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## Editorial

City development often revolves around physical components primarily on beautification drives to enhance aesthetic look of a city landscape. Therefore, a debate on city development essentially focuses on wide smooth roads, fast vehicle mobility, high rise buildings, shopping malls, entertainment paradises etc. Shifting slums to reclaim land and removing vendors for widening or beautification of roads are part of urban development process, which might prove profit earning venture for some while depriving many others of daily livelihood. There would be some urban theorists who may argue that poor should be moved to peripheral rustic settlements rather than live in the city centre. An objective analysis of this view, however, would reveal a hidden market force interested in consumers who can generate more profits. What is the focal point for city-development planning then? Do the people at large are not the key point of urban development?

In market driven economy, it is obvious that builders, land mafia, contractors and the corporate world would attract attention of planners more than the poor. It is also a well known fact that physical development does divide cities socially and spatially. The focus remains on attracting business and creating infrastructure to facilitate business activities such as starred hotels, conference centres, multiplexes, theaters etc. As the city line gets dotted with these beautiful structures, the poor residents or those living in slums continue to struggle to get even minimum facilities of sanitation, drainage or potable water. Commodification of even art and culture is not an unusual phenomenon. As the central locations are highjacked by the rich, the others are doomed to live homeless, without a roof over their heads perhaps forever as they fall victim to the false promises of affordable housing in near future. What a mirage!

If urban planning remains predisposed towards the elite and influential classes, the consequent disparity may lead to conflict someday. Suppressing the simmering unrest through police force can never be a good idea. More than fifty percent population of cities in developing countries of Asia and Africa lives in slums. If no attention is paid to their living conditions, situation may go worse. Today the poor in cities can be seen as cheap labour, domestic servants or at best as purchasable vote bank. They are never considered as equal partners in city planning. Do they have no right to urban planning and we will simply discard them as encroachers who need to be better dealt with strong laws?

This is the third issue on Smart Cities. The focus is on All Inclusive Development in Smart Cities. The beginning of the issue discusses the problem of 'othering' of the poor in cities and the concept of making cities 'development centric' rather than 'growth centered'. Space for ageing population and women in cities also occupy detailed discussions. A reputed educationalist has penned his personal thoughts on higher education in the 'Impressions' section. A discussion paper prepared for the forthcoming Consultation discusses if Urbanization eradicates poverty or it is a misconception. Please do send your suggestions on the subject. We would love to incorporate them in the presentation. In Waste Management section, a case study of sustainable waste management system of a village in Tamil Nadu has been presented. The Institutional Profile details a Gandhian organization, the Banwasi Seva Ashram of South Sonbhadra.

**Arun Ojha**

# Individualization of the Public Space: The Other-ing of the Poor in our cities

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Sana Huque, Sarmistha Pattanaik and D. Parthasarathy

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## **Abstract**

*The contemporary world is witnessing several changes. Cities are becoming habitation of choice for the majority on the globe. Neoliberalism has become the global economic force and individualism or a quest for individual rights and identity is gradually overtaking communitarianism. However, these developments have been accompanied by declining pluralism in the cities. As development has become the main agenda and mantra of growth for many cities in the country the poor are consistently finding themselves pushed to the margins. This paper undertakes to study such changes occurring in the city of Kolkata that is not just affecting the lives of the poor but also jeopardizing the ecological assets of the city.*

## **Acronyms/Abbreviations**

*BPL: Below Poverty Line, BPO: Business Process Outsourcing*

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## **Introduction**

The world has been going through constant shifts. There are more people living on it than ever, most of them have preference for urban centres over rural areas and most have adopted individualism<sup>1</sup> over communal living as the modern way of life. Although moral relativism, declining social involvement and the subversion of the family (Brand and Thomas 2005) are being associated with the bane of rising prevalence of individual identity, the debate about its desirability or undesirability is not yet over. However, several instances from cities show an intimate association of increasing individualism and declining tolerance in communal spaces where boundaries are being set on the basis of class, caste, region, gender and so on. The manifestations of individualism especially in urban space are thus the nuclear families, tall towers of gated communities, private parks and playgrounds, the gradual decline of *kirana* (grocery)shops and the traditional bazaar-haats (village shops) that are being replaced by more upscale shopping centres and the more recent virtual shops. Brand and Thomas (2005) recognise these developments as the implications of ‘institutionalized

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1. The words ‘individualization’ and ‘individualism’ have been used interchangeably in the paper.

individuality' for the city that is driven by consumerist ideals. This "obligatory self-centeredness leads inevitably to a certain indifference to the fate of the others" (Brand and Thomas 2005) extending to become a latent resentment towards the "others". Because of these new ideals the city's images undergo reconstruction in manners similar to the identity that is gravitating towards individualism.

The erosion of community in urban societies has had noticeable impacts on the manner in which public space has begun to be viewed upon. Public space is becoming more of a private arena with limited access and only people with certain social standing are getting access to it. There is a systematic elimination of people's participation from the lower economic and social strata in the urban public spaces. The increasing instances of practices aimed at the achievement of exclusive spaces can be understood through the discourses of "urban environmentalism" (Brand and Thomas 2005) and "political ecology" (Blaikie 2008; Forsyth 2008; Watts 2000) which explain how nature and politics have become a combined tool that the privileged are wielding to legitimize the exclusions.

Instances are galore in the Indian context that reflect the growing practices of individualization and the new construction of public spaces. Every major city in the country has had instances where attempts have been made to push the poor to the margins. In other words *Garibi Hatao* slogan that was a brainchild of former Prime Minister of India, Indira Gandhi in the 1970s has in practice become *Garib Hatao* in the contemporary times.

Kolkata, the largest city of Eastern India, has not been immune to such changes. After getting enticed by the benefits of neoliberalism, the city has begun to adopt individualization in a big way. The consumerist drive has ensured to shift the focus on capitalistic growth of the city. As a consequence the chasm of the wealth gap has been widening further. Therefore, the city is staring in the face of a major social crisis. The need of the hour is to acknowledge that the developmental strategies that the city has adopted are driven by individualization and urban environmentalism.

### **A Theoretical Understanding of the Concepts of Political Ecology and Urban Environmentalism**

In the propagation of individualism in cities a major part of the foundation has been built on the ideas of political ecology and urban environmentalism. The contemporary society has begun to be produced by a close interaction between what is social, political, economical and environmental. The sustainability of a society is largely being determined in contemporary times by the equilibrium that is maintained between these parameters. However, the works in political ecology and urban environmentalism have given enough pointers that say that the society is far from attaining sustainability because of it being highly skewed, particularly against those who are classified as the underclass of the society.

The concept of political ecology assisted in understanding that environmental changes have significant social and political repercussions. The adverse impacts are felt

more intensely by those who are poor and vulnerable in society. The nexus that has developed between nature and politics has become the key determinant of who enjoys the privilege of access and control of resources. This privilege in turn carries implications on both environmental health and sustainable livelihoods (Watts 2000).

The politics of nature as well as the politics of distribution have been impacted greatly by the restructuring of global economy according to the principles of neoliberalism. The manifestation of a liberalised economy in the urban setting has greatly given shape to environmentalism of the urban areas. According to Brand and Thomas (2005) urban environmentalism has formed “a constitutive part of one of the greatest transformations of space in urban history. It has been hugely successful, not in its own overt reference to ecology, but in the sense of providing argumentative and representational support for the rebuilding of cities, the spatial restructuring of urban economics, new forms and techniques of government, urban lifestyles, a sense of citizenship and political subjectivities”. This almost resonates with what was spoken at the Urban Futures Conference organised in Berlin in 2000. It was said that “the aim of urban policy is to produce cities which are economically prosperous, culturally vibrant, socially equitable, clean, green, and in which all citizens are able to lead happy and productive lives. It follows from these objectives that cities should provide people with jobs, affordable housing and health care, education for all children, potable water, modern sanitation, convenient and affordable public transportation, nature, culture and public safety. It shall also be an objective of good urban policy to give to the citizens of every city opportunities to participate in the governance of their city and feel that they are their stakeholders” (Hall and Pfeiffer, 2000).

