# IMPACT OF JAWAHARLAL NEHRU NATIONAL URBAN RENEWAL MISSION (JNNURM) ON URBAN INFRASTRUCTURE DEVELOPMENT OF RAJASTHAN STATE

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#### **ABSTRACT**

In this paper we will discuss about Infrastructure which is same necessary if we talk about a village/ block or a town as well as for a city development on upper level it is necessary for a state's proper multi- dimensional development. Then, after the entire above are satisfied than we can say that a nation's infrastructure is sound and working properly. For this purpose, for a nation's overall economic growth and for reduction in poverty better infrastructure and after that efficient working of infrastructure facilities are needed. Nowadays, in India urban infrastructure is a burning topic and given major attention by policy-makers. In this paper impact of JNNURM- a large urban development programme, on urban infrastructure of Rajasthan state is find out.

KEYWORDS: JNNURM, Urban Infrastructure Development, IHSDP, UIDSSMT.

## Introduction

The infrastructure is important from a student to a teacher/professor or from a housewife to a working woman. It also has importance for a small trader as well as a multi- national company. So, we can say that infrastructure is the main backbone of a nation or state. The infrastructure is also important for a nations faster and long- run economic growth. The infrastructure also plays a very important role in alleviation of poverty and provides citizens a quality life.

In India major infrastructure programmes like HRIDAY, Swachh Bharat Mission, Smart Cities Mission, AMRUT and JNNURM had been runned time to time. The Jawaharlal Nehru National Urban Renewal Mission is a large initiative which comprises two submission - UIG and BSUP and two schemes IHSDP and UIDSSMT. The scheme was officially inaugurated by Prime Minister Manmohan singh on 3 December 2005 as a programme meant to improve the quality of life and infrastructure in the cities. Every year the government of India makes a large amount investment in its urban infrastructure sector. So there is a need of proper and better implementation of these urban infrastructure development programmes. This in turn will improve Nations urban infrastructure and will make it economic superpower. The proper and efficient implementation of BSUP and IHSDP will help us in reducing poverty and achieve quality of life.

## Research Methodology Review of Literature

Urban infrastructure development or urbanization has been a significant area of research for last about 20 years. There have been formed various time to time committees and commissions for improve implementation of programmes and making better urban infrastructure development. Following studies have been conducted

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Sundar burra (2014) in his article "The Jawaharlal Nehru National Urban Renewal Mission (JNNURM): Lessons learnt" concluded that the JNNURM - particularly its UIG component - was primarily meant to be a demand-based, reform-driven programme that would be a game-changer and incentivize the induction of private capital. That did not happen, for many reasons, but at least because - as in other government programmes - expenditure became the measure of success and various key reforms were put on the back burner in the race to spend budgetary allocations. The BSUP, the poorer cousin in JNNURM, became synonymous with building new houses for the urban poor and its impact was limited. Legislation for Community Participation and Public Disclosure has not been passed in many states.

Kamath Lalitha, Zachariah Yacoub (2015), in their working paper "Impact of JNNURM and UIDSSMT/IHSDP Programmes on Infrastructure and Governance Outcomes in Cities/Towns in India" has assessed the question of how the JNNURM and its sub-missions have affected infrastructure and governance outcomes in cities across the country based on a review of existing data and literature. The writer also advised that the role the central government has predominantly played so far has been over-deterministic, standardized and authoritarian in the scope and imagination of its centralized, apolitical decision-making. The role that it could rather play to help cities move towards more humane inclusive outcomes needs to be more flexible, differentiated, and supportive of local strategies, needs and priorities.

Kala Seetharam Sridhar (2014) in the article "JNNURM: Largest urban renewal programme comes with strings, but succeeding in places" discussed that the pivot of the JNNURM lay in "reforms and fast-track planned development of identified cities" with a focus on "efficiency in urban infrastructure and service delivery mechanisms, community participation and accountability of urban local bodies, or parastatal agencies towards citizens". He written that it is easy for critics to call the programme not a bang but a whimper. The biggest contribution of the programme is not that it has solved urban problems, but that it has brought them to the fore and has highlighted how important our urban areas are.

#### **Objectives of Study**

- To analyze the impact of JNNURM on Urban infrastructure development of Rajasthan state.
- To know about overall expenditure on the JNNURM in Rajasthan state.

