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Rural Cluster Development with Special Emphasis on Education

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Abstract: Rural people and the students of the rural areas go to the city to take advantage of the educational facilities. In India, there is a high degree of migration from rural areas to urban area for education and skill development education. In addition to the development of the cities, it is necessary to develop the villages, still there are very little educational facilities in rural areas and their development is very slow. It is necessary to provide better education facilities in the rural areas at anganwadi, primary school and high school. In this paper, the existing educational facilities for the study area are found out. As per the data collection and standard guidelines the proposals for better education infrastructure are given. This is a small effort to provide better education to the children in the rural areas so that the quality of education in the rural areas will be increased and the development of educational facilities in cluster takes place. In this paper gives the proper development proposal for education infrastructure and skill development centre for the study area.
Keywords: Education, skill development centre, social infrastructure, cluster, development

I. INTRODUCTION

The Indian educational system is the second largest in the world after China. Education is the most important lever for social, economic and political transformation. A well-educated population, equipped with the relevant knowledge, attitudes and skills is essential for economic and social development. Education is the most important thing for socio-economic mobility and a key instrument for building the society. Education provides skills and competencies for economic well-being. Education strengthens democracy by imparting to citizens and it is needed to fully participate in the governance process. Education also acts as an integrative force in society, imparting values that foster social cohesion and national identity. Economists and other researchers have shown that education increases workers' productivity, and thus increases their incomes. Education also has many other benefits, such as improved health status and lower crime.

At present, one of the major challenges in India is growing population and rapid migration to urban area from rural area. People are migrating fast towards the cities. With modernization and urbanization people migrate from one place to another place for different facilities, education is one of them and it is very important and essential for everyone. So, develop the rural education is important and by developing the rural education the people migrate from rural area to urban area for better education facilities will be decrease. In many research it is found that the good infrastructural facilities play an important role to provide better education to the children. Better facilities are provided then children are interested to get the education. In this research educational infrastructural proposals and skill development center are given for the study area to provide better educational infrastructure. The following are the points for which education infrastructure in rural cluster is needed:
1) To minimize migration towards urban area due to lack of qualitative educational facilities.
2) To provide good and sufficient infrastructure of education in rural cluster

A. Objectives
The objectives of the study are as follows:
1) To analyze available educational infrastructure and need in the cluster.
2) To assess the role of existing policies and programmers in the development and operation of different clusters.
3) To prepare planning proposals for education infrastructure within cluster of four village.
4) To prepare planning proposals for skill development center within cluster of four village.

B. Methodology
Methodology is divided into nine stages problem definition, objective of study, identification of study area, Literature review, data collection, and data analysis, proposal and conclusion as explained in flowchart with details in Figure 2. The first step in the study is to identify the problem definition, objectives of the study and identification of study area. After identifying the problem definition and detail literature study, for study area cluster of four villages Anjeneri, Talwade, Pegalwadi Trimbak and Pegalwadi Nashik,

