

To overview feasible area planning proposals for kamrej town in surat district.

5. Study Area

Surat district is having the total area of 7657 sq.km, and have population around 42, 75, 540. In which the total rural residents are 19, 49,238, and have 75% literacy. Kamrej is one of the Taluka of district Surat. It combines 69 villages. NH No.8 passes through this Taluka, and this intersection directly connects to the Surat railway station. Kamrej junction at the NH No.8 is becoming a major hub for commercial activities. It supplies the goods and fulfils the daily needs of the surrounding villages.

Table 4: Details of Surat city

Taluka	9
GramPanchayat	567
Area	7657sq/k.m.
Population	42,75,540
RuralResidents	19,49,238
Literacy	75%

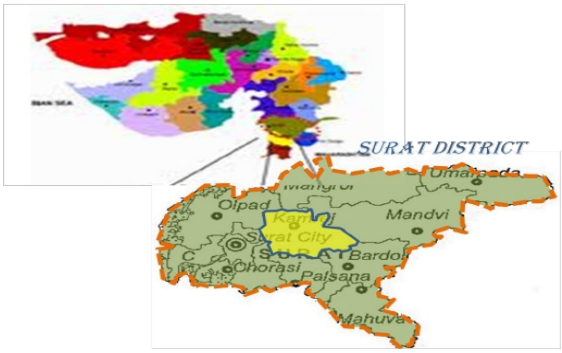


Figure 2: Showing Location of Surat

Kamrej Town is one of the 9 talukas of surat that combines 69 villages and 59 Gram panchayat.

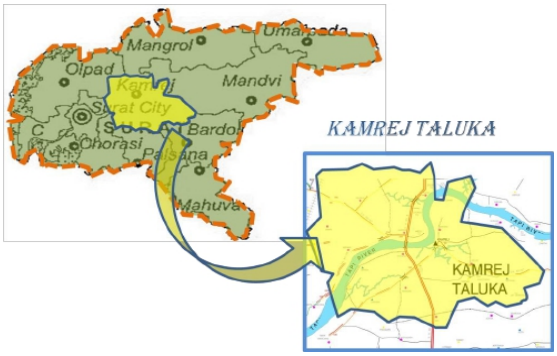


Figure 3: showing location of Kamrej town

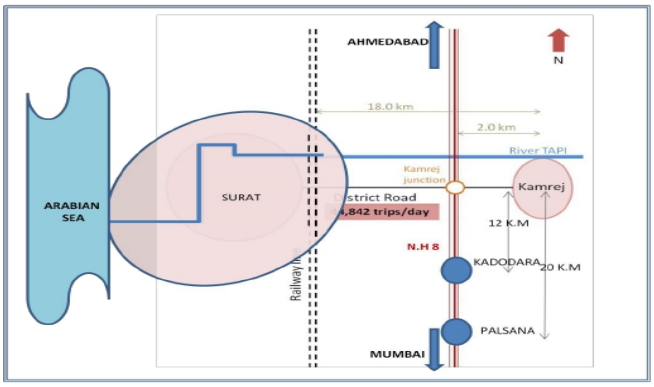


Figure 5: Location of Kamrej Taluka w.r.t. Surat city linkage

6. Study Area Profile

In the study, out of 59 villages in Kamrej Taluka, 4 villages are selected. The study area is demarcated by accumulating four fringe villages of Kamrej Taluka. The fringe villages are accumulated because they are developing at very higher rate and urbanization is increasing very rapidly. 200 samples are collected in order to make the survey regarding the facilities provided.

Figure 6: four villages of kamrej town under study

7. Demography

The population of Kamrej Taluka is 1, 72,295 persons. The details of Kamrej Taluka are as shown in Table.

Table 5: Demography of Kamrej Taluka

Total population	*Male*	*Female*
1,72,295	89,360	82,935

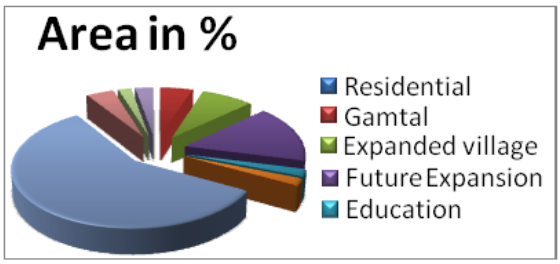


Figure 7: land use distribution of kamrej town

Table 6: Land use distribution present scenario of kamrej town

Land Use	*Area in %*
Residential	
Gamtal	5
`Expanded village	8
Future Expansion	16
Education	2
Health	2
Agricultural	58
Recreational	2.
Commercial	2.8

