Rurbanization: An Approach of Rural Development with a Case of Palod Village, Surat

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Abstract

The concept of Rurbanization at regeneration and revitalization of both the physical as well as social environment in villages through a judicious and economic consumption of resources. It is designed to reduce and remove the rural-urban divide and to lead to process of rural transformation that is not exploitative. The aim of the project is to study the present status and techno-economic survey of villages in different districts of the state in terms of basic and public amenities, other infrastructural facilities for the need of people and to prepare a report on the expected socioeconomic growth of the area with consultation of the local revenue authorities, TDO and DDO, the leaders like the sarpanch, the needs of the village has been to determine keeping in mind the population growth, growth of surrounding, Environmental Growth, Advancement in energy use and quality of life in the villages. Then they re-imagine and re-design the whole of the infrastructure of the village. Palod is one of the village in Mangarol taluka of Surat district, the area of the village is 315 hectares, the present condition of the village is quite good but it needs the development in a particular area. These have also projection in the future as the growth of district places and adjoining cities have batter employability, transportation facilities, energy requirements, water supply, sanitation, recreation, social gathering, health, law & order, education, public awareness, public library.

Keyword- Rural Development, Provision of Urban Amenities in Rural Area, Sustainable Development, Problems of Rural People, Rurbanization

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I. INTRODUCTION

In the absence of adequate employment opportunities, the rural people are unable to generate enough wages to sustain their livelihood. As a result, 40% families, who earn less than Rs.11, 000 per annum are classified as poor even though government estimates is only 22%. Apart from lower income, rural people also suffer from shortage of clean drinking water, poor health care and illiteracy which adversely affect the quality of life. Presently, about 25% of the villages do not have assured source of drinking water for about 4-5 months during the year and about 70-75% of the water does not meet the standard prescribed by WHO. Poor quality drinking water is adversely affecting the health and diarrhea is an important cause of infant mortality.

Sustainable rural development may be defined as the management and conservation of the rural resources base in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations.

Around 70% of the State's population is living in rural areas. People in rural areas should have the same quality of life as is enjoyed by people living in sub urban and urban areas. The cascading effects of poverty, unemployment, poor and inadequate infrastructure in rural areas on urban centers causing slums and consequential social and economic tensions is manifesting in economic deprivation and urban poverty. Hence rural development, which is concerned with economic growth and social justice, improvement in the living standard of the rural people by providing adequate and quality social services and minimum basic needs, becomes essential.

The present strategy of rural development mainly focuses on provision of basic amenities and infrastructure facilities through innovative program of wage and self-employment. For economic improvement of local people the above goals can be achieved by various program creating partnership with communities, non-governmental organizations, community based organizations, institutions, PRIs and industrial establishments. Other aspects that will ultimately lead to transformation of rural life should also be emphasized simultaneously.

The Government's policy and program have laid emphasis on poverty alleviation, generation of employment and income opportunities and provision of infrastructure and basic facilities to meet the needs of rural poor. For realizing these objectives, self-employment and wage employment program continue to pervade in one form or other.

II. RURAL DEVELOPMENT SCENARIO IN INDIA

At present there are six major flagship programmers implemented to develop rural areas by the Ministry of Rural Development like the Mahatma Gandhi Rural Employment Guarantee Schemes (MGNREGS) with a budgetary allocation of 33,000 billion

INR in 2012-13, National Rural Livelihood Mission (NRLM) with a budgetary allocation of 3563 billion INR in 2012-13, Integrated Water Development Program (IWDP) with a budgetary allocation of 2744 billion INR in 2012-13, with a budgetary allocation of 3563 billion INR in 2012-13, Indira AwaasYojana (IAY) with a budgetary allocation of 9966 billion INR in 2012-13, National Rural Drinking Water Programme (NRDWP) with a budgetary allocation of 10,500 billion INR in 2012-13 and Nirmal Bharat Abhiyan (NBA) with a budgetary allocation of 3500 billion INR in 2012-13.

