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IMPROVEMENT OF SOCIAL, ECONOMIC AND INFRASTRUCTURAL DEVELOPMENT IN BACKWARD VILLAGE UNDER 'UNNAT BHARAT ABHIYAAN'

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Abstract - *In this project we tend to describe our integrated design in a way forward to deal with the demographic deficit and also achieve the goals of inclusive growth. It is replicable and can be used to design and develop villages in other parts of the World. India being a rural-dominated country, the smartness conception isn't even considered the rural areas. All square measure's that don't seem to be classified as geographic area are thought-about as geographical region. Number of villages in India are approximately 6,38,588. According to 2011 census, village area has population of 68.84%, whereas city area has population of 31.16% only. In the Indian context, villages are the lifeline of the nation. Hence, for the development of the country the targeted should lean to the grass root level, which suggests that the main focus areas ought to be the Indian village. There is a huge amount flit of the people from villages to city or town, there are many villages in India with spirited population. So the main aim to develop the villages by offering basic and needful amenities, education, employment generation activities, modern technology etc. The aim of Mahatma Gandhi is "The best, fastest way is to build up and started from the foundation. Every village has to become a self-sufficient. This does not require manful solution. It requires assertive, supportive, intelligent work. The idea of smart village in the present day is more important to being stable in comparison with other developed country. A village having smart and active participation of people in various activities need to developed village as smart city. A smart village will not only bring only big infrastructure, Internet connection, smart transportation to the rural lands, but will also provide support to sustainable agricultural practices.*

***Key Words*: Rural development, Sustainable Development, Unnat Bharat Abhiyaan (UBA), Bhawadi village**

1. INTRODUCTION

According to census of India 70% of Indians are living in rural India, Nearly about 25 to 30% of India's GDP (Gross Domestic Product), Contributed by rural economy. As a student of civil engineering it is at most important to study the various aspects of rural India, such as smart Education, Health, Agriculture, Energy, Road Infrastructure and Sanitation. For this we have chosen one backward village in Pune district (i.e.Bhawadi) to conduct project survey for data collection. For purpose of data collection we use the advisory provided under "Unnat Bharat Abhiyan" by Government of India, Ministry of human resources and development (MHRD) Delhi. This program is being coordinated and steered by IIT Delhi. The programme involves engaging with neighbouring communities and using technologies for their upliftment. The mission of UBA is to enable higher educational institutions to work with the people of rural India in characteristic development challenges and evolving applicable solutions for fast property growth. It additionally aims to form virtuous cycle between society associated an inclusive educational system by providing data and practices for rising professions and to upgrade the capabilities of each the public and therefore the non-public sectors in responding to the event wants of rural India. UBA is inspired by the vision of transformational change in a rural development processes by leveraging knowledge institutions to help build the architecture of an inclusive India.

2. LITERATURE REVIEW

2.1 Santanu Panda and Arup Majumder, **A Review of rural development programmes in India** (2013)

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is taken into account as a solution for eradicating rural financial condition and state, by means of generating demand for productive labour force in villages. It provides an alternate supply of living which is able to have a control on reducing migration, restricting child labour, reducing poverty, and making villages self sustaining through productive assists creation such as road construction, cleaning up of water

tanks, soil and water conservation works, etc. In this paper an attempt has been made to comprehensively understand the development effort to rebuild the rural life and livelihood.

2.2 W.S. Ho, H. Hashim, J.S. Lim, **Integrated biomass and solar town concept for a smart eco-village in Iskandar Malaysia** (2014)

This paper presents a brand new integrated biomass and star city conception that may function a worldwide model for good eco-villages in tropical countries. In this analysis, a renewable energy (RE) based distributed energy generation (DEG) system for an eco-village driven by the "integrated biomass and solar town "concept was considered in order to optimize RE resource utilization. To design an economical integrated biomass and star city, a mixed integer linear programming (MILP) model was developed. The pro-posed model considers actual operation constraints because of biomass availableness, weather variation, and restriction of the thermal plant.

2.3 Pinak Ranade, Sunil Londhe, Asima Mishra, **Smart villages through information technology need of emerging India** (2015)

The present research article discusses about rural development in developing world for the up-liftment of livelihood of the rural masses and to take a 'look ahead' at scientific developments and technologies which may be authoritative over subsequent ten -20 years. The driving motivation behind the construct on "Smart Village" is that the technology ought to acts as a catalyst for development, enabling education and local business opportunities, improving health and welfare, enhancing democratic engagement and overall improvement of rural village dwellers.

