Study and identification of general problems occurring in rural areas in Ispurli village of Maharashtra.

Ravindra Chigare[1], Siddharth Kamat[2], Kedarling Swami[3], Sejal Khot[4]

[1]*Assistant Professor, D.Y.Patil College Of Engineering and Technology Kolhapur- 416006*
[2]*Assistant Professor, D.K.T.E.Societys Textile and Engineering Institute, Ichalkaranji-India 416115*
[3]*Student, D.Y.Patil College Of Engineering and Technology Kolhapur- 416006*
[4]*Student, D.Y.Patil College Of Engineering and Technology Kolhapur- 416006*

---***---

Abstract – *We did the rural study to understand the backgrounds and social problems present in Ispurli village during our rural internship, we realized a lot of valuable things regarding with villages. We got a chance to understand the challenges faced by rural communities and how to address them. We also learned about sustainable development, community engagement, and the importance of empathy. It was a great opportunity for us to gain practical experience and make a positive impact on the lives of people in rural areas. We identified damaged roads, lack of water purifiers,*

Open drainage system in village, less number of public toilets, medium literature rate lack of public light poles and CCTV cameras in village.

Key Words: **Rural, Roads, Gram-panchayat, survey, lights.**

1. INTRODUCTION

On first day we reaced in village named Ispurli and entered in gram panchayat. we took an overview of the village and we felicitated all members of gram panchayat ,Took information about village from sarpanch with dialogue after that as per the schedule We presented our main objective to the locals peoples about internship and understood how does a gram panchayat really works.We gathered information about PEYJAL PIPELINE, ROAD WORK,GROUND,GHARKUL YOJANA etc.

1.1 Primary Health Center

On second day we visited Primary Health Care Centre in that village. We gathered information about there working, There were two main doctors and 2 assistant doctors and they have 11 members in there staff There are around of 150 patients daily taking treatment.

They provide following facilities 1.family planning 2.ambulance 3.delivery 4.108 emergency number 5.vaccination (penta,polio,ipb,etc). PHC provides the following Government scheme 1.Pradhanmantri matru yojna 2.Navjat shishu suraksha yojna 3.janani suraksha yojna. Its health and wellness centre component provides essiential primary and community health services such as maternal child health services including immunization and nutrition. This center also provides services to prevent and manage common and major communicable diseases. They provide free tablets they have separate wards for male and female. They have huge clean OT Washrooms.

1.2 Women's saving groups

We visited to Women's saving groups (Mahila Bachat Gat) in that village. We gathered the information about their working. Women's saving groups are amazing initiatives that provide financial and entrepreneurial supports to women. These groups bring women together and offer them financial advice and assistance for their savings plans. Through these groups, women can get training, access to loans, start businesses, and manage their existing assets. Women's saving groups are incredibly important and have a positive impact on empowering women economically. They provide a platform for women to support each other and achieve financial independence.

1.3 Primary and Highschool

As per the schedule, We visited 2 schools 1. Vidyamandir Ispurli . 2. Jay Hanuman Highschool Ispurli. First of all we visited to Vidya Mandir School Ispurli. It is grantable school. The total count of students is 157. It includes 81 boys and 76 girls. They use technology in their education like digital learning and LFD. They provided many facilities like water purifier, nutritional diet to students, dustbin and etc. They have scholarship scheme and many more. They have many other sports like kabaddi, kho-kho, wrestling and as well as they provide annual gathering and tree plantation program. They don't have space for dining and they don't have shed. The overall feedback of students is good. After that program we visited to Jay Hanuman High school Ispurli. It is grantable school. There were 15 teaching staff and 4 non- teaching staff. It includes – boys and – girls. They provide many more competitive exams such as N.M.M.S, Scholarship, Pradnyashodh, Prabhodhani and etc. They provide many more facilities like free uniform, free books, nutritional diet and etc. Students participated in various sports like kabaddi, kho-kho, wrestling and many others sports. School has 8 classrooms. School provides good education.

1.4 Maha E-Seva Kendra

We studied the Maha E-Seva Kendra in that village. E Seva Kendra in India is a government initiative that aims to provide various citizen services in a convenient and accessible manner. These centers act as a one-stop solution for different government-related services, such as issuing certificates, paying bills, applying for government schemes, and more. E Seva Kendras are equipped with computer systems and trained staff who assist citizens in availing these services digitally. They help streamline the process, reduce paperwork, and save time for individuals by providing these services at a single location. E Seva Kendras have been established across various cities and towns in India, making it easier for people to access government services efficiently.