Because of such reconstructions of the ideas that constitute “urban” it becomes important to question whose nature is urbanized in order to produce contemporary cities (Heynen, Kaika, & Swyngedouw, 2006). While the virtues of a sustainable society is being extolled, the conflictive nature of environmental issues tend to be sidelined. Among the various conflicts that dot the urban landscape, the conflicts between the poor and the elites have been the most prominent. For developing nations like India such conflicts have deepened further since the gates of the nation were opened for neoliberal growth.

### **The Rise of Individualism in Indian Cities**

Among the various changes that have taken place in the Indian society with the wave of neoliberalism hitting its shore, one of the major developments has been the rise of a more individualistic society. The observation has been that economic liberalism of the Indian society allowed it to let go of the Nehruvian socialist ideals and embrace the consumerism driven individualism. In the process ideas that equated strength of the social fabric with community living (Veenhoven 1999) were discarded as archaic because of it being seen as a hindrance towards self-actualization that neoliberalism had to offer. In other words it can be said that individualism has been adopted in the country with the desire to step into what the world reckons as modern and developed



that is seen to have less of social and moral involvements with the society at large. Hence manifestations of modern living in the cities have been meticulously planned segregation of land use, residential towers in gated housing complexes, an increase in the number of nucleated family sizes and emphasis on cleaning and greening of cities. This is an indication of urban spaces that desire to be sans the presence of the poor with their unsightly slums and squatters. The declining social circle also explains the reasons behind increasing privatization of nature in urban areas. There are increasing incidences of private parks and playgrounds, artificially constructed eco-parks which have paid entries, water amusement zones that cater to only those who can pay for such entertainments and so on. Such developments in the urban areas have an implicit indication of increasing practice of bourgeois environmentalism which has close relations with political ecology and urban environmentalism. The term “bourgeois environmentalism” which has been used by Amita Baviskar in her scholarly works on cities and the poor to explain the tendency amongst the well-to-do classes to evoke discourse of public interest and citizenship to table civic concerns in a manner that constitutes a public that excludes the city’s poorer sections (Baviskar, 2011). Therefore, the question arises whether the new planned modern cities have any place for those who constitute the underclass of the society.

### **The Place of the Poor in Planned City**

According to Watson’s paper (2009) titled *The planned city sweeps the poor away...Urban planning and 21<sup>st</sup> century urbanization*. In the global South the problems of urbanization and urban settlement have begun to attract a lot of attention. The year 2006, when the World Urban Forum was held in Vancouver, is particularly important as the call for a major shift in global thinking about the future of Southern cities was sounded here. This culminated into the understanding that for the first time in the history of the world the majority of population were inhabitants of cities. More important was the realization that majority of the future additions to the global populations will be in the cities of the South.

The neoliberal ideas of planning with their increased emphasis on market and to some extent the local communities as the harbinger of curative mechanisms to all urban problems had held sway in urban planning until then. But the 2006 conference marked a shift from this dominant view. The focus shifted towards identifying mechanism that would make the process of urban planning take care of the problem of rapidly growing cities and the burgeoning poor populace. UN-Habitat suggested that urban planning should be reviewed in a manner that it can become the instrument to address the new found understanding, i.e., new forms of governance that can address the problems of urban development, particularly the problem associated with the growing number of urban poor.

Anna Tibaijuka, ex-UN-Habitat Executive Director, while addressing the 2006 World Planners Congress gave an idea about the role planning is expected to play in the coming future. According to her opinion urbanization of poverty will become not only



an important issue in urban planning of the future, but it will also have implications on the agenda of environmental sustainability. Her concern was arising from the observation that planning often was the underlying cause of social exclusion because of beliefs like '...in the planned city... the poor should at best be hidden or at worst swept away' (Tibaijuka, 2006). The need is thus to overcome the anti-poor beliefs in planning. Placing livelihood concerns of all urban inhabitants will make the planning process more inclusive and pro-poor.

In this context Henri Lefebvre's idea, "Right to the City" (Lefebvre 2003), may be referred to which was developed with respect to all urban dwellers. The theory is based on observations of the power relations that underlie urban spaces and advocated for the shift of the control of urban spaces from the capital and the state to the inhabitants who populate such spaces. Lefebvre argued that the "Right to the City" is the right to "urban life, to renewed centrality, to places of encounter and exchange, to life rhythms and time uses, enabling the full and complete usage of ... moments and places." Lefebvre viewed the urban transformations culminating through collective exercise of power rather than individual right. Decades later, David Harvey would point out that Lefebvre's concept is "not merely a right to access what already exists [in the city], but a right to change it after our heart's desire." It may be added here that this Lefebvrian concept in a way can be seen as recommending the incorporation and empowerment of those city dwellers who are most often assigned the status of being third rate citizens.

### **Locating the Conceptual Framework within the Field Explored: The City of Kolkata and its Vision of a World-class City**

In Kolkata the traits of individualisation and consumerism began to rise when the previous Left Front government decided that the city needs to evolve in order to benefit from the neoliberal gains. The manifestation of such traits has been an increased ease of operation for private players in the Leftist stronghold. The state rolled back in order to attract greater investments and make the state more market friendly.

Such attempts were made to allow the state to re-invent itself that over the years had gotten attached to labels like poverty stricken, dirty, excessive population density and a downward spiralling economy. Thus, appeared the paradox of a consumer driven market economy in a communist state. Consequently the urban landscape has changed considerably to accommodate city's new aspirations that are to dot the city with luxury housing, industrial parks for IT industry and BPO sectors, major infrastructural projects and other luxury amenities. Multinational corporations are returning to the city and the sector of real estate has been booming which are already providing the city the vitality to grow.

However, spatially the city has had to face several challenges in its pursuit of the major transformation. The city boundaries were found not to be spacious enough to accommodate the infrastructure upgradation that the city needed to transform into the next "world-class city" of the country. As a consequence the city has decided to push its urban limits into its fringes. Such decisions, however, affect not just those who are

settled in the city fringes but also the agricultural fields, canals, water bodies and the protected East Kolkata Wetlands itself (Bose 2013). Sammadars (2011) very well reflects the aspirations that the city aims to achieve:

*Kolkata has changed quite a lot in the last few decades. It wants to become Delhi. It must catch up with the flash and glitz found elsewhere. It too must have its high-tech township and must embody a new mode of circulation of money, information, human resources, and power. It does not think that its old organic character is worth retaining. If discarding the old organic character is the necessary sacrifice to make in order to develop, let that be. If road space increases while space for human interaction decreases that price Kolkata must pay.*

### **The Changing Land use of the Wetlands of Kolkata**

The wetlands that lie to the east of the city is known the world over for its uniqueness in terms of flora, fauna and most importantly for its natural resource recovery abilities from the city's wastes. The wetlands have been recognised for its importance in maintaining the environmental sustainability of not just the city of Kolkata but of the entire sub-continental watershed (Banerjee 2012). The area's distinct ecological characteristics are a derivative of the low lying spill basin that was created by the tidal activity of the river system comprising of Bidyadhari-Piali-Matla. The rivers in turn have been in turn responsible for embedding the wetland ecosystem in the broader ecosystem of Ganga-Brahmaputra delta. As a consequence the region can be considered to be a biological and geomorphic continuum of the estuarine Sundarbans that lie to the south and the east of the wetlands (Banerjee 2012).