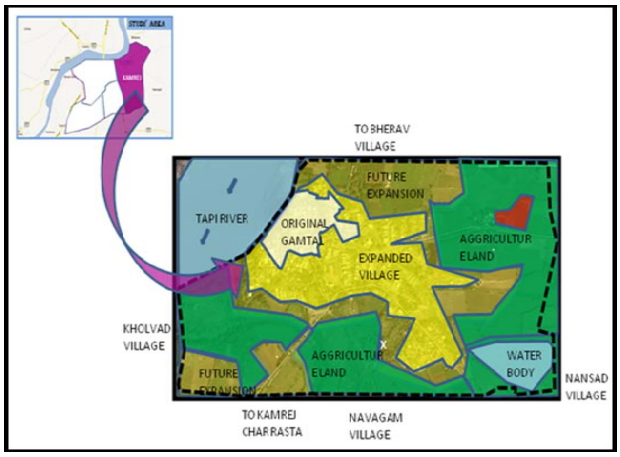
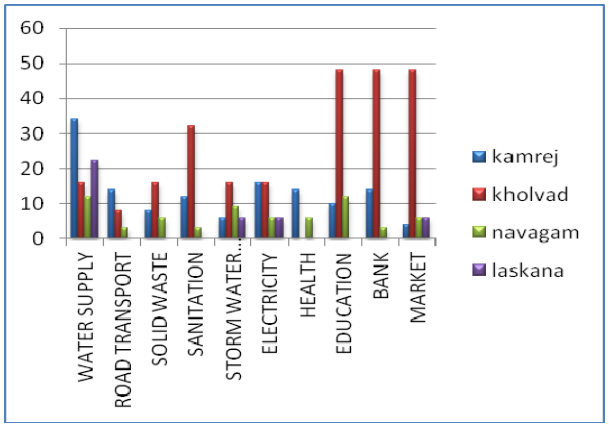


Figure 8 : Expansion of kamrej town

7.1 Analysis of Data



By surveying in the four villages namely kamrej, kholvad, navagam and laskana, and analyzing the 200 forms collected we hence derived the above graph. Studying the graph we can say that kholvad is best at providing education bank and market facilities.

8. Planning Proposals

8.1 School Proposal

Objective	*Strategies*	*Proposals*
To ensure that all section of society have access to primary education	Provide government schools in EWS.	Allocate government land for primary school Area – 0.50 ha
To ensure that all residents of the 4 villages have access to secondary education	Provide for a School in the 4 villages	Allot government land along the 4 villages Area – 0.35 ha

8.2 Water Supply

Objectives	*Strategies*	*Proposals*
To exert less pressure on ground water resources	Adopt alternative measures for water supply Encourage water saving measures – roof top rainwater harvesting may made mandatory for public/ institutional buildings Storm water drainage to be designed to increase rate of aquifer recharge	Fetch water from Tapi river and provide water treatment plant near by the river Augmentation of water supply by creating night reservoir
Provide safe drinking water	Chlorination is considered to be sufficient	Provide automated chlorine dosing devices at the pump hose.
To provide for emergency requirements for disaster events	Provide off-line storage tanks at strategic points. These can serve as additional storage facilities in the case that main supply lines or sources are affected by a disaster. These can also serve as tanker / browser filling points for fire-fighting requirements	Identify strategic points for off line storage.

8.3 Drainage Proposal

Objectives	*Strategies*	*Proposals*
Extend the sewerage network in phases for new development	Lay trunk sewers for ultimate stage capacity and provide collection network in phases as per requirements. OR For installation of new sewers consider alternative materials based upon a detailed techno-economic study of alternative materials	Carry out detailed investigation and design the network Ensure proper ventilation of conc. Sewers to minimize sulfide attack.
Treatment facilities	For the longer term plan set up	Panchayat

8.4 Health Centre Proposals

Objective	*Strategies*	*Proposals*
To ensure that all residents of the four villages have access to health facilities	Provide government / dispensaries / clinics in the , southern and western parts of the town or centrally.	Allocate land for government clinics / dispensaries One for 1019.28 sq.mt One hospital for 12,000 pop. in the town center To provide for health clubs

8.5 Solid Waste Management Proposal

All the solid waste generated should be collected and disposed. Hazardous wastes such as hospital wastes must be incinerated in all cases. Whereas mechanized composing and incineration is recommended for large urban centers, sanitary landfill method of disposal may be used in small and medium towns.

9. Future Scope of Work

The study is carried out on infrastructure development such as water supply, drainage network, and solid waste management. On the basis of Indian norms and standard respect to some case studies for urban areas. The points for the future scope of work can be summarized as follows;

- The detailed land use plan and unit level calculation can be also done.
- The detailed water supply drainage network size of pipes and solid waste network can be carried out for the same stud area in future.

10. Acknowledgement

We earnestly wish to express our heartfelt thanks and a sense of gratitude to all the officials of Kamrej town, both of administrative wing as well as public wing, the stakeholders and the elected bodies of the respective villages. We are also thankful to Chaudari alpa for sharing the information with us through her past experience of surveying the same place, regarding the kamrej town.

References

[1] Rayal C.R (2005) Prefaceand Community Development Objectives (pages1-3)
[2] Udaya S Pant Empowering the Rural Local Bodies for Faster and Sustainable Rural Development in India
[3] Keshab Das Gujarat Institute of Development Research, Ahmedabad, India Regards, Maison des Suds, 33607 Pessac Cedex, France
[4] Issues In Promoting Rural Infrastructure In India
[5] M. P. Amado, C. V. Santos, E. B. Moura, and V.G. Silva Public Participation In Sustainable Urban Planning
[6] ESPON Programme (2006) "Small and Medium sized Towns (SMESTO) "Interim Report Ministry of the Interior and Spatial Planning of the Grand Duchy of Luxembourg,Directorate for Spatial Planning DATer
[7] Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) Guidelines 2005

Author Profile

Yamee Thakkar pursued bachelor's degree in Civil Engineering from M.S. University, Vadodara. Presently she is pursuing Masters Degree in Urban planning from S.V. National Institute of Technology, Surat, India.

Dr. Krupesh A Chauhan is working as Associate Professor, PG In Charge - M.Tech (Urban Planning). He is Prof.Incharge -Landscaping & Road Network, Civil Engineering Department, S V N I T, Surat, India