



DETAILED PROJECT REPORT ON SMART VILLAGE KANDALGAON

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ABSTRACT

This paper is related to making the village as a smart village by providing facilities such as health, water supply, sanitation, education, social development, economic development and security in an efficient manner. The concept of smart village makes the village self-sufficient in respect of their needs. We have shifted our focus to make villages 'smart' technologically and have tried to bring about changes that would have the sole of village but facilities as that of a city. Present study focus on strategy or planning to remove major problems in Kandalgaon village. A smart village will encompass a sustainable and inclusive development of all sections of the village community so as they enjoy a high standard of living.

Keywords: *Information technology, Smart village, strategy.*

I. INTRODUCTION

In India, migration of people from rural to urban is increased day by day. About 70% of population is living in cities, because requirements of peoples are not fulfilled in villages. There are 600000 villages out of them 125000 are backward. So it necessary to design and development of as a smart village with urbanization and modernization peoples migrate from one place to another for different facilities such as education, employment, affinity of people towards the city.

Village is main criteria for development of nation , so develop the village in such a way that which is self-dependent in providing the services, employment & well connected to the rest of world & new technology that is SMART VILLAGE. The smart village corrects providing facilities for sustainable family relationships without disturbing the lifestyle of different generation. Initially the concept of development of village is of Mahatma Gandhi that is 'Swaraj&Suraj village' but now it's time to change, newly term as smart village³.

Our vision of smart village is that modern energy access can act as catalyst of development in education, health, clean water, sanitation, and environmental sustainability. Development of nation at any phase is linked with technology and when it happens there is advancement in science and innovation. Now-a-days our government also gives strong focus on smart village. So our project is also a small step towards to make India as developed nation to the progress of village and smarten the rural development using ICT solution to achieve self-sustainability³.

II. CONCEPT

The basic concept of smart village is access to sustainable energy services act as a catalyst for development by providing good education and health care, access to clean water, sanitation and nutrition, the growth of product to enterprises to boost income and enhanced security, gender quality³.

2.1 Profile of Kandalgaon village:

Kandalgaon is a village in Karveertaluka in Kolhapur district of Maharashtra state⁹.

Population:

Parameter	Survey Data
Total area	1.5 sq. km.
Total number of houses	748
Total population	3864
Total literacy rate%	72.3 %(2793)
Water supply system	
i) Lake	1
ii) Bore well	15
iii) Well	3
iv) a) Govt.	10
b) Private	-
Power supply	
i) Domestic use	18 hours/day
ii) Agriculture use	10 hours/day
Biogas plant	30
Educational facility	
i) Primary school	1
ii) Anganwadi center	3
Health facility	
i) Private	2
ii) Govt	0
Community hall	1
Bank	Indusind Bank.
Income source	i) Agriculture ii) Animal conservation iii) Business in dairy products
Main crops	i) Sugarcane ii) Flowers iii) Rice

	iv) Wheat
Major problems	i) Scarcity of potable water ii) Undeveloped roads iii) No solid waste treatment iv) Literacy v) Less use of natural resources

PHOTOGRAPH:



Photograph Various problems in Kandalgaon village

III. PLANNING/STRATEGY :

3.1 Infrastructure:

a) Road:

- Listing of existing kutchha road and replacing them by pucca road.
- Partial leveling of internal streets according to land slope.
- Construction of bus shelter at chowk.
- Construction of internal street and waste water channel.

b) Telecom and information technology:

- Increasing efficiency and accessibility of common service center.
- E-literacy to each willing citizen.
- Establishment of smart school.
- 4G unit setup.

c) Irrigation:

- Micro-irrigation and drip irrigation.
- Promotion of less water consuming cropping pattern in un-irrigated field.
- Promoting rain water harvesting structure.
- Promotion of water recharge or moisture conservation structure

d) Energy:

- Uses of alternative source of energy i.e. solar energy are used.
- Installation of solar/ electricity connections in public building.
- All houses are to be electrified with round the clock power supply.
- Installation of street light through conventional and nonconventional sources.