Because of the natural waste recycling properties of the wetlands the city manages to save several millions every year that would otherwise be spent on artificial means of waste management. Apart from this the area is known for its productivity for vegetables and food grains, especially paddy and tonnes of fish. The wetlands not only contribute towards the food security of the city but also provide livelihood means to several families who are engaged with the fisheries and agriculture in the area. Flood management, pollution control and micro-climate management are added benefits that the wetlands have bestowed on the city. So it can be understood that the value of the wetlands for the city of Kolkata is immense and the status of the protected Ramsar site is richly deserved by the wetlands. However, the visit to the field painted a very different picture in terms of conservation of the wetlands.

The improvements in infrastructure that the city sees necessary for attaining a status that is at par with Delhi or Mumbai cannot be in city proper of Kolkata because of already over-congested conditions. Therefore, the fringes have become the area around which major developments are taking place and the East Kolkata Wetlands too have not been spared from the changing land use.

### **Methodology and Observations from the Field**

The fieldwork was conducted in the village of Kumar Pukuria in the Kheyadahmouza under Kheyadah Panchayat No.1. The jurisdiction falls under the Sonarpur Block of South 24 Parganas. The total population of the village according to

2011 Census is 592 persons with 137 households. The field was visited between the months of June and August in 2014.

Ethnographic approaches which comprised unstructured interviews and participatory observations together with focus group discussion were adopted as the methods to understand the socio-ecological significance. Random household survey of nearly 30 families was also undertaken for gauging the economic and social parameters, the standard of living in the area was the major focus.

The village where the study was conducted had a significant presence of tribal families. Most of the houses surveyed did not have access to potable water or sanitation facilities. Some of the houses had toilets within the compounds of their homes that they said had been constructed with the assistance of the government. Similarly, some homes had tanks built for the purpose of rainwater harvesting. But as in most government assisted projects pertaining to the poor the toilets and the water tanks had been left incomplete as the funds had dried up. In terms of infrastructure facility like electricity most houses, especially in the tribal localities, did not have access to it. Therefore, many of the houses had resorted to “hooking” or illegal tapping of the electricity lines for their needs. The roads within the villages were mostly unpaved. Access to better medical facilities and good institutions of education were also not readily available to the people there. Overall most inhabitants, especially the tribal families, in the area belonged to the Below-Poverty-Line (BPL) category.

The figures released by the East Kolkata Management Authority corroborate the prevalence of overwhelming poverty in the area. Over 20,000 households continue to reside within the wetlands complex. Out of these households more than 3,000 families are from tribal groups like Mundas, Santhals, Sardars and Oraos who came from Hazaribagh and Ranchi to work for their British masters as labourers and construction workers. Ironically for this resource rich region 77 per cent of the families in the area belong to the BPL category while it has been found that the average household income in the area is 70 per cent less than the state average (East Kolkata Management Authority and Wetlands International-South Asia 2010, p 2).

Under such overwhelming poverty, with real estate developers and land sharks knocking on their doors, these poor families are heading for a future involving displacement and loss of their meagre livelihoods. Majority of those interviewed worked either as labourers in fish farms or agriculture farms or on tiny plots of lands whose documents could not be produced by them to prove their ownership. The families are under immense pressure to give up their lands for pittance and move away in order to make way for the developments that will eventually cater to the elites of the city.

Similar circumstances had arisen when the Rajarhat New Town came up on wetlands area which was highly productive for paddy and fish farms. A large number of households who were settled in the area were displaced without the state addressing adequately the rehabilitation and resettlement of the affected. Now a drive down the

major six lane arterial road of Rajarhat with the New Town flanking on its either side presents a picture of opulence marked by high rise housing towers, insulated glass exterior office buildings, more than one large shopping centre, an “eco-park” that has recreated nature in the most artificial manner possible and convention centres and cultural and educational centres dedicated to popular Bengali personalities. In other words, the New Town that came up on the lands vacated by poor farmers and fisher folks has managed to create a very exclusive urban space whose amenities can only be afforded by the well-off populace of the city.

## **Discussion and Conclusion**

### **Taking Stock**

The situation the wetlands are witnessing is dire. The close relationship between the livelihoods and the wetlands has established a vicious cycle where declining quality of the wetlands is threatening to put several families out of work. Because of this threat illegal sale of the land has gone up, further increasing the threat to the wetlands. The poverty situation in and around the wetland complex is so bad that families who till recently were in favour of saving the wetlands are now willing to hand over their lands to the land sharks at extremely cheap rates. With the lands gone and the drying up of the sale money destitution becomes the next stage.

Political mobilization has been attempted in the area. But most ran out of steam when such movements ceased to emanate political dividends. Civil society and non-governmental organizations have also not engaged themselves enough to bring relief to the affected in the area. Such apathy is rare for a city which is known to the world for its political engagements of social issues. The area attracts majority of the attention for its ecological significance. Social concerns appear to have been completely overshadowed by it. Moreover, the city is already teeming with people who live a hand-to-mouth existence and apathy towards them is not unheard of in the city.

Like other major cities of the country, Kolkata has begun to blame for all the ills that afflict it on the poor, the homeless and the migrants. From the middle class upwards strong sentiments have been building up against the urban underclass. They do not seem to fit into the images of the clean and green city that are being sold to the elites not just by the realty developers but also the state government which had declared few years back that the city shall be developed on the lines of London. When such imaginations have been bought the elites wish that the presence of the poor can be erased from the picture. Even in fringe areas like the wetlands the poor can no longer live because these areas have been promised to the elites as places where they can “live in the lap of nature”.

The city, therefore, has been losing its inclusive character. The parasol the neighbourhoods of the yesteryears used to be shared by the rich households as well as the poor families who mostly depended on the well-to-do households for work and therefore preferred to live in their proximity. However, nowadays upper class neighbourhoods prefer segregation. The loss of the symbiotic nature of the relationships between the various segments of the society is a major indication towards

the shrinking social relations in the city. Atomistic lifestyles or individualism can thus be held responsible for this declining tolerance towards the poor.

The opinions on the growing prevalence of individualism are several and the verdict is yet to be reached whether it is a desirable social phenomenon or not. While for some individualism marks the liberation from archaic restrictions that inhibit self-actualization, others consider it as a sign of the growing social decay that gradually shall lead the society towards atomistic self-containment and anomy? (Veenhoven 1999). Doubts about individualism are generally associated with the more conservative “communitarist” ideas at the centre of which is the thought that humans are inherently dependent beings (Veenhoven 1999). Therefore, community needs would fall into jeopardy if rights of individuals become the emphasis of society (Etzioni 1993).

Over anxiety about increasing individualism may be an overreaction. However, in our Indian cities individualism has definitely to a large extent shrunk the pluralist character of our neighbourhoods. In almost all major cities of India the trend is to criminalize every form of informality. This is the reason why the neighbourhood cobbler, the kirana shop at the end of the lane or the *chai* (tea) shop which used to be a favourite haunt till some years ago are fast disappearing. Kolkata’s case has not been any different. Operation Hawker and Operation Sunshine that took place to rid the sidewalks of Kolkata of informal vendors are proof of the changing sentiments in the city towards the poor.

There can be no denying of the fact that every city has the right to develop and benefit from the prevalent economic trends. However, the city’s voracious appetite to bring more land under the urban built-up in the name of development has begun to touch those areas which were previously labelled as fringe or outskirts and mostly home for a sizable poor populace. The question that arises is that what place will the city have for its underprivileged if the elites attempt to appropriate most of the space in and around urban areas for themselves?