1) Population: Increasing population which causes severe pressure on natural resources and the environment.
2) Pollution: Pollution of the environment and climate change, are causing shortage of clean drinking water and creating adverse impact on agricultural production.
3) Education: Poor access to education, resulting in low literacy and unemployment of the youth. While the average literacy rate in rural areas is around 50-65%, it is as low as 20-25% among women in backward areas. Education of girls was felt to be unnecessary in the past and this has seriously affected their quality of life.
4) Health: Poor health status due to lack of clean drinking water, hygiene, sanitation and drainage facilities; inadequate health care facilities, leading to high child mortality and morbidity; loss of labour productivity, economic loss, indebtedness and poor quality of life; The rate of infant mortality in rural area is marginally higher than in the cities on account of poorer access to safe drinking water, sanitation and health care support. Not only is there an acute shortage of medical personnel, but doctors and medical workers are absent 40 per cent of the time in rural public health facilities.
5) Infrastructure: Poor infrastructure for receiving timely information on development opportunities, market demand and prices for agricultural commodities, new technologies, forward and backward linkages, credit facilities and development policies of the government.
6) Problems of Livelihood: Agriculture is the major source of livelihood but most of the illiterate farmers have not been successful in cultivating their land economically. They have been treating agriculture as a family tradition. As the chances of crop failure on these lands is very high, the farmers generally do not invest in external inputs like improved seeds, fertilizers and plant protection measures and end up with poor crop yields, even during normal years.

Rainfall is the main source of water for agricultural production in Gujarat. However, in the absence of adequate soil and water conservation practices, it is estimated that over 65% rainwater runs off, flooding the rivers. About 30% of the total cropping area in the state is under irrigation, where farmers have a tendency to use excessive water. In the absence of adequate training and demonstration, they believe that excess water can enhance their crop yields.

Small farmers have work only for 100-120 days for growing one crop in a year, which is not adequate to sustain their livelihood. Hence, they have to struggle to earn additional wages by working in irrigated areas or migrate to urban areas. The migration pattern varies with the region, opportunities and socio-economic status of the families. The poorest families, particularly the landless and marginal holders owning poor quality land tend to migrate with the entire family.

A. Study Objectives

Following are the study objectives:

- To collect the basic data of village.
- To understand the current scenario of infrastructure through techno-economic survey.
- To analyze the current rural development scenario through GAP analysis.
- To give the suggestions and recommendations for sustainable development.

III. RESEARCH METHODOLOGY

Gujarat Technological University under which project of Vishwakarma Yojana was given. According to the scheme techno-economic survey was done in which visit of ideal village was done. Under the scheme PALOD village was allotted to us by the university. In first visit of village, some basic information and essential data were collected and photographs were taken. Then techno-economic survey was done. That includes social, socio-economical, physical information and data were collected with the help of Surpanch, Talati, Village Dwellers, Principal and Doctor. Based on collected data GAP analysis was carried out to know the deficiencies in existing infrastructure. Based on the infrastructural deficiencies the suggestions and recommendations for repair redesign and reimagine is suggested.

IV. STUDY AREA

Palod is a Village in Mangrol Taluka in Surat District of Gujarat State, India. This village is at 5 km distance from Kim and at face of NH-8. According to latest census report of 2011 palod village has 7,698 populations with 4,606 Male & 3,092 Female. Total land area of approx. 315 hectares, with agriculture covers 265 Hec. And residential cover 3 Hec. Most of the population of the village is engaged in industrial jobs. Village has two lakes which can be developed as recreational spaces. It has good connectivity due to its vicinity with NH-8. Village has 24 hours DGVCL electrical board. Due to its geographic location water supply and electric supply facility and only 31 km from Surat. It has great industrial development potential. Palod is located at latitude 21.83 N and longitude 72.96 E it has an average elevation of 435 meters above sea level. The average maximum and

minimum temperature are 21 C and 32 C respectively. Palod village has an average literacy rate of 54.68%, Male literacy is 35% and Female literacy is 38%.

