

An Approach Rurbanisation and Study of Pratappura Village

Dhaval M Patel

Assistant Professor

Department of Civil Engineering

Shankersinh Vaghela Bapu Institute of Technology, India

Patil Piyushkumar Devabhai

PG Student

Department of Civil Engineering

Shankersinh Vaghela Bapu Institute of Technology, India

Sachin N Bhavsar

Lecturer

Department of Civil Engineering

Shankersinh Vaghela Bapu Institute of Technology, India

Dixitkumar D Patel

Lecturer

Department of Civil Engineering

Shankersinh Vaghela Bapu Institute of Technology, India

Kaushal C Raval

Assistant Professor

Department of Civil Engineering

Shankersinh Vaghela Bapu Institute of Technology, India

Abstract

This paper is about Rurbanisation of the Pratappura (Balva) village, Gandhinagar District, Gujarat, India. Today world is growing fast so due to migration of people from rural area to urban area is increase daily thus rural area are not develop well compare to urban area. So today's biggest, issue is migration of people from rural area to urban area. Therefore, in Vishwakarma Yojana Phase IV we will work on rural issues and problems, listing out existing amenities and give best economical solution. It is the project towards making Rurbanisation by providing the social infrastructure, physical infrastructure, socio-cultural infrastructure facilities with method of giving Redesigning, Reimaging, Repair & maintenance, and Sustainable planning for basic need of village. It is about providing urban level facility in rural area. So migration of people urban to rural area decrease and remigration of people are possible. In village there are some infrastructure facility is not available like primary health center, solid waste management, public library, pond and public toilet. So we gives the solutions, design, sustainable planning and cost estimation for infrastructure facilities for Pratappura village.

Keywords: Rurbanisation, Rural Development, Sustainable Planning, Infrastructure, Techno-Economic Survey

I. INTRODUCTION

We work on project which is named vishwakarma yojna phase IV an approach towards Rurbanization for Pratappura village. The project is mainly based on a development of village. The development is done on an infrastructure facility and social development. The main goal of project is to provide stainable structure for the village. We have to provide basic animates like water supply, electric supply, and stainable shade for live. Have to provide rode network and the drainage network as well. The aim of the project is to decrease the urbanization and maximize the Rurbanization. Now a days the people is migrating to city from village. So we should provide more facilities in village to decrease the urbanization. The goal of the project is to provide urban facilities in rural areas while maintain the rural soul. This will help for developing village in sustainable manner, reduce migration from village and re-migration of family from city to village.

A. Objective of Study

- Provide easier, faster, low cost access to marketable commodities produced in such a villages
- Prevent the migration from rural area to urban areas due to lack of opportunity and facility.
- Make the model village hub which attract the resource the development of other village.
- Create the sustainable facility to village.
- Contribute toward urbanization and social empowerment.
- Using renewable energy.
- Maximum land use in agriculture.
- Providing 24*7 hours electricity.
- If village economic growth is increases in the nation economic growth is increase.
- By providing village is looks beautiful and its economic growth is increase.
- By providing this facility to village we maintain the rural soul in village

II. STUDY AREA

Pratappura (Balva) village is located in Kalol taluka in Gandhinagar District of Gujarat. This village located about 20 km from the state capital, Gandhinagar. The coordinate of village is 23°21'58.26"N 72°38'21.91"E. Gandhinagar, Balva and Mansa are nearest place from the Pratappura (Balva) village. As per census 2011, the population of the village is 555. In village facility like road, water distribution system, housing condition, school, water tank, gram panchayat, milk dairy, bus stand, solar street light, anganwadi and RO

Plant, CCTV surveillance are available. There are also provision of dustbin and plant near the road. Mainly the occupation of the villager are farmer, animal husbandry and government/ private jobs. Now the people are educated so people doing jobs and other business.