Trimbakeshwar, Nashik is selected. After selection of study area, various data are collected from grampanchayat offices which include demography details and basic data of villages. Study of cluster is carried out by preliminary survey to get the idea of infrastructural facilities. A proposal of rural cluster development with special emphasis on education is prepared based on the data analysis and literature review. The flowchart of the methodology adopted for this study is shown in below figure:
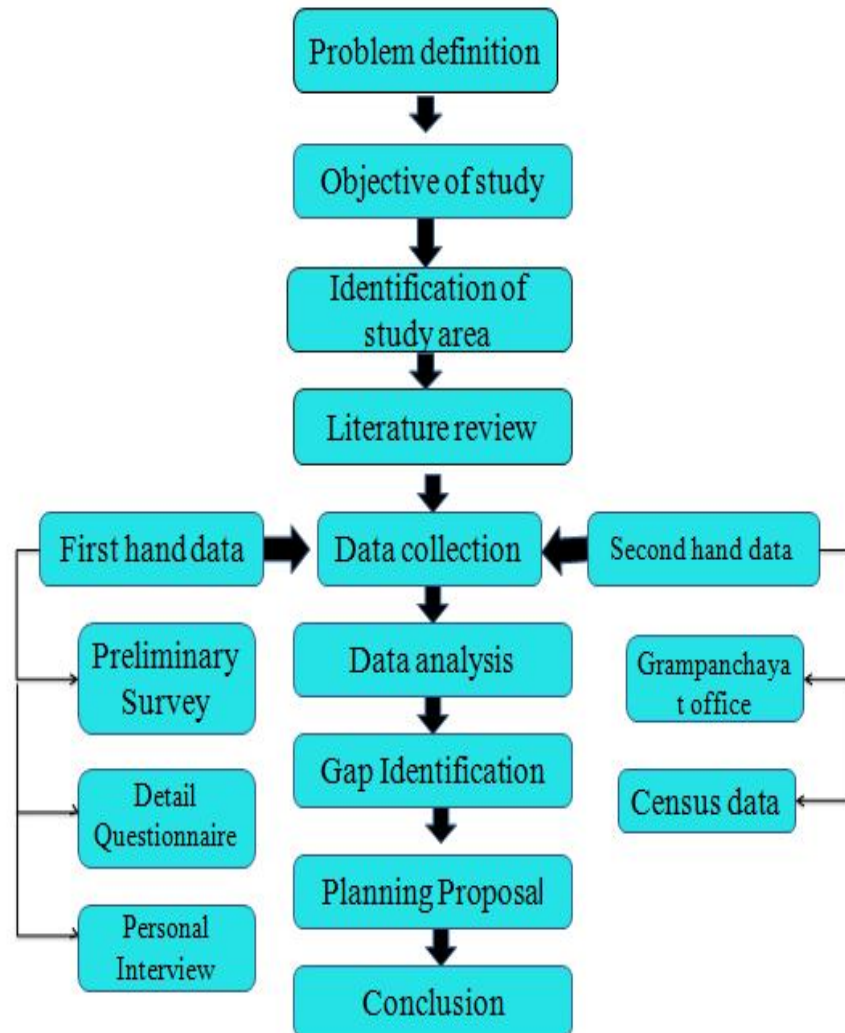

Fig. 1 - Methodology

II. STUDY AREA PROFILE

Rural cluster of four villages named Talwade, Anjeneri, Pegalwadi Trimbak And Pegalwadi Nashik are located in Trimbakeshwar tehsil of Nasik district in Maharashtra, India. It belongs to Khandesh and Northern Maharashtra region. Area of this rural cluster is around 3480 ha and total population is 9,411 according to census 2011. The cluster is 153 km from state capital Mumbai. The average annual temperature is 23.5 °C. The rainfall here averages 2174 mm. Most precipitation falls in July, with an average of 854 mm.

Majority of land use is for agriculture purpose in village cluster. Majority population is depending on agriculture. Nasik city is near to the cluster, some people work in MIDC Ambad and MIDC Satpur.

