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### UPGRADATION OF URBAN ELEMENTS IN RURAL AREAS OF SORABPURA VILLAGE

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**Abstract:** Rural development is the process of improving the quality of life and economic development of people living in rural areas. Rural development is a comprehensive term. It basically focuses on action for the development of areas outside the typical urban economic system. What type of rural development is needed because modernization of village leads to urbanization and village environment disappears<sup>[1]</sup>. Also, rural development can increase employment for the people living in rural areas. Also, better education can be provided. Rural development provides better living facilities to the people living in undeveloped areas. Also, it increases the living standard of people. Rural development increases the economic growth of the country. It focuses upon the upliftment and development of the sections of rural economies, that experience serious poverty issues and effectively aims at developing their productivity. It also highlights the need to address various demanding issues of village economies that hinder growth and improve these areas. Rural development can be understood as the recounting of capitalism in rural areas, and as that package of policy and project involvements that aim to stand-in socio-economic change and human improvement in rural areas.

**Keywords:** Quality of Life, Living Standard, Economic Development, Urbanization, Modernization.



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## I. INTRODUCTION

Villages are critical for the balanced growth and development of India. With more than 6.40 lakh villages in the country holding 69.9% of 1.21 billion population (2011 Census), villages require focused attention for ensuring their planned growth. [2] Villages shall continue to dominate India till next 50 years, in terms of population, food and promoting industry using agriculture. Most of the urban problems have their origin in the neglect of the rural areas. Rural-Urban migration constitute more than 21% of the population growth. [2] Growth of slums in Urban India has its origins in rural poverty migrating to urban areas. In India, cities can never become smart, rational, orderly or slum free unless planning and development of villages is put on a fast track. Thus, it becomes acute that rural areas are properly planned, rationally developed and objectively managed. [3]

## II. OBJECTIVES

- Development of village compared to the city area, the basic facility needed for people and their amenities and to study whole village.
- Development of basic need and their requirement.
- Finding out of the village data and survey of the whole village and improving the growth of village.
- Development of pond, gram-panchayat, aanganwadi, road, drainage, school, hospital, etc...
- There are several schemes of the Government which are being operated and run for rural development in the rural areas of the country.
- Evaluation taken up so far for these schemes has been in a piecemeal form, i.e. generally for each scheme separately.

## III. METHODOLOGY



#### IV. RESULT AND DISCUSSION

- This is a small village which is in Gandhinagar, State- Gujarat. The total population of this village is 600. Total Permanent houses are 10 and Temporary houses are 80-90. Its area is approximately about 0.5 sq.km.



Fig- 1 location of sorabpura

#### Demographical Details:

Census	Population	Male	Female	Total House Holds
<b>2011</b>	512	298	202	80

#### Geographical Details:

Sr. No.	Description	Information/Details
i)	Area of village	251,001.17 m <sup>2</sup>
	Residential Area	33,443.36 m <sup>2</sup>
	Water Bodies	Lake
	Nearest Town with Distance	Gandhinagar (30 Km.)
	Name of Major occupation groups in village	1. Farmers 2. Construction Labors 3. Farm Labors 4. Dairy

Physical Infrastructure Facilities:

Sr. No.	Description	Detail
<b>A</b>	<b>Main Source of Drinking water</b>	
	<ul style="list-style-type: none"> <li>• Tap Water (Treated/ Untreated)</li> <li>• RO Water</li> <li>• Well (Covered/ Uncovered)</li> <li>• Hand Pumps</li> <li>• Tube well / Borehole</li> <li>• River/ Canal/ Spring/ Lake/ Pond</li> </ul>	Treated No No Yes Borehole Pond
<b>B</b>	<b>Water Tank Facility</b>	
	Overhead Tank	Yes (Capacity 50,000 Lt.)
	Underground Sump	No
<b>C</b>	<b>Drainage Facility</b>	
	Available	No
<b>D</b>	<b>Type of Drainage</b>	
	Closed/ Open	No
	If Open than Pucca/ Kuccha	No
	Whether drain water is discharged directly into Water bodies/ Sewer plants	No
<b>E</b>	<b>Road Network: All Weather/ Kuccha (Gravel)/ Black Topped pucca/ WBM</b>	
	Village approach road	Yes
	Main road	No
	Internal streets	No
	Nearest NH/SH/MDR/ODR Dist. In kms.	NH 8 (7 Km.)
<b>F</b>	<b>Transport Facility</b>	
	Bus Station (Y/N) (If no than Nearest Bus Station Kms)	No Chandrala (2 Km.)
	Local Transportation (Auto/ Jeep/ Chhakda/ Private Vehicles/ Others)	Private Vehicles
<b>G</b>	<b>Electricity Distribution</b>	
	Govt./ Private (Less than 6 hrs. / More than 6 hrs.)	Yes (24 Hrs.)
	Power supply for Domestic use	Yes