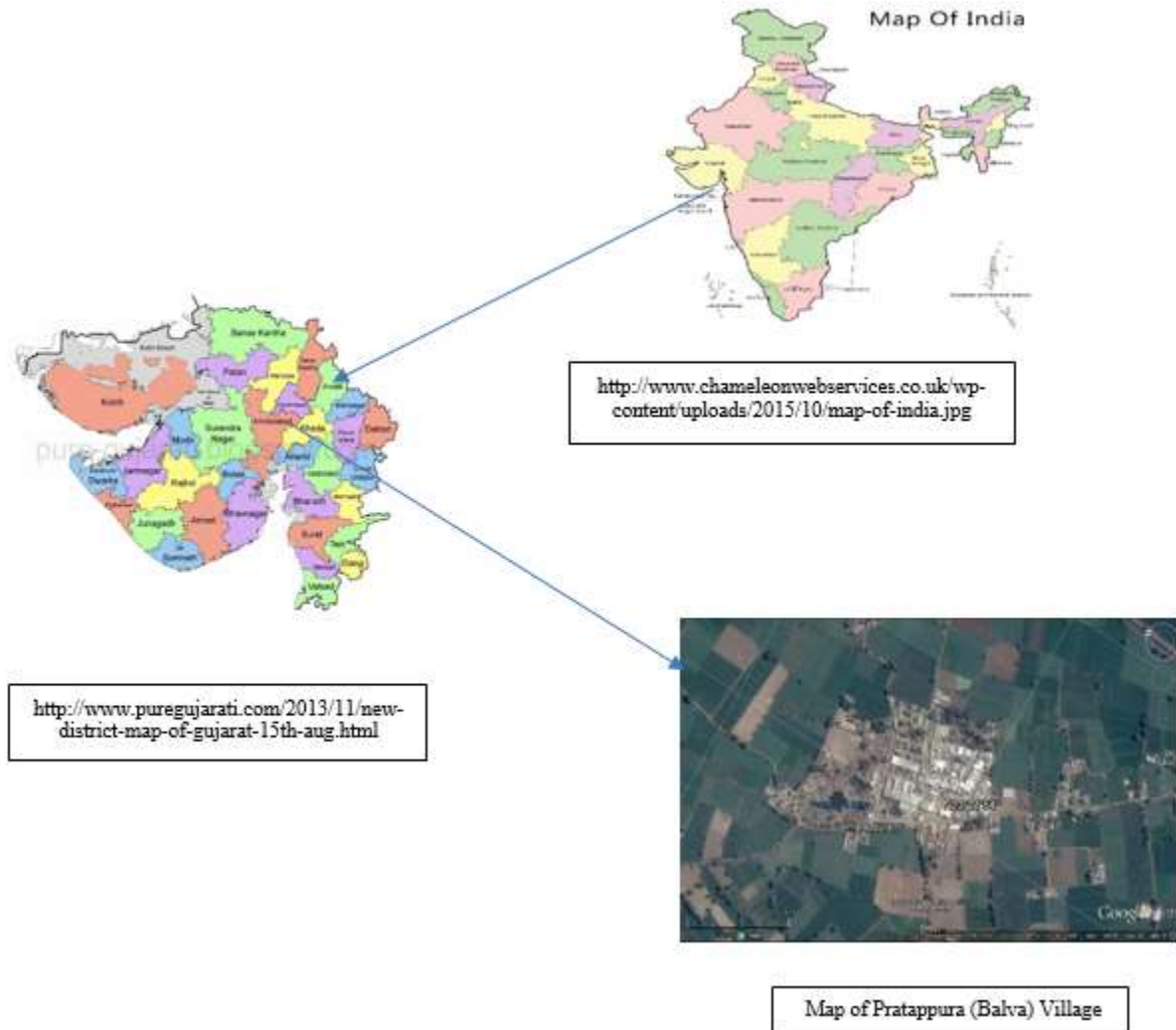


Fig. 1: Study Area

III. METHODOLOGY

- 1) Step 1: Understand the Concept of Vishwakarma Yojana
- 2) Step 2: Study of Idea Village
- 3) Step 3: Literature Review
- 4) Step 4: Study of Various Govt. Scheme
- 5) Step 5: Techno-economical Survey of Village
- 6) Step 6: Problem of Identification of Village
- 7) Step 7: Village base map
- 8) Step 8: Amenities Available
- 9) Step 9: Gap analysis
- 10) Step 10: Design Proposal
- 11) Step 11: Recommendation
- 12) Step 12: Conclusion

IV. DATA COLLECTION & ANALYSIS

The data collection is done by Techno-economic survey. This survey is study of existing problem of village which is effect the economy of village and villagers life. By this survey, we give some technical solution to that problem and so economy of village and life of villager improve.

