Issue 9 vol 3 ISSN: 2321-8134



INTERNATIONAL JOURNAL FOR ENGINEERING APPLICATIONS AND **TECHNOLOGY**

MODERN REHABILITATED VILLAGE

Arpit Deepak Dhole¹, Ankit Bhanudas Pinjarkar², M. Sufiyan Khalique Sheikh³, Prof. H. H. Mehata ¹Student, Civil Engineering Department, Dr. D.Y.P.S.O.E., Lohegaon, Pune, Maharastra, India, arpitdhole@gmail.com ²Student, Civil Engineering Department, J.D.I.E.T., Yavatmal, Maharastra, India, **ankitpinjarkar07@gmail.com** ³Student, Civil Engineering Department, J.D.I.E.T., Yavatmal, Maharastra, India,, sheikhsufi67@gmail.com ⁴Assistant professor, Civil Engineering Department, J.D.I.E.T., Yavatmal, Maharastra, India. hitmehata09@gmail.com

Abstract

Modern rehabilitated village is concept in which new technology are use for rapid development of village. In this old government norms get modified to new innovative ideas. Digital school in which old teaching get modified. No village can survive without Tree is planting. Community godown is common storage for village providing low cost storage facility to improve profit of farmer. Garden playing equipment such as see saw, merry go round etc. use for pump water. Ecofriendly energy technology are use cfc free, solar heating for heating water at offices and farmer house, solar panel producing energy which is directly use by grid of village and street light has backup of nickel iron battery which is most eco-friendly and long life battery, community bio gas plant is maintain by grampanchayt filling bio-degradable collected by solid waste collecting person of village this gas supply through pipe line with meter is use for cooking, proper solid waste management. Improve ground water quality table rain water harvesting is best solution is applied this village.

Index Terms: Digital school, community godown, solar panel, community bio gas plant, rain water harvesting, solid waste management ______***

1. INTRODUCTION:

Village is the place where all civilization start and its old nature of living style for most of the people at the rest it is one of the blest life and it is disturbed when rehabilitation of such village occurred. Not due to government spend less money on them but due to not fulfil their requirements they because they don't know what is requirement in rehabilitated village they attracted towered city life there thinking was common i.e. we are release village and I need to settled in city hence officer ask and give suggestions of place they choose site near city or place close to city I think that this is one of the great mistake don by this simple people. But why...

City is the place which is too far from their farms or agriculture land which is one of the income sources of this people.

City is the place where cost of food is much high than in village because village is the place where food production don and sell with profit, transportation, tax, etc. are included which increase cost.

Main problem start next when money given by government end and simple person is addictive of city life style and he's mentality change that village people are poor lack of maturity he don't want live in village and living in city is too much costly he is find in trap.

In rehabilitee village all facility are near to them such as supply, drainage, sanitation, solid waste management, and all government facility such as road, tree plantation etc. but due to lack of maintenance all become waste having some reason behind that is low

population, people are not aware about that, less population fund collected by them is less so they required help from government for such work.

Rehabilitation of village is not easy task for government and engineer also but it is too difficult developed this village to stage where it is sufficiently stable.

Smart Living rehabilitated village is concept in which people are able to develop their rehabilitated village with new innovation and blest life style. For which need to study each village for income source, skill of people, life style, dependency on other city for export of raw material. Village is not a dead structure or site it living structure which born, grow, sometime dead which is end of village. Rehabilitation is the process in which village transfer from one place to another.

OBJECTIVES OF REHABITATIONAL **VILLAGE:**

- 1. Provide sufficient amount of area to the village.
- 2. Provide the facilities for comfortable life to villages.
- 3. Prevent distance migration from rural to urban area, which is very common in India's villages due to lack of opportunities and facilities.
- Village could attract opportunity for development.
- 5. To provide easier, faster & cheaper access to urban market for agricultural produce or other marketable commodities produce in such village.
- 6. Create sustain cultural of co-operative living for inclusive & rapid development.
- 7. Make location such that which is easy to accesses for agriculture land and urban market easier.

