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Updation of Urban elements in Rural Areas – Case study on Chansad Village (Gujarat)

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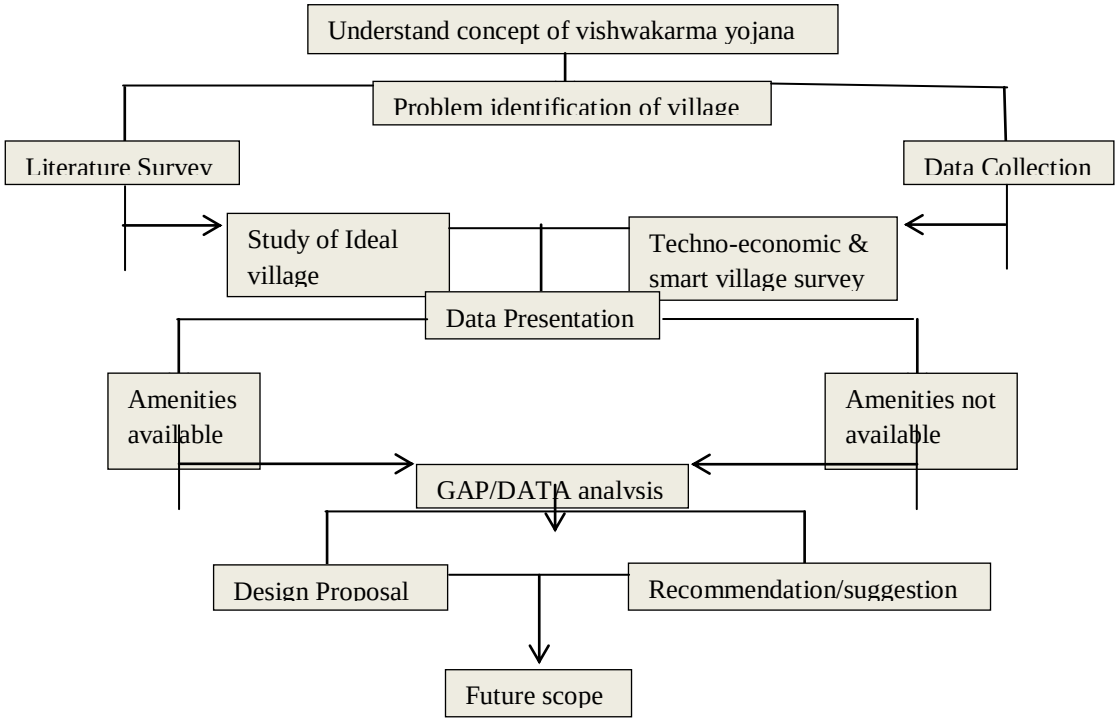
ABSTRACT- *The government of Gujarat has launched the project entitled with "vishwakaemayojna- an approach towards Rurbanisation" , which has been undertaken by Gujarat technological university. The term Rurbanisation means to provide urban elements to the rural areas. Under the project, Chansad Village was allotted for the updation of urban elements. Data were collected based on UDPFI guidelines and according to the GAP analysis for village, suitable designs such as Yoga Training Centre and Vegetable Market may be suggested for the application.*

Key words: *Rurbanisation, urban elements in rural areas, GAP analysis, updation.*

I. INTRODUCTION

India is country dominated by villages. so for the developing India, villages need to be developed first.There are many villages in India, where Development is slow. Thus, There is need for designing and building Smart Villages which are independent in providing the services and employment.This issues can be solved by 'Rurbanisation' between Rural and Urban area, which means the facilities/amenities of the urban, is a combined process of preserving the "soul of villages" by providing all the civic and infrastructure facilities available in big towns and cities to arrest migration.Under this,"VishwakarmaYojana – an approach towards Rurbanisation" is allotted to Gujarat Technological University by Government of Gujarat, in which students are to be trained for technical association for rural development, which is consulted with issues related to rural area at basic level.

II. METHODOLOGY



III. STUDY AREA

Village	Chansad
Block	Padra
District	Vadodara
State	Gujarat
Country	India
Continent	Asia
Time Zone	IST (UTC + 05:30)
Currency	Indian Rupee (INR)
Dialing Code	+91
Date format	dd/mm/yyyy
Driving side	Left
Internet cTLD	In
Language	Gujarati
Time difference	37 minutes
Latitude	22.2082106
Longitude	73.1305348999999

Fig :Satelite view of Chansad village

About Village:

Chansad is a village panchayat located in the Vadodara district of Gujarat state,India. The latitude 22.2082106 and longitude 73.1305348999999 are the geocoordinate of the Chansad. Gandhinagar is the state capital for Chansad village. It is located around 131.8 kilometer away from Chansad..Chansad is located around 23.4 kilometer away from its district head quarter Vadodara. Tarsali, Karjan, Padra, Vadodara are surrounding cities or towns from the chansad village.

