

# SUSTAINABLE PLANNING FOR RURAL AREA–REPAIR, REDEVELOPMENT, REDESIGN- SINGARVA VILLAGE

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**Abstract :** Vishwakarma Yojana is one of the initiative towards Rurbanization by Government of Gujarat, which was allotted as a real time situation type project provide to GTU Vishwakarma Yojana would provide “Design to Delivery” solution for development of villages in ‘Rurban’ areas. Beneath the innovative RURBAN approach, rural areas would be furnished with infrastructure facilities and public amenities corresponding to urban areas. Human society is evolving with rapid impetus and accomplished various successes for making its livelihood superior.

**IndexTerms - Water Sanitation, Smart Village Technique, Rural Development, People.**

## I. INTRODUCTION

Singarva is located in Daskroi taluka in Ahmedabad District. It has an population of about 12,547 including male 6590 and female 5957. Village has Physical and Social infrastructure, but condition of internal village roads, garden and Panchayat Building is not in good condition, it need repair and maintenance. Owing to migration of rural people for livelihood there is prodigious pressure on urban territory. Rural development is an imperative and necessary integral of national economic development policies. With the advancement to the construction project, design, finance and operations, through the usage of present day innovation, we are attempting to push forward toward improvement in view of accessible resources in the singarva village

## II. OBJECTIVE

- ✓ To fulfill common requirement like drinking water, drainage system, transport system.
- ✓ To improve living standard of people.
- ✓ To manage growth through good planning and appropriate development controls.
- ✓ To reduce migration from rural to urban areas due to lack of basic services and sufficient economic activities in rural areas.
- ✓ Electricity connections like street lighting that is energy efficient and eco-friendly.
- ✓ Health and Education facilities should be provided and ensure proper delivery of facilities to village dwellers.
- ✓ Repair & maintenance of Existing Public Buildings like Gram Panchayat, Public Library, School Buildings, Health Centre, Public Toilet Block & Other.
- ✓ Development of socio culture facilities like community hall, public library, recreational activities and repairing of existing amenities

## III. NEED OF STUDY

Sustainable development is generally discussed in terms of environmental considerations, but from a rural community perspective, sustainable development must address how the people of the community generate the income to maintain their rural lifestyle. The fast urbanization has become already a main characteristic of socioeconomic transition in China. With modernization and urbanization people migrate from one place to another place for different facilities such as education, employment and affinity of people towards the locality or city. Village is main criteria for development of nation. So, develop the village in such a way that which is self dependant in providing the services, employment and well connected to the rest of the world.

#### IV. STUDY AREA

Village Singarva is located in Ahmedabad, Gujarat. Population of the village is 12547 according to the 2011 census. Time zone is IST (UTC+5:30). Elevation / Altitude is 35 meters. Above Sea level. Telephone Code / Std Code is 02717