<i>Gap Analysis</i>				
<i>Facilities</i>	<i>Planning Commission/UDP FI Norms</i>	<i>village</i>	<i>Pratappura (Balva)</i>	
		<i>Existing</i>	<i>Required as per Norms</i>	<i>Gap</i>
<i>Social Infrastructure Facilities</i>				
<i>Education</i>				
<i>Anganwadi</i>	<i>Each or per 2500 population</i>	<i>1</i>	<i>1</i>	<i>0</i>
<i>Primary School</i>	<i>Each or per 2500 population</i>	<i>1</i>	<i>1</i>	<i>0</i>
<i>Secondary School</i>	<i>Per 7500 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Higher Secondary</i>	<i>Per 15000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Collage</i>	<i>Per 125000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Tech Training</i>	<i>Per 100000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Agriculture Research Centre</i>	<i>Per 100000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Health Facility</i>				
<i>Govt/Panchyat Dispensary or Sub PHC or Health Centre</i>	<i>Each Village</i>	<i>0</i>	<i>1</i>	<i>-1</i>
<i>PHC&CHC</i>	<i>Per 20000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Child Welfare and Maternity Home</i>	<i>Per 10000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Hospital</i>	<i>Per 100000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Public Latrines</i>	<i>1for 50 families (if toilet is not there in home, specially for slum pockets & kutcha house</i>	<i>0</i>	<i>1</i>	<i>-1</i>
<i>Physical infrastructure Facilities</i>				
<i>Transportation</i>				
<i>Pucca Village Approach Road</i>	<i>Each village</i>	<i>Adequate</i>	<i>Inadequate</i>	
<i>Bus/Auto Stand provision</i>	<i>All Village connected by PT (ST Bus or Auto)</i>	<i>1</i>		<i>1</i>
<i>Drinking water (Minimum 70 lpcd)</i>				
<i>Over Head Tank</i>	<i>1/3 of Total Demand</i>	<i>Adequate</i>	<i>Inadequate</i>	
<i>U/G Sump</i>	<i>2/3 of Total Demand</i>	<i>Adequate</i>		
<i>Drinking Network</i>				
<i>Open</i>		<i>Adequate</i>	<i>Inadequate</i>	
<i>Cover</i>		<i>Adequate</i>		
<i>Waste Management System</i>				
		<i>Adequate</i>	<i>Inadequate</i>	
<i>Electricity Network</i>				
		<i>Adequate</i>	<i>Inadequate</i>	
<i>Socio-Cultural Infrastructure Facilities</i>				
<i>Community Hall</i>	<i>Per 10000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Community hall cum Public</i>	<i>Per 15000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Cremation Ground</i>	<i>Per 20000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Post Office</i>	<i>Per 10000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Gram Panchayat Building</i>	<i>Each individual/group panchayat</i>	<i>1</i>	<i>1</i>	<i>0</i>
<i>APMC</i>	<i>Per 100000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Fire station</i>	<i>Per 100000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Public Garden</i>	<i>Per village</i>	<i>0</i>	<i>1</i>	<i>-1</i>
<i>Police post</i>	<i>Per 40000 population</i>	<i>0</i>	<i>0</i>	<i>0</i>

From the analysis of data collected in the village proposal design are:

- Solid waste management - Bio gas plant
- Health facilities - Primary health Centre
- Recreation Centre – Public garden

V. PLANNING PROPOSAL

A. Solid waste management – Bio gas plant

There are many cattle's available in village so biogas plant provides. Thus the natural energy produces and produce good quality fertilizer. It reduces the global warming.

