



RESEARCH ARTICLE

EVALUATION OF URBAN RENEWAL PROJECTS UNDER JNNURM- CASE STUDY SURAT CITY

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ABSTRACT

Background: The Jawaharlal Nehru National Renewal Mission (JnNURM) scheme launched on 3rd December, 2005 by Government of India. It is the first time in the history with such a huge scale of budget over seven years to cope up the urban infrastructure improvement in 65 cities in India. This scheme has two sub-mission-Urban Infrastructure and Governance (UIG) and Basic services for Urban Poor (BSUP) under Ministry of Urban Development and Ministry of Housing and Urban Poverty Alleviation. This paper is presenting the projects evaluation in the sectors of water supply, sewerage, drainages and solid waste management (SWM) only under UIG sub-mission, JnNURM in the case study of Surat city, Gujarat.

Objectives: To study the progress status both physical and financial at national and case study city (Surat). To study the urban planning strategy by Surat Municipal Corporation with respect to UIG projects in Surat city. The last objective is to study the feedback from the beneficiaries through evaluation techniques Focus Group Discussion and door to door household survey for water supply status in comparison between pre and post projects.

Methodology: The research methodology is based on the secondary data from lines agencies and interview with ULBs staffs. Focus Group Discussion (FGD) is used as tool for evaluation of the UIG projects in the case study city.

Finding: The Surat is one of best city among JnNURM cities and implementing the variety of projects. The UIG projects had executed mostly in south and west zones where there is maximum number of populations and this project has improved the following indicators - water supply connection, duration of water supply, pressure, water quality and quantity in the comparison the pre and post projects situation.

Conclusion: The Surat Municipal Corporation has sense of responsibility to delivery city services. The administrative structure is well set up and functional effectively and efficiently for the JnNURM projects planning, implementation and operation and maintenance. The reforms under JnNURM had been achieved fully in order to ensure the self governing efficiently.

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INTRODUCTION

In India, there are numerous schemes for the development of urban infrastructure facilities. The JnNURM is one of scheme launched by Government of India to step up the renewal of urban areas in 65 cities. In this scheme, each city had different limitation for project execution. In the initial stage, city has to come up with a City Development Plan (CDP) which is a mandatory for all JnNURM cities. It is plan for both perspective and vision document for the future development of the city. CDP is focused more on creating economically productivities, efficient equitable and responsive cities (MoUD, 2012). Also city have to self sufficient by implementing mandatory reforms at Urban Local Bodies (ULBs) which aims at process of re-engineering through deployment of technology to enable more efficient, reliable and timely services in transparency manners, and optional reforms include framework

of state administration (Meshram, 2006). The main objective of these reforms are to improve the financial condition of local bodies, their credit worthiness, and ability to access market capital for taking up new projects. In the above discussion of the JnNURM mechanism for executing the projects evaluation is highly required at best performance city to learn for poor performance cities in the next phase of JnNURM scheme. Therefore, the following objective had been summarized in given below;

- To study the planning aspects under UIG projects,
- To accesses to both physical and financial status,
- To find out the feedback from the beneficiaries considering the identified indicators

MATERIALS AND METHODS

The research methodology is mainly adopted in three stages – literature reviews on JnNURM documents by government of

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India which is available on public domain, secondary data analysis from various sources of (departments of state and ULBs) and discussion which has focus on the planning prospects under sub-mission of UIG, JnNURM and last stage is carrying out household survey and Focus Group Discussions with projects beneficiaries in case study city.

RESULTS AND DISCUSSION

National Level

The UIG projects include eleven sectors water supply, sewerage, storm water drains, solid waste management, preservation of water body, other urban transport, parking, urban renewal, heritage development areas, Mass Rapid Transport System (MRTS), and roads/flyover/RoB. The total number of projects was 537 under UIG sub-mission, which had been sanctioned in 65 cities across country. Among these sectors, water supply had reached up to the mark of 153 projects, Roads/Flyover (98 projects), drainage/storm water drainages (71 projects), solid waste management (43 projects), MRTS (21 projects), Other Urban Transport (15 projects), Urban Renewal (11 projects), Development of heritage areas (7 projects), parking (5 projects) and least among these sector was preservation of water body which shared only 4 projects (Fig.1).