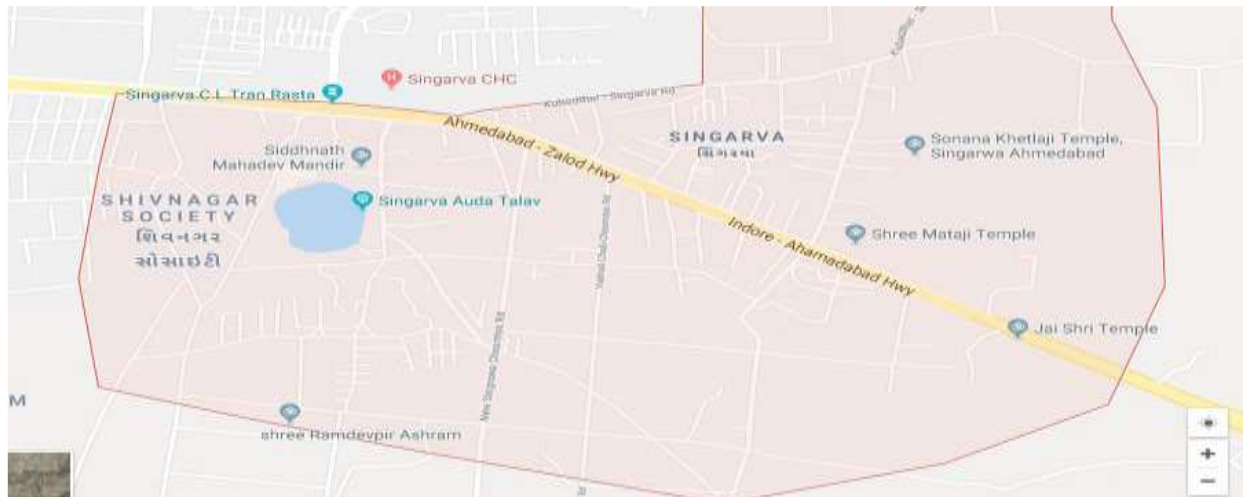


Fig.1 Village Location

#### Physical & Demographical Growth

##### 1. Demographical Detail:

| Sr. No. | Census | Population | Male | Female | Total House Holds |
|---------|--------|------------|------|--------|-------------------|
| i)      | 2001   | 6512       | 3024 | 2488   | 984               |
| ii)     | 2011   | 7406       | 4038 | 3368   | 1590              |

##### Geographical Detail:

| Sr. No. | Description  | Information/Detail                   |
|---------|--|--------------------------------------|
| i)      | Area of Village (Approx.) (In Hector)<br>Coordinates for Location: | 1115-35-90 (hect.)<br>Village center |
|         | Forest Area (In hect.)   | No                                   |
|         | Agricultural Land Area (In hect.)                                  | 950-04-37 (hect.)                    |
|         | Residential Area (In hect.)  | 15-43-53 (hect.)                     |
|         | Other Area (In hect.)  | 23-09-33 (hect.)                     |
|         | Water bodies   | 28-27-79 (hect.)                     |
|         | Nearest Town with Distance:  | Kalol (13 km)                        |