3.2 civic and other amenities:

a) Household amenities

- **Housing:** There are 748 household in kandalgaon gram Panchayat. Some people are eligible for IAY benefit. Priority list has finalized in Gram Sabha i.e. Permanent Waiting IAY list but still it is to be updated which is in process.
- **Drinking Water:** Potable water connectivity is there in almost all the houses but is not regular. Due to this irregularity the underground water pipeline was installed some years back, which has many leakages and at some points it is also mixed with waste water channel. Wastage of drinking water is also a problem, which can be solved with behavior change. Here, main source of drinking water is Kandgaon LAKE but supply is not regular and main water supply scheme is also not properly maintained. So this problem can be solved by providing 24x7 water supply and regularly maintaining water supply scheme.
- **Electricity:** All houses have the electrification facility but Supply of electricity is with low voltage, irregular, having many power cuts and power failure. Misuse of electricity and line cut is also burning issue. Gram Panchayat can co-operate with electricity department to check theft cases, regular and timely recovery and payments of bills, which would ensure 24X7 supply.

b) Public Amenities

- **Street Light:** Though Gram Panchayat has provided street lights, which is insufficient. Solar energy option for street lights can also be explored. Gram Panchayat can motivate Each household to fix a bulb or tube/LED in front of their house and in this way Gram Panchayat can manage street lights at a low cost.
- **Shamshan Ghats/burial ground:** There is a sufficient space of Shamshan Ghats. But Boundary wall, shed & proper all weather approach is not there.
- **Libraries:** No such facility is there. However a small library for school students is available.
- **Sports and play grounds:** No facility is available for Sports. A play ground is available in School which is not properly maintained. Daily yoga & sports activities are not found.
- **Community Hall:** There is no any community hall in the village. si it is necessary to build a hall in village.
- **PDS outlet:** Two PDS outlet is properly working near Shyam Temple. At present PDS outlet is providing services to peoples with ration & kerosene.
- **Post office:** There is no any post office working in the village.
- **Banks:** There is only one bank in the village.
- **Public transport:** Public transport is available along with private vehicles on local & main routes. Frequency of buses is good.

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3.3 HEALTH:

- Posting of Lady doctor
- Insurance of Health Card
- Installation of water supply connection
- Ensuring AYUSH facilitation in the village
- Checking of leakage points where contamination occurs in drinking water in village
- Establishment of Solid & liquid waste management unit
- Renovation of ponds
- Working on behaviour changes through health volunteers
- Campaign against alcoholism & smoking through Schools as well as places of worship
- Reducing availability of risk substances in the village

3.4 SANITATION:

- House-to-house campaign through health volunteers and swachhataMitras.
- Education through anganwadicentres, schools, and organization of camps.
- Wall Writings; Information Boards at relevant locations.
- Facilitate construction of toilets in each household.
- Facilitate construction or making functional toilets in all public institutions.
- Construct covered drains along with liquid waste treatment pits.
- Effective garbage collection, segregation and disposal systems.
- Initiate behavior change campaigns on hygiene and sanitation through involvement of youth groups and social communication methods like street theatre.
- Establishment of solid and liquid waste management unit.

3.5 EDUCATION:

a) EARLY CHILDHOOD CARE

- Earth filling of low lying area.
- Construction of assessable track/buildings with repair & renovation in existing structures.
- Preparation of technical estimate, report and approval of finance and administration and construction
- Public Health Engineering Department will ensure for safe drinking water supply.
- Anganwadi workers will identify the children of the 0-6 years age group with the help ASHA and helper. Ensure their registration and regular attendance at the each centre with functional committee and local people's involvement
- Formation of Women welfare committees, strengthening of it and to make it functional through identification of pregnant and lactating women, anemic adolescent girls etc. and to generate awareness programme.
- Nutrition education to women/adolescents



b) SCHOOL AND HIGHER EDUCATION:

- Filling the posts of required staffs.
- Identifying training needs of teachers and quality education measures individual attention to weak & needy students.
- Plan proposal, approvals with timeline and execute accordingly to the gaps identified in Infrastructure.
- Convert the private schools into smart schools'. Smart schools will have IT enabled classrooms, e-libraries, web based teaching and will make all students e-literate. This will be done through filling the infrastructure gaps i.e. Installation of Holistic Quality Education Improvement System.
- Advance tentative indent of study material.
- Adult literacy campaign may be initiated.
- Introduction of units of NCC, NSS, SCOUT.
- Use of cultural forms viz. street theatre, puppetry and other social communication methods throughout the year.

