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Assessment of functional requirements for the development of a smart village

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ABSTRACT

The future of India lies in its village Mahatma Gandhiji. A smart village knows about its citizen, available resources, and schemes. It knows what it needs and when it needs. The concept of smart village makes the villages self-sufficient in respect of their needs. This study was carried out with the main focus to develop the Maruthur village into a smart village. The household survey was carried out through the village to understand the needs of the peoples of that village. Like any other villages, Maruthur village also lacks in some basic infrastructure like hospital, educaton, transport, cleaning, rain water harvesting. The future land use pattern of Maruthur village with recommendations of basic infrastructural facilities to the Maruthur village to develop into a smart village.

Keywords: Smart Village, Development

1. INTRODUCTION

In India lots of villages are there. Only few villages see some developments. With some developing ideas heres the model of developing a normal village into a smart village. Maruthur is a village located in Coimbatore district. This village lacks in some facilities and here some development plans of this village. In this study, main objectives are:

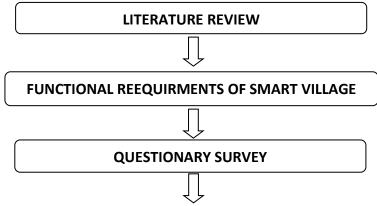
- To identify the of basic facilities.
- To develop the planning strategies for development of smart village.
- To develop this village by adopting some strategies.

2. LITERATURE REVIEW

Dr Millind Kulkarni In India the major populations are still living in villages. A lot of work needs to be done in making management and renewable energy and also needs in same basic infrastrucures. The paper discusse all this aspect with reference to Maharashtra and India. This discussion plans gives important input and alternatives to policy makers so that they can redirect and reformulate the policy. Roshini pandey (2017) Mahatma Gandhi national rural employment guarantee act is an employment act enacted by legislation on August 25,2005. It helps lots of peoples from villages to get a perfect job for them. It helps their family to grow. Economic and infrastructure development of rural India helps to develop our country. The poverty of our country decreasing day by day when all of them get employment`

3. METHODOLOGY

The following methodology is adopted for complete study



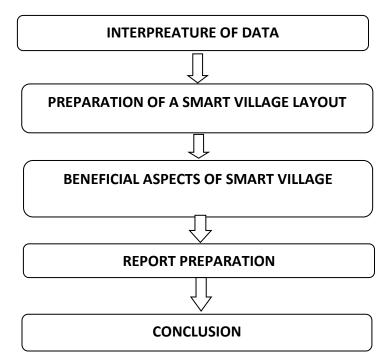


Fig. 1: Methodolgy

4. CASE STUDY-MARUTHUR VILLAGE

Maruthur is a village in Mettupalayam Taluk in Coimbatore district of Tamilnadu state, India. Its located in 35kms from district head quarters Coimbatore. The nearest town is Mettupalayam. The nearest city is Coimbatore.



Fig. 2: Maruthur village satellite map

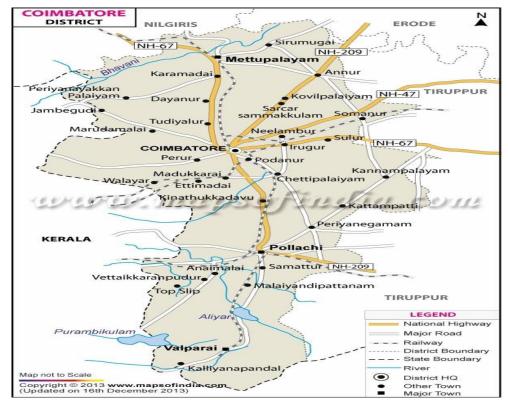


Fig. 3: Coimbatore district map

The main income of this village is agriculture, animal husbandry, daily wages. The main crop productions from their farming are vegetables, sugarcane, groundnuts.

5. DATA COLLECTION

5.1 primary data

Primary data is done with the collection of basic information about village facilities, such as-physical, Social, Sustainable development, recreational and renewable energy sources, etc. Which are available in available in village area included photography. And data is collected by the door to door survey, by interviewing village dwellers. These data are collected from those people to know about that village clearly.



Fig. 4: Survey taken by me in village form villagers



Fig. 5: Ration shop in village

5.2 Secondary Data

Secondary data included village details such as population details, geographical detail, demographical detail, occupational detail, agricultural detail, government scheme etc. these all information is collected from various government officers.

6. DATA ANALYSIS

A Questionnaire survey was carried out in the primary data collection from 55 households of the Maruthur village. The data analysis is done by using MS-Excel tool. From the analysed survey data, we identify major issues in the village from peoples view are shown in the figure.