Physical & Demographical Growth:

According to Census 2011 information the location code or village code of Chansad village is 521082. Chansad village is located in Padra Tehsil of Vadodara district in Gujarat, India. It is situated 7km away from sub-district headquarter Padra and 24km away from district headquarter Vadodara. As per 2009 stats, Chansad village is also a gram panchayat.
Chansad village of Vadodara has substantial population of Schedule Tribe (ST). Schedule Tribe (ST) constitutes 27.71 % while Schedule Caste (SC) were 12.22 % of total population in Chansad village.

Sr. No.	Census	Population	Male	Female	Total House Holds
i)	2001	2532	1310	1222	
ii)	2011	2775	1438	1337	634

IV. DATA COLLECTION

The data regarding village was collected in two parts of survey; 1.Primary survey and 2.Secondary survey

Primary survey:

Primary survey 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 village area. In this part, data is collected by door to door survey, by interviewing village dwellers, by interacting with school principal, shopkeepers, etc. After that Condition of different buildings like school, panchayat building, bank, housing conditions,anganwadi, temples, PHC, water supply system, drainage system, etc. was surveyed with including photographs.

Secondary survey:

Secondary survey included with the data regarding village details, such as- Population detail, Geographical detail, Demographical detail, Occupational detail, smart village survey detail and other details regarding village base map with hard copy or soft copy, any NGO working for village development, Recent project going on for development of village, Agricultural detail, etc. these all information is collected with help of talati minister and foreman of the village.

Fig; Panchayat office

Fig: Entrance of village

Fig: School building

Fig: Primary health centre

Fig:Water tank

Fig :housing condition

V. GAP ANALYSIS

Facilities	Planning Commission/UDPFI Norms	Village Name:	CHANSAD,VADODARA	
		Population:		3000
		Existing	Required as per Norms	Gap
Social Infrastructure Facilities				
Education				
Anganwadi	Each or Per 2500 population	3	3	**0**
Primary School	Each Per 2500 population	1	1	**0**
Secondary School	Per 7,500 population	1	1	**0**
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**
Health Facility				
Govt/Panchyat Dispensary or Sub PHC or Health Centre	Each Village	1	1	**0**
PHC & CHC	Per 20,000 population	0	0	**0**
Child Welfare and Maternity Home	Per 10,000 population	0	0	**0**
Hospital	Per 100000 Population	0	0	**0**
Public Latrines	1 for 50 families (if toilet is not there in home, specially for slum pockets &kutcha house)	0	12	**-12**
Physical Infrastructure Facilities				
Transportation		**Adequate**	**Inadequate**	
Pucca Village Approach Road	Each village	YES	NO	
Bus/Auto Stand provision	All Villages connected by PT (ST Bus or Auto)	1	1	**0**
Drinking Water (Minimum 70 lpcd)		**Adequate**	**Inadequate**	
Over Head Tank	1/3 of Total Demand	YES	NO	
U/G Sump	2/3 of Total Demand	YES	NO	
Drainage Network		**Adequate**	**Inadequate**	
open		NO	YES	
cover		YES	NO	
Waste Management System		**Adequate (YES)**	**Inadequate (NO)**	facilated with management

Electricity Network		Adequate (YES)	Inadequate (NO)	
Socio- Cultural Infrastructure Facilities				
Community Hall	Per 10000 Population	0	1	-1
community hall cum Public Library	Per 15000 Population	0	1	0
Cremation Ground	Per 20,000 population	0	1	-1
Post Office	Per 10,000 population	1	1	0
Gram Panchayat Building	Each individual/group panchayat	1	1	0
APMC	Per 100000 Population	0	0	0
Fire Station	Per 100000 Population	0	0	0
Public Garden	Per village	0	1	-1
Police post	Per 40,000Population	0	1	-1
		ESR cap	40000	
		Sump cap	80000	
		Lat	15	

VI. RECOMMENDATIONS

- Basic Amenities, such as- Water supply network, Drainage network, Road network, etc. should be provided in village.
- Physical structures like, Educational building, Sanitation facilities, Housing condition, Electricity network, panchayat office, etc. should be there.
- There should be proper design for waste management, whether it can be solid waste management or it can be liquid waste management.
- Recreational activities are to be there, so that people of village could get knowledge about that activities.
- Village should have in hygiene conditions, because these conditions prevent disease and it is most important to have 'clean village.'
- Proper sanitation facilities should be involved in village area, so that people can remain healthy, especially through cleanliness.

