

Rejuvenation of Infrastructural Facilities Leading Krushnapur Village to a Smarter Indian Village

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Abstract- This project report deals with study and development of Krushnapur village as a smart village. We define smart village as bundle of services of which are delivered to its residence and businesses in an effective and efficient manner. “Smart Village” is that modern energy access acts as a catalyst for development in education, health, security, productive enterprise, environment that in turns support further improvement in energy access. In this report we focuses on improved resource use efficiency, local self-governance, access to assure basic amenities and responsible individual and community behavior to build happy society. We making smart village by taking smart decisions using smart technologies and services.

Index Terms- Rural development, Sustainable development, Re-imagine, Redesign, Rejuvenate and Strengthen the community life

I. INTRODUCTION

In India there are 6,00,000 villages out of them 1,25,000 villages are backward so there is a need for designing and building the village as a smart village. Develop the village in such a way that which is self-dependent in providing the services, employment and well connected to the rest of the world i.e. smart village. Krushnapur Village located in Jalapore taluka, Navsari district near the coastal area of Arabian Sea. Ago three decade Krushnapur village separate from the Kankra Faliya. The most of people of village are believe in Lord Krishna so they kept the village name Krushnapur. Most of villagers are related to fishery and teaching as their Occupation. The Krushnapur village with total 1068 families, population of 5310 of which 2688 are males while 2622 are females and has higher literacy rate than average as per Population Census 2011. In Krushnapur village population of children with age 0-

6 is 479 which make up 9.02 % of total population of village. Average Sex Ratio of Krushnapur village is 975 which are higher than Gujarat state average of 919. Child Sex Ratio for the Krushnapur as per census is 849, lower than Gujarat average of 890. Krushnapur village has higher literacy rate compared to Gujarat. In 2011, literacy rate of Krushnapur village was 96.48 % compared to 78.03 % of Gujarat. In Krushnapur Male literacy stands at 98.56% while female literacy rate was 94.38%.

II. LITERATURE REVIEW

Literature on Ideal or Smart Village

1. Punsari village Gujarat

Located in Gujarat's Sabarkantha district, Punsari village has emerged as a model village with modern urban amenities such as 24x7 power supply, Wi-Fi connectivity, CCTV cameras to ensure security, and pucca roads connecting the village with other villages and towns.

Other important features of the village include:-

- A reverse osmosis plant which supplies 20 liters of water to each household at Rs 4.
- Use of solar power for agricultural purposes.
- Accidental Insurance cover to one member of every household
- Air-conditioned primary schools with no dropouts
- Bus facility for all households
- Focus on behavioral change through campaigns and awareness drives. For this purpose, 120 loudspeakers have been installed in different parts of the village

Punsari was awarded with the Best Gram Panchayat Award from the Centre and the State in 2011.

2. Hiware Bazaar, Maharashtra

This is a village located in the rain shadow region of the Sahyadri mountain range in Maharashtra's Ahmednagar district. Till the 1980s, farming in the village was largely rain fed, and farmers were forced to migrate seasonally to surrounding areas for work. From the 1990s onwards, things began to change. The village Panchayat adopted a holistic focus on a variety of activities, with community groups responsible for various aspects of the village economy and social development. Women thrift groups, Milk Dairy Society and Youth Clubs are examples of such community-based organizations. The village Panchayat also focused on family planning and reforestation, for which awareness programs and drives have frequently been organized in the village. The village Gram Sabha also launched a watershed development program, and an annual water audit is being conducted in the village since 2004 for more efficient and equitable management of water resources. It has also contributed to greater agricultural productivity. Today, the village is considered a model for community-led, multi-sectorial growth of rural parts of the country.

III. METHODOLOGY

To achieve the aim by passing through the objectives, the study will be done in the following Methodology, described as follows:



The basic concept of smart village is to collect community efforts and strength of people from various streams and integrate it with information technology to provide benefits to the rural community. According to Mahatma Gandhi's philosophy and thoughts smart village project provides, "Global means to the local needs."

The concept of smart village is defined as below,

S	Social, Skilled and Simple	Zero Tolerance for Caste and Creed or better no caste & creed and no discrimination on Gender and Religion Everyone is Literate and skilled Simple living and high thinking
M	Moral, Methodical and Modern	Moral values of Gandhiji, Swami Vivekananda etc Methodical using Total Literacy and latest techniques Modern like cities
A	Aware, Adaptive and Adjusting	Highest level of awareness on global social & economic issues Adaptive and adjusting to fast changing environments
R	Responsive and Ready	Responsive to collective wisdom, cooperative movement & larger social issues Ready to generate own resources for self-sufficiency and self-reliance
T	Techno-Savvy and Transparent	Techno-savvy for IT and Mobile usage Transparent in harmonic relations and delivery of services

IV. SERVICES REQUIRED FOR SMART VILLAGE

1. Food security
2. Democratic engagement – Good governance
– Social development
3. Health welfare – Environment development
– Personal development
4. Educational – Basic knowledge for awareness
5. Local business – Economic development
6. Energy conservation.
7. Grievance redresser.
8. Solid waste management system.
9. Functional bank account.
10. Facilities regarding to the agriculture.
11. Latest & affordable medical facilities.
12. E-governance.
13. Use of modern technologies for improvement of locality.
14. Improvement on women empowerment.
15. Smart Mobility etc.