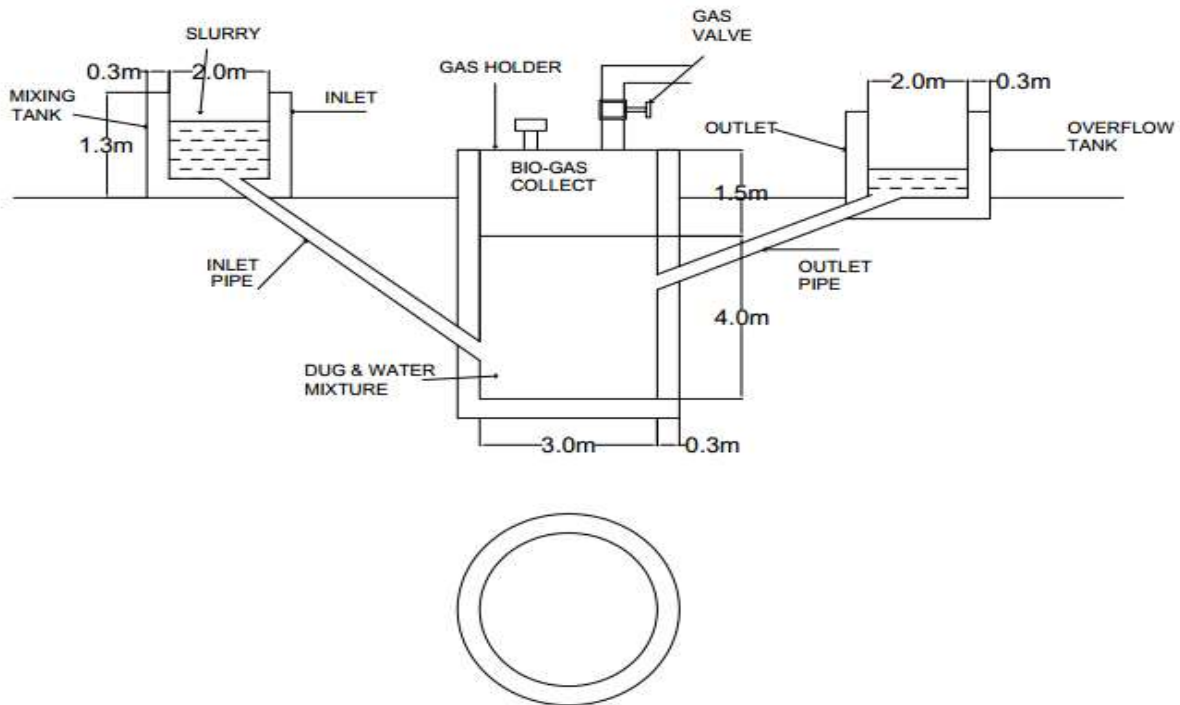
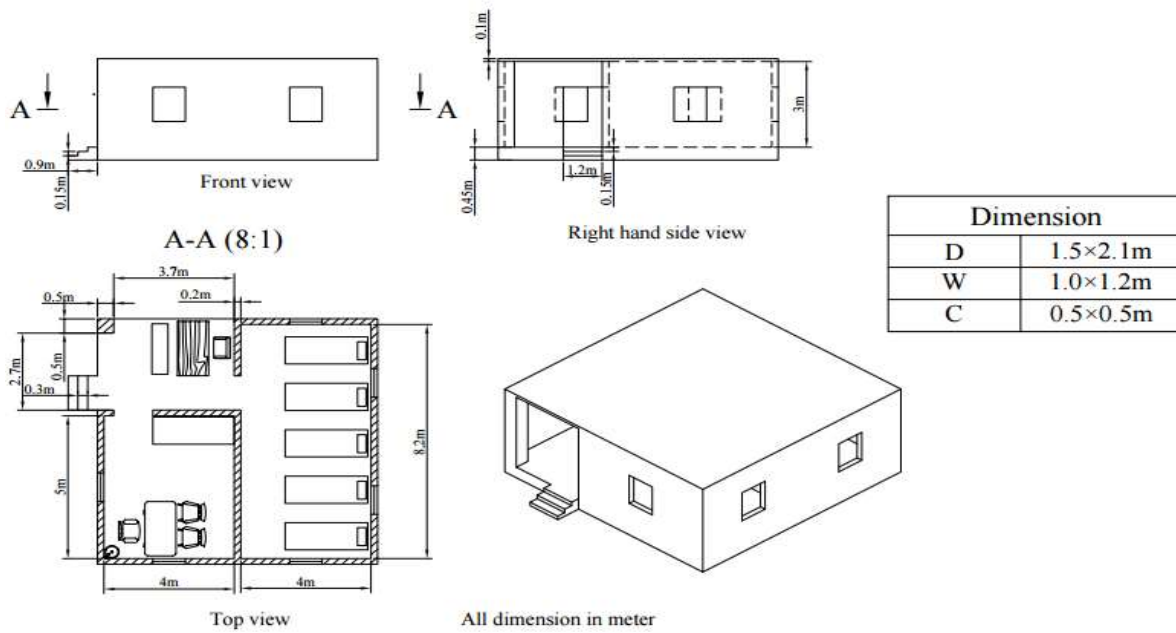


Fig. 2: Biogas plant

B. Health Facilities – Primary Health Centre

The primary health center should be providing so villager is treated at the right time.