Fig 2: Singarva Village Base Location Map, Land Map, Gram Tal Map

### V. METHODOLOGY

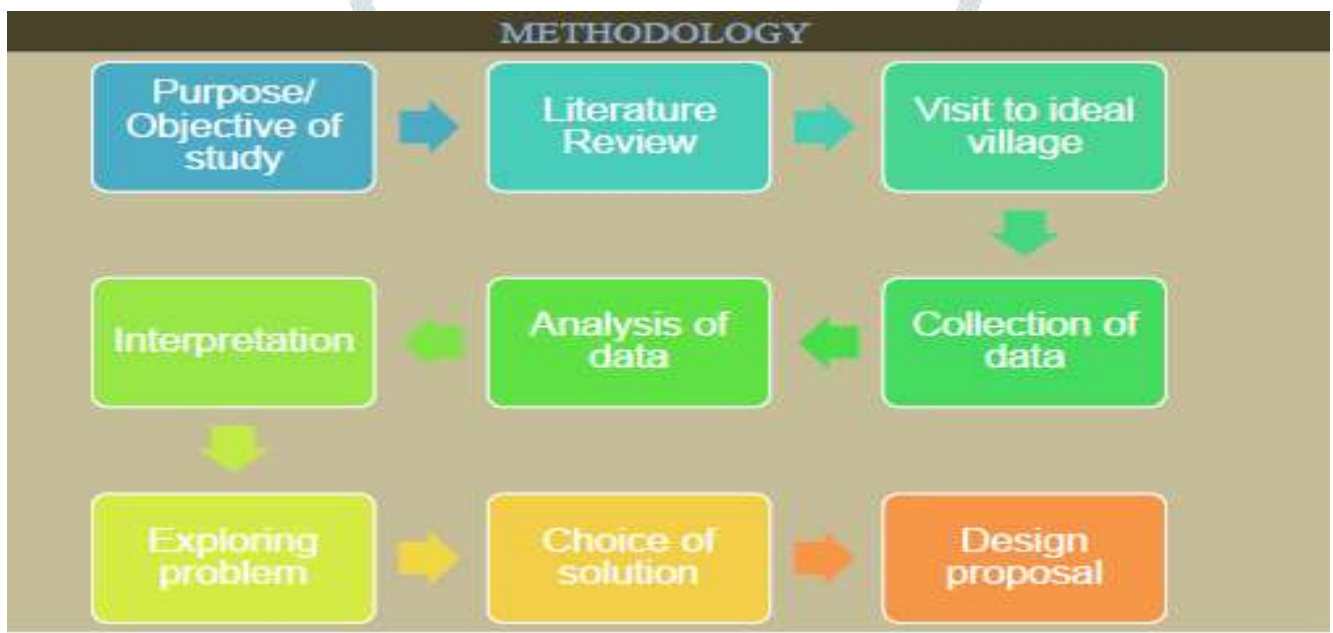


Fig.3 Methodology

## VI. GAP ANALYSIS

| Village Facilities                               | Planning Commission/UDPFI Norms  | Village              | SINGERVA              |   |                 |
|--|--|----------------------|-----------------------|---|-----------------|
|  |  | Population: 12547    |                       |   | Gap             |
|  |  | Existing             | Required as per Norms | Smart Vilage / Cities / Heritage Future |                 |
| <b>Social Infrastructure Facilities</b>          |  |                      |                       |   |                 |
| <b>Education</b>                                 |  |                      |                       |   |                 |
| Anganwadi  | Each or Per 2500 population  | 9                    | 5                     |   | 4               |
| Primary School                                   | Each Per 2500 population   | 2                    | 5                     | under construction                      | -3              |
| Secondary School                                 | Per 7,500 population   | 0                    | 1                     |   | -1              |
| Higher Secondary School                          | Per 15,000 Population  | 0                    | 0                     |   | 0               |
| College  | Per 125,000 Population   | 0                    | 0                     |   | 0               |
| Tech. Training Institute                         | Per 100000 Population  | 0                    | 0                     |   | 0               |
| Agriculture Research Centre                      | Per 100000 Population  | 0                    | 0                     |   | 0               |
| Skill Development Center                         | Per 100000 Population  | 0                    | 0                     |   | 0               |
| <b>Health Facility</b>                           |  |                      |                       |   |                 |
| Govt/Panchyat Dispensary or Sub PHC              | Each Village   | 1                    | 1                     |   | 0               |
| Primary Health & Child Health Center             | Per 20,000 population  | 0                    | 0                     | under construction                      | 0               |
| Child Welfare and Maternity Home                 | Per 10,000 population  | 1                    | 1                     |   | 0               |
| Multispeciality Hospital                         | Per 100000 Population  | 0                    | 0                     |   | 0               |
| <b>Public Latrines</b>                           | 1 for 50 families (if toilet is not there in home, specially for slum pockets & kutcha | not required         |                       |   | 0               |
| <b>Physical Infrastructure Facilities</b>        |  |                      |                       |   |                 |
| Transportation                                   |  | <b>Adequate</b><br>/ |                       |   | <b>Adequate</b> |
| Pucca Village Approach Road                      | Each village   | National             |                       |   | 0               |
| Bus/Auto Stand provision                         | All Villages connected by PT (ST Bus or Auto)  | ST bus/AMTS/         |                       |   | 0               |
| Drinking Water (Minimum 70 lpcd)                 |  | <b>Adequate</b><br>/ |                       |   | <b>Adequate</b> |
| Over Head Tank                                   | 1/3 of Total Demand  | 215000               | 292764 liter          |   | -75000          |
| U/G Sump   | 2/3 of Total Demand  | 800000               | 585527 liter          |   | 214473          |
| Drainage Network - Open                          |  | <b>Adequate</b><br>/ |                       |   |                 |
| Drainage Network - Cover                         |  |                      |                       |   | <b>Adequate</b> |
| Waste Management System                          |  | <b>Adequate</b><br>/ |                       |   | <b>Adequate</b> |
| <b>Socio- Cultural Infrastructure Facilities</b> |  |                      |                       |   |                 |
| <b>Community Hall</b>                            | Per 10000 Population   | 1                    | 0                     | wishwakarma phase v                     | -1              |
| <b>community hall and Public Library</b>         | Per 15000 Population   | 0                    | 0                     |   | 0               |
| <b>Cremation Ground</b>                          | Per 20,000 population  | 0                    | 0                     |   | 0               |
| <b>Post Office</b>                               | Per 10,000 population  | 1                    | 1                     |   | 0               |
| <b>Gram Panchayat Building</b>                   | Each individual/group  | 1                    | 1                     |   | 0               |
| <b>APMC</b>                                      | Per 100000 Population  | 0                    | 0                     |   | 0               |
| <b>Fire Station</b>                              | Per 100000 Population  | 0                    | 0                     |   | 0               |
| <b>Public Garden</b>                             | Per village  | 1                    | 1                     |   | 0               |
| <b>Police post</b>                               | Per 40,000Population   | 1                    | 1                     | Police chowki                           | 0               |
| <b>Shopping Mall</b>                             |  |                      |                       |   |                 |