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# Smart Cities: 'Growth Centered' or 'Development Centric'? – An Enquiry from Indian Context

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Pallavi Tak

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## **Abstract**

*Government of India in the year 2014 announced to develop 100 'Smart Cities' which may mark a revolution in the history of city planning and development. This is a very historic moment for India, as it is about to create its physical, social and environmental space that will have promising future for all. Right decisions and moves may work wonders for cities and their people. Similarly, such big investments to be made in smart city building cannot afford to go wrong, as it will be at the expense of all the resources we could have for such development. This paper delves into this space creation strategy of India for its smart cities and their functioning and attitude towards their people. The discussion is critical in nature to enthuse a sense of responsibility towards a smart city creation that is 'development centric' rather than 'growth centered'. The paper also suggests revamp in the way such smart city planning is being conducted, to make the process more equitable, democratic and foolproof.*

## **Acronyms/Abbreviations**

CCR: Corporate Corporate Responsibility, CREDAI: Confederation of Real Estate Developers Associations of India, GCR: Government Corporate Responsibility, ULB: Urban Local Bodies, IESE: Instituto de Estudios Superiores de la Empresa (Spanish), TED: Technology, Entertainment & Design, GIFT City: Gujrat International Finance Tec-City

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## **City at the Core – An Introduction**

Claiming what is sufficiently justifiable on behalf of cities, is that they are the fertile lands for dreams and aspirations of people to seed, grow, build and get fulfilled. Cities are not centers of growth alone, but destinations where the flight of ambitious migratory human-capital sees a pleasant halt to transform their journey into a much productive, healthier and evolutionary one. Cities create or destroy destiny of people, they are their hope for a life imagined to the closest of perfection or farthest to the anonymity of wilderness. Cities nurture, benefit, and provide opportunities to the people to achieve but unfavourable conditions in the cities may also be suffocate them to death. Cities have power to construct and reconstruct the civilizations. Cities may decide the fate of generations, the future direction of a nation, the destiny of a civilization.

Cities have earned priority of the highest order and posed detrimental challenges of an equal degree, simultaneously. The dynamic cities of the current era, are being subjected to enormous change and pace on one hand and on the other are offering an

equivocal dynamism to their residents. Cities are swelling up to the size untamable, unmanageable; the migration is beyond control, urban utilities challenged to the hilt and beyond, environmental degradation blowing alarming signals, social systems collapsing and seeing divides unprecedented, physical infrastructure shattered. The occasion calls for an introspection, retrospection and commitment for the revamp, reconstruction, restructuring, regeneration and resilience of cities for future.

A ray of hope is lit everywhere and efforts to correct and construct new cities, with a fresh promise meets the eye often. Such feats have been named as 'Resilient cities', 'Smart cities', 'Intelligent cities', 'Dynamic cities', 'Organic cities', 'Digital cities', 'Future cities', 'Sustainable cities', 'Vibrant cities', 'Functional cities' and so on. The common underlining philosophy in all such efforts is to make cities more lively and livable for all people, spaces and timeperiods. Such a wave of revolution started when from the midst of global economic meltdown, the CEO of a U.S. based information technology company IBM, Sam Palmisano put forward the concept of smart earth in the roundtable in January 2009 (Resurgent India, CREDAI Report, 2014)

### **Smart City – Search for a Functional Definition**

Smart city has been defined by various countries, cities, corporate houses, municipal bodies, governments and experts to the best of their understanding and interest. The IEEE Smart City, a Smart Cities Technical Community defines smart city as – “a smart city brings together technology, government and society to enable the following characteristics - a smart economy, smart mobility, a smart environment, smart people, smart living and smart governance. "Smart Cities" include such things as - smart buildings, smart living, smart transportation, smart energy, smart communications, smart networks, a self-aware digital hub and environmental awareness. One approach being pursued in many parts of the world is to increase the awareness of the urban environment and to enhance the interaction with its inhabitants.” Caragliu and Nijkamp seek - "A city can be defined as 'smart' when investments in human and social capital; and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory action and engagement." Giffinger considers cities to be smart when they have "Regional competitiveness, transport and Information and Communication Technologies economics, natural resources, human and social capital, quality of life, and participation of citizens in the governance of cities." (Giffinger, et al) "A 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability. It is a city where information technology is the principal infrastructure and the basis for providing essential services to residents. There are many technological platforms involved, including but not limited to automated sensor networks and data centers." Government of India has not settled for a concrete definition of smart city and believes that it should vary from city to city but explains general features of a smart city as - “The core infrastructure elements in a Smart City would include - Adequate water supply, Assured electricity supply,

Sanitation, including solid waste management, Efficient urban mobility and public transport, Affordable housing, especially for the poor, Robust IT connectivity and digitalization, Good governance, especially e-Governance and citizen participation, sustainable environment, Safety and security of citizens, particularly women, children and the elderly, and Health and Education. The Wikipedia pronounces “Smart City is “an emerging conceptual view of a city that promotes the use of Information and Communication Technologies (ICTs) to engage with citizens to develop social capital and intellectual capital, to make better use of hard infrastructure (physical capital), reduce usage of environmental capital and support smart growth (sustainable economic development).

### **Interpreting Smart City – Reading in Between the Lines**

Smart city, the narrow approach confines it to the use of advanced technology, physical infrastructure, better utilities (water, waste, energy management), communication and connectivity, transport and enhanced internet use in general. This is more of a ‘growth centered’ approach to smart cities. Such cities are by default a product of Corporate Corporate Responsibility (CCR) and Government Corporate Responsibility (GCR), where all the IT, ICT and other related industries see an expansion of market for them and a long run profitability scenario attached. The smart cities thus are looked upon as growth magnets alone that would attract foreign and domestic investments, whereas environmental conservation may be deemed as an additional responsibility and a by-product. But here one important aspect is grossly missing, that is human capital. In this approach citizens and their wellbeing is considered to be produced as a positive externality and obvious spillover rather than a focused agenda to be worked upon. This element of smart city is not seen to be central to most of such definitions or their interpretations, humans are the means once again rather than the ends, as the 1940’s era used to be, especially in case of underdeveloped countries. Smart cities here are synonymous to ‘digital cities’ or ‘corporatized cities’. The advent of smart cities, was an innovative idea by the corporate to sail through the tough time of ‘the bubble burst’ of 2008, and to create a new market for the emerging industries like that of IT and ICT. The idea of ‘smart earth’ was also well received by corporate entities and governments of various countries, including India. Again, the distinction between a developed and a developing country faded and a blanket rule seemed to be appearing for all, that was to become capital-intensive and technology driven in case of city development strategy. The ground reality is, that the backward nations still struggle with the common city utilities like – sewage, sanitation, water availability, waste management, basic health care, etc. The use of technology in such scenario could not have been the priority, but the catalyst to improve upon the current city status. No city can get smart or digitized without having basic utilities in place.

The broader perspective of smart city concept, embraces people and citizens and keep them at the heart of planning, such definitions are ‘development centric’ in nature and implication. They see technology enhancement as a tool to equip the citizens for emergence of democratic cities – the smart cities – ‘of, by and for the people’; and not for

the corporate profitability. The physical infrastructure is considered as important as the social infrastructure and wellbeing of people, the people would make the city and would be in turn made by it. This is not the 'top-down' but the 'bottom-up' approach to development, which negates the idea of 'trickle down effect' and welcomes people's participation from the scratch of city planning - from defining, to conceiving, to envisioning, to preparing blueprint, to implementing, to managing, to governing, to further planning of their smart city. People are the doers and the beneficiaries, not the corporate. The whole definition of smartness is not mutilated or molded to promote capitalism. The city citizen is not the new proletariat class. This approach is more on the lines of Elinor Ostrom's idea to manage the common resources through common cohesion, as against Garrett Hardin's belief of common coercion or Ronald Coase's private property for management of common pool resource. Ostrom adds that heterogeneity (that is abundant in cities where immigration is high) induces cooperation and would lead to positive externalities. (Elinor Ostrom, et al) The manner in which city is perceived, planned, conducted and restructured depends a lot on the attitude, behavior pattern and outlook of its citizens towards it. The more people feel responsible for the betterment of their city more dutiful and compassionate will they become for it. One can supply 24x7 water, use latest technology for water recycling and harvesting, install meters to contain water consumption, exercise penalties on excess use; but none can work better than a changed attitude of people to conserve their common resource - water. People have to be made part and parcel of the decision making and benefit bearing. People are no parasites to externalities, they are their creators - both positive and negative, as the case may be. This is evident that all cities which have been able to achieve any landmark in smarting their cities have put their people at the soul of city planning - like London, U.K., or New York, the U.S., or Seoul, South Korea, or Paris, France - all of these cities rank very high on account of their 'social cohesion index' of city planning. All these cities rank top in the 'Cities in Motion' index prepared by IESE Business School, for Smart Cities. (Cities in Motion, 2015 Index)