### **Hypothesis**

A hypothesis is a proposed explanation for a given problem which will be tested through study and data analysis. In these proposed explanations we have to found out which is true and which is false.

JNNURM doesn't have any positive impact on urban infrastructure development of Rajasthan H<sub>o:</sub>

H<sub>1:</sub> JNNURM have positive impact on urban infrastructure development of Rajasthan state.

## **Data Collection**

The proposed research study has been based on secondary data. The Government of India's planning commission's five year plans, Government of Rajasthan website, planning commission of Rajasthan, Department of Urban Development, Reports of Government and other secondary data sources.

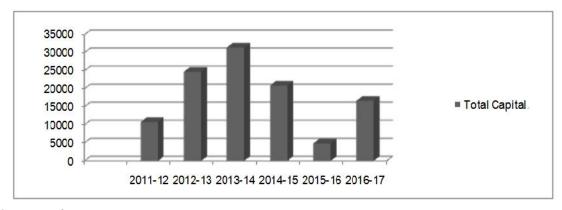
#### **Tools and Techniques**

- Arithmetic Mean
- Standard Deviation
- Co-efficient of Standard deviation
- Correlation
- T Test (SE of two sample mean)
- T Test (Observed correlation co-efficient)
- F Test (Ratio of variation)

## **Data Analysis**

The study is based on total investment or proposed cost of JNNURM and its schemes IHSDP and UIDSSMT and actual capital expenditure in the years of 2011-12 to 2016-17 for analysis of the impact of JNNURM on Urban Infrastructure development of Rajasthan state. The analysis of impact is given below:

| Year    | Schemes   |           |           | Total     |
|---------|-----------|-----------|-----------|-----------|
|         | JNNURM    | IHSDP     | UIDSSMT   |           |
| 2011-12 | 70,45.96  | 37,68.96  | 0.00      | 108,14.92 |
| 2012-13 | 90,07.07  | 75,21.89  | 82,04.90  | 247,33.86 |
| 2013-14 | 89,66.52  | 145,48.79 | 79,39.98  | 314,55.29 |
| 2014-15 | 57,15.86  | 20,47.45  | 131,40.23 | 209,03.54 |
| 2015-16 | 10.00     | 17.40     | 48,56.73  | 48,84.13  |
| 2016-17 | 104.33.09 | 0         | 62.21.93  | 166.55.02 |

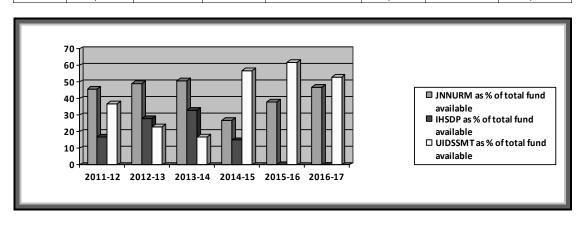


## Interpretation

Above data shows that the total capital expenditure is slightly variable from year 2011-12 to year 2016-17. In year 2011-12 it was Rs. 108,14.92 lakes. In year 2012-13 it increased by 128.70%. In year 2013-14 it increased by 27.18% and in the year 2014-15 it decreased by about 33.55%. It again decreased by a large gap 76.63% in the year 2015-16. In the year 2016-17 it again increased by very large gap about 241%.

Fund Available to JNNURM (In Rs. Lakhs)

| Year    | JNNURM    | % of Total<br>Fund<br>Available | IHSDP     | % of Total Fund<br>Available | UIDSSMT   | % of Total<br>Fund<br>Available | Total fund<br>Available |
|---------|-----------|---------------------------------|-----------|------------------------------|-----------|---------------------------------|-------------------------|
| 2011-12 | 142,45.00 | 45.58                           | 54,53.00  | 17.45                        | 115,52.00 | 36.97                           | 312,50.00               |
| 2012-13 | 217,03.00 | 49.00                           | 123,92.00 | 27.98                        | 102,00.00 | 23.02                           | 442,95.00               |
| 2013-14 | 244,02.00 | 50.79                           | 155,97.48 | 32.47                        | 80,43.23  | 16.74                           | 480,42.71               |
| 2014-15 | 100,26.46 | 27.40                           | 55,34.41  | 15.12                        | 210,32.83 | 57.48                           | 365,93.70               |
| 2015-16 | 43,20.60  | 37.56                           | 17.40     | 0.15                         | 71,64.53  | 62.29                           | 115,02.53               |
| 2016-17 | 121,91.59 | 47.37                           | 0.03      | 0.0001                       | 135,42.79 | 52.63                           | 257,34.41               |



