

Urban Sustainability with Government Missions - - JNNURM, AMRUT, SCM, SBM, HRIDAY and Comparative Analysis

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ABSTRACT

Urban population has been increasing; more than half of world's population lives in urban areas. It is estimated to reach 72% of the total population in the world by 2050. From 3.6 billion in 2011 to 6.3 billion in 2050. Asian cities, including those in India, are and will be undergoing major transitions during the first half of the 21st century. According to the 2012 United Nations report on world urbanization prospects. It is expected that half of Asia's population will live in urban areas by 2020. By 2030, India will become 40% urbanized with about 590 million people living in urban areas [MGI, 2010]. This poses a concern as well as an opportunity to plan for sustainable development. It is true that despite the 74th constitutional amendment, the functional and financial status of the ULB's have not improved as desired. Given the low level of resources at the disposal of the ULB's, unbundling of certain basic urban services for private participation is needed. The urban development ministry has recently proposed an agenda for action for ULB's aimed at their better management. The 21-point agenda includes suggestions for citizen charter, tips for improving basic services, assistance under central sector schemes, management of urban areas, revision of building bye laws, use of IT, urban transport, financial system etc.

INTRODUCTION:-

Providing basic services (e.g. water supply, sewerage, urban transport) to households and build amenities in cities which will improve the quality of life for all, especially the poor and the disadvantaged is a national priority. The high powered expert committee [HPEC] during 2011. The committee estimated that RS. 39.2 lakh crore was required for creation of urban infrastructure, including RS. 17.3 lakh crore for urban roads and RS. 8 lakh crore for services, such as water supply, sewerage, solid waste management and storm water drains. Moreover, the requirement for operation and maintenance [O&M] was separately estimated to be RS. 19.9 lakh crore. Learning from the earlier mission have shown that infrastructure creation should have a direct impact on the real needs of people, such as providing taps and toilets connections to all households. This means that the focus should be on infrastructure creation that has a direct link to provision of better services to people and this was explicitly stated by the President of India in his speeches to the joint sessions of the parliament on 9 june, 2014 and 23 february, 2015. Both JnNURM and new missions [AMRUT, SCM, SBM-urban, HRIDAY] missions launched by Central Government with aims to improve basic services and infrastructure provisions in Indian cities and towns. New missions

are ongoing schemes, while JnNURM was launched for seven years from 2005 to 2012 year and extended up to 2014 year.

APPROACHES AND METHODOLOGY:-

Approaching to data from various articles and news paper cutting as well as Government website and secondary data by doing comparative analysis of program objective, approach, central allocation and utilization of JnNURM and AMRUT mission.

OBJECTIVES OF THE STUDY:-

- To focus on Urban Reforms carried out under JnNURM and NEW MISSIONS.
- To focus on about various Central Government scheme can be linked with provision of basic services to our cities.
- To discuss the issues and challenges faced by JnNURM and NEW MISSIONS.

FROM JNNURM TO SMART CITIES.

To expedite investment and effective planning in urban infrastructure and service provision, the Government of India has been launching several schemes/programs for examples, Environmental improvement of urban slums (1972), Integrated urban development program (1974-1979), Integrated development of small and medium towns (1975), Mega city scheme (1992-1997), Two million housing program (1998-1999), Valmiki ambedkar awas yojana (2001), Total sanitation campaign (1992, but renamed Nirmal Bharat Abhiyan in 2012), Urban reform incentive fund (2003), and pooled finance development scheme (2006). However, the turning point of bringing the urban development agenda into focus was achieved with the launch of JnNURM in December 2005. JnNURM is the first massive urban development program of the country and has established the foundation for large scale central assistance to the urban sector. It was launched as a reform driven and fast track program to catalyze planned development of identified cities. A number of urban projects were sanctioned under JnNURM during 2005-2014, and central assistance of approximately 50,000 crore INR was committed during this period through the mission. During 2014-15, the Central Government launched four new schemes to expedite urban infrastructure and service provision and replace JnNURM. These schemes are 1, Atal mission for rejuvenation and urban transformation (AMRUT) focusing on water supply and sewerage improvement 2, Smart Cities Mission (SCM) aimed at developing smart solutions for selected urban areas 3, Swachh Bharat Mission (SBM) focused on waste management and sanitation and 4, Heritage city Development and Augmentation Yojana (HRIDAY) for addressing the development of heritage cities. It will be interesting to study the differences and similarities between JnNURM and new missions to understand how the approach to urban development has changed in India.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOAL NO.-XI,[To make cities inclusive, safe, resilient and sustainable]