In the context of national level, cities and towns were highly demanded for water supply as urbanization is set to be continuing across country. The present demand for water supply is hardly meet. Most of the towns and cities had been executed the projects for water supply sector in comparison among eleventh sectors of UIG sub-mission, JnNURM and least projects had been sanctioned on preservation of water body. The target of the JnNURM scheme had been set up according to the requirement and need of each city. For example in mega cities viz. Delhi, Mumbai, Kolkata, Bangalore cities seem to be more on the transport sectors whereas in smaller and medium towns are required more on the water supply sector and some cities of north east of India are hardly implementing the projects and considering poor performance cities among identified cities. But, all sectors under UIG are equally important for basic need of human settlement in urban areas.

CASE STUDY –SURAT CITY

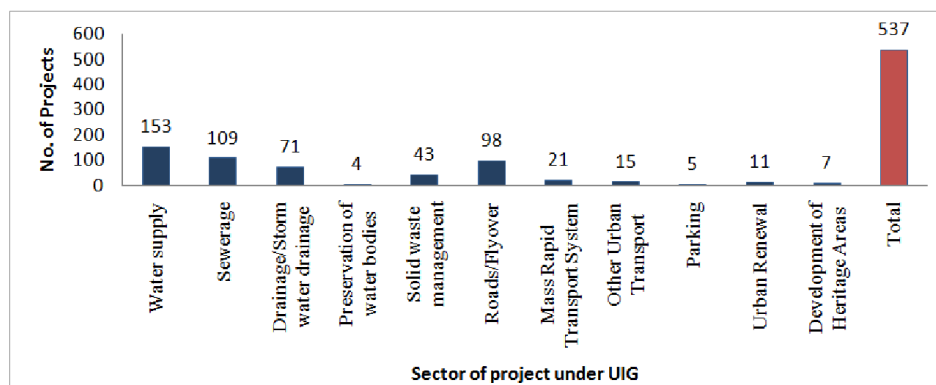
Surat city had achieved a remarkable transformation as one of the cleanness cities in India after the plague of December 1994 (Dutt *et al.*, 2006). This city is also known as the economic capital of Gujarat has proactive in strategizing its future (SMC, 2009). As per census 2011, city has population of 44,61,026 with an areas of 326.515 sq km. This city has potential for industrial growth and well known as for its textile trade, and diamond cutting-polishing industry as resulted constraint on the urban infrastructure facilities (Surat CDP, 2008). The Surat city has seven zones, of which west and south zones are newly developing areas. Private Development had been developing the housing society and commercial building in the last decade. The urban services had not covered by Surat Municipal Corporation fully in pre projects situation (JnNURM), but the opportunities had to cope up the demand of facilities both present and future.

Discussion with Implementing Agencies

The planning prospect under JnNURM scheme by Surat Municipal Corporation had been planned in such as way to grow the city with self sufficient amount of services to meet the demand for future generation. The projects plan was in the direction where human settlement had been increasing over year. This is first priority as per the discussion with implementing agencies. The effective management of the projects is one of the key to success and leading the best city for leading the best performance among JnNURM cities. The reforms is fully achieved which are identified by government of India to support the projects sustaining viz. financially, technically, management etc. This is right attitude for ULBs towards implementing the projects and get maximum benefits out of these projects.

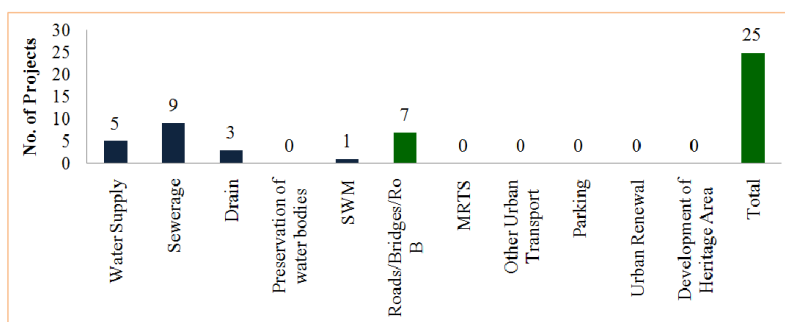
Projects Description under UIG sub-mission of JnNURM

Total investments of Rs. 6856.92 crore in 25 projects under UIG sub-mission in Surat city and each projects for water supply, waste water management, drainages and solid waste management is shown in Table No.1. Surat city had implemented 9 projects in the sewerage sector, 7 projects in roads/bridge/RoB, 5 projects in water supply, 3 projects in drainage and one project for solid waste management sector (Fig.2).



