

**A Review on development of slum area by container house in surat city**Parmar Mohammad S¹, Amit Mulani², Sumit Phugat³¹ Civil Engineering Department, Parul institute of technology, vadodra² Civil Engineering Department, Pacific school of Engineering, surat³ Civil Engineering Department, Parul institute of technology, vadodra

Abstract:- Slum is an area with heavy population living in substandard housing which lacks basic and civics amenities. Urbanization, growing population and migration pressurizes cities leading to overflowing infrastructure, increase in urban poverty and haphazard development of cities. Thus rehabilitation of slum is necessary to provide fair and affordable houses to slum dwellers.

The paper is based on development of slum area by container house. There are many scheme for development and rehabilitation of slum area. The paper is to provide container house with all basic facility in slum area. This is new concept regarding the slum development in terms of economy. Also the old shipping container is too used for development of slum area. The house is also mobile house it can be move one place to another place.

Keywords:- development of slum area, container house, low cost house, up gradation of slum, planning of colony

I. INTRODUCTION

The slum is an area of city or town which is very crowded, dirty, and the basic facilities of the human is not satisfied. As per the Census the slum is defined as residential areas where dwellings are unfit for human habitation by reasons of overcrowding, faulty arrangements and design of such buildings, narrowness or faulty arrangement of street, lack of ventilation, light, or sanitation facilities or any combination of these factors which are detrimental to the safety and health. The 200 to 250 houses without any basic facilities are called one slum.

The major problem in slum area is the housing condition is most intolerable, the toilet is sharing with other people, living in overcrowded and, constantly facing of eviction, drinking water, electricity, road, sanitation, bed environment, dirtiness, etc.

The slum population is increase day by day. As per census 2001, the total population of India is 1028.74 million and slum population is 27.78% of the total urban population. As per census 2011, the total population of India is 1210.19 million and slum population is 31.16% of the total urban population. So, the slum population is increase day by day.

Now a days the slum development and rehabilitation projects are running in India like Rajiv avas yojna (RAY), Prime minister grant yojna (PMGY), Public Private Partnership Slum Redevelopment Scheme, Niramal avas yojna, National slum development program (NSDP), Jawaharlal Nehru national urban renewal mission (JNNURM), Swarnim jayanti mukhya mantri shaheri vikas yojana (SJMMSVY) etc.

The solution of the problem in slum can be replaced by our new concept of providing container house. The container house is economical solution of the problem in slum area. It is one type of mobile house which is easily transferred from one place to another place. The basic facilities which are required for human can be easily provided by using container housing.

II. PROBLEM IDENTIFICATION

- The absent of basic amenities is create the problem in slum area. The problems in slum area is proper houses, drinking water, sanitation, electricity, road, street light, drainage line, water logging, constantly facing evecton, bed environment, dirtiness etc. the slum area people is live in crowdly area.

- **Objective of study**

To identify problem of slum area.

To find out total area of slum area.

To make planning of container house.

To provide suitable design of container.

To identify cost of container house.

Identification of development model proposed for slum.

III. LITERATURE REVIEW

- **Prapot Unncharoenkul (2009) “ A Slum upgrading framework taking opportunity cost in account “**

The slum is clear by slum upgrading. This paper is suggested to create one committee which is driven framework. The committee gives economical solution which is solving problem of slum area. The main objective of committee is settlement of slum area from illegal area to legal area. The committee is work in aggregate level not only individual project level. The economical solution of project is loss opportunity cost is not happen.

- **Heba Mohammad Mourtaga (2012) “ Slum development in gaza strip, problems, challenge and comprehensive solution “**

The slum is main important factor to decrees the growth of urban area. This paper has suggested to generating stake holder. The stake holder partner is local and land authority, national government, legal terms, communities and private sector. In developing framework all the stake holder is include. The ability of stake holder is gives the implement solution of slum problems. The stake holder is work on planning and housing. The solution of stake holder is sustainable.

- **Harish Khare (2009) “ Public Private Partnership “**

This project is applied at Mumbai and Rajasthan. In this project involve government, HDFC bank and public. In PPP modal constructed the houses for slum area people and low income group. The cost of housing unit is Rs.90,000. The size of one house is less than 400 sq.ft. The lone of one house is not more than RS. 1,00,000 or 90% of the cost of house; which is smaller. The time interval of repayment lone is 15 years.