### **Smart Cities for India - A Merry Go Round**

In the background where, 31% of India's population lives in cities today; and cities generating 63% of the nation's economic activities these numbers seeing only an upward trend, with almost half of India's population projected to be living in its cities by 2030 and cities to remain the growth engines and hubs of economic activities, along with assuming immigration of unprecedented degrees. The urbanizing trends to continue in the future where 600 million of Indians will be living in cities by 2030, up from 290 million as reported in the 2001 census. About 30 village dwellers move every minute from villages to become city dwellers. The government of India is forced to act on its cities, take the challenge and discount on the opportunities that urbanization is posing.

The newly elected Government of India announced the Smart City program in the year 2014. This flagship initiative will allocate Rs. 48,000 crore (an estimated \$7.5 billion) over five years to promote progressive urban planning, improve governance, and strengthen economic, social and physical infrastructure of 100 cities. In 2015, a

collaboration with Bloomberg Philanthropies led by Mr. Michael Bloomberg, ex-Mayor of New York city (2002-2013) and UN Special Envoy for Cities and Climate Change was done for Smart City Initiative for India. Bloomberg Philanthropies will provide assistance to the Ministry of Urban Development to select cities for Smart Cities Mission funding on a continuous basis, and be its knowledge and strategy partner. Mr. M. Bloomberg was the mayor of New York City when city underwent revamp under his able leadership. With Amanda Burden, as director of New York City Department of City Planning and Chair of City Planning Commission, the duo team changed the face of New York City and its public places, through people's participation. (TED talk by Amanda Burden).

Bloomberg Philanthropies would also assist in galvanizing an international network of urban practitioners to bring in the best global practices to the planning desk. This initiative clearly mentions that it shall ensure citizen engagement, where people will be involved both in design and execution of city development plans; and that this shall actualize the idea of cooperative and competitive federalism. It also claims that the whole initiative is directed towards enhancing quality of life for residents today and in the future. That is to imply, that citizens are the pivotal point of all the initiatives and stakeholders' role is equally prioritized. Though interestingly, the first cities selected by the duo that included PM of India and US President in September 2014 were Ajmer (Rajasthan), Allahabad (Uttar Pradesh) and Vishakhapatnam (Andhra Pradesh). There-after Kochi, Ahmedabad, Aurangabad, Manesar, Khushkera, Krishnapatnam, Ponneri and Tumkur were declared as smart cities. For the remaining cities to be selected, a Smart City Challenge has been thrown upon, where the Municipal bodies will present a plan for smarting their cities to the Government. In this vogue of selection process, municipal bodies that present well will make upto the trophy, even if the plans presented by them never matched aspirations of the common people. And the municipal bodies that lose the game, bring disappointment not only because they could not win but also because they could never represent aspirations of their citizens.

Another intriguing fact is that the Ministry of Urban Affairs is not very clear as to what smart cities should actually mean for India, the definition has been kept deliberately loose and extra flexible to facilitate multiple interpretations. This is to add another cookie to corporate basket. The government official document pronounces - "The conceptualization of Smart City, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents. A smart city would have a different connotation in India than, say, Europe. Even in India, there is no one way of defining a smart city." Though paradoxically they also reserve the prototype model for a general convenience which could be attributed to ambiguity in the government system, they say - "The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will act like a light house to other aspiring cities." More clarity on the front of flexibility or prototyping is demanded from the government. This ambiguity or equivocalness may be misused by the corporate houses



involved and also by the government, especially when the common citizens have a name sake role to play except for consuming what is laid out in their platter. Citizen is no more than a passive participant, spectator and a victim of international intervention to his city, without his consent or approval. He is either deemed as irrelevant or misfit to pronounce his vision for his own city, whereas US experts are relied upon for the same. This is by no way an inclusive development recipe.

The government of India has identified some very innovative elements that shall be imbibed by any smart city of India, which are - i. Promoting mixed land use in area-based developments; ii. Housing and inclusiveness; iii. Creating walkable localities ; iv. Preserving and developing open spaces ; v. Promoting a variety of transport options; vi. Making governance citizen-friendly and cost effective – increasing reliance on online services to bring about accountability and transparency; vii. Giving an identity to the city; viii. Applying Smart Solutions to infrastructure and services. Whereas the international standards of Cities in Motion Index, constructed by IESE Business School, measures smartness of cities based on following parameters - i. Governance ii. Urban Planning iii. Public Management iv. Technology v. Environment vi. International Impact vii. Social Cohesion viii. Transportation ix. Human capital x. Economy. This ranking system includes 148 cities of the world and rank them on the basis of the aforementioned index, which has 10 parameters, and 72 indicators. From India Kolkota, Delhi, Mumbai and Banglore feature in the list of 148 cities with their ranking as - 148 (bottom most), 132, 141 and 140 respectively. This index talks most about people as three out of ten parameters are human centric - Human capital, Social Cohesion and Public management, if we even want to keep Governance and International Impact aside. Indian standards for smart cities, though partially determined yet, talk louder about the means than ends. In fact, Indian government could have borrowed the same index if it did not have the potential to improvise upon it. In the current scheme of things, Indian citizens are made of e-citizens or digital-citizens who could use more mobile, internet and e-commerce. Since the day of announcement of smart cities, citizens seem to have had no role to play in smart cities.

The government has also defined area-based development and distinguished it from Pan city initiative. It says, the various ways of smarting the cities on area-based development would be as follows - (i) Retrofitting (where an existing urbanized area of more than 500 acres, with citizens' consultation be retrofitted or upgraded to be packed with intensive infrastructure and smart applications) - The caution here is about citizen consultation again. (ii) Redevelopment (where replacement of an existing built-up environment of more than 50 acres area identified by Local Urban Bodies (ULBs) shall happen like - the Saifee Burhani Upliftment Project in Mumbai (Bhendi Bazaar Project) and East Kidwai Nagar in New Delhi being undertaken by the National Building Construction Corporation) - The ULBs will have to collaborate with locals as this may bring about resistance and may also include displacement of natives. (iii) Greenfield (where fresh development of a previously vacant area of over 250 acres would be done - like - GIFT city, Gujarat) - It may pose serious threats. Firstly, such developments may gulp in fertile agriculture land. Secondly, farmers' land may be

snatched away. Therefore, inspiration may be taken from land pooling models like that of Magarpatta City, Pune, Maharashtra. Thirdly, it claims that such developments shall benefit the poor, but cities like GIFT are hubs of capital intensive industries. Such hi-tech cities may find the poor useful but only for menial jobs. Fourthly, this also means encouragement to gated communities with restricted access to all. (iv) Pan-city (where smart solutions shall be offered to city wide infrastructure) – This may be a deep fertile ground for all IT and ICT companies to build their webs and expand their markets legitimately and openly. Whereas for the citizens, it is a consolation candy for being happy to be included in their networks if not anywhere else in planning. In all this bifurcation, a less than 50 acres category could be created, because the Mayor of Reo De Janeiro, Eduardo Paes has done wonders with small pieces of lands placed in favelas (slums) where hi-tech educational and medical centers have been created for slum dwellers. This is in true sense inclusive development. Similar public places have been created in New York City.