Source: Based JnNURM project Status, 2012

Fig. 1. UIG Projects Sanction in 65 cities



Source: Based JnNURM project Status, 2012

Fig.2. Projects Distribution in numbers (Surat City)

Table 1. JnNURM Projects Targeted Zone

Sectors	Projects Name	Project Cost in Crore	Surat Municipal Corporation Zones Name								Population in Lakhs	Per Capita	Projects Cost in Lakhs
			North	South	West	East	Central	South East	South West				
Water Supply	Project-I: Water Supply Distribution System for T.P Schemes No. 1 to 7 of Vesa (Phase-I up 2019 AD)	19.19									3.34	574.551	1919
	Project-II: Water Supply Distribution systems for T.P. Schemes No. 8, 9, 10, 14, 15, 16 of Pal-Palampor of SUDA Area (Phase-I up to 2019 AD)	9.95									2.5	398.000	995
	Project-III: Water Supply scheme for new North Zone of SMC	167.43									3.34	5012.874	16743
	Project-IV: Water Supply Distribution systems for south east zone areas of SMC	201.09									3.34	6020.659	20109
	Project-V: Augmentation of Sarthana, Katargam and Rander water works of SMC	140.68									10.14	1387.377	14068
Sewerage	Project-I: Upgradation of Anjana Sewerage Treatment Plant	10.98									3.2	343.125	1098
	Project-II: Augmentation of Adajan Sewerage System	11.93									3.2	372.813	1193
	Project-III: Augmentation of Bhesan Sewage Treatment Plant	13.22									3.2	413.125	1322
	Project-IV: Secondary Sewage Treatment Plant at Bamroli (100MLD)	13.22									3.2	413.125	1322
	Project-V: Automation/SCADA of existing sewage pumping stations and sewage treatment plant of SMC	30.63									3.2	957.188	3063
	Project-VI: Proposed Sewerage system for T.P. Schemes No. 1, 2, 3, 4, 5, 6, 7, and 13 for Vesu of SUDA Area (Phase-I up to 2019 AD)	34.37									3.34	1029.042	3437
	Project-VII: Proposed Sewerage system for T.P. Schemes No. 8, 9, 10, 14, 15, 16 of Pal-Palampor of SUDA area	21.28									2.5	851.200	2128
	Project-VIII: Sewerage System for New Eastern Zone of SMC	110.65									5.81	1904.475	11065
	Project-IX: Sewerage System in new Northern Zone area of SMC	184.04									3.34	5510.180	18404
Drainage	Project-I: Storm Water Drainage Scheme of Surat city for SMC area	116.62									1.99	5860.302	11662
	Project-II: Storm Water System for New Eastern Zone of SMC	34.26									5.81	589.673	3426
	Project-III: Strom water Drainage Scheme in Vesu	49.95									1.99	2510.050	4995
SWM	Project-I: Upgradation of Solid Waste Management in Surat City	5687.43									28.11	20232.764	568743
	Total	6856.92											685692

Source: Based on Projects Report Status & Discussion with implementing Agencies

Legend

	Projects Covered
	Projects Not Covered

For waters supply sector, most of the projects had been implemented for laying pipe lines for water supply distribution system in the locations of non covered areas in the Vesu (south zone) and Pal (west zone) and upgrading the water treatment plants. For waste sewerage, the renewal of the existing pumping stations and waste water treatment plants, lying of sewer line in the newly developing areas within city limit had been planned and executed. For drainage sector, about 40 percent of the total areas of the Surat city had planned to cover with pucca drains under JnNURM scheme, at present almost 60 percent had been covered in the city limit. For solid waste management Sector, this project under JnNURM scheme for solid waste management has many components viz. buying equipment for storage such as dustbins, containers etc, construction transfer stations in all zones except central zone and construction of dumping site at ward no. 92.

UIG Projects Targeted

The JnNURM projects, water supply sectors had been implemented 5 projects of which one is in progress and remaining had completed and are in the fully operational stage with a total investment of Rs. 538.34 crore. Each project for water supply had targeted in different locations.