*By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

*By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations : women, children, persons with disabilities and older persons.

*By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

*Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

*By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

*By 2030, reduce the adverse per capita environmental impact of cities, by paying special attention to air quality and municipal and other waste management.

*By 2030, provide universal access to safe, inclusive and accessible green and public spaces, in particular for women and children, older persons and persons with disabilities.

*Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.

*By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, migration and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

*Support least developed countries, through financial and technical assistance, in building sustainable and resilient buildings, and utilizing local materials.

Other development programs of the Government of India which are in the line with The goals and targeted covered under SDGs Goal XI are Smart City Mission, Housing for All, HRIDAY and Metro projects.

AIMS & OBJECTIVE OF JnNURM and NEW MISSIONS [AMRUT, SCM, SBM-urban, HRIDAY]:-

*** **JnNURM** [Jawaharlal Nehru National Urban Renewal Mission] 65 cities covered under Urban Infrastructure and Governance (UIG), 671 other cities/towns covered under the Urban Infrastructure Development Scheme for Small & Medium towns (UIDSSMT) [another 278 cities/towns were covered under the transition phase of the scheme]. Overall central allocation and commitment to UIG and UIDSSMT amounted to approximately 42,900 crore INR and 39,000 crore INR respectively for 2005-12. The first phase of JnNURM was completed in March 2012 with approximately 50% (UIG and UIDSSMT) of the projects launched being incomplete on 17 January 2013, the Cabinet Committee on Economic Affairs (CCEA) approved further funding of 10,000 crore INR for UIG and UIDSSMT under a new transition phase the implementation period for the projects sanctioned during the transition phase is until March 2017. JnNURM is a large umbrella mission with multiple sub-missions aimed at achieving varied outcomes without any specific priority ordering of objectives. The mission has sought to encourage reforms and planned development across various components covering:- Urban renewal including renewal and redevelopment of inner city areas, water supply and sanitation, sewerage and solid waste management (SWM), storm water drains, urban transport (roads, flyovers, mass rapid transit system [MRTS, bus etc.], parking lots and spaces on a public – private partnership (PPP) basis, development of heritage areas, preservation of water bodies, prevention and rehabilitation of soil erosion and landslides in case of special category states,

*** **AMRUT** [Atal mission for rejuvenation and urban transformation] proposed to cover 500 cities across India. The central allocation for AMRUT is 50,000 crore INR for five years (FY 2015-16 to FY 2019-20) and mission will be operated as a Centrally Sponsored Scheme (CSS) in addition state, ULBs will further contribute nearly an equal amount to project funds. AMRUT is focused urban infrastructure development mission that seeks to encourage capacity building and reform implementation. Its main objective is to

ensure universal access to water supply and sewerage also improving storm water drains to reduce flooding, pedestrian, non motorized and public transport facilities, parking spaces, parks and recreation centres especially for children.

*** **SCM** [Smart Cities Mission] proposed to cover 100 cities across the country with at least one city from each state. This mission will be operated as a CSS wherein the proposed central assistance amounts to 48,000 crore INR over five years i.e. an average of 100 crore INR per city per year. An equal amount on a matching basis will have to be contributed by the state/ULBs therefore nearly 1 lakh crore INR of government /ULB funds will be available for smart cities development. SCM is another focussed urban mission that seeks to identify and apply smart solutions to develop select cities as model smart cities. Smart solutions will improve the provision of urban infrastructure and services, they cover water and sanitation, electricity, urban mobility and public transport, affordable housing, IT connectivity and digitalization, e-governance and citizen participation, sustainable environment, citizen safety, and health and education.