All dimension in meter

Primary Health Center

Fig. 3: Primary Health Center

C. Recreation Centre – Public garden

For village economic profile increases we should be planning for garden so the recreation center is created in village

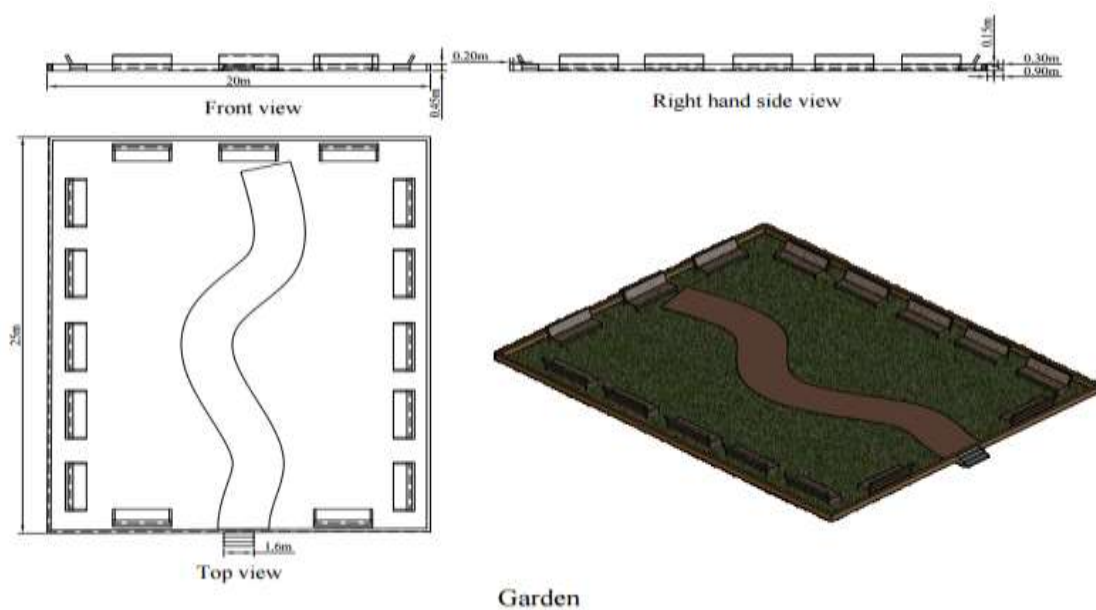


Fig. 4: Recreation Centre – Public garden

VI. CONCLUSION

From above observation the infrastructure facility is not so bad condition. But the improvement needed so villager life more comfortable and village economic profile increases. For health purpose there should provide the primary health center. There is no provision of primary health center in village so villager have to go to another village so we provide the primary health center design for village. There is no provision of recreation center for refreshment so we provide the garden design. The villagers are connected to animal husbandry so we provide the biogas plant so the natural energy produce and produce good quality fertilizer. It reduce the global warming.

REFERENCES

- [1] Census of India 2001, 2011 (censusindia.gov.in)
- [2] Sanjay Pradhan, AkhileshRanjan, Corporate social responsibility in rural development sector, 2010
- [3] UDPI Guidelines, Urban Development Plans Formulation and Implementation-Vol I, Ministry of Urban affairs and Employment, Government of India, New Delhi, August 1996
- [4] Dr. R P Rethaliya, Environmental engineering, Atulprakashan
- [5] Bhatnagar, Shabash and Robert Schware Information and Communication Technology in Rural Development: cases from India, New Delhi: Sage Publications, 2000
- [6] Moh. Abrar Shaikh, KrunalKhandelwal, Meet Desai, NiravMaheta, Bhasker Bhatt, Development of infrastructural facilities in vadi village, IJIRST, Vol-3, Issue 03, August 2016
- [7] K. Jain, Environmental engineering, B. C. Punamia