- **Slum development schemes**

In this project, provide basic facilities like drinking water, sanitation, storm water drain and streetlight in slum area. The houses are not providing in this project. The per capita expenditure for this project is 800.00 Rs. The total expenditure of this project is 80.00 lakhs is spent by government of India

- **National slum development program (NSDP) (2003)**

The National slum development program (NSDP) is project controlled by central government. The central government collects funds to state government. The total project funds 20.61 crores under NDSP. Under this project 30% is grant and remaining 70% loan. The total fund is handling by central government only; the state government is not interfering.

- **Niramala jyothi program (2002)**

The project is controlled by government of India. The total project cost is 274.00 crores. By this project upgrade 998 slums. In this project the houses are not provide. Only provide basic amenities like drinking water, sanitation, underground drainage and streetlights. The work has been completed in 4 cities and 17 cities work has been completed at 2004. After this work the remaining work is complete by tender system.

- **Valmiki ambedkar awas yojana (VAMBAY)**

In this program houses is provide for slum dwellers. The houses provide with basic amenities like drinking water, sanitation, underground drainage and electricity. The project is only urban slum dwellers. In this project is not given any subsidy and government grant. The expenditure of project is given by government of India's budget 2004-05. Totally 17750 houses has been completed under this project.

- **Nirmal Bharat Abhiyan yojana (2004)**

The central government gives the license for Noramal Bharat abhiyan yojana. In this project only toilet/sanitation is provide for slum dwellers. The total expenditure of the project is 11.16 crores.

- **Pradhan Mantri Gramodaya yojana**

The project is handling by government of India. This project is focusing on slum people which living in rural area. The aim of project is provide house for slum people with basic facilities like drinking water, sanitation, underground drainage and internal road. The slum dwelling units are constructed in individual plot at main habitation of village.

The size of house is not less than 20 m². The cost of ceiling is 20,000 Rs. Per unit in plain area and 22,000 Rs. Per unit in hilly area.

- **Rajiv awas yojana (RAY) (2013)**

The central governments approve Rajiv awas yojana on 3rd September 2013. The aim of central government by this project is "Slum free India". The RAY is implementation under JNNURM (Jawaharlal Nehru National Urban Renewal Mission). The time period of project is 2013 to 2022. There are two type of implementation method in Ray project. 1) The planning of slum for whole city. 2) The planning of selected slum area. The houses are provide with basic facilities like drinking water, sanitation, electricity, underground drainage etc. This project is approving in 48 cities and in Gujarat the project is approved in Ahmadabad and Rajkot. The 25% budget of the municipality to provide basic facilities to the urban poor. The 35% of the total awas unit is providing to EWS/LIG (Economical weaker section / Low income group).

- **Mukhymantri Gruha yojana (2013)**

The project is announced by government of Gujarat for slum development. The time period of project is five year (2013-2018). The Gujarat government is improving the life standard of slum people and provides quality houses. There are two strategy of project; 1) Slum redevelopment and rehabilitation and 2) creation of affordable housing units. By this project 22 lakh slum houses in urban area. The budget of this project is 1,100 crore in 2013-2014. The 600 crore for EWS(economical weaker section), 400 crore for LIG(low income group), 15 crore interest subsidy and 35 crore Rental housing.

- **R.R.Sorate¹, Alka Dhiman², Ashwini Murnal², Manali Nimbalkar², Nutan Dere², Vandana Tiwari²(2014) "Slum Rehabilitation with Fast Track Techniques"**

They used Fast track techniques proved to be useful to serve the purpose. Fast track techniques are associated with using methods that reduce the project overlapping and total duration of the project at sustainable finance. This paper focuses on fast track techniques like Tunnel form and Rapidwall compared with recent in use technique Aluform in terms of cost, duration, benefits and their utility in Indian conditions.

Fast track techniques are necessary as rehabilitation is long term process including costly affairs which generates problems to slum dwellers and ultimately to the country. Tunnel form and Rapidwall helps in reducing rehabilitation time by completing the project in optimum cost and duration.

IV. CONCLUSION

Study on this topic and new technique for the development of slum area by using of waste container. planning process of project, the slum area is developing by providing container house and other basic facility. In the Surat there is development of slum area in city area but least development near to railway line and south zone. We providing container house in that area. Also the problem related to clean water supply, drainage system, solid waste collection, rain water, unhygienic condition are solved by planning and design of all facility. This solution for development of slum area is economic way.

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