*** **SBM – urban** [Swachh Bharat Mission] proposes to cover all statutory towns in the country, i.e. approximately 4,041 towns according to the 2011 Census. The estimated cost of implementation of SBM (urban) based on unit and per capita costs for its various components is 62,009 crore INR out of the total project cost, central assistance will be 14,623 crore INR, while states/union territories (UTs) will be required to contribute 4,874 crore INR, while 42,512 crore INR is being targeted by private investment under SBM in urban areas. States will make a matching contribution of 25% of the share of the central government, this share in respect of north-eastern and special category states will be 10% of the central share. The balance will be generated through various other sources including private sector participation, user charges, land leveraging, market borrowing and external assistance. SBM (urban) seeks to address specific issues – namely open defecation, manual scavenging, SWM, and general awareness and behavior towards healthy sanitation practices and their linkages to public health. Through this mission include provision of household, community and public toilets, effective SWM techniques, public awareness campaigns and capacity building of implementing bodies.

*** **HRIDAY** [Heritage city Development and Augmentation Yojana] has released a list of 12 heritage cities which will be covered during the next five years. HRIDAY is a central sector scheme with 100% funding from the central government for the project duration of four years starting from December 2014 an amount of 500 crore INR has been allocated to 12 cities selected under the first phase of the scheme. The objective is to improve the overall quality of life with a specific focus on sanitation, security, tourism, heritage revitalization and livelihood creation while retaining the cultural identity of a heritage city. To achieve the objective of revitalizing heritage cities, broadly HRIDAY will focus on theme areas – physical, institutional. Economic and social infrastructure.

A COMPARATIVE ANALYSIS OF [JnNURM VS AMRUT, SCM, SBM-urban, HRIDAY]

***** Mission Components :-**

The sectors covered under JnNURM and the current missions overlap significantly. Water supply, sanitation, sewerage, SWM and storm water drainage appear to be top priorities across all missions. However, there is a difference in the approach to addressing these issues. A major distinction between JnNURM and the current schemes is the scope of the mission components. JnNURM is a broad-based mission that simultaneously approaches various urban issues without prioritizing outcomes. On the other hand the new missions have opted for a more focused and sector-oriented approach. This is because they follow a set list of national priorities (universal access to water under AMRUT), advocate a specific approach and method (green field development, retrofitting and redevelopment under SCM), or are devoted to a particular theme or issue (heritage, conservation under HRIDAY and sanitation under SBM), further,

while various urban sector components were earlier addressed through a single mission (JnNURM), these components have now been split across missions. For instance, AMRUT has prioritized water and sanitation over other objectives; SCM is committed to area specific urban renewal and redevelopment; SBM primarily addresses issues of hygiene, waste management, and public health; and HRIDAY is dedicated to the planned urban development of heritage cities.

***** Geographical coverage:-**

The combined geographical coverage of the current missions is wider and more comprehensive than that of JnNURM, UIG and UIDSSMT together covered 736 cities and towns (where the 65 cities identified under UIG were chosen based on population). Under the new missions almost all cities and towns of India are being covered under one or more missions. Further city or town selection is more comprehensive under the new missions as it is based on multiple evaluation criteria such as existing infrastructure past performance (of JnNURM projects) and level of reform implementation in addition to the urban population criterion mainly used under JnNURM. In particular SCM has introduced a 'comparative city – selection' format wherein cities will be selected only after passing two rigorous evaluation rounds with achievements under JnNURM being one of the selection criteria.