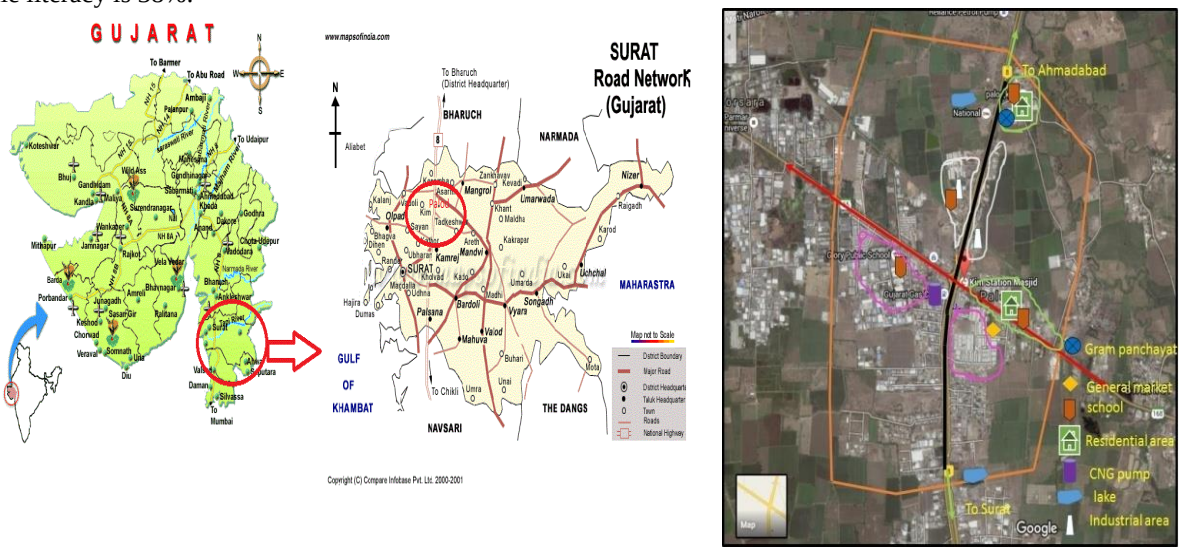

Fig. 1: Demographical Detail of village

(Source: Google map)

A. Data Collection

1) Base Line Survey Method

Base line survey is a benchmark for any intervention during and post implementation of any development program. A detailed baseline survey was undertaken which involved household census survey, Bio-physical survey and Village level data collection from Sarpanch, Talati, Principle, Village Dwellers, etc.

Household census survey includes a detailed questionnaire which was been filled by visiting each and every household in the village. This gave in the details of the demographic profile of the village, the literacy percentage, SC/ST population, number of BPL household, cattle population and net consumption rate in the village, average milk production of the cattle and various schemes running and their benefits Bio-physical survey was undertaken to identify various natural resources available in the village. It included the soil typology, well in the area, crop taken in the field, Cropping pattern, fertilizer used and various sources of irrigation in the field.

B. Primary Data Collection

The Primary survey was conducted to identify the various general problems of the villagers by interacting with them and enquiring about the problems faced by them in daily life. They were asked to suggest the possible and desirable solutions for these problems as well as other infrastructural facilities they would like to have in their village.

Fig. 2: Katchha house

Fig. 3: General toilet block

Fig. 4: School building

Fig. 5: Bus stand

C. Secondary Data Collection

By the techno economic survey and visit of village Palod the following problems are determine. Drinking water supply system and water treatment plant, Drainage facility, Health facility, Sanitation, Sewage system, Storm water drainage there is no arrangement of storm water drainage and storage of storm water. Socio cultural facilities are also not available in village like; Playground, Village pond, Public library, Community hall, Garden, Lake development. Adoption of non-conventional and renewable energy Solar Street light, Bio gas plant, Rain water harvesting, solid waste management.