It is about 16 to 22 km from Nasik city. All villages are well connected with Major District Roads. All the villages having good bus connectivity by state transport Corporation as well as auto rickshaws are also easily available.
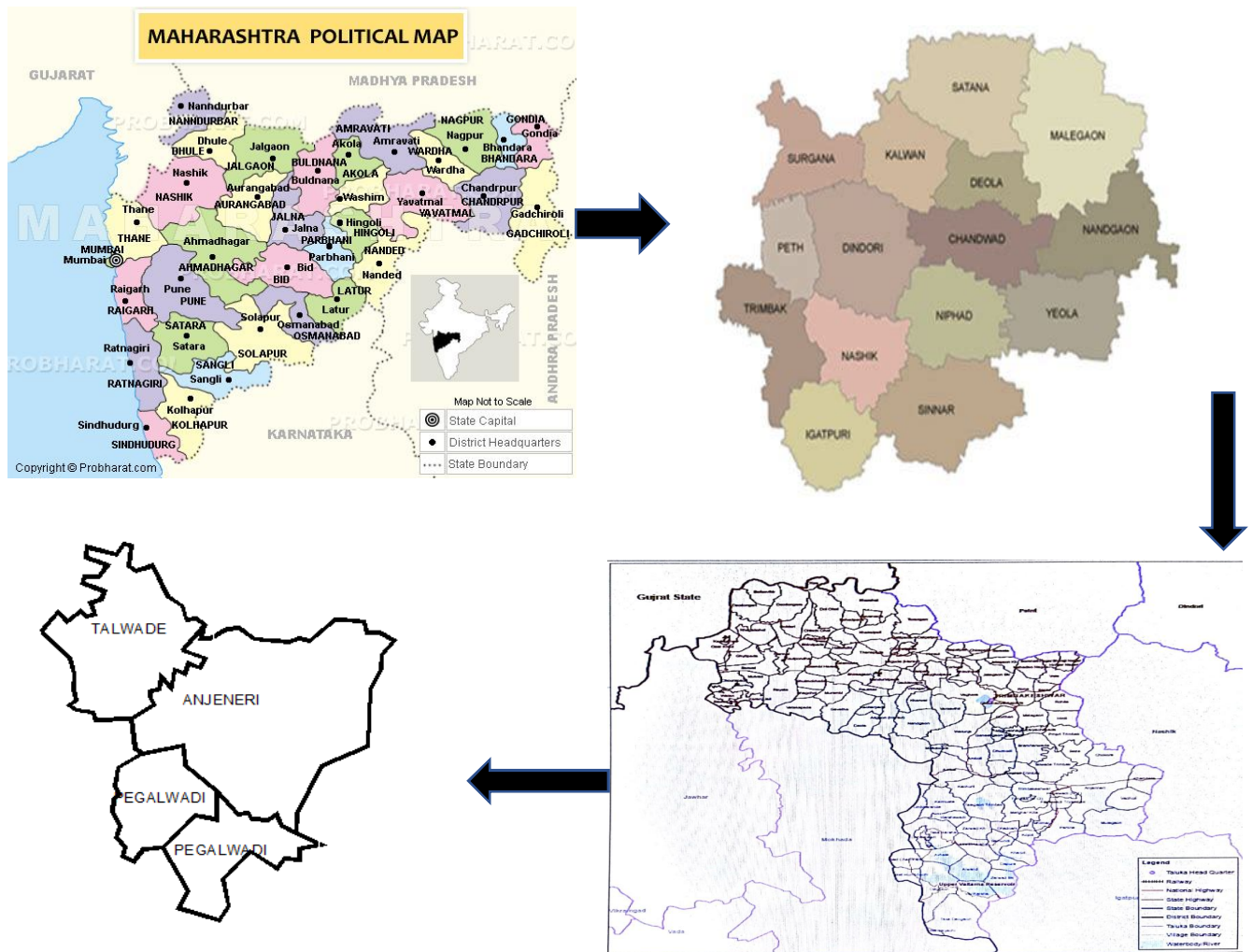
Fig. 2 - Study area key map

A. Cluster Summary

Average literacy rate of the all four villages is 74.67 %. Average literacy rate of male is 84.08 and female is 64.33. Literacy rate of cluster is very less as compare to Maharashtra literacy rate i.e. 83 %. To increase the literacy rate of cluster, better educational infrastructure and create awareness about education among the people for the cluster is needed and this proposal is proposed in this research. The summary of literacy rate of cluster is shown in below figure:
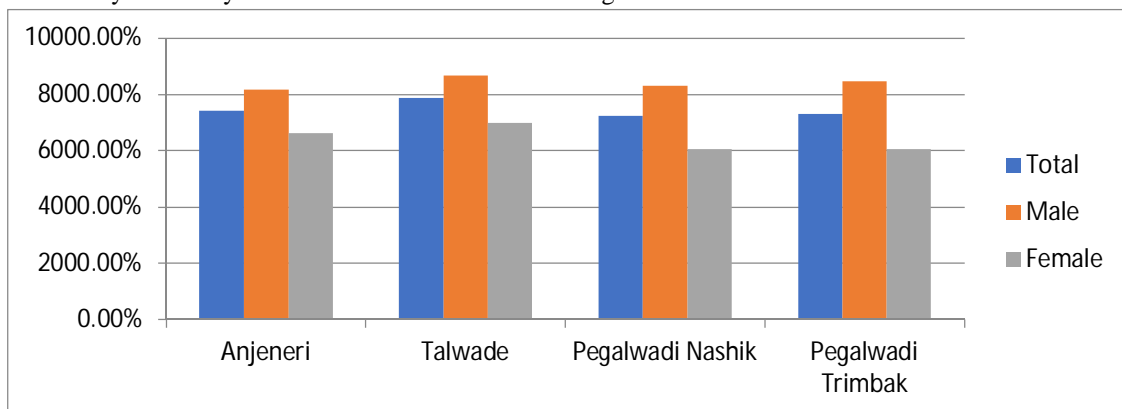