***** Approach:-**

The new missions are also complementary to each other and encourage states to access the funds available under different missions to address their deficits. For instance, AMRUT and SCM have overlapping sectors but different focus areas and approaches. Cities can first develop their core infrastructure under AMRUT and then choose specific areas for development under SCM. In due course, the city can replicate its successful area-based development strategies in other areas. Similarly, HRIDAY cities can access AMRUT for city-level infrastructure needs such as water and sanitation facilities but use HRIDAY funds to support infrastructure projects which link heritage facilities with their trunk infrastructure. In addition the new missions have introduced some changes based on the learnings from JnNURM. For example, delayed availability and/or non availability of land and clearances from the concerned departments has been a major reason for project delays under JnNURM hence, AMRUT prescribes that only projects which have obtained clearances from the required departments and have ensured land availability will be eligible for funding under AMRUT. Further, unlike the project-to-project sanctions provided under JnNURM, AMRUT emphasizes 'co operative federalism' by making states equal partners in the planning and implementation of projects. Thus, states have been given a bigger role in decision making and sanctioning of projects under the new missions.

***** Fund utilization:-**

With regard to fund utilization AMRUT prescribes 'incentive for reform' to the extent of 10% of central assistance. This can be accessed by states that have successfully implemented reforms as per the timelines prescribed under the mission. The incentive approach of AMRUT is different from the penalization approach of JNNURM, wherein 10% of the central assistance is retained in case of non-completion of reform mile stones. Similarly, SBM also includes new provisions for viability gap funding (VGF) and performance funds. Under VGF, the central government will provide funds to cover some part of the project cost in order to make them more profitable and attractive to private investment. Under performance funds, 20% of the central share (2924 crore INR) has been earmarked; out of this, allocation will be made to better performing states/ UTs based on the physical performance in respect of states objectives.

The formula used for inter-state allocation is different under the new missions as compared to that used under JNNURM. Allocations under JNNURM were mostly based on the relative population of selected cities under UIG and the proportion of a state's urban population to the total urban population of India under UIDSSMT. However, allocations under AMRUT, SCM and SBM are mainly based on the twin criteria of urban population and number of statutory towns relative to the urban population are likely to gain relatively higher allocation in the current missions. However, as total allocation under the new missions is significantly higher than that under JNNURM, absolute allocation to each state is likely to be higher than before for all states.

COMPARATIVE ANALYSIS RESULT:-

Overall we can conclude that while JNNURM simultaneously approached various objectives under one umbrella mission, the new missions have divided various urban development issues among themselves and focus on specific goals and objectives. The new missions have relied on the foundation built by JNNURM and incorporated the learning from this scheme in developing their own strategy.

CASE STUDY OF SUCCESS AND FAILURE OF JNNURM AND NEW MISSIONS WORKS:-

JNNURM:- KOCHI CITY

UIG projects in Kochi have faced many problems. The sewerage project has been a non-starter mainly because the Kochi Municipal Corporation (KMC) could not afford to purchase land. Road projects have been delayed because of issues related to land acquisition and differences over providing special FSI as compensation to those owners who lose their land. The design of the Brahamapuram solid waste plant was flawed which resulted in great financial and social costs. The role of the project consultants was sharply criticized. The State government has now decided to build an additional plant with a more sound design, capable of processing more waste, through a PPP model. JNNURM bus services have shown the institutional conflicts between the ULB and the Kerala State Road Transport Corporation (KSRTC), the state parastatal that manages the services. Initially, there was a conflict over alignment of bus routes, with KSRTC emphasizing economic viability of the routes and the KMC focusing on building new routes. Subsequently, KSRTC began operating inter-city services using JNNURM buses leading to protests by councilors in Kochi who argued that these services should target commuters only within the city. KSRTC said this was to make up the Rs 1 crore loss incurred in operating the fleet only in the city when commuters typically travelled across and between Kochi and panchayats or towns within the larger region. The Kerala High Court heard a petition against KSRTC for operating Kochi JNNURM buses on inter-district services and directed it to stop plying JNNURM buses outside city limit. The water supply project faced significant delay because the residents in the neighboring panchayats opposed the cutting of the major road going past their villages for laying pipelines. Additionally, the National Highways Authority of India (NHAI) delayed permission for cutting the highway to lay pipelines with the matter being referred to the Prime Minister after NHAI refused the request for permission from the Chief Minister. The Broadway and Ernakulam heritage project has been stalled.