V. GAP ANALYSIS

Facilities	*Planning Commission/UDPFI Norms*	*Village Name:*		*Palod*
		Population:		*7698*
		Existing	*Required as per Norms*	*Gap*
Social Infrastructure Facilities				
Education				
Anganwadi	*Each or Per 2500 population*	*4*	*2*	*2*
Primary School	*Each Per 2500 population*	*2*	*1*	*1*
Secondary School	*Per 7,500 population*	*1*	*1*	*0*
Higher Secondary School	*Per 15,000 Population*	*1*	*1*	*0*
College	*Per 125,000 Population*	*0*	*0*	*0*
Tech. Training Institute	*Per 100000 Population*	*0*	*0*	*0*
Agriculture Research Centre	*Per 100000 Population*	*0*	*0*	*0*
Health Facility				
Govt/Panchyat Dispensary or Sub PHC or Health Centre	*Each Village*	*0*	*1*	*-1*
PHC & CHC	*Per 20,000 population*	*0*	*0*	*0*
Child Welfare and Maternity Home	*Per 10,000 population*	*0*	*0*	*0*
Hospital	*Per 100000 Population*	*0*	*0*	*0*
Public Latrines	*1 for 50 families (if toilet is not there in home, especially for slum pockets & kutcha house)*	*0*	*8*	*-8*
Physical Infrastructure Facilities				
Transportation		***Adequate***	***Inadequate***	
Pucca Village Approach Road	*Each village*	*1*	*0*	*0*
Bus/Auto Stand provision	*All Villages connected by PT (ST Bus or Auto)*	*0*	*1*	*-1*

Drinking Water (Minimum 70 lpcd)		***Adequate***	***Inadequate***	
Over Head Tank	*1/3 of Total Demand*	*2*	*0*	*Adequate*
U/G Sump	*2/3 of Total Demand*	*1*	*0*	*Inadequate*
Drainage Network		***Adequate***	***Inadequate***	
Open		*1*	*0*	*Adequate*
Cover		*1*	*0*	*Adequate*
Waste Management System		*Adequate*	*Inadequate*	*Adequate*
Electricity Network		*Adequate*	*Inadequate*	*Inadequate*
Socio- Cultural Infrastructure Facilities				
Community Hall	*Per 10000 Population*	*0*	*1*	*-1*
community hall cum Public Library	*Per 15000 Population*	*0*	*0*	*0*
Cremation Ground	*Per 20,000 population*	*0*	*0*	*0*
Post Office	*Per 10,000 population*	*0*	*0*	*0*
Gram Panchayat Building	*Each individual/group panchayat*	*1*	*0*	*1*
APMC	*Per 100000 Population*	*0*	*0*	*0*
Fire Station	*Per 100000 Population*	*0*	*0*	*0*
Public Garden	*Per village*	*0*	*1*	*-1*
Police post	*Per 40,000Population*	*1*	*1*	*0*
		ESR cap	*102640*	
		Sump cap	*205280*	
		Lat	*38.49*	

Table: 1 Comparison between UDPFI Norms and Existing Infrastructure Facilities

According to UDPFI norms, there must be one PHC in each village and one community hall per 10000 population in a village but there is no PHC and no Community Hall in our village Palod. So the value of gap analysis for both PHC and Community Hall is -1. Same is the case for a public garden.

VI. RECOMMENDATIONS & SUGGESTIONS

A. Recommendations

– Drinking water treatment plant
– Solid waste management
– Rain water harvesting system for government buildings.
– Public latrine blocks
– Street light facility

We have prepared gap analysis based on planning commission and UDPFI Norms. From the gap analysis following physical, social, and renewable source of energy amenities have been proposed as the primary requirements of the village and to be developed as soon as possible.

B. Suggestions

– Public latrine blocks should be as soon as provided.
– The open drainage lines affect the health of villagers.
– Street lights are required.
– Proper and well maintained roads are very much needed in the village. The existing roads also require repair because they are in very bad situations.

For Sustainable Structure:

Sr. No.	*Structure*	*Suggestions*
1	*Community Bio gas plant*	*Redesign*
2	*Solar street light*	*Repair & maintenance*
3	*Solid waste management*	*Redesign*
4	*Rain water harvesting*	*Redesign*

Table 2: Recommendations

For Existing Public Infrastructure:

Sr. No.	*Structure*	*Suggestions*
1	*Anganwadi*	*Toilet facilities are required*
2	*Primary school*	*Repair and maintenance*
3	*Water supply system & treatment pant*	*Repair and maintenance*
4	*Drainage*	*Repair and maintenance*
5	*Toilet blocks*	*Repair and maintenance*
6	*Community hall*	*Redesign*
7	*Bus stand*	*Repair and maintenance*
8	*Lake development*	*Redesign*
9	*Primary Health center*	*Redesign*

Table: 3 Suggestions

As per the secondary survey, some physical, social and socio-economic infrastructure like primary school, water supply system, drainage, toilet blocks and bus stand etc., facilities were needed proper maintenance.

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