	Power supply for agricultural use	Yes
	Power supply for Commercial use	Yes
	Road/ Street Lights	No
	Electrification in Govt. Buildings/ Schools/ Hospitals	Yes
	Renewable Energy Source Facilities (Y/N)	No
	LED Facilities	No
<b>H</b>	<b>Sanitation Facility</b>	
	Public Latrine Blocks If available than nos.	No
	Location Condition	-
	Community Toilet (With bath/ without bath facilities)	No
	Solid & Liquid Waste Disposal system available	No
	Any facility for Waste collection from road	No
<b>I</b>	<b>Irrigation Facility:</b>	
	Main Source of Irrigation (Stream/ River/ Canal/ Well/ Tube well/ Other)	Borehole
<b>J</b>	<b>Housing Condition:</b>	
	Kutchcha/Pucca (Approx. ratio)	8/72
		
<b>Fig. – 2 Kuccha House</b>		<b>Fig. – 3 Pukka House</b>



Fig. – 4 Sanitation Facility



Fig. – 5 Drinking Facility



Fig. – 6 Primary School



Fig. – 7 Classroom

Sustainable Green Infrastructure Facilities

Sr. No.	Description	Information/Details
K	Adoption of Non-Conventional Energy Sources/ Renewable Energy Sources	No
L	Bio-Gas Plant Solar Street Lights Rain Water Harvesting System	No
M	Any Other	No



Fig- 8 Village roads of sorabpura



Fig- 9 Approach road towards sorabpura



#### ESTIMATE FOR SOLAR STREET LIGHT

The poles are to be fixed at every 100m distance.

Length of Road		980 m		
Materials Required	Qty.	Rate	Per	Amt.
Solar Panel	10	Rs. 7260	Unit	Rs. 72600
Lighting Fixture	10	Rs. 2150	Unit	Rs. 21500
Rechargeable Battery	10	Rs. 1084	Unit	Rs. 10840
Pole	10	Rs. 1800	Unit	Rs. 18000
<b>Total Amount</b>	<b>Rs. 1,22,940</b>			

Cost of construction of single lane rigid pavement = **Rs. 23 Lakhs.**

#### CONCLUSION

The total estimated cost of development of street lights and roads in this village is **Rs.24, 22, 940.**

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#### REFERENCES

1. Bhagya Niranjnanbhai Patel, Prof.Rinni Shah, "Smart village a case study of kolavada village" International Research Journal of Engineering and Technology (IRJET)Volume: 04 Issue: 12 | Dec-2017
2. Dr. Pritesh Y Shukla, "The Indian smart village: Foundation for growing India", International Journal of Applied Research 2016; 2(3): 72-74, Accepted: 13-02-2016
3. Farooq Ahmad Ganiee, "A Case Study of Rural Development Programmes In India", International Journal of English Language, Literature and Humanities (IJELLH), Volume: 01 Issue: 5 | Feb 2014 ISSN: 2321 - 7065
4. Kanu Raheja , "Rural Development in Haryana", International Journal of Scientific and Research Publications, Volume: 05 Issue: 6 | June 2015 ISSN: 2250 - 3153
5. A.Chandrasekharareddy, Dr. C. Anbalagan, "Effective Rural Development Strategies for the Improvement of Indian Economy", IRACST – Engineering Science and Technology: An International Journal (ESTIJ), Vol. 1, No.1, December 2011
6. Ritika Gauba, Nandita, Ravi Dhingra, "Make in India -An initiative to Change the Economic Landscape of the Country", Amity Journal of Economics 1(2), (88–104) ©2018 ADMAA Accepted: 17/03/2017
7. Pinak Ranade, Sunil Londhe , Asima Mishra, "Smart Villages Through Information Technology – Need of Emerging India", IPASJ International Journal of Information Technology (IIJIT) Volume 3, Issue 7, July 2015
8. S.Sesha Talpa Sai, " SMART VILLAGES – NEED OF EMERGING INDIA", International Journal of Innovative Research in Information Security (IJIRIS) Issue 09, Volume 3 (December 2016)

9. Dr. Milind Kulkarni, "Clean and Smart Village: Aspects and Alternatives", International Journal of Research in Engineering, Science and Technologies (IJRESTs) Vol:1 No:4 July 15 16.
10. Dr. Milind Kulkarni, "Clean Village and Project Based Learning Journal of Engineering Education Transformations", Volume 30 , No. 1, July 2016, ISSN 2349-2473, eISSN 2394-1707