2.4 Kanu Raheja, **Rural Development in Haryana** (2015)

This paper represents the rural development as a strategy that aims to find the ways for the improvement of the rural lives with participation of the rural people themselves to meet the required need of the rural area. The rural development will not only increase the level of per capital income but also standard of living of rural population measured in the form of food and nutrition level, health and education, housing and security. These will also assist in minimizing the rural-urban gap in terms of basic infrastructure facilities essential for sustainable development of settlement.

2.5 Rutuja Somwanshi, Utkarsha Shindepatil, Deepali Tule, Archana Mankar, Namdev Ingle, **Study and development of village as a smart village** (2016)

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. With modernization and urbanization people migrate from one place to another place for different facilities such as education, employment and affinity of people towards the locality or city. So, 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. The vision of good village is that fashionable energy access will act as catalyst for development in education, health, productive enterprise, clean water, sanitation, environmental property and democratic democracy which helps to support further improvement in access to energy.

1. LOCATION AND DATA COLLECTION

Bhawadi is a village in Haweli Taluka in Pune District of Maharashtra State, India. It is situated 18 km away from sub-district headquarter Pune. Urban areas around Bhawadi village are Wagholi, Tulapur. Bhawadi village is situated on 18.620787 latitude and 73.977306 longitudes.

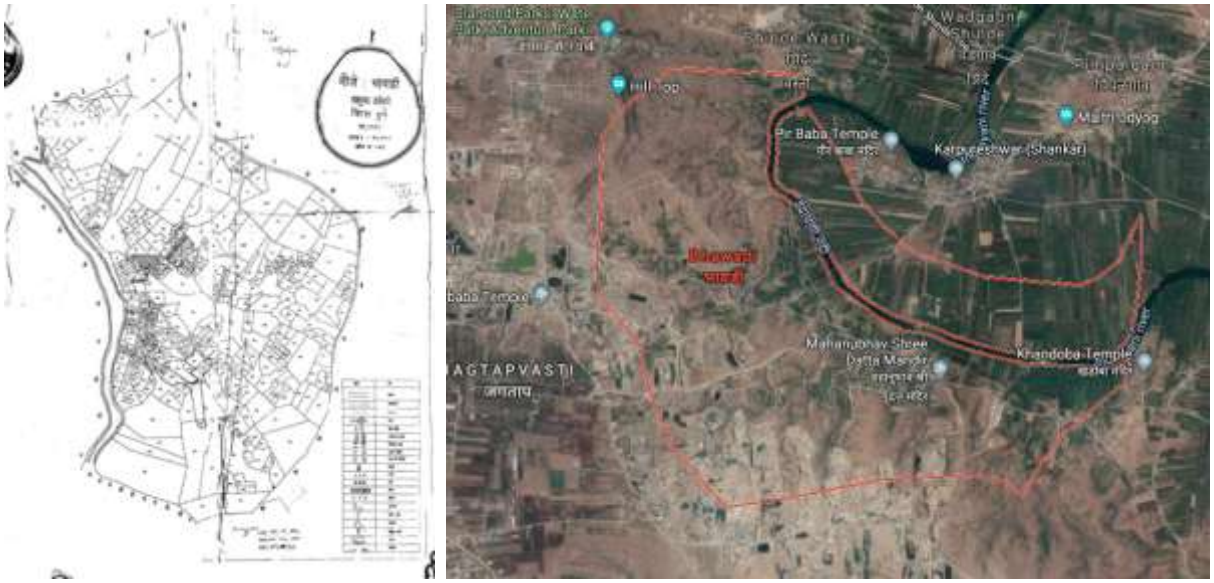


Fig -1: Map and Location of Bhawadi village

The total geographical area of village is 1085.08 hectares. Bhawadi has a total population of 2,584 peoples in which male population is 1,403 and female population is 1,181. There are about 517 houses in Bhawadi village. Bhawadi is surrounded by Indrayani River and it consists of 10 open wells and 25 bore wells. The general occupations of the villagers are Farming, Poultry farm, Shops, Milk business. The internal and external roads are distributed as cement concrete road of 1.5km, bituminous road of 2.5km and WBM road of 3km. There is an 24 hrs single phase and three phase supply of electricity.

There is one government and one private school which are at primary level. The water table level in the village is near 100ft. There is no any health as well as banking facility in the village.