Smart solutions for government are – e-governance, Energy management, Waste management, Water management, Urban mobility and others. (Smart Cities Mission and Guideline) There are interesting observations here as well, that is overemphasis on technology, exaggerated pronouncement of IT and ICT. Smart in most of the places in government literature is synonym to digital. Sometimes, use of technology is also redundant. To cite an example, let the smart cities ban cars and have public or mass transit based transport system. Forcing technology in every sphere is not a smart idea. Masdar city, in UAE has banned private cars completely inside its boundaries.

Another pertinent aspect of investment in smart cities is that a blanket rule of 100 crores to each city may prove to be detrimental. A city like Delhi or Allahabad or Vishakhapatnam or Ajmer may all have different appetite and requirement. Just for the sake of spending money to smart the city is inconsequential and waste of resources. Such resources could be used for some other development purposes. Similarly, the Public Private Partnership model for smart cities looks more like a corporate model, where corporatization of common resources seems to be going to happen. Also the indigenous expertise and experience may be counted upon, India has good resource for city planning, town planners, architects, academia, social scientists, common citizens to plan Indian cities in best fashion possible. The experts from the U.S. or Bloomberg Philanthropy may just supplement and complement. A great care should be taken while repeatedly using the term ‘quality of life’ to be enhanced through smart cities; as quality of life and standard of living are two different aspects. Smart cities, the way we are seeing them being built may not be what people consider to be quality of life enhancement. Social life, community feeling, people participation, sense of ownership will lead to a higher quality of life than digitizing and privatizing the cities and common places. The right public attitude towards common city resources and citizen discipline can also be brought about by making them live stakeholders and shareholders of the smart cities and winning their compassion for new smart cities, that shall also enhance the life cycle of newly created assets, environment and cities, on the whole.

Hence, the merry-go-round of the growth story needs to be culminated into ‘development led smart cities’, cities which embrace all and offer best to everyone,



including the corporate. But the heart of such planning has to be the common people. Smart cities have to be democratic, sustainable and equitable with a long term vision. Along with having smart cities, satellite villages adjacent to smart cities can also be thought to be infused with life and vibrancy, to avoid heavy migration from villages. Let the decision to migrate be more out of choice than compulsion.

## Conclusion

Smart city is not a fancy concept coined by another government to please its vote bank. Cities are homes to people, governments may change but homes and people are here to stay, once made will last forever at least through their influence. Cities' future cannot be compromised with, they need utter care to be planned, designed, implemented and conducted. They will decide destiny for many, create externalities heavier than direct rewards for many, seep into the system and inspire the future of mankind that will find its way to city dynamism and will be opportunity and energy sources for the economy. But cities should also be seen distinctively as well, as sheer social avenues of life for millions of people who crusade through it to make or break their life summaries, inclusiveness all the rights and responsibilities of cities, cannot be denied for. Smart cities have to be development centric by all means and ideally should have the attributes of sustainability, equitability, happiness and wellbeing.

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# Exploring the idea of 'Development' in a neoliberal state: Do the poor have the right to 'smart' city

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Debapriya Ganguly

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## *Abstract*

*Much has been talked about the neoliberal phenomenon of the 'retreat of the state', however, the state is now found to be even more actively involved; not only in the process of development, but also in the lives of its citizens. When the Indian state devises plans like 'smart cities', it also involves collaboration with private developers in the form of Private-Public-Partnerships. In the name of infrastructure building what is visible are displacements of certain sections of the population. In view of greater claims to inclusiveness of the poor, what is witnessed is further marginalisation. This section of the population is still entangled in the legal, political, economic and cultural mesh of asserting their legitimate stakes in the city. This paper tries to bring together these arguments within the rubric of development, neoliberalism and right to the city.*

## *Acronyms/Abbreviations*

*BSUP: Basic Services to Urban Poor, GVMC: Greater Vishakhapatnam Municipal Corporation, JNNURM: Jawaharlal Nehru National Urban Renewal Mission*

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## **Introduction**

**"Modernization hereby recapitulates nineteenth century comparativism and colonialism, with American foreign policy en-forcing the dominant comparative partner – itself – on the rest of the world, in the certainty that its 'model for national success: freedom, democracy, and free enterprise' is the 'one sustainable' model." Pollock (2010: 201).**

The above statement captures the age old trends in development politics across international borders. Starting from the postulates of modernisation theory to the present flag-bearers of neo-liberalism, all advocate for a seemingly global format towards progress and development. Keeping the west, especially the United States, as the 'standard', other nation states redefine their programmes and policies to become a part of this world network. However; in this collective movement towards fulfilment of definite parameters, certain obstacles arise time and again. It is the asymmetry not only 'among' the different countries but also 'within' them (in terms of their economic, cultural, social, geographical and political makeup) which makes it difficult to uniformly administer a single model. As Brohman says the prime need is to understand the 'contextuality' of 'historical processes' instead of attempting to follow the

“development experiences of particular societies during particular periods and expect these findings to be valid in other cases” (1995: 121). Nevertheless, the global tendencies over the last few decades have been to understand development as imitation. Although the modernisation theory was highly criticised and disowned by policy makers and academia alike, and subsequent theories emerged as ‘alternatives’ to development; the ultimate consequence has been the rise of the neo-liberal era, which takes forward the incomplete task of the development project (as it was originally conceived).

According to Springer (2013), neoliberalism stemmed from the liberal understandings of the enlightenment period to curb the post-war effects on societies. It envisaged a society that would centre around the ideas of individualism, free markets and non-intervention by the state. All this was to be achieved in view of attributing ‘self-sufficiency’ to the people under a ‘property regime’, as against the ‘autocratic’ experiences of state dominated structures of the world war period (Ibid.: 147). Springer further comments that though the neo-liberal agenda was propagated in view of fighting against violence; ‘structural adjustment, fiscal austerity and free trade’ (the fundamentals of neoliberalism) have been vigorously implemented by the state apparatuses (Ibid.). Neoliberalism thus appeared on the scene as another engine of development deployed by the states participating in the geopolitical order. An interesting aspect in this entire neoliberal project is the paradoxical role of the state which can reveal interesting points for the present discussion.

### **The urban agenda of the neoliberal state**

Much has been talked about the neoliberal phenomenon of the ‘retreat of the state’, however, the state is now found to be even more actively involved; not only in the process of development, but also in the lives of its citizens. As Harvey says, that though the states publicise neoliberalism as a marker of freedom and liberalism, it actually works towards the resurgence of class inequality (cited in: Munster and Strumpell, 2014: 9). Partha Chatterjee while focusing on the Indian context remarks that, with the end of the ‘license regime’ and entry of foreign capital, what the state has encouraged is not just the continuity of ‘monopoly’ houses but also the new additions to the capitalist class (2008: 56). However, Munster and Strumpell (2014) make a stimulating point here. According to them, the Indian state plays the clever balancing role. The state claims to follow the neo-liberal ‘ideology’ of non-interference in the economy by giving space to private capital. Simultaneously, by introducing social sector services it tries to control resistance from the discontent masses by taking ‘resort to force or persuasion’ (Ibid.: 9). Ong and Sparke say, that since the state is no longer the guardian of the people’s welfare, the provisions made available are also limited; thus what becomes pronounced is “...the politicisation of citizenship and immigration issues, as ‘citizens’ and ‘others’ come into conflict over who is entitled and who is unentitled...” (cited in: Springer, 2013:154). Having said this, it will be fruitful to look at the urban centres where the struggle over resources is acute and where neo-liberalism plays out itself on a grand scale.