V. BENEFITS

[A] Proposed Road Network

The provision and construction of roads and road links brings multiple socio-economic benefits to the

rural areas and results in forming a strong backbone for the agro-based economy.

It provides a much needed opportunity for the village population to come in contact with other groups of the society, which in turn inculcates in them a sense of being a part of national main stream in its prosperity and progress.

[B] Rain Water Harvesting System

The main ecological benefit offered by the use of rainwater collection systems is the reduction in this use of mains water which means that less water will need to be artificially drawn from the environment, a supply that is best used for drinking, bathing and cooking.

[C] Beautification of Pond (Lake Design)

Lake design brings in aesthetic value for the village and that place.

Lake beatification or it's development generate revenue from:-

- Rent from restaurant
- Summer camp
- Rent for costume and locker
- Rent for stall
- Rent for advertising space & Boating

VI. CURRENT SCENERIO OF KRUSHNAPUR VILLAGE

Sr. no.	Information of Krushnapur Village	Details
1	Area	252.92 hec.
2	No. of Houses	1068
3	Population -Men & Women =2688+2622	5310 5310
4	Literacy	96.48 %
5	Water supply system -Water tank (1,80,000 liters) - UG sump (80,000 liters) - Through pipeline from Kharsad village	1 1 3 km
6.	Power supply	Govt.
7.	Education facilities -Anganwadi- 5 - School - 1 Govt. - 1 Private	7
8.	Health facilities - 1 PHC and 2 private clinic	3
9.	Temple	7
10.	Crematorium	1
11.	Bank - Bank of Baroda - ATM	1 1

12.	Post office	1
13.	Lake	5
14.	General Market	1
15.	Income source - Fishing - Job - Local Business	
16.	Major Problem - Scarcity of water - Undeveloped lack - No solid waste treatment - No use of natural resources	

VII. DEVELOPMENT PLAN OF KRUSHNAPUR VILLAGE AS SMART VILLAGE

In Krushnapur village, we see so many problems. To develop this village as a SMART VILLAGE by providing various services which are as follows,

Development Plan:

1. Required Facilities

- [1] Proposed Road Network
- [2] Rain Water Harvesting System
- [3] Street Light
- [4] Public Toilet
- [5] Post Office
- [6] Library
- [7] Community Hall
- [8] Lake Development
- [9] RO Plant

2. For Smart Village

- [1] CCTV Camera
- [2] Wi-Fi Connections
- [3] Solid Waste Management
- [4] Smart Healthcare Facilities
- [5] Women Empowerment
- [6] Good Governance
- [7] Minibus
- [8] Solar-Roof-Top Power Plant