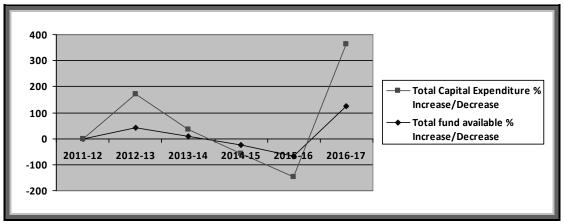
#### Interpretation

Above data shows that total fund available increased every year from year 2011-12 to year 2013-14. The share of JNNURM (UIG & BSUP) in total fund available increased continuously three years from year 2011-12 to year 2013-14 and share of IHSDP also increased from year 2011-12 to year 2013-14. While UIDSSMT submission's share in total fund available decreased from year 2011-12 to year 2013-14. In year 2014-15 the share of JNNURM and IHSDP both decreased while share of UIDSSMT increased in same year about 3.5 times than year 2013-14. The share of JNNURM again increased in year 2015-16 to year 2016-17. But the share for IHSDP decreased continuously in year 2015-16 it was 0.15% and next year it was less as 0.03%. The UIDSSMT increased in year 2015-16 at 62.29% but in year 2016-17 once again it decreased to 52.63%.

## Impact of Fund available under JNNURM on Infrastructure capital expenditure

(In Rs. Lakhs)

| Year    | Funds Available | % Increase/<br>(Decrease) | Capital<br>Expenditure | % Increase<br>/(Decrease) |
|---------|-----------------|---------------------------|------------------------|---------------------------|
| 2011-12 | 312,50.00       |                           | 108,14.92              |                           |
| 2012-13 | 442,95.00       | 41.74                     | 247,33.86              | 128.70                    |
| 2013-14 | 480,42.71       | 8.46                      | 314,55.29              | 27.18                     |
| 2014-15 | 365,93.70       | (23.83)                   | 209,03.54              | (33.55)                   |
| 2015-16 | 115,02.53       | (68.57)                   | 48,84.13               | (76.63)                   |
| 2016-17 | 257,34.41       | 123.73                    | 166,55.02              | 241                       |



Source: 1. Annual reports, Department of Planning Commission, Government of Rajasthan

## Interpretation

In year 2012-13 funds available has been increased about 42% and capital expenditure increased about 129% comparison to year 2011-12. While in year 2013-14 fund available increased only about 8% which is 4 times lesser than year 2012-13 and capital expenditure increased only about 27% which is also about 4 times lesser than year 2012-13. Then total fund available decreased continuously two years from year 2014-15 to year 2015-16. In year 2014-15 fund available decreased by about 24% while capital expenditure decreased by about 34%. In year 2015-16 fund available again decreased by 69% which is about 3 times more than year 2014-15. While capital expenditure also again decreased by about 77% which is about 2 times more than year 2014-15. In year 2016-17 fund available increased by 124% which is highest increase in these 5 years 2013-2017. In year 2016-17 capital expenditure increased by 241% which is almost double or 2 times than fund available.

Above analysis shows that when fund available decrease than capital expenditure also decreases with more percentage. When fund available increases, then capital expenditure also increases with more than 2 times. The fund available and capital expenditure both decreased maximum in the year 2015-16. The fund available and capital expenditure both increased maximum in the year 2016-17. After interpreting the given data it was seen that fund available and capital expenditure both are correlated.

## Statistical Analysis of Fund Available and Capital Expenditure

| Values                             | Fund Available (X) (Amount in Lakhs) | Capital Expenditure (Y)<br>(Amount in Lakhs) |
|------------------------------------|--------------------------------------|--|
| Arithmetic Mean                    | 32900                                | 18240  |
| Standard Deviation                 | 4300                                 | 3570   |
| Co-efficient of Standard Deviation | 0.131                                | 0.196  |