3.6 SOCIAL DEVELOPMENT

Situational Analysis

Social Development is a concept that is interrelated with Mind Change. Development involves the introduction of new ideas in to social system in order to produce higher per capita incomes and improve the levels of living through modern production methods and improved social organization. Development is building up the capacity of the people so that they can build a better future for themselves. 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. Development efforts, therefore start with the people's potential and proceed to their capacity enhancement and growth. It is essential to see that access to entitlements is available to all especially the vulnerable sections and Social evils are under control and supervision.

Strategy

- Organize citizen centric education campaign/movement
- Involve youth groups in health camps and adult literacy drives.
- Create discussion groups through the libraries.
- Celebration of the village day through exhibitions and honoring the village elders, and local role models, especially women, freedom fighters and martyrs.
- Song Competition for different festivals and occasions.
- Organization of committees for peaceful and crime free village life
- Organize Gender Sensitization programs
- Providing variety of options: Gym, yoga, walking/jogging, sports for everyone to choose.
- Health volunteers to guide and follow up personally for better health
- Identification of addicted people & consequent intervention
- Working on behavioral changes – SHGs and health volunteers

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- Campaign through Schools, Youth Clubs, SHGs, as well through as places of worship
- Reducing availability of substances inducing deviant behavior in the village
- Facilitation in construction of toilets in each household
- Improving personal hygiene for all consisting of Daily cleaning of teeth, Use of Sanitary
- Toilets, Daily Bath, Washing hands after toilet and before eating and Wearing clean clothes,
- Personal menstrual hygiene of adolescent girls and women
- IEC initiatives to promote use of toilets – both individual and institutional along with taking benefits of schemes
- Initiate behavior change campaigns on hygiene and sanitation through involvement of youth groups and social communication methods like street theatre

3.7 Economic Development

Situational Analysis

Economic Development is the most important ingredient for the improvement in the quality of life in any society. Simply said local economic development means increase in productivity and production in all sectors, increase in jobs and increase in local incomes. Economic development is at the centre of holistic development of a village towards becoming Adarsh Gram. This is especially true for us, where poverty is intense and widespread. Economic Development is based on the availability of economic resources and income and employment opportunities away from the village. Economic resources comprise of natural resources, economic infrastructure and services, and human resources including skills and indigenous technology etc.

Strategy:

- Transfer of technology for organic farming to the farmers.
- Preparation of Soil Health Card along with established of soil & water testing lab.
- Promoting Micro irrigation and drip irrigation.
- Enhancing livestock based livelihoods through better management.
- Preparation of Animal Health Cards through conducting cattle health campaigns.
- Establishment of Gobar bank for organic manure & biogas plant
- De-centralized small scale food processing activities.
- Construction and provision of storage facilities, especially common storage facilities to reduce post harvest losses
- Small scale dairy processing units coupled with marketing facilities.
- Skill demand identified & suitable training
- Skill building for self employment and placement in the formal sector.
- Identifying employers and placement opportunities under
- Continuous skill up gradation for sustained employment.
- Universal inclusion through participatory identification of the poor.
- Organization of SHGs of women and their federations at the GP and cluster level.

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- Bank linkage
- Better participatory planning
- Provision of works as per demand
- Timely payment of wage
- Judicious use of chemical fertilizer & pesticides.
- Identification and creation of quality productive assets.
- Rooftop rainwater harvesting integrated to toilet units in public buildings & individual households¹⁰.

IV. CONCLUSION

After applying all this services and technique the overall problems of KANDALGAON 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 village become self-dependent and contributes towards the development of nation³.

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