For, the waste water management sector, 9 projects had been implemented and targeted almost all zones with different nature of works such as construction of sewerage treatment plants, up gradation of existing pumping station, and lying sewer line in the uncovered areas within city limit with a total investment of Rs. 430.32 crore. Two projects are in the progress and remaining projects are in the stage of operational. For the drainages sector, the works is to convert the pucca drains along the roads as well as existing water channels within the city limit with a total investment of Rs. 200.83 crore. The last for solid waste management is targeted for whole city with different nature of works had been done with a total investment of Rs. 5687.43 crore and fully operating for solid waste management. The overall of projects (water supply, waste water management, drainages, and solid waste management) targeted within in various locations, population and total investment is shown in Table No.1.

Survey finding

The comparative picture of pre and post projects situation at the location of beneficiaries for water supply status had been revealed based on the household survey data (200 households) and it is found that all indicators for water supply projects are improved. The overall main findings of water supply status which had been responded in percentage are summarized in the Table No. 2.

Table 2. Comparative Pictures of Pre and Post Projects Situation

S.No.	Indicator	Description	Pre Project	Post project
1	Sources of water (in %)	Surat Municipal Corporation	70	99
		Own Sources	30	1
2	Per Capita Water Supply	Supply (in LPCD)	90	120
3	Purchased water quantity and frequency (liters / month)	4000-5000	30	10
		less than 1000	70	90
4	Purchase water quality from other Sources (in %)	Purchased	70	40
		Surat Municipal Corporation	30	60
5	Quality of Water (in %)	Good taste	40	60
		Good colour	80	90
		Good smell	50	55
6	Water Storage (in %)	Over Head Tank	60	93
		Under Ground Tank	40	7
7	Willingness to pay (in %)	Yes	57	90
8	Incidences of Water borne diseases (in %)	Yes	10	Nil
	Water pressure (in %)	Good	30	85
10		Bad	70	15

Source: Survey, 2013

Table 3. Focus Group Discussion at Projects Sites

Beneficiaries Localities	West zone - Pal (Ward Number 16)		South zone - Vesu (Ward Number 94)		North zone-Kosad (Ward Number 71)	
	Projects-II (DPR-II)		Project-I (DPR-I)		Project-III (DPR-III)	
Name of Project	Pre Projects	Post projects	Pre Projects	Post projects	Pre Projects	Post projects
Project Stages						
Duration of water supply in a day (in average hours per day)	6	10	7	10	5	8
Quality (Taste)	Average	Good	Average	Good	Average	Average
Pressure	Low	High	Low	High	Low	High
Tariff rate (B1-monthly)	Rs 100	Rs 150	Rs. 130	Rs. 150	Rs. 100	Rs. 120
Meter facility	No	5 %	No	No	No	No
		Available				
Quantity (in lpcd)	100	120	50	80	55	80
Willing to pay (Yes / No)	No	Yes	Yes	Yes	No	Yes
Leakages	Existing	No	Existing	No	Existing	No
Purchase of water from the non-PHED sources	Yes	No	Yes	No	Yes	Yes
HHs Connected (in %)	80	90	50	80	50	80

Source: Field Investigation, 2013

Focus Group Discussion (FGD)

The Focus Group Discussion (FGD) had carried out in three locations where the water supply projects had been targeted to get benefits out of these projects (Project-I: Water Supply Distribution System for T.P Schemes No. 1 to 7 of Vesa (Phase-I up to 2019 AD), Project-II: Water Supply Distribution systems for T.P. Schemes No. 8, 9, 10, 14, 15, 16 of Pal-Palampor of SUDA Area (Phase-I up to 2019 AD), and Project-III: Water Supply scheme for new North Zone of Surat Municipal Corporation. In comparison of the three locations, west and south zones had been better in terms of quality and quantity than north zone. Based on the FGD discussion, the following parameters are summarized as given below in Table No.3.

Summary and Conclusion

The post projects situation of JnNURM projects in Surat city had been transformed into a good quality and quantity for water supply as compared to pre projects situation. This is a positive sign of the projects in terms of getting water quality and other various parameters which had been shown and discussed in the above. Therefore, Surat is considering as one of the best performing city among identified cities under JnNURM as far as UIG projects were concerned. In the next phase of JnNURM scheme, it suggesting that, city would focus more on the efficient and sufficient of services delivery to achieve the benchmarks which had been documented by government of India.

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