• Design Proposal

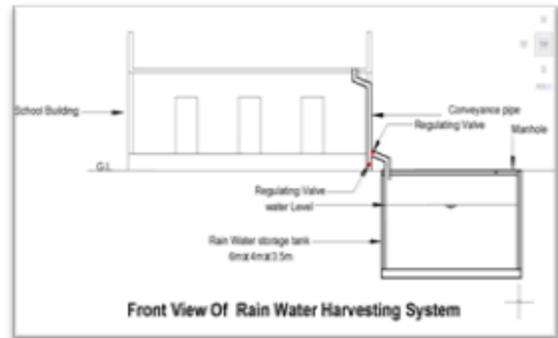


Fig.: Rain Water Harvesting System

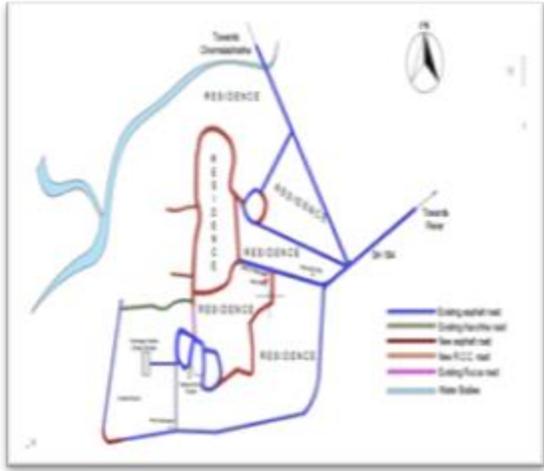


Fig.: Proposed Road Network



Fig.: Solar-Rooftop Power Plant

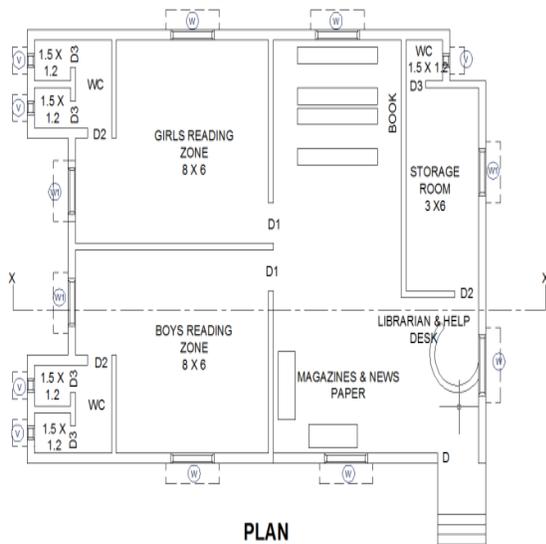


Fig.: Library Plan

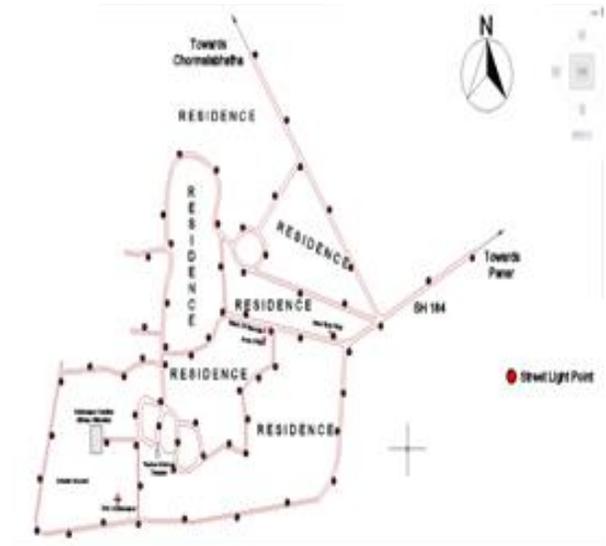


Fig.: Street Light

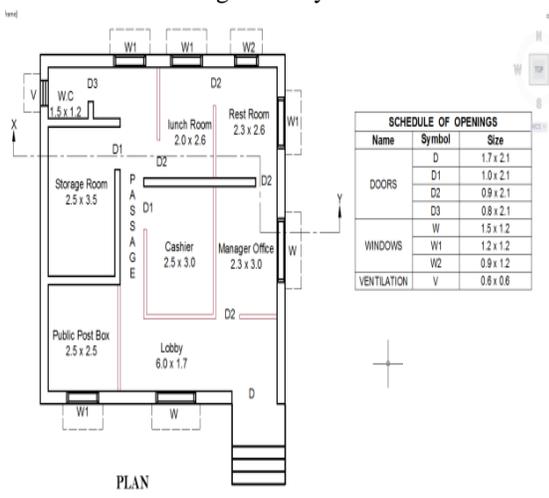


Fig.: Post Office Plan

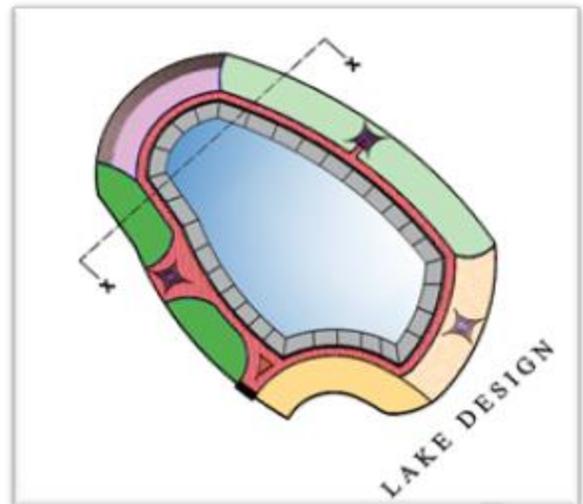


Fig.: Beautification of Lake

VIII. OVERALL COST

Sr. No.	Design name	Required cost (lakhs.)
1	Rain Water Harvesting	2.49
2	Proposed Road Network	34.43
3	Library	13.65
4	Post Office	6.67
6	Street Light	4.68
7	Beautification of Lake	24.11
8	Solid Waste Treatment	5.50
9	RO Plant & Water Treatment	30.00
10	Bio-Gas Plant	62.50
11	CCTV Camera	0.70
12	Wi-Fi Connection	4.00
	Total	188.73

IX. CONCLUSION

After applying all this services and technique the overall problems of Krushnapur village are reduced. Due this the cultural, social(Improving the well-being of every individual in society, increase self-sufficiency, reduce the poverty), economical (due to various businesses economical status and standard of living increases), environmental (use of natural resources reduce the pollution and plantation brings the friendly environment), educational (e-learning and other modern techniques increases the level of thinking and personal development) , living standard and overall status of village increases. Because of that Krushnapur village become self-dependent and contributes towards the development of nation.

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