JNNURM:- SURAT CITY

The Surat is one of the best city among JNNURM cities and implementing the variety of projects. The UIG projects had executed mostly in south and west zone where there is a maximum number of populations and this project has improved the following indicator sources of water, per capita water supply, quality of water etc. Surat city had implemented 9 projects in the sewerage, 7 projects in

roads/bridge/R.O.B., 5 projects in water supply, 3 projects in drainage, one project in S.W.M. sector. Total investment of 6856.92 crore INR allotted for under UIG sub-mission in Surat city.

Water supply status had been revealed based on the house hold survey data [200 households] and it is found that all following indicator of water supply improved.

[source :- survey, 2013]

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 less than 1000	30 70	10 90
4,	Purchased water quantity From other sources (in %)	Purchased Surat Municipal corporation	70 30	40 60
5,	Quality of water (in%)	Good taste	40	60
		Good color	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,	Incidence of water borne Diseases (in %)	Yes	10	Nil
9,	Water pressure (in %)	Good	30	85
		Bad	70	15

NEW MISSIONS [AMRUT, SCM, SBM-urban, HRIDAY] :-

The Committee understand that the bedrock of AMRUT is development of basic urban infrastructure, especially, water supply, sewage and septage management and against a total State Annual Action Plans (SAAP) size of Rs.77640.00 crore, 50% has been allocated to water supply, 42% to sewerage and septage management and rest to other components. Though the Mission emphasizes rainwater harvesting, recycling and reuse of water, reduction in water losses etc., the Committee find that not much is being done under the Mission to effectively address water scarcity the biggest impending threat of our century. With ground water levels depleting, natural water bodies dying, open spaces concretized, forest cover vanishing, there is an urgent need to address the issue of availability of water itself, though 50% of AMRUT funds are allotted to water supply. The Committee, therefore, urge the Ministry to take necessary steps and vigorously pursue the States to focus more on rejuvenation of water bodies, enforcement of water harvesting, promotion of reuse & recycling of water, reduction in distribution loss and prevention of unauthorized and unmetered water usage to enhance the livability of our cities. Awareness programs for water conservation, water recycling and water harvesting should be propogated on war footing.

In the sewerage and septage management sector, the Committee find that contracts for 272 projects worth Rs.12,429 crore have been awarded. Though providing sewerage connections to households is a focus area of AMRUT, the Committee observe that the number of sewerage connections provided under AMRUT till date is too inadequate with respect to the number of households, State-wise. The number and capacity of existing sewage treatment plants in various States and the extent to which the available plants are able to meet the requirement of respective States are also issues of serious concern. The Committee also note with dismay that the data regarding sewage treatment plants is not being maintained

under AMRUT. Moreover, the futility of lakhs of toilets being constructed without proper provision for septage, sewerage and drainage is too glaring a question mark on the mission. The Committee, therefore, recommend that real time monitoring of the status of implementation of projects related to sewerage /septage and drainage management may be given top priority and data including all parameters may be collected regularly from the States. The Ministry may also urge States to perform better in providing sewerage connections and enhancing the number and capacity of sewage treatment plants in States. Unable to meet set targets for urban renewal in 500 cities, the centre has decided to extend the mission period of its flagship initiative AMRUT by two more years.