According to UDPFI norms

- **Secondary school:**According to URDPFI norms per 7500 population, one secondary school is required and in chansad village 2775 population (from census 2011)is there, so we recommended to provide one secondary school.

- **PHC or Health Centre:** According to URDPFI norms, per village one PHC or Health centre is required, so the provision of one PHC should be there.

- **U/G Sump:** According to URDPFI norms, in chansadvillagethere are two U/G sump of 12000L and 10000L capacity tanks.

- **Public Toilet Block:** We recommended to provide public toilet in village. According to URDPFI norms thereshould be one public toilet per 50 families.

- **Community Hall:** According to URDPFI norms, one Community hall is required per village, so the provision of one PHC should be there.

We have prepared gap analysis based on planning commission and URDPFI norms. Requirement of amenities which depended on physical, social, socio-cultural, sustainable and repair & maintenance of existing building are to be followed by GAP analysis and it has to be develop as soon as possible

VII. SUGGESTION

- Rain water harvesting system for government buildings.
- Requirement of beds for health center.
- Wi-fi network service is required for village dwellers.
- Proper road network to go on the fields.
- Door to door dustbins are required for the purpose of garbage collection.
- Police station is to be there so problem of people can be solved.
- Root zone treatment system is to be provided for Grey/black water management.
- Traningcenter should be there, so that village dwellers can improve their skills.
- Proper techniques for agricultural purpose are to be used.
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VIII RECOMMENDED DESIGNS

Socio-cultural infrastructure facility: Vegetable market (total cost of project=)