| Correlation (r)                            | 0.93   |  |  |  |
|--|--|--|--|--|
| PE (Probable Error) under Correlation      | 0.038 (r is significant)                                       |  |  |  |
| T Test (SE of Two Sample Mean)             |  |  |  |  |
| H <sub>o</sub>                             | No significant difference between two Sample Mean              |  |  |  |
| H <sub>1</sub>                             | Significant difference between two Sample Mean                 |  |  |  |
| Significance Level                         | .05  |  |  |  |
| SE (Standard Error)                        | 5.89   |  |  |  |
| Table Value                                | 2.23   |  |  |  |
| Compare                                    | SE> Table value, H₀ rejected, H₁ accepted                      |  |  |  |
| Conclusion                                 | It is proved that there is significant difference between two  |  |  |  |
|  | Sample Mean  |  |  |  |
| T Test (Observed Correlation Co-efficient) |  |  |  |  |
| H₀   | No significant difference in the co-efficient correlation      |  |  |  |
|  | between two samples  |  |  |  |
| H <sub>1</sub>                             | Significant difference in the co-efficient correlation between |  |  |  |
|  | two samples  |  |  |  |
| Significance Level                         | .05  |  |  |  |
| SE   | 13.8   |  |  |  |
| Table Value                                | 2.78   |  |  |  |
| Compare                                    | SE>Table value, H₀ rejected, H₁ accepted                       |  |  |  |
| Conclusion                                 | It is proved that there is a significant difference in the co- |  |  |  |
|  | efficient correlation between two samples                      |  |  |  |
| F Test (Ratio of Variation)                |  |  |  |  |
| H₀   | Both the samples have been taken for normal population         |  |  |  |
|  | having the same variance                                       |  |  |  |
| H <sub>1</sub>                             | Both the samples have been taken for normal population         |  |  |  |
|  | doesn't having the same variance                               |  |  |  |
| Significance Level                         | 0.5  |  |  |  |
| SE   | 1.45   |  |  |  |
| Table Value                                | 5.05   |  |  |  |
| Compare                                    | SE< Table value, H₀ accepted, H₁ rejected                      |  |  |  |
| Conclusion                                 | It is proved that both the samples have taken for normal       |  |  |  |
|  | population having the same variance                            |  |  |  |

## **Analysis of Data**

The data given in above table shows that Arithmetic mean of fund available is 329,00 lakhs while that of capital expenditure is 182,40 lakhs. The Standard deviation of fund available is 4300 which is near as compared to Standard deviation of capital expenditure which is 3570. This shows that there is lesser variation in capital expenditure comparison to variation in fund available. The Co-efficient of Standard deviation shows that there is about 0.131% variation in fund available while it is 0.196% in the case of capital expenditure.

Correlation between fund available and capital expenditure is 0.93 which is high degree positive correlation. The Probable Error under correlation is 0.038. Since value of correlation is higher than 6 times of probable error hence it is significant.

It is proved from T test (SE of two samples mean) that there is significant difference between two sample mean. It is also proved by T test (Observed correlation co-efficient) that there is significant difference in the co-efficient correlation between two samples. The F test (Ratio of variation) proves that both the samples have been taken for normal population having the same variance.

#### **Testing of Hypothesis**

As per the above analysis Correlation between fund available and capital expenditure is 0.93. Being more than 6 times of Probable Error it is significant. Hence the hypothesis H<sub>1</sub>: JNNURM have positive impact on urban infrastructure development of Rajasthan state is true, so it is accepted.

## **Suggestions and Recommendations**

- First of all it should be identified the areas where government is needed and also that areas where the private sector can play a better role.
- The programmes should design in a way that they could meet the needs of local community. By this the community participation will increase.
- There should be making a sound transparent system about infrastructure projects. A well structured finance and implementation process should been also designed.
- India should adopt new and innovative technologies as solar plant in villages can fulfill their demands of electricity.
- The main problem in India is corruption. All the administration involved in these projects implementation fulfill their own motives and uses low quality materials and other cheapest goods.
- Not only making infrastructure facilities work complete but it should be given time to time proper attention.
- Make public aware to infrastructure programmes

#### Conclusion

The study shows that impact of fund available under JNNURM on capital expenditure for infrastructure in Rajasthan state is positive. This is because the pre-planner way of finance, well determined rights of supervision by state level nodal agency- Rajasthan Urban Infrastructure Finance and Development Corporation (RUIFDC). The JNNURM have included central Government as well as state governments, but it have been also included Urban Local Bodies in its projects implementation. Although there is positive results but after this the timely review and supervision are necessary for a better urban infrastructure development.

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