Fig. 3 Literacy details of cluster

III. DATA COLLECTION AND ANALYSIS

Data collection is the systematic approach to gathering and measuring information from a variety of sources to get a complete and accurate picture of an area of interest. Survey and visit gives the real picture of the existing scenario of the cluster. The questionnaires are done for anganwadi and primary school survey. This questionnaire focuses on the available infrastructure facilities about anganwadi, primary school and high school. Survey conducted on all 17 anganwadies, 6 primary schools of four villages. Issues and requirements of educational infrastructure are identified by informal interaction with anganwadi workers, school teachers and village representatives. Questions about school building condition, toilet facilities, drinking water facilities, electricity, number of teachers and mid-day meal were asked.

The questionnaire is done for household's survey to getting the data about education infrastructure and skill center. Questions about occupation, monthly income, number of working days in year, interest about skill training were asked. Door to door household survey was also carried out and results are tabulated.

A. Pre Primary Educational facilities

Total 16 Anganwadi are there in cluster. Majority of anganwadi having good building condition and some of them are required to renovation. However some anganwadies does not have basic facilities as per existing scenario analysis of each and every anganwadi. Nearly all the areas of cluster are well covered by these 16 Anganwadi. As per the population criteria 16 anganwadi are sufficient for cluster population.

B. Primary Educational Facilities

Total 6 Primary schools are there in cluster. All schools having good building condition and some of them are required to renovation. However some schools do not have basic facilities as per existing scenario analysis of each and every school. Nearly all the areas of cluster are well covered by these 6 primary schools. As per the SSA guidelines 6 primary schools are sufficient for cluster.

C. Household Survey

For identify the problems facing about skill knowledge by people of the cluster the door to door survey was carried out. Sample size is about 105.

D. Gap Analysis

1) *Anganwadi Centre:* As per the ICDS norms and URDPFI guidelines there is a no gap in any village of the cluster. But in Talwade one anganwadi does not have their own building so there is need to provide a new building for anganwadi.

2) *Primary School:* According to Sarva Shiksha Abhiyan Guidelines minimum one Primary school should be within one Kilometre radius of every habitation. All the habitant lives in villages is within the 1 km radius. No need to provide extra primary school in any village

3) *High School:* As per the data collection there is no any government secondary or higher secondary school in any of four villages. During talk with teachers of all primary schools, village representatives and parents, they informed that majority of students come in school are from the poor family, most of the children of farmers. As they come from poor background they are not able to afford the travelling charges to go to the nearby school for higher studies, so they left further studies after completion of primary education and start working. So to improve the facility of secondary education in villager's one new High school is proposed between this four village clusters. This will enhance the educational infrastructure facility in all four villages as well as in other nearby villages too.

IV. PLANNING PRAPOSAL

A. Anganwadi Centre

1) *New Anganwadi:* In Talwade Anganwadi-3 does not have their own building. There are 35 children registered in this Aanganwadi and two female staff members. So need to provide new proposal plan for Aanganwadi. Area:-6m * 13.8m, Paver blocks pathway is given in front and children play area is given at right side. Separate kitchen and store room are given. Attached toilet facility is also provided.