ISSN: 2321-8134

3. GOVERNMENT NORMS FOR REHABILITATION:

- Roads within the resettled villages and all-weather roads link to the nearest pucca road, passages and easement rights for all the resettled families be adequately arranged.
- Proper drainage as well as sanitation plans executed before resettled.
- Provision of drinking water for cattle.
- One or more assured sources of safe drinking water for each family as per norms prescribed the government of India.
- Grazing land as per proportion acceptable in the state.
- A reasonable numbers of fair price shops.
- Panchayatghars as appropriate.
- Village level post offices, as appropriate with facilities for opening saving accounts.
- Appropriate seed-cum-fertilizers storage facilities if needed.
- Facilities for sanitation, including individual toilets.
- Individual single electric connection (or connection through non- conventional sources of energy like solar energy), for each household and for public lighting.
- Anganwadi's providing child and mother supplement nutritional services.
- School as per provision of the Right Of Children To Free and Compulsory Education Act,2009 (35 of 2009):
- Sub-health centre within two kilometers range.
- Primary Health Centre as per prescribed by government of India.
- Playground for children.
- One community centre for every hundred families.
- Place for worship and chowpal/ tree platform for every fifty families for community assembly, of numbers and dimensions consonant with the affected area
- Separate land must be earmarked for traditional tribal institutions.
- Individual single electric connection (or connection through non- conventional sources of energy like solar energy), for each household and for public lighting.
- Appropriate security arrangements must be provided for rehabilitation, if needed.
- Veterinary service centre as per norms.

Efforts must be made to provide basic irrigation facilities to the agricultural land allotted to the rehabilitated families if not from irrigation project , then by developing a co-operative or under some Government schemes.

All new villages establishment for resettlement of the displaced person shall be provided with suitable transport facilities which must include public transport facilities through local bus service with nearby growth urban localities.

The forest dweller families must be provided, where possible, with their forest rights on non- timber forest produce and common property resources, if available to close to the new place of settlement and in case any such families can continue their access or entry to such forest or common property in the area close to the place of eviction, they must continue to enjoy their earlier rights to the aforesaid sources of livelihood.

4. COMMON FACILITIES MANDATORY FOR VILLAGES:

4.1 Education and health:

The school should be present in village with all facilities A health centre with admitting facilities should be available. The minimum number of doctors required can be decide according to population of village.

Problems: Good knowledgeable teachers, doctors and other educated staff will not be willing to work in rural area.

Solution: Reward teachers, doctors and other staff with increase salary, tax benefits, etc.

4.2 Power supply:

The modern village should be self sustainable in power production. Solar panels among with solar street lights.

4.3 Transport facilities:

However self suitable we make a village, certain goods and commodities has to arrive from nearest town. People residing in village have to travel to cities so that village has to be connected to nearest town through roadway. The additionally village should have very good internal roadway.

4.4 Housing and sanitation (clean India):

The central and state government scheme to provide housing to all should streamlined to these model village. Every house in the village should have toilets. The vast disposal should be done properly .The village should have its own solid and liquid waste management system.

4.5 Green India:

While creating model village, a little urbanization is unavoidable care should be taken that green cover of village is not hampered in the process. Every new infrastructural development of village should be supporting by planting tree in newly created infrastructural.

5.MORDERN FACILITIES PROVIDED IN REHABITATION OF VILLAGE:

5.1Rain water harvesting:

Water harvesting is the deliberate collection and storage of rainwater that runs off on manmade catchment areas. Catchment includes rooftops, compounds, or hill slopes or artificially prepared impervious/ semi-pervious land

Issue 9 vol 3 ISSN: 2321-8134

surface. The amount of water harvested depends on the frequency and intensity of rainfall, catchment characteristics, water demands and percolation. Water harvesting is done to recharge the groundwater enhances the availability of groundwater at specific place and time and thus assures a continuous and reliable access to groundwater.

A rainwater harvesting system comprises components of various stages - transporting rainwater through pipes or drains, filtration, and storage in tanks for reuse or recharge.

5.1.1. Need for Water Harvesting

The scarcity of water is a well-known fact. In spite of higher average annual rainfall in India (1,170 mm, 46 inches) as compared to the global average (800 mm, 32 inches) it does not have sufficient water. Most of the rain falling on the surface tends to flow away rapidly, leaving very little for the recharge of groundwater. As a result, most parts of India experience lack of water even for domestic uses.

5.2 Biogas:

Biogas is clean environment friendly fuel that can be obtained by anaerobic digestion of animal residues and domestic and farm wastes, abundantly available in the countryside.

