



“CASE STUDY: SHIRGAON - TRANSFORMATION OF UNDEVELOPED VILLAGE INTO SMART VILLAGE”

Kondvilkar O.S , Pawar A.A., Marathe S.S., Suryawanshi U.G., Ghorpade K.H.

¹*Civil Engineering, Trinity Academy of Engineering, Pune, India*

Abstract

I. The Rural development generally refers to the process of improving the quality of life and economic welfare of people living in relatively isolated and sparsely populated areas. In India, out of total population of 121 crores, 83.3 crores live in rural areas (Census of India, 2011). Thus, nearly 70 per cent of the India's population lives in rural areas. These rural populations can be characterized by mass poverty, low levels of literacy and income, high level of unemployment, and poor nutrition and health status. In order to tackle these specific problems, a number of rural development programs are being implemented to create opportunities for improvement of the quality of life of these rural people. In this project, various rural development schemes, policies and programs proposed by government are discussed in detail. An ideal master plan of village Shirgaon is also developed further to show the shadow of ideal village. Most poor people live in rural areas of developing countries and are dependent on agriculture for their livelihood. The pressures such as population growth, modernization, ethnic conflicts and environmental degradation are factors that are forcing local inhabitants to change their way of life. Under such circumstances, we try to give a solution of various problems of rural people.

KEYWORDS

livelihood, Government , Schemes, Undeveloped, Organization, Initiatives

II. INTRODUCTION

The Rural development generally refers to the process of improving the quality of life and economic welfare of people living in relatively isolated and sparsely populated areas. **definitions of rural:** Rural - Is an area, where the people are engaged in primary industry in the sense that they produce things directly for the first time in cooperation with nature as stated by Srivastava (1961). Rural development is a strategy designed to improve the economic and social life of rural poor. Life style in rural areas different than those in urban areas, mainly because limited service are available. Rural Development has always been an important issue in all discussions pertaining to economic development, especially of developing countries throughout world. In this project, various rural development schemes, policies and programs proposed by government are discussed in detail. Lifestyles in rural areas are different than those in urban areas, mainly because limited services are available. Governmental services like law enforcement, schools, fire departments, and libraries may be distant, limited in scope, or unavailable. Utilities like water, sewer, street lighting, and garbage collection may not be present. Public transport is sometimes absent or very limited; people use their own vehicles, walk or ride an animal.

III. LITURATURE SURVEY/BACKGROUND

The concept of smart community or village has become a global phenomenon that exists all over the world. What has made this a globally increasing phenomenon is undoubtedly the recent development in information communication technologies. Integration of ICTs in projects aiming to empower rural communities in different countries is evident of the positive impact on rural people's economic empowerment [1]. It is also believed that the smart paradigm should cover smart homes as a way of enhancing the quality of life. For the last few years, several initiatives have been carried out and reported in different parts of the world. Development involves the introduction of new ideas into the social system in order to produce higher per capita incomes and improve the levels of living through modern production methods and improved social organization. [2] Development is an experience of freedom in deciding what people choose to do. The capacity to taking decision decide to do something brings dignity and self respect. The collected waste should be segregate into biodegradable and non-biodegradable at each house itself by making two dustbins, [3] It has already been noted that the implementation of smart concepts into regional, both rural and urban contexts has to be adapted to socio-cultural and environmental circumstances. Thus, in the cities, different issues need to be tackled than in rural areas. In the context of digital transformation that is at the forefront of our interest, this means that also digitalization requires adapted concepts, business models and solutions that have to strive to generally improve the well-being of the rural population.[4]

From referred works and their dimensions of work for the rural development, it may be said that rural development is not only the available infrastructural but also the changes in the mind-set of the people living in a specific environment of landscape and struggling with the specificities of physiographic phenomena.

IV. PROPOSED WORK/SYSTEM

For the development of rural areas there are various schemes of government are available in India. So, for the transformation of undeveloped village into smart village we need to study that schemes. After studying these various schemes of government of India, we have to select one village for case study. That we can select on the basis of internet researches and other sources. Ideas for developed (smart) village

- Smart Education: Provide the E-Learning facilities to village school. The child attracted towards the digital media. Hence the increasing the interest of child by using E-class.
- Smart Energy: To aware village people towards consumption of electricity. Use solar energy, wind energy as source of electricity. TO aware village people to use CFL bulbs, LED light, etc.
- Smart Health: Smart health services are needed to improve the quality of life in the Shirgaon. The village hospitals need advanced devices which are connected to each other and the doctors. Provide X-ray machine, OPD room, and Emergency check-up devices. Such services will upgrade the health care in Shirgaon villages. Also provide maternity facility to reduce pain and safe service to pregnant ladies.
- Smart Water: To provide well underground drainage system, Waste water treatment plant, Rainwater harvesting to new buildings, soak pit in groups or in separate houses. Use water treatment plant to providing safe purified water.
- Smart Agriculture: Agriculture is lifeline of villages and our nation. To provide the new technology for increase yield of crops, by using compost fertilizer,.