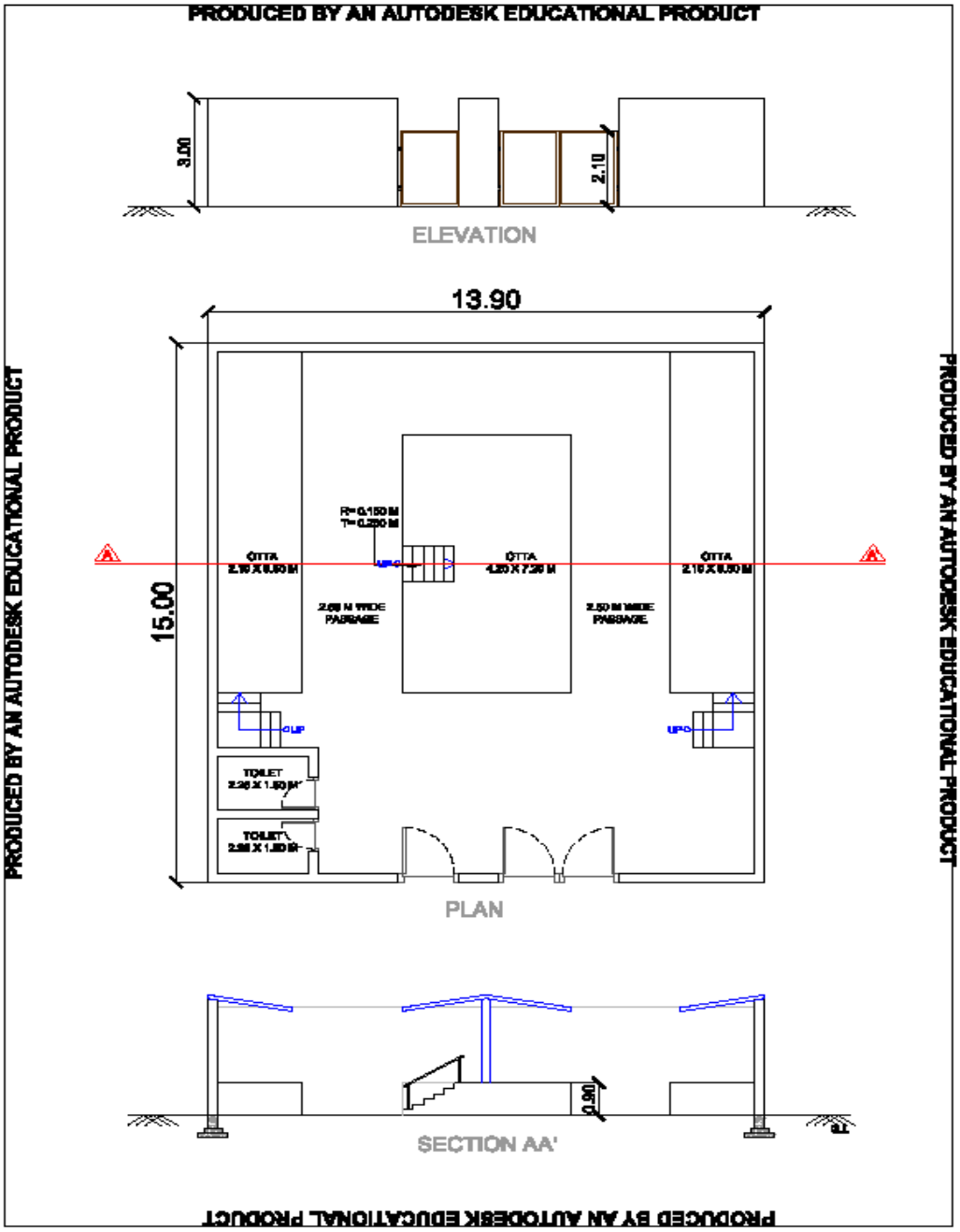

Fig: plan, elevation and section of vegetable market

Socio-cultural infrastructure facility: Yoga Training Center (total cost of project=)

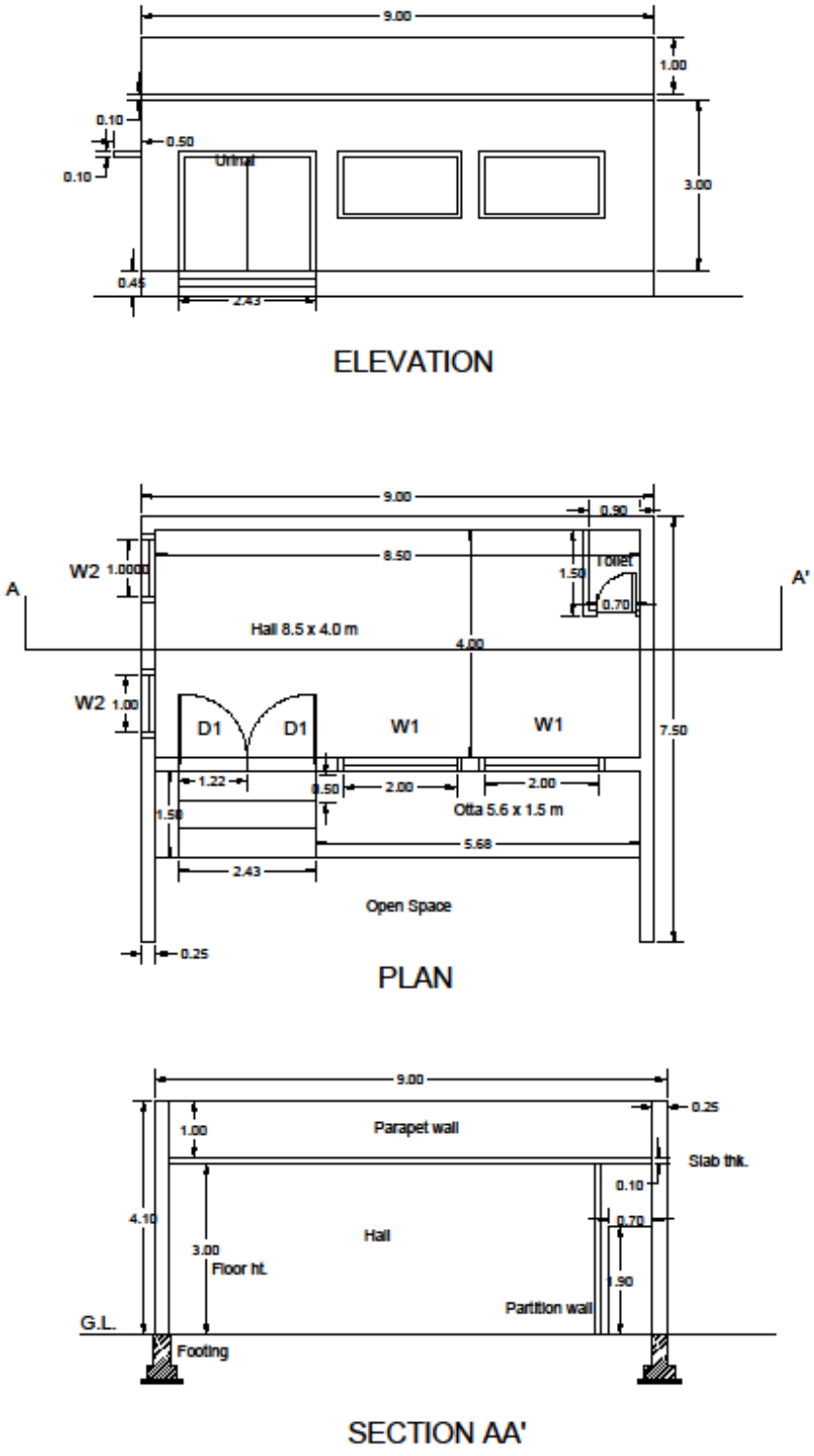

Fig: plan, elevation and section of Yoga Training Center

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