Fig -2:Concrete Road

Fig -4:Primary School

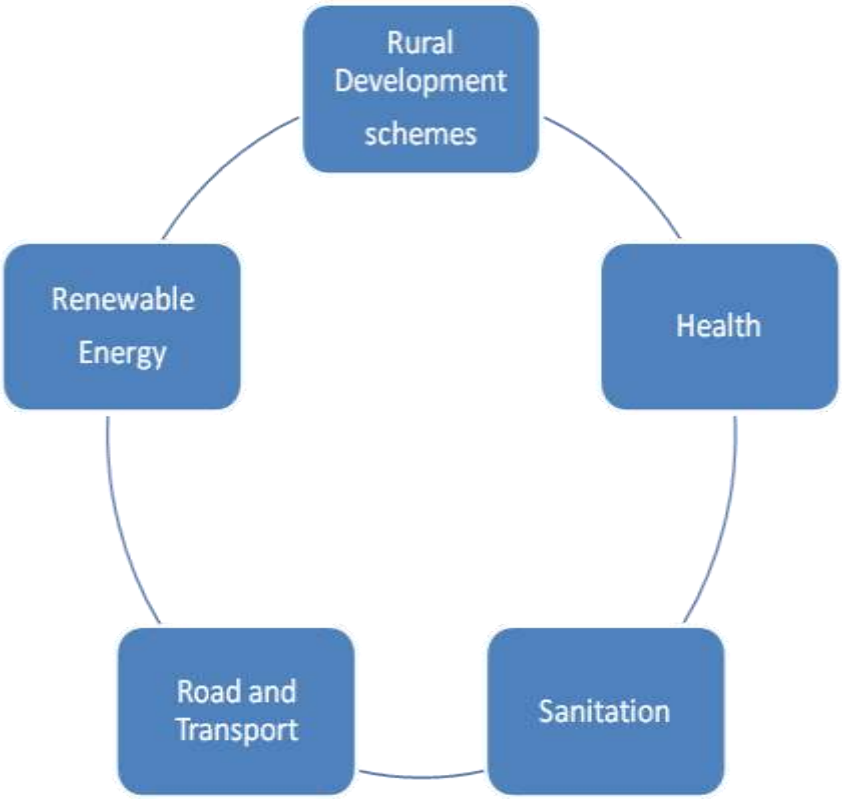
Fig -5:Water Purification

Fig -6:Public Toilets

4. REQUIREMENTS

- Reducing Illiteracy, Poverty, Unemployment and Migration.
- Health and Sanitation facilities.
- Educational Facility: Secondary school, College, and Other Educational facility.
- Road and transport facility.
- Use of renewable energy.
- Bank and ATM services.

5. METHODOLOGY



5.1 Rural Development Schemes

- Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)
- Soil Health Card Scheme
- Pradhan Mantri MUDRA Yojana (PMMY)
- Pradhan Mantri Awas Yojana (PMAY)
- Sansad Adarsh Gram Yojana (SAGY)
- Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)
- Prakash Path – way to light
- Aam Admi Bima Yojana (AABY)
- Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

5.2 Health

Health systems in developing countries have not responded adequately to people's needs especially in rural area like Bhawadi. Smart health services area unit required to enhance the standard of life within the villages. The village hospitals need advanced devices which are connected to each other and the doctors. Such services will upgrade the health care sector of the villages. Also provide maternity facility to reduce pain and safe service to pregnant ladies.

5.3 Sanitation

To provide well underground drainage system, Waste water treatment plant, Rainwater harvesting to new buildings, septic tank and soak pit in groups or in separate houses. Use water treatment plant to providing safe purified water.

5.3.1 Septic Tank and Soak Pit

A subsurface closed horizontal rectangular impermeable chamber for the treatment of sewage, sullage or any kind of refuse from unsewered areas with population less than 300 to perform anaerobic biological decomposition and settling is called Septic Tank. The septic tank for sewage treatment operation consisting of an effluent disposal unit in the form of an outlet connected to Soak-Pit.

Soak-Pit is a sub-surface construction using brick bats which act as a filter media for septic tank effluent. The pit may be covered by RCC slab.