1.5 boarding school

We visited boarding school named Mauli Primary and Secondary School Ispurli. They have 4 units in their school Units of school. The total count of students in the school is 300 in which number of boys 265 and number of girls is 35. The hostel facility is available for 3rd to 10th standard students. The total staff of this school is 22. The doctor visits the school after every 15 days. Following Facilities are provided by school 1. Various types of sports 2. Medical room 3. Double bed arrangement 4. Water purifier 5. Huge playground 6. Computer lab 7. Travelling facility 8. Digital e-learning 9. Suggestion box 10. Preparation of Competitive exams (Scholarship, N.M.M.S and etc.) 11. 150 students are qualified for NAVODAY. The overall environment of school is good and it is properly disciplined school. After that house survey of 97 houses were conducted by the members of our batch through the google document provided by the collage.

2. IDENTIFICATION OF PROBLEMS AND SOLUTION

2.1 Damaged road

The problem with damaged roads is that they can lead to accidents, increase vehicle maintenance costs, and cause traffic congestion. To address this issue, one solution is to implement regular road inspections and maintenance programs. By identifying and repairing damaged sections promptly, we can ensure safer and smoother travel for drivers. Additionally, using durable and long-lasting materials during road construction can help minimize future damage. It's important for the government and local authorities to prioritize road infrastructure and invest in its upkeep. Solution - Conduct a thorough assessment of damaged road sections. - Prioritize and implement road repair and maintenance initiatives. - Collaborate with relevant authorities for necessary resources and support.Grampachayat members should meet to MP, MLA, Zilla Parishad to bring the development fund to village.

2.2 Lack of water purifier

One common problem is that everyone has not access to clean and safe drinking water. A solution to this issue is the use of water purifiers. These devices are designed to remove impurities and contaminants from water, making it safe to consume. There are various types of water purifiers available, such as activated carbon filters, reverse osmosis systems, and UV filters. By installing water purifiers in households or implementing community-level water purification systems, we can ensure that people have access to clean and healthy drinking water. It's a simple yet effective way to address the problem and promote better health and well-being. Solution one solution is to educate people about their importance and how to properly maintain them. Regular maintenance, such as cleaning or replacing filters, ensures optimal performance and extends the lifespan of the purifier. Additionally, implementing community awareness programs and providing affordable options can help make water purifiers more accessible to those who need them. By combining education, maintenance, and affordability, we can promote the use of water purifiers and ensure clean drinking water for all.

2.3 Open drainage

One problem with open drainage systems is that they can become clogged with debris, leading to stagnant water and unpleasant odours.Poisonous gases releases from the sewage waste water and it affects on human lungs. Solution on this problem is to implement proper waste management practices. This includes regular cleaning and clearing of debris from the drains to maintain smooth water flow. Additionally, constructing separate storm water drains can help divert rainwater away from the sewage system, reducing the chances of overflow and contamination. It's important for local authorities to prioritize the maintenance of drainage systems and raise awareness among the community about the importance of keeping drains clean. By taking these steps, we can address the problem of open drainage and ensure a healthier and cleaner environment for everyone. Government should sanction STP Plant in all cities where Waste water is maximum.

2.4 Public toilet

One common problem is the lack of clean and accessible public toilets. This can be a significant issue as it affects people's hygiene, comfort, and overall well-being. Solution is to implement automated self-cleaning systems. These systems use sensors to detect when the toilet is used and automatically clean and sanitize the area after each use. This ensures a clean and hygienic experience for every user. Additionally, regular maintenance and inspection of the toilets are crucial to address any issues promptly. By incorporating automated self-cleaning systems, we can enhance the cleanliness and convenience of public toilets.

We created awareness among peoples about health and hygiene and should have their own toilets.

2.5 Lack of lights on public Light pole

In this rural there is the lack of energy-efficient lighting in many areas, leading to higher energy consumption and increased carbon emissions. In village many houses were using the old bulb of tungsten filament we told peoples about the advantages of LED Bulbs. To solve this problem we suggested the implementation of smart lighting systems in light poles. These systems use sensors and advanced controls to adjust the brightness of the lights based on real-time conditions. For example, the lights can automatically dim during low traffic periods or brighten up when motion is detected. By optimizing the usage of electricity, smart lighting systems help reduce energy consumption and lower costs. Additionally, integrating renewable energy sources, such as solar panels, with light poles can further enhance their efficiency. Solar-powered light poles harness the energy from the sun to generate electricity, reducing reliance on the grid and promoting sustainability. By adopting smart lighting systems and renewable energy sources, we can create more efficient light poles that save energy, reduce costs, and contribute to a greener future.

2.5 Lack of CCTV Cameras in village

One problem is the absence of sufficient surveillance in many areas, which can lead to increased crime rates and a lack of security in some places like Primary Healthcare center and Grampanchayat and etc. places. A solution to this problem is to install CCTV cameras in strategic locations. By having a network of CCTV cameras, we can monitor public places, detect potential criminals, and provide evidences in case of any incidents. These cameras can be connected to a central monitoring system or even accessible through mobile applications, allowing for real-time monitoring and quick response to any suspicious activities. Moreover, raising awareness about the benefits of CCTV cameras and encouraging community involvement can help in their implementation. This could involve collaborating with local authorities, businesses, and residents to fund and maintain the CCTV systems. By installing CCTV cameras and promoting community involvement, we can enhance public safety, deter crime, and create a more secure environment for everyone.