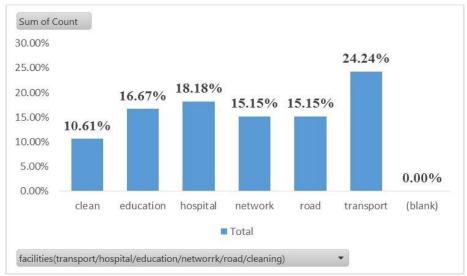


Fig. 6: Analysis of data

- There is no health center in the village
- There are no proper transport facilities
- There is no proper toilet available
- There is insufficient support for their agriculture
- And also problem in education

These all are the problems faced by the peoples in the village

8. CONCLUSIONS

The case study area, Maruthur village was selected with the main objectives of converting the village into the smart village. Based on the literature review carried out, several factors responsible for the development of the village into smart village identified. The village must have some basic infrastructure and facilities like good road connectivity, transport, hospital, education, clean environment.

9. REFERENCES

- [1] Milind R. Hegade "Smart Village System" IJSTE International Journal of Science Technology & Engineering, Volume 3, Issue 04 October 2016
- [2] Shivpuje Prakash R.. "Application of Geoinformatics for Smart Village Creation" International Journal of Computational Intelligence Research ISSN 0973-1873 Volume 13, Number 5 (2017)
- [3] Karandeep Kaur "The idea of Smart villages based on Internet of Things (IOT) International Research Journal of Engineering and Technology (IRJET) Volume: 03 Issue: 05 May-2016
- [4] Shah Bhavita, Dr. Shakil. S. Malek "A Recapitulation on Exigency of Smart Villages in Indian Ambience" Scientific Journal of Impact Factor (SJIF) Volume 5, Special Issue 03, Feb.-2018
- [5] Gendro Wiyono, Fanda Susilawati "The community perception to good governance implementation of village funds in bantul regency" https://doi.org/10.18196/jgpp.5297
- [6] Raveesh Agarwal, Mona Chaudhary, Jayveer Singh "Waste management initiatives in India for human wellbeing" European Scientific Journal June 2015
- [7] Kadam, S. S. Sarawade," Study and Analysis of Solid Waste Management Challenges and Options for Treatment (Indian Villages)" IOSR Journal of Mechanical & Civil Engineering (IOSRJMCE) mar 2016
- [8] Swati Pradeep Maniyal "Adharsh Gram Ideal Village" International Journal of Innovations & Advancement in Computer Science IJIACS Volume 7, Issue 3 March 2018
- [9] Patel Diptes., Dabhi Nikunj, Jagtap Shashank., KalelNitin, Parmar Sanjay., Chauhan Darshak "Dream village a case study of bakrol village" International Journal of Advance Engineering and Research Development Scientific Journal of Impact Factor (SJIF): 4.72 Special Issue SIEICON-April -2017
- [10] John holmes and Meredith thomas "Introducing the Smart Villages Concept" The International Journal on Green Growth and development (2015)
- [11] Ankit D. Gangani, Mehulkumar A. Dungrani, Kuldeepsinh Y. Jadeja "Planning aspects for betterment smart Indian village" International Research Journal of Engineering and Technology (IRJET) Volume: 05 Issue: 02 | Feb-2018
- [12] Shah Bhavita, Dr. Shakil. S. Malek "A Recapitulation on Exigency of Smart Villages in Indian Ambience" International Journal of Advance Engineering and Research Development Volume 5, Special Issue 03, Feb.-2018
- [13] A Amarender Reddy "Development and welfare schemes towards SDGS: case study of Emped Village, Telangana,India" anugu.amarender.reddy@gmail.com, amarender.reddy.iari@gmail.com
- [14] Rutuja Somwanshi, Utkarsha Shindepatil, Deepali Tule, Archana Mankar, Namdev Ingle "Study and development of village as a smart village" International Journal of Scientific & Engineering Research, Volume 7, Issue 6, June-2016
- [15] Kochare Akshay, Kendre Madhav, Anarse Prabhu, Bhosale Ajit, Prof. A. Tripath "Case study of smart village and local village" International Research Journal of Engineering and Technology (IRJET) Volume: 06 Issue: 05 | May 2019
- [16] Ankur Srivastava, Shyamu Gupta, Gaurav Tiwari "Smart Villages: Progress of Indian Era Today's Need" International Journal for Research in Applied Science & Engineering Technology (IJRASET) Volume 6 Issue III, March 2018
- [17] Veronika Zavratnik, Andrej Kos and Emilija Stojmenova Duh "Smart Villages: Comprehensive Review of Initiatives and Practices" Sustainability 2018
- [18] Census 2011, Government of India
- [19] Clinical establishment act, 2010.
- [20] National Health Mission (NHM) scheme,
- [21] Swachh Baharat Mission (SBM) scheme, October 2014
- [22] Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme, 2005
- [23] National Rural Drinking Water Programme (NRDWP),2009
- [24] Indira Aawas Yojana (IAY) scheme,1957
- [25] District Rural Development Agency (DRDA) scheme, 1st April, 1999
- [26] Schemes ministry of Agriculture
- [27] Ministry of New and Renewable energy (MNRE) schemes
- [28] National Rural Livelihood Mission (NRLM) schemes, 2010