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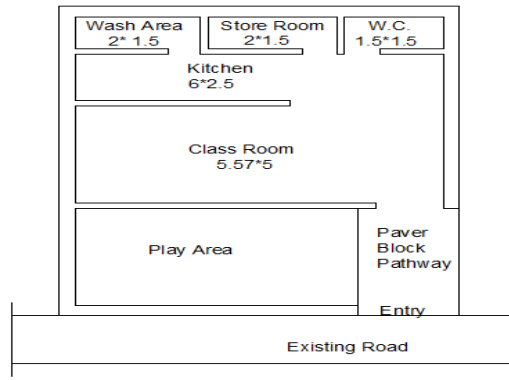*Volume 7 Issue V, May 2019- Available at www.ijraset.com*

Fig. 4 Plan of proposed AWC

As per the ICDS Guidelines minimum Built up area for Anganwadi should be 600 sq. ft which is 55.74 Sq.m. Here the built up area of new anganwadi is 57 Sq. m which is satisfying the ICDS norms. Play area is proposed within boundary wall having sandpit which creates safe surface for children to play. Playing equipments like slides, spring rider and 6 seater wheel is proposed in play area.

2) *Kitchen:* In Talwade Anganwadi-4, in Anjeneri anganwadi-4 and anganwadi-6, in Pegalwadi Trimbak anganwadi-2 does not have separate kitchen and store room. The anganwadi workers cook the food in classroom where the children are seating. This situation disturbed the students learning process. So need to provide new separate kitchen and store room for these anganwadies.

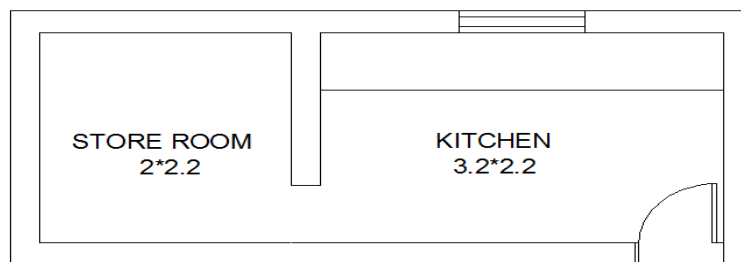Area of kitchen:-3.2m * 2.2m and area of store room:- 2 * 2.2

Fig. 5 plan of proposed Kitchen and Store room

3) *Boundary Wall:* As per the data collection wire fencing is there in some anganwadies and other does not have any protection. So boundary wall is needed in many Anganwadi which will increase safety factor of children and will create a safe play area for them.
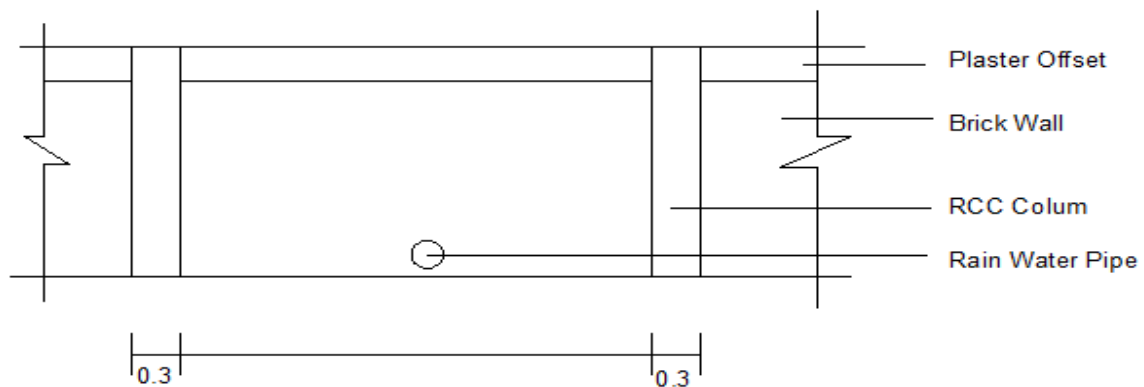

Fig. 6 Road side elevation of proposed wall

Below the ground level R.C.C. beam is constructed, above that brick work is done for 1.5 m. up to top of the wall. Above the plinth level and centre of a span, PVC Rain water pipe is provided. Elevation of the boundary wall as shown in above figure. R.C.C. column is provided at every 3 m. span for strengthening of the wall. This column is supported by the Auger.

B. Primary School

1) *Mini Football Ground:* During the survey of schools it is observed that primary schools having the play are but there is no any designated playing area. So football ground is proposed to be developed in the school having play area. One mini football ground having area of 378 sq.mt is provided. Dimensions of the football ground are 13.75×27.50m.