Literature on urban spaces is wide and diverse both in the Indian context and in the West. The Chicago School’s empirical work is noteworthy as it provides an understanding of the planning of cities, throwing light upon how the location of certain

sections in specific parts of the city, reveal the underlying nexus of social, cultural, political and economic dimensions. Sociology's interest in the 'urban' as a site of production and regeneration of capital has been widely documented by scholars like Henri Lefebvre, David Harvey, Manuel Castells, Sharon Zukin, Saskia Sassen and so on. The western understanding of the city and the process of urbanisation has been found to draw intricate links with industrialisation whereby concrete distinctions have been outlined between the rural and the urban. If one tries to analyse the Indian urban scene with respect to these understandings, certain problems are sure to arise. As Patel points out, to discuss Indian urbanisation one needs to be especially sensitive to the diverse "ways the process of capitalist formation have spatially organized actors, and the varied economic, political, and the social institutions in distinct and different ways" (2006:20). The colonial experience also adds to the particularities that Indian urban spaces have in offer. The country being 'ethnically, linguistically and religiously' diverse along with the active intervention of caste, gender and geography, it is able to create a different space for itself in the discussion on the nature of its urbanisation (Ibid.). In addition to this, the rapid and continuous growth in the number of urban centres-transition from towns to cities and cities to metropolises--has called forth the necessity to focus on the issue of urbanisation in India more intensely, than before.

In the cities, "large infrastructure components need to be provided in the right order and locations in ways that enable overall systems to function efficiently in the technical sense" (Berry, 2013: 10). This requires meticulous planning on behalf of the administrators and an in-depth understanding of the essential requirements of the city as a whole. The Indian state, even in the neo-liberal age plays a dynamic role in terms of policies, projections and planning. One of the biggest examples of the state's urban enterprises is in terms of the development of 'smart cities'.

### **The role of 'smart'ness in developmental planning**

Development studies' scholars have frequently been found devising indicators for redefining 'development'. Economic progress, health facilities, increase in the literacy rates, infrastructural growth and so on, have not only featured as markers of 'development' in the planning agenda of the state, but also find place in academic writings and debates. Having said that, it is important to mention that, the urban sector forms an essential part within the developmental planning of the state. It is this urban space which acts as a primary platform where the states display their foray of developmental activities to the global audience. Therefore, both the state and the development scholarship have their stakes in understanding the 'urban'. The interest in understanding the urban centres of the Third World has also worked towards 'developing' these countries through financial aids, and thereby, open up new markets for economic and political transactions. Arriving at the Indian context, contemporary literature on urbanisation provides reviews of the state and its development policies are quite often discussed, highlighting certain specific issues. The key concerns that are widely considered include- urban governance, urban ecology, lack of civic amenities for the poor, displacement, land grabs, resettlement colonies, rural-urban migration, informal labour and, so on. However, with the beginning of a new political regime in

the country in 2014, a term which is being rampantly used, with considerable emphasis, is that of the 'smart city'. Due to lack of a ready definition for reference, it has been understood largely as a city which is technologically well equipped to facilitate the process of urban governance. The Ministry of Urban Development website lays out certain key features of a 'smart city' to demonstrate its purpose. The services include; a) water supply, b) electricity supply, c) sanitation with emphasis on solid waste management, d) urban mobility and public transport, e) reasonable housing, especially for the poor, f) efficient IT connectivity and digitalization, g) good governance, with special focus on e-Governance and citizen participation, h) sustainable environment, i) provision of safety and security of citizens, particularly women, children and the elderly, and j) health and education.<sup>1</sup> As Burte puts it, smart city appears to be an 'extension' to initiatives like Jawaharlal Nehru National Urban Renewal Mission (JNNURM) with renewed thrust on the idea of 'implementation' (2014: 22). The government in power aims to build 100 such cities to smarten urban forms of living and to take another step towards 'development' of the country. However, the question remains as to who are the beneficiaries of such schemes and policies? Who reaps the benefits and who bears the costs? One of the most significant markers of development in urban areas has been infrastructural growth and real estate forms an essential part of it. According to Chen, Wang and Kundu "to draw investment into the city through real-estate-driven development, city governments have been relaxing norms relating to urban land use, zoning, land ceiling, etc.", (2009:438). The evolution of smart cities signals towards the threats of similar instances, whereby, certain individuals have to forego their shelter at meagre or no price in the name of 'development'.

### **The right to 'Smart' city**

The popularisation of a more city-centric development raises important concerns for migration patterns and urban citizenship. An urban centre is often an amalgamation of both original inhabitants and migrant population. As Baumgart and Kreibich (2011) point out, around 40% of urban growth in the developing world is attributed to rural-urban migration; whereby people enter the city under different motivations. Given the fact that urban centres fail to subsume the entire population within its folds; there emerges structural inequalities at multiple levels. The question of citizens and non-citizens arise here. When the Indian state devises plans like smart cities, it also involves collaboration with private developers in the form of P.P.P. In the name of infrastructure building what is visible are displacements of certain sections of the population. In view of greater services to the poor, what is witnessed is further marginalisation. This section of the population is still entangled in the legal, political, economic and cultural mesh of asserting their legitimate stakes in the city. Lefebvre uses the phrase 'right to the city', to capture this idea of pestering for one's 'transformed and renewed life to urban life' (1995: 158). As Purcell (2002) says, Lefebvre's 'right to the city' may not be the only framework to look at the democratic restructuring of urban spaces; however it is definitely a useful point of reference in understanding the urban dynamics.

1. The Ministry of Urban Development, Government of India, has laid out the features of a Smart City on its website in the section 'What is a Smart City', <http://smartcities.gov.in/writereaddata/What%20is%20Smart%20City.pdf>

'Right to the city' has been a much discussed and debated concept in urban sociology, whereby, scholars have tried to interpret and re-interpret Lefebvre's formulation. Right to the city has been widely understood as the right of all those who reside in the city, to participate in the decision making process over how to use urban spaces. Though Lefebvre's work has been critiqued for not elaborating on what is the exact nature of this right, how this right can be exercised or what consequences it might lead to; but the idea bears the potential to bring forth incremental changes with respect to urban governance. Working with this concept of 'right to the city', also provides us with a vantage point to investigate how the state negotiates with various social groups; especially the urban poor, in creating urban spaces. As Harvey (2008) cites the example of slum dwellers; saying that being dubbed as illegal and failing to provide evidence of their prolonged occupation of urban spaces they are denied any right to compensation. Under circumstances where these urban poor are offered remuneration, they are found entering into monetary exchanges because their financial instability predisposes them towards such transactions. On the other hand, the economically dominant would object to any such negotiations where they have to hand over their assets, and the state concedes to them (Ibid.: 36). Unfortunately, the neoliberal state is found more often than not privileging these sections over the others.

Borrowing from Alan Gilbert, several scholars like Pushpa Aurobindoo (2011), David Simon (2011), Gareth A. Jones (2011) with the examples of the African, Latin American and Asian cities lay stress on the consequences of the UN's Millennium Development Goals which specifically bring under focus this relationship between the 'urban poor' and the 'slums'. The drive towards 'Cities without Slums', initiated by 'Cities Alliance'<sup>2</sup> in 1999, envisages the creation of slum-free cities by the year 2020. According to Gilbert (2007) such international undertakings through their promises often unintentionally portray slums as pathological and action plans often yield quite different results than what has been originally conceived. Examples from the developing countries have shown how 'slums', often being understood as detrimental to urban development, are subjected to the state's eviction enterprises all over the world (Potts, 2011:717). The urban poor as a result have often been pushed to the peripheries of the city with or without adequate resettlement programmes.

A look at the Indian context reflects the trends at the global level whereby, expansion of the boundaries of a metropolis, growth of a town into a city or the developmental agenda of the city municipalities, deem it 'necessary' to undertake 'slum eviction' programmes. Indian urban development academics enter into discussions over the condition of lives after re-settlement, state's negligence towards the urban poor, the role of foreign fundings in slum improvement programmes and so on. Gautam Bhan (2009), Sanyal and Bhattacharya (2011), Karen Coelho (2012) and several others, drawing instances from the cities of Delhi, Mumbai and Chennai throw light upon the predicaments of the urban poor.