3. CONCLUSIONS

After study of rural areas ,many villages are waiting the development as compared with cities. The survey revealed valuable insights about the community's needs and aspirations. By analyzing the data collected, we can identify key issues and develop targeted solutions to enhance the village's development. It's important to involve the community in decision-making processes to ensure their voices are heard. With the findings from the survey, we can work towards creating a more vibrant and sustainable village for everyone. For the improvement of villages involvement of CM, MP, MLA, Tahasildar, Gramsevak, Sarpanch and Villagers is mostly needed

ACKNOWLEDGEMENT

REFERENCES

[1] R. Rachmawati 2018 Pengembangan Smart Village Untuk Penguatan Smart City Dan Smart Regency (Jurnal Sistem Cerdas vol 01) no. 02 pp. 12–18

[2] Republic of Indonesia 2014 Law Number 6 of 2014 about Village pp. 1–103.

[3] J. Holmes and M. Thomas 2015 Introducing the Smart Villages Concept (International Journal on Green Growth and Development vol. 1) no. 2 pp. 151–154

[4] G. Natarajan and D. L. A. Kumar 2017 Implementation of IoT based Smart Village for the Rural Development (International Journal of Mechanical Engineering and Technology vol 8)no. 8, pp. 1212–1222

[5] N. Viswanadham and S. Vedula 2010 Design of Smart Villages (ISB: The Centre for Global Logistics and Manufacturing Strategies)

[6] E. Syaodih 2018 Smart Village Development (The 9th International Conference of Rural Research and Planning Group) pp. 22–33.

[7] J. Ahlawat 2017 Smart Villages , Information Communication Technology and Geographical Information System (International Journal of Current Trends in Science and Technology vol.7) no. 8, pp. 20232–20238

[8] A. M. Muke and U. Nilesh S 2017 Use of Advanced Technology in Developing Smart Villages(International Journal of Research in Engineering Science and Technology vol. 03) no. 04, pp. 1–6

[9] A. Bozzon, J. Houtkamp, F. Kresin, N. De Sena, and M. de Weerdt 2015 From Needs to Knowledge. A reference framework for smart citizens initiatives (Amsterdam Institute for Advanced Metropolitan Solutions)

[10] A. Gaur, B. Scotney, G. Parr, and S. McClean 2015 Smart city architecture and its applications based on IoT (Procedia Computer Science vol. 52) no. 1, pp. 1089–1094

[11] K. A.-L. Correia, Luis M., Wünstel 2011 Smart Cities Applications and Requirements(Net!Works European Technology Platform)

[12] S. Dirks and M. Keeling 2009 A vision of smarter cities: How cities can lead the way into a prosperous and sustainable future (New York) ICET4SD IOP Conf. Series: Materials Science and Engineering 722 (2020) 012011 IOP Publishing doi:10.1088/1757-899X/722/1/01201110

[13] R. Giffinger 2007 Smart cities Ranking of European medium-sized cities (Center of Regional Science, Vienna University of Technology vol. 16) pp. 13–18

[14] P. Abinash and J. Josephine 2018 Internet of Things (IoT) for Smart Village (International Conference on Advancements in Engineering, Technology and Sciences (ICAETS)) pp. 813–819.

[15] T. Kamal, F. J. Tuli, M. Hassan, T. H. Rupam, and B. W. Habib 2018 Information , Innovation and Implementation Center (IIIC): Concept towards Smart Village (Researchgate)

[16] M. Mishbah, B. Purwandri, and D. I. Sensuse 2018 Systematic Review and Meta-Analysis of Proposed Smart Village Conceptual Model : Objectives, Strategies, Dimensions, andFoundation (2018 International Conference on Information Technology Systems and Innovation (ICITSI)) pp. 127–133.

[17] A. D. Santoso et al., 2019 Desa Cerdas: Transformasi Kebijakan dan Pembangunan Desa Merespon Era Revolusi Industri 4.0. (Yogyakarta: Center for Digital Society UGM)

[18] A. Singh and M. Patel 2018 Achieving Inclusive Development Through Smart Village (PDPU Journal of Energy and Management vol. 3) no. 1, pp. 37–43

[19] D. Guzal-Dec 2018 Intelligent Development Of The Countryside – The Concept Of Smart Villages: Assumptions, Possibilities And Implementation Limitations (Economic And Regional Studies (Sciendo) vol. 11) no. 3, pp. 32–49, 2018.

[20] Banyuwangi District Government 2016 Local Government Regulation Number 18 of 2016 about the Integration of Village/Urban-Based Work Programs Through Smart Kampung, pp. 1–13.