2) *Volleyball Court:* During the survey of schools it is observed that primary schools having the play area but there is no any designated playing area. Due to lack of infrastructure facility students are not encouraged towards outdoor games. So volleyball court is proposed in the school having play area. New Volleyball court having area of 91.125 sq.mt is proposed which is as per the norms for volleyball court. Dimensions of the court are 6.75×13.50 m.

3) *Drinking Water Facility:* As per the data collection, in all primary schools does not have drinking water facilities they store water in big pot and then it is used to drink. Water is important for health. To provide good quality of water one water purifier is provide to every Primary school. Total 6 water purifiers are needed.

Table 1 Product Details

| Usha (SS 4080) 40 LTR Cold and Normal Water Cooler	
Cost	30000/-
Product Dimensions	59 x 49 x 120 cm
Capacity	40ltr/hr.
Storage capacity	80ltrs.
Net weight	42kgs.

Fig. 7 water purifier

C. New High School

In education system secondary and Higher Secondary are two very important stages for any student. This stages decides the direction in which student is interested in making his/her career in future. As per the data collection there is no any government secondary or higher secondary school in any of four villages.

So to improve the facility of secondary education in villager's one new High school is proposed between this four village clusters. This will enhance the educational infrastructure facility in all four villages as well as in other nearby villages too.

New high school is proposed to be located in Anjeneri village. As this location is nearly at middle of the village cluster.

Ground floor plan   First floor plan

Fig. 8 Proposed lay out of High school
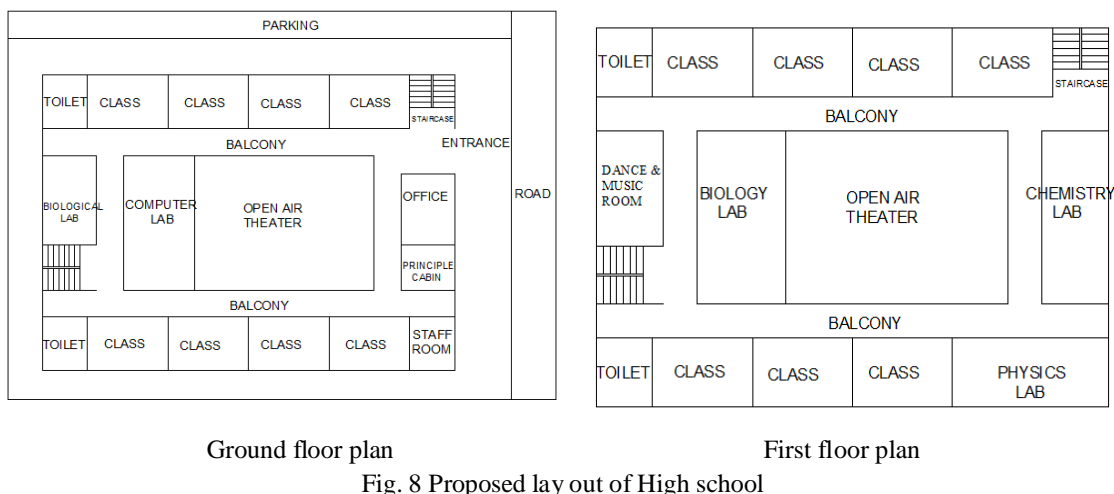
As shown in above figure 8 proposed school is equipped with the required facilities according to the IS: 8827-1978 "Recommendations for Basic requirement of School Buildings". All the basic facilities like Classroom, Library, Computer Lab, Physics Lab, Chemistry Lab, Biology Lab, and Toilet are provided.

This high school is designed for standard 9 to 12 all branches Arts, Commerce and Science. For 9 and 10th classes provide 3 classroom each, and 11th and 10th each branch provide two classrooms. So the total numbers of classes required are 12 classes. Here 15 Classes are proposed, extra classes can be used in future when student will increase. According to the IS: 8827-1978 for Higher secondary school number of student places per class room is 40, so the strength of this school to place 600 students as per proposed plan.