In villages the varies type of waste are generate from human activities and animal waste such as cattle dug ,green leaves , food waste, bamboo dust etc. which use in the biogas for generation of methane gas those gas use for the cooking , lighting ,power generation and transport fuel.

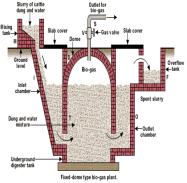


Fig-2: Biogas plant

5.3See-saw Pump:

At the time children playing on see-saw then pump is use for lifting the water from boar well and these water is use for flushing all toilet and we also use for cleaning ,planting and other purpose in school building, grampanchayat building.



Fig-3: See-saw Pump 5.4 COMMUNITY GOWDOWN:

After harvesting farmer sells their crop at current rate of crop which is less due to production time of crop and after some duration tradesman sell their storage he get lot of money than farmer so to increase income of farmer that is common village person community godown is better solution. Farmer store their crop longer time at low cost and earns much more profit.

5.5 PARAMETERS FOR GREEN CONCEPT:

Land regulations indicates that, the project shall safeguard the framework of Notification of Government of Maharashtra balancing area statement, FSI, parking facility, area of open spaces, room sizes, marginal spaces light and ventilations etc.

Site efficiency indicates that, the site location should be such that, the basic amenities such as school, college, hospital, markets, fire station, post office, financial Institutions, hospital, super markets, worship places should be within a distance of 1.00 km. The natural topography of soil shall be maintained during the course of formation level of the township area.

5.6 SOLAR SYSTEM:

On-site renewable energy in the form solar system for the illumination of open space, common areas as well as street lighting to reduce the conventional power consumption. Since it is provided that the 50% of the total plot area shall be an open area, there shall be a solar light system for illumination which includes gardens, landscaping, play grounds etc. In addition to that road having 9.00m in width shall be provided with solar lighting system. Further, there shall be a solar water heating system at all terraces of buildings. For high rise buildings almost all terrace shall be occupied with solar panels, there shall be no absorption of heat through top slab.

5.7 SOLAR WATER HEATING

The solar water heating system consists of a solar collector, toughened glass, insulated storage tank, cold water supply tank and insulated piping. The sun rays penetrate through the glass and fall on the absorber. The heat of the sunrays is absorbed by the cold water inside the absorbed thereby increasing its temperature. The heated water gets collected inside the insulated storage

Issue 9 vol 3

tank either through the thermosyphon or the forced flow system.

5.8 DIGITAL SCHOOL:

Digital school are school in which teaching through computer, video graphics, digital images, which improve attention of student in classroom. This increase education level in village also making strong them taking future challenges.



Fig-5 Digital School

5.9 ENENRGY EFFICIENCY:

It is a mandatory requirement as far as IGBC regulations. Hence this shall be provided in green homes. The refrigerant used in heating, ventilation and air conditioning (HVAC) equipments and unitary air conditioners installed must be CFC free to avoid ozone layer depleting gases which will negatively impact the environment. Further, Light emitting diode (LED) Equipments shall be provided inside the home to save energy.

A light-emitting diode (LED) is a semiconductor light source. LED's are used as indicator lamps in many devices, and are increasingly used for lighting. Introduced as a practical electronic component in 1962, early LEDs emitted low-intensity red light, but modern versions are available across the visible, ultraviolet and infrared wave lengths, with very high brightness.

6. CONCLUSION

In modern rehabilitated village providing modern facility and technology such as digital school, community godown, and solar pump for water supply, community biogas plant, and rain water harvesting solid waste management, toilet, and water supply scheme. This thing make as per future development. Providing up to date facility change experience of rehabilitation.

Rehabilitation produce disteabuns in life style of village and hence they are not completely agreed for this by this new concept they get chance of development. Modern facility improves their lifestyle and joins this people with flow which are commonly out off flow. Future generation from this village can competition with world and much confident. This village not much dependent of non-renewable resource which fix their existence for long time. This village is much clean due to toilet which reduces diseases, infection, making healthy environment which is not see commonly in village. Clean water is available for grampanchyat is supported by ground water

ISSN: 2321-8134

which is stored by rain water harvesting having low salt contain than ordinary condition. This village provide much more for this people and make easy rehabilitation process.

7. REFERENCES:

- [1]Book of M.G.Shah and C.M.kale of Building drawing for planning.
- [2] Government norms for village rehabitation from rural development department.
- [3] Government of India portal www.india.gov.in.