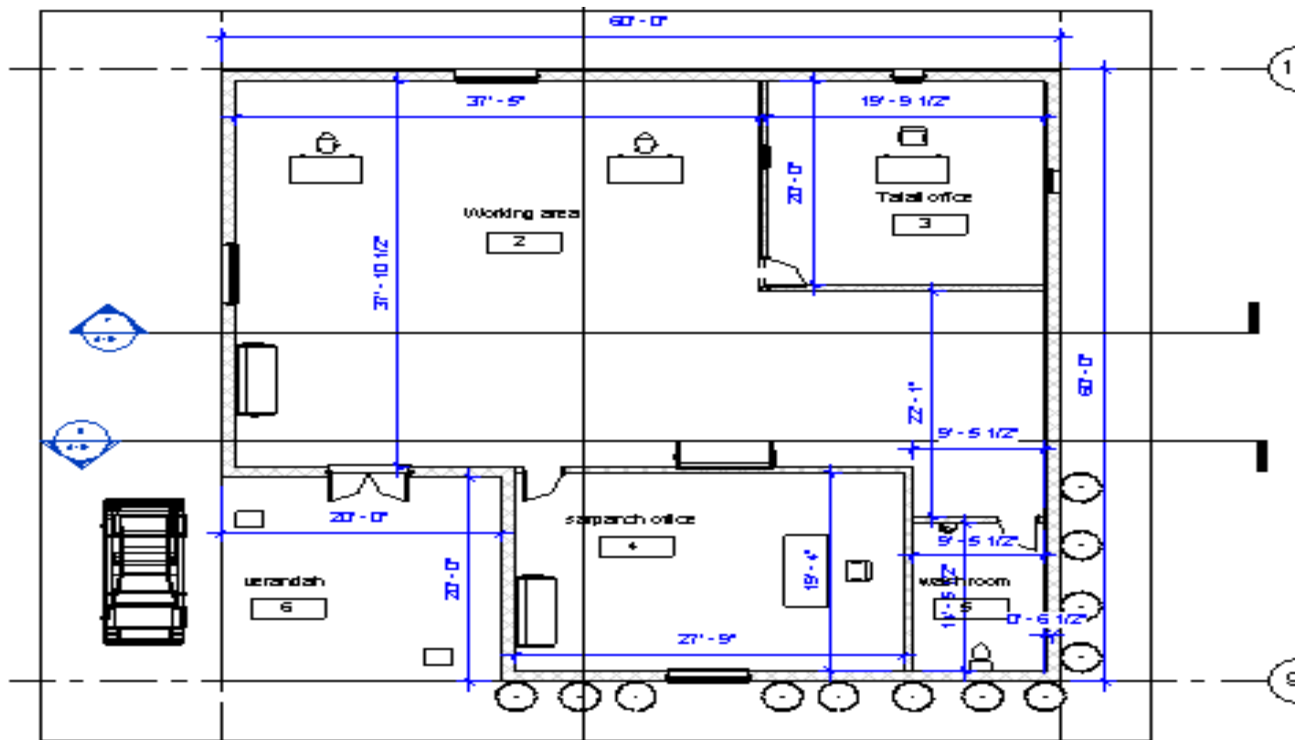


Fig 7 Plan Panchayat Building

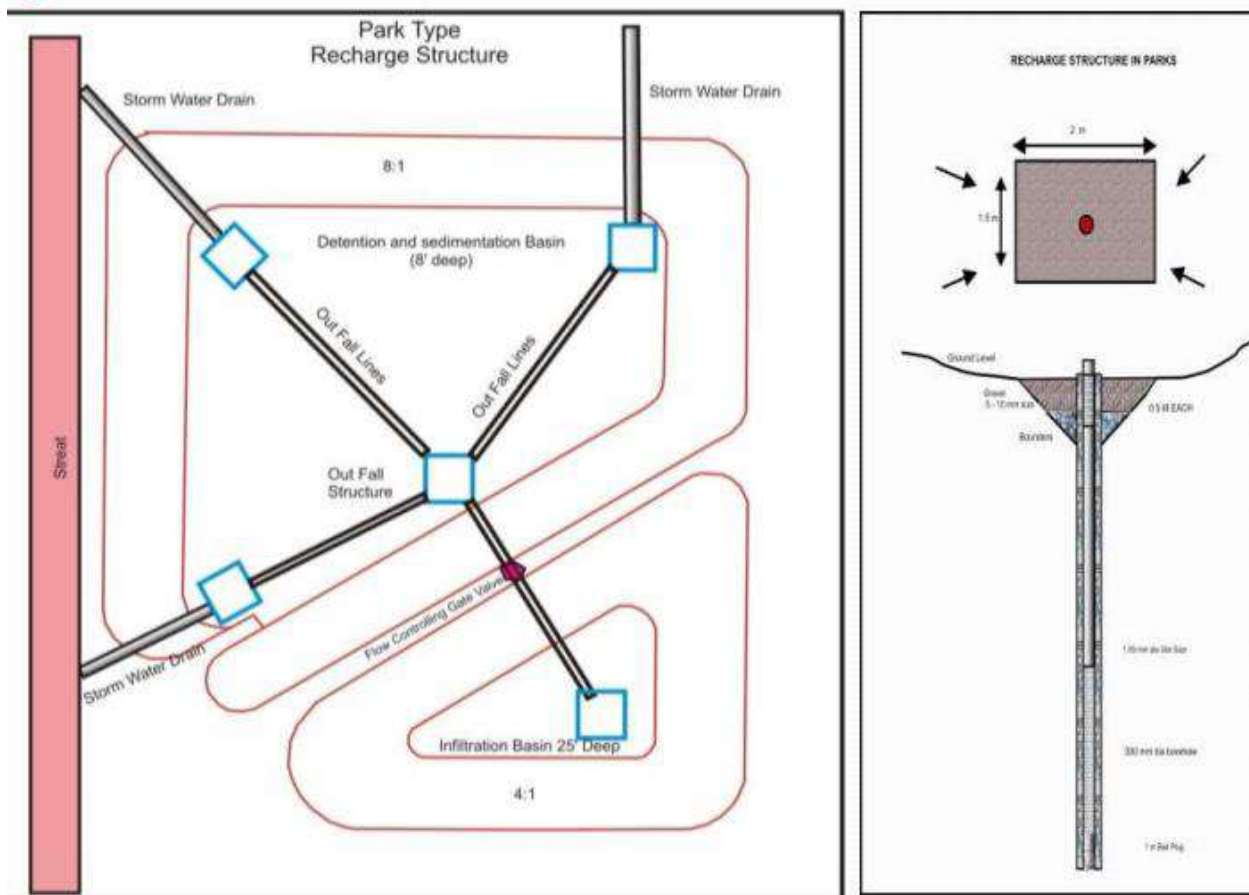


Fig 8 Park Type Ground water recharge system

VIII CONCLUSION

- Creation of infrastructure - connectivity, civic and social infrastructure along with Provision of alternative livelihood generation are the key pillars. Also the construction, maintenance and repair work of physical and social infrastructure should be done for the village growth and development
- Rural Development which is concerned with economic growth and social justice, improvement in the living standard of the rural people by providing adequate and quality social services and minimum basic needs becomes essential.. The developmental work in villages that could undertake

as per the need of the village in particular includes Physical infrastructure facilities, Social infrastructure facilities and renewable energy for Sustainable development

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