D. Skill Centre

In order to improve the living standards of the villagers the skill development center has been proposed. Since, majority of the children come in school are from the poor family, most of the children of farmers. As they come from poor background they are not able to afford the travelling charges to go to the nearby school for higher studies, so they left further studies after completion of primary education and start working. Many of them are doing work at satpur MIDC and ambad MIDC but they not have any skill knowledge so the wages given to them is very less. Give them skill knowledge so they can work as a skill laobur and increase their revenue income. By encouraging and giving skill training to the household women they can improve their skill and start working. They also increase their revenue income.

The placement is also provided by this skill center so the students can get the job easily. To counsel the trained candidates and provide them with employment opportunities in the concerned industries of the skill acquired. Encourage self-employment amongst youth to earn their livelihood.This training center is not for the young students only but also housewife and middle age people who left school at their early age. For getting training of the courses under this training center educational qualification is not required.
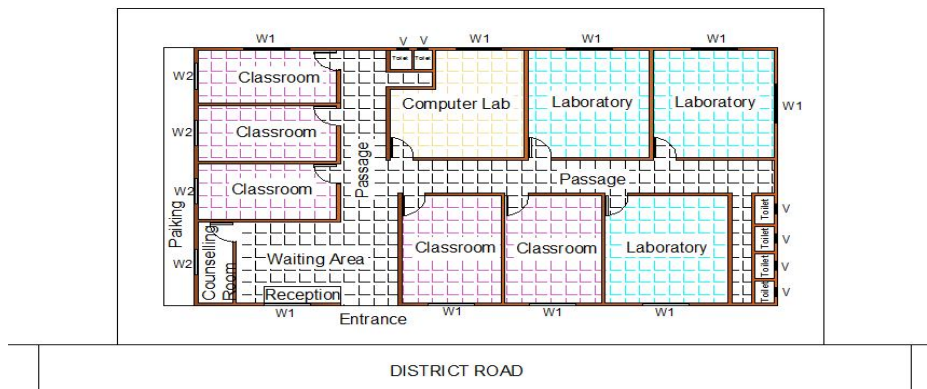

Fig. 9 Proposed Skill Development Center

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Other important provisions
1) In computer lab 40 computers are proposed.
2) Power Connection - 3 Phase Connection
3) Power Backup - Adequate Power back-up available.
4) Switch Boards and Panel Boards - Fully covered, secured and taped.
5) Seating – Waiting Area - Seating capacity is 10 people
6) Classroom projector with adequate AV facilities
7) Smart Classroom – 2 classrooms having technology-enabled audio-visual and web-enabled access capability
8) CCTV with Recording Facility - In every classroom/lab
9) Internet Connection - Minimum speed of 256 kbps
10) Classroom Chairs - All Chairs to have attached writing desk

V. CONCLUSION

Inadequate education infrastructure service in village cluster is one of the key issues responsible for migration. In this study different government schemes, policies and guidelines for education infrastructure and skill development were studied to understand the social infrastructure requirements in the village cluster.

To identify the issues of present infrastructure facilities in the village cluster, a questionnaire survey was carried out at each AWC, Primary schools and household survey.

In gap analysis, according to the guidelines for AWC, there is sufficient number of AWC. In Talwade Anganwadi-3 does not have their own building.

There are 35 children registered in this Aanganwadi and two female staff members. So need to provide new proposal plan for Aanganwadi.

Finally infrastructure facilities relating education have been proposed and other measures have been suggested for improvement and efficient functioning.

Skill development center proposed in cluster of four villages with 5 classrooms, 3 laboratories, and 1 computer lab. Classrooms are digital classrooms with projector and audio-video facilities. CCTV cameras, electricity connection and high speed internet connection are proposed.

This training center is more useful to the farmers and housewife, farmers' work only 6 month in a year so they can work in remaining 6 month by getting this training. Early pass out students get training under this training center and work as a skill labour in industries.

Placement facility is also provided by this skill development center. The people getting the training under this skill center and start working they increase their income so the living standard is also improve.

Adequate social infrastructure facilities of education and skill development will help in increase the quality of education of the villagers in the cluster. Hence it controls the migration of people from villages to urban area for the reason of better education facilities.

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