The survey research we will conduct in village. It includes a diagnostic study of the current situation and collection of opinions about the present standard of living in the village & expectations of the village's inhabitants. There is some development is needed.

Development Needs In Shirgaon

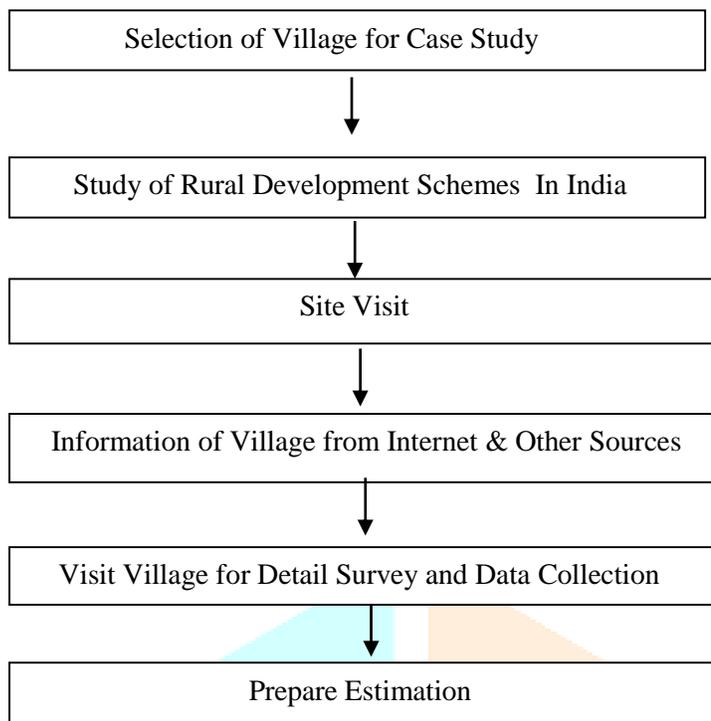
Water distribution system

Design of Public Transport Facility

Public buildings

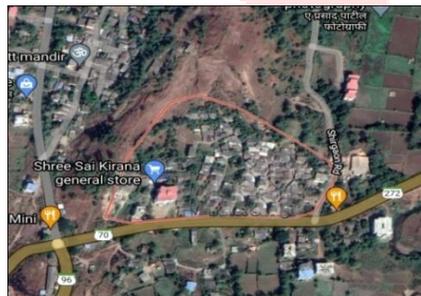
Primary health center

FLOWCHART OF METHODOLOGY



Village Information and Collected data

- Shirgaon is in Raigad District (Kokan Division).
- Population (as per 2011) is 751 soul / Current Population 899 Soul
- Female Population 49% (468)
- The Total Number of house are 170 / 200 (as per 2021)
- This village is nearer to industrial area
- Dam Distance from Village 3 km
- It is situated nearly about 18 km from Mumbai-Goa Highway and 25km from Mahad City



Shirgaon Village



Current water Distribution Source



V. RESULT AND DISCUSSIONS

After applying all this services and technique the overall problems of Shirgaon village may be reduced. Due this the cultural, social (Improving the well-being of every individual in society, increase self-sufficiency, reduce the poverty), increases), educational living standard and overall status of village increases. Because of that village become self-dependent and contributes towards the development of nation. also Smart village planning can play a major role on National development.

VI. CONCLUSION

On Completion of this project, we have concluded that the development of a rural area consist of two important steps

1.Performance analysis 2.System Development

Rural development refers to improving the quality lifestyle and also developing economic welfare of people living in isolated or deserted populated area. If proper planning and precautionary steps are taken the village or any rural area can be developed.

We conclude that the water distribution in Shirgaon may be more resourceful and helpful to the public, if

Prepared proper distribution plan executed but still we also conclude that there is difference between the Theoretical design and application of the same on site may be differ.

REFERECNES

[1] Norizan Abdul Razak, Jalaluddin Abdul Malik and Murad Saeed (2013), "A Development of Smart Village Implementation Plan for Agriculture Project for " ICOCI 2013 Journal of Engg. Paper No.024, August-2013

[2] Ketaki Chavan , Shrotika mane, Ankita Jadhav Pankaj Khot (2018) "Detailed Peroject Report on Smart Village Kandalgon" NCETET 2018, Journal of Engg. Vol.03, Issue 03, March-2018

[3] Rutuja Somwanshi, Utkarsha Shindepatil, Deepali Tule, Archana Mankar, Namdev Ingle. (2016), "Study and development of village as a smart village" ISSN 5518, International Research of Engg. Paper Vol.07, Issue 06, June-2016

4. Veronika Zavratnik, Andrej Kos and Emilija Duh (2018), "Smart Villages: Comprehensive Review of Initiatives and Practices" , Faculty of Engineering, University of Ljubljana, Vol.10, Issue 03, July 2018