In June 2018, Government of India has announced the names of 100 cities in which round one 20, round two 13, round three 27, round four 30 and round five 10 cities were selected, that will receive centre's funds under Smart City Mission. The total proposed investment in the final 100 cities would be around 2.05 lakh crores INR (25.63 billion euro). With a per city allocation of 100 crore INR (12.5 million euro) for each of the city for five years of the mission period, the central assistance to the mission is around 50000 crore INR (6.25 billion euro). Two and a half years after announcement of the Smart City Mission, 6.4 percent of the total identified projects have been completed with utilization of just 1.6 percent of the total envisaged investment of 1,38,730 crore INR (17.36 billion euro). Many projects are stuck as local governing bodies are unable to raise money using their own resources. Many cities are also facing resistance in execution of projects as citizens have opposed user charges for services provided under the mission. As on 17 January 2018 there are 2948 projects worth around 1.4 crore INR (17.36 billion euro) are in various stages of implementation under the scheme. 189 projects worth 2237 crore INR (280 million euro) have been completed. Implementation is under way for 495 projects with a cost of 18616 crore INR (2.33 billion euro). Tenders have been floated for 277 projects with a cost of 15885 crore INR (2 billion euro). 1987 projects worth 1,01,992 crore INR (12.76 billion euro) are at detailed project report (DPR) stage.

The Committee found that the major objectives of the SBM Mission are elimination of open defecation, eradication of manual scavenging and scientific management of Municipal Solid Waste. It is seen that in 2018-19, Rs. 2500 crore is allocated for SBM as compared to Rs.2300 crore in 2017-18. i.e 88% of funds have been utilized/dispensed. As far as the status of toilet construction under SBM is concerned. Govt. targeted around 10 crore toilets to be built under SBM mission and with this there has been a change in the attitude of 55 crore people who ceased the practice of defecating in open. The Swachh Bharat Abhiyan received a world wide praise and recognition with UNICEF India's sanitation (WASH) chief Nicolas osbert calling it a 'strong base for development' and 'a good move', on the other hand Prime Minister Narendra Modi received 'Global Goal Keeper Award 2019' for his Leadership and commitment to the Swachh Bharat Abhiyan in September 2019.

The Heritage City Development and Augmentation Yojana (HRIDAY) aimed at preserving and revitalizing the soul and unique character of the heritage cities in the country was launched on 21st January 2015 with a total outlay of Rs.500 crore. The scheme being implemented in 12 identified Cities namely, Ajmer, Amaravati, Amritsar, Badami, Dwarka, Gaya, Kanchipuram, Mathura, Puri, Varanasi, Velankanni and Warangal is to be completed by November 2018. It is observed that out of the allocation of Rs.150 crore made in 2016-17, Rs 141.55 crore was released for various projects, but in 2017-18 only 54.3% of funds could be released upto 31.12.17. The Committee also note that the percentage release of funds to Badami is 20%, Mathura is 34%, Dwarka is 34%, Puri is 36%, Gaya is 37% and Velenkanni is 42% only. The mission complete in 4 year in 2019.

CONCLUSIONS:-

The launch of JNNURM in 2005 had set the ball rolling for large-scale urban development initiatives in India. A decade later, the momentum has continued with the launch of AMRUT, SBM, SCM and HRIDAY. Overall, JNNURM and the current missions address the same issues and challenges, but the current missions have adopted a more focused approach by splitting components across individual missions. Further, the geographical coverage and financial scale of the new missions are greater than those of JNNURM. Further the new missions have incorporated learnings from the previous mission in their implementation approach; this will be useful in achieving efficiency gains. For example, the new missions emphasise ‘cooperative federalism’ by giving states greater autonomy and decision-making power. In particular, SCM has envisaged the setting up of special purpose vehicles [SPVs] that will undertake the implementation of the mission objectives.

Under the previous mission, states and ULBs were provided with mandatory reforms and were penalized for non implementation of reforms. The new missions have adopted an incentive-based approach for recognizing states that perform positively through additional allocations. Additionally, ‘other sources of funding’, which include private sector participation and external assistance, will play a greater role under the new missions. Under SBM in urban areas, an investment of 42,512 crore INR is being targeted from the private sector. Thus, though JNNURM and the new missions broadly address the same sectors and issues, their approaches to program implementation are different and, thus, different results can be expected from the current missions in terms of expediting urban development.

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