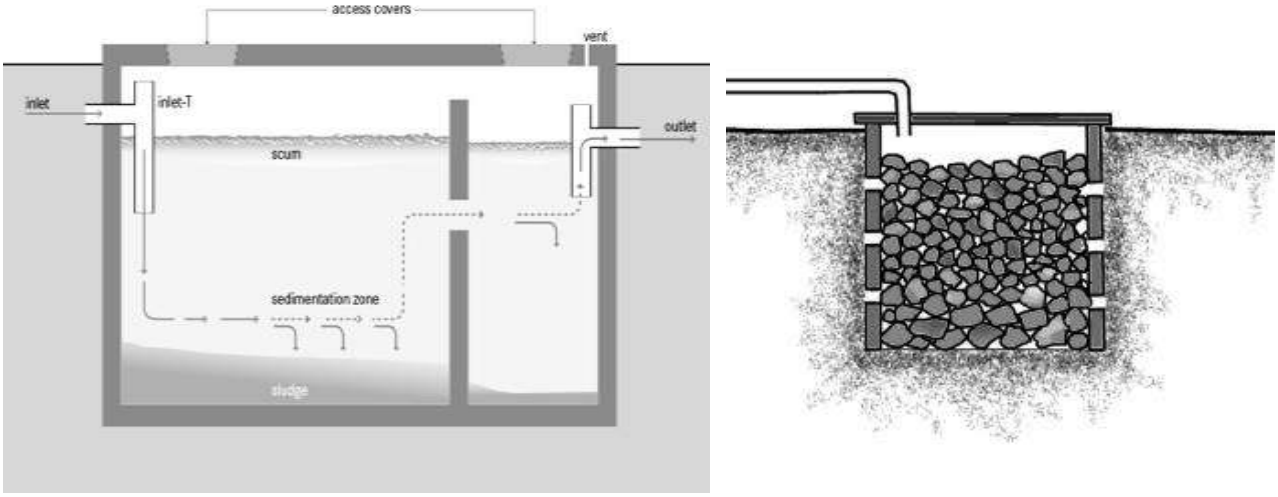


Fig -6:Septic Tank and Soak-Pit

5.4 Road and Transportation

Road to reach Bhawadi village is not proper and in bad condition. The internal streets in the village are not in acceptable condition and not at all suitable in monsoon season. Qualities of internal streets are needed to be improved.

5.5 Renewable Energy

5.5.1 Bio-gas Plant

Bio-gas is a mixture of different gasses produced by breakdown of organic matter in the absence of oxygen. Bio-gas are often created from raw materials like agricultural waste, manure, municipal waste, waste matter inexperienced waste or scraps. The bio-gas plant is made of fiber-reinforced plastic (FRP) material which is resistant to water, sunlight and electricity, if it is taken care well, it can be used up to 25 years.

The bio-gas production is the best way to use natural resources which is non polluting and also used for making organic manure because of that we can use it in agriculture to cut back the harmful effects of chemical and pesticides. It is also used as electrical purpose by converting the gas into electricity in inverters. It is cheaper technology, helps to reduce greenhouse gasses and also helps to reduce waste generated.

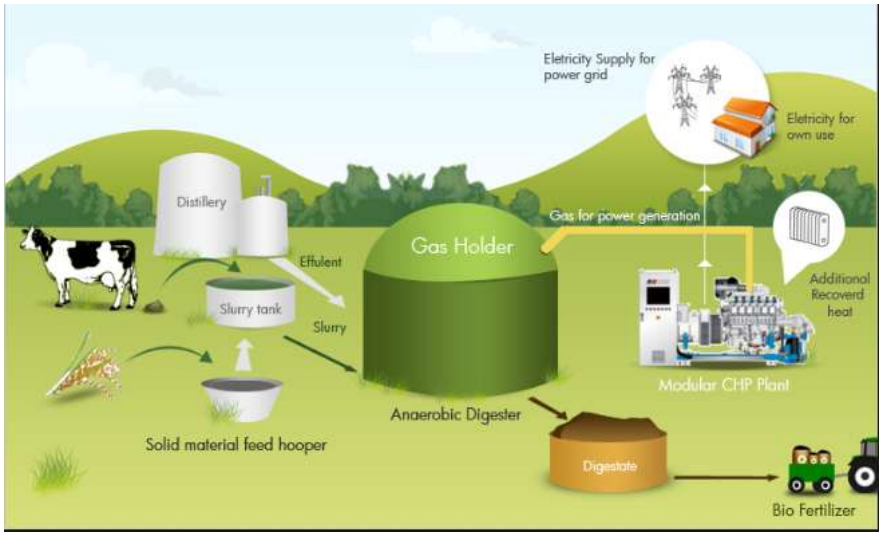


Fig -7: Bio-gas Plant

6. ADVANTAGES OF PROPOSED SYSTEM

- Aware on new technologies and government schemes that can be implemented in village.
- Provide good basic health facilities.
- Smart utility for sanitation and proper drainage system.
- Make transportation more efficient and increase labour productivity.
- Availability of clean and efficient appliances for cooking by using renewable energy such as Bio-gas.

7. CONCLUSIONS

Overall development of country depends on the development of the rural areas as they contribute towards the maximum percentage of the total economy of the country. There is tremendous pressure on urban landscapes due to migration of the rural people for livelihood. Developed village will not only reduce this migration but also reverse the population flow from urban to rural areas. The specially designed suitable services for rural areas such as health and education, road and transport, septic tank and soak-pits for sewage disposal and renewable energies are applied for the development.

After applying all these services and techniques with the help of government schemes the overall problems of village are reduced. Due to this the cultural, social, economical, environmental, educational, living standard and overall status of the village become self-dependant and contributes towards the development of the nation.

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