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2. Cities Alliance is a global organisation which devised the 'Cities Without Slums: Action Plan for Moving Slum Upgrading to Scale' with the support of UNHCS (Habitat) and the World Bank in 1999.



## A brief case study of Visakhapatnam

Visakhapatnam is the largest city in the new state of Andhra Pradesh. It has an interesting trajectory of urban development, undergoing various stages of transformation, starting from the colonial period of the late 1700s when it was a fishing hamlet to an important port town under the British rule, to an industrial city in the post-independence era. In 2014, Visakhapatnam was one of the first cities to be included in the smart city mission, with an increased focus on digitisation of the urban services.<sup>3</sup> It is important to mention that the city is also considered as one of the success stories of the JNNURM, whereby the urban local body has been lauded for its performance in the field of Basic Services to the Urban Poor.<sup>4</sup> However, if one looks at the 2011 Census data, it reveals that Visakhapatnam has the highest slum population among million-plus cities (44.1%) in relation to its urban population. The Greater Visakhapatnam Municipal Corporation identifies most of these slums as being situated in the lands owned by the government and/or private bodies. In this respect, one of the undertakings by GVMC which has received major attention in the last few years is its drive to evict slum dwellers. The National People's Alliance Movement in 2011 released a report, pointing out GVMC's active efforts in clearing up 175 slums, which are then to be used for city development. There were widespread resistance by various organisations and the slum residents against these moves which eventually culminated in displacement of several families. Field work conducted in the Seva Nagar slum, which was evicted from the railway colony and resettled in JNNURM houses in the city peripheries of Madhurawada, Kommadi and Pendurthi; raise several questions regarding these government initiatives apparently undertaken to deliver services to the poor. Majority of slum dwellers, belonging to the said lower castes were employed in informal sector. In the name of rehabilitating and providing 'adequate' housing under JNNURM, they got distanced from their economic and social networks in addition to a significant lack of access to basic amenities such as drinking water, electric supply, health services, public transportation, sanitation and so on. Under such circumstances, where the existing infrastructure is failing to address needs of the poor, discussions over building a smart city which envisages a certain form of growth based on specific skills for making it participative, appear to be misplaced. In the name of 'development' it is the poor who are first in the line to face the fire. As Prasad (2014) points out in his comparative study on Visakhapatnam and Tirupati that, the decision making power in urban governance still lies with the dominant groups, who use it for their vested interests.

## Conclusion

The idea of 'development' being shaped in the neoliberal era is giving rise to newer forms of urbanisation. Drawing from the literature on development, neo-liberalism, urban sociology and the right to city perspective; along with the brief case study of Visakhapatnam, the objective has been to hint at the patterns of

3. "Vizag will be first to be made a 'Smart City'", The Hindu, <http://www.thehindu.com/news/national/andhra-pradesh/vizag-will-be-first-to-be-made-a-smart-city/article6854355.ece>

4. "GVMC stands out in urban mission implementation", The Hindu,

<http://www.thehindu.com/news/cities/Visakhapatnam/gvmc-stands-out-in-urban-mission-implementation/article5556816.ece>



marginalisation that continue to exist even in the re-imagination of urban spaces. In a situation as this, we are confronted with the question as to whether the smart city under the neoliberal framework has anything to offer to the poor or not? As Srivastava says “a city must best be understood through focusing on specific spaces and times, and on processes that make urban spaces and temporalities the viscous form within which human lives unfold” (2015: xviii). The state’s new neoliberal agenda in the form of smart cities, only appear to pose the same threat and raises the same queries-- whose development; whose city and whose welfare are we talking about. Unless the initiatives take responsibility of these concerns, all-inclusive development remains a far-fetched idea.

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# Do we need another JNNURM? A Critical Review in context of Smart Cities

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Namrata Panwar

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## **Abstract**

*The importance of cities is well known. But the issue of urban management has recent origin in India. Some time back India realized the need of policies and framework which can lead to better urban management. This happened because our cities instead becoming a global hub were stagnating and decaying due to faulty approach towards urban management. For this purpose GOI introduced a mission known as Jawahar Lal Nehru Urban Renewal Mission (JNNURM) in 2005. The main objective of this paper is to understand the working of JNNURM and critically review its working in the context of announcement of 100 smart cities by the present Indian Government. Since the development of smart cities need a comprehensive plan the obvious question is do we need another JNNURM? Though JNNURM has its own weaknesses but it is the first mission of its type in India that holds high academic value. Unfortunately after neo-liberal wave in 1990's the urban projects have become instrument for big business houses to harness the resources of urban India. From the lessons learnt from it new policies can be planned to help redesign smart cities in India.*

## **Acronyms/Abbreviations**

BSUP: Basic Services to Urban Poor, CDP: City Development Plan, DRP: Detailed Project Report, HSDP: Integrated Housing & Slum Development Programme, JNNURM: Jawaharlal Nehru National Urban Renewal Mission, MPC: Metropolitan Planning Committee, NBO: National Building Organization, UIDSSMT: Urban Infrastructure Development Scheme for Small & Medium Towns, UIG : Urban Infrastructure and Governance, ULB: Urban Local Bodies, ULCRA: Urban Land Ceiling Regulation Act

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***“I would rather wake up in the middle of nowhere than in any city on Earth”***

***-Steve McQueen***

This is an old quote of the great actor but there would be many people even today vouching for his words of wisdom. This is not because they hate cities, but it is because of the present worrying conditions of cities especially mega cities which is a cause of major concern. Big and mega cities are also referred to as “islands of privilege” (Harrison 1982) in the ocean of poverty.

One belief of general development economics was that the living conditions of big and mega cities are better than that of people living in small cities or rural areas. Some studies made after second world war have supported the fact. In mega cities there were more jobs and income opportunities, more accessible health and education

infrastructure and thus good standard of living. But since 1980 or specifically after the extensive spread of globalisation and neo-liberalisation, this situation has changed in under-developed or developing countries. Various international and Indian studies have confirmed this fact. Like “Asian, Latin American, and central American megacities of 20 million inhabitants have become increasingly centres of poverty and social collapse.” (Kennedy 1993) and another is “most residents of Bombay, Cairo and Lagos are living in slums” (A.S.Oberai 1993). Besides this there is a lot of literature about declining living conditions in mega cities such as:

- 1- “Rates of morbidity and child mortality is much higher in the slums and periurban areas” (Stephens 1996)
- 2- “Escalating crime and violence punctuated by sporadic riots and increased terrorism as class tension rise”<sup>1</sup> (Massey 1996)
- 3- Big city inequality indicates to urban unrest and social conditions conducive to national revolution. (Kaplan 1996)

Now the main question is why big cities have this kind of condition? Whether there is high growth of population or mismanagement or something else? A study done by Martin Bockerhoff and Ellen Brennan says it is not the overcrowding of the cities or high population growth rate which results in the lower level of living but the main problems are lack of efficiency of urban management, good governance, available revenues and other related factors (Brennan 1998). Before 1980’s researchers were focussing only on the one domain which was related to population pressure. But after the neo-liberalisation and globalisation the focus shifted from demography to polity of the cities. Now urban management and urban governance are the key words in urban economics. The costs and benefits of the cities are not merely the product of population size, but are mainly a result of the commitment and capacities of municipal government to undertake and maintain policies that improve the population welfare, particularly infrastructural maintenance, increased productivity of labour and poverty relief. So from here importance of urban governance started to pin up in urban economics.

Indian cities are not very different from the other cities of the world. They also face the problem of exclusiveness of poor, bad infrastructure, poor governance (rich city but poor urban government syndrome) etc. Mumbai is proclaimed as the financial capital of India but ironically 54% of the population lives in slums. Conditions of Indian cities are not very good and when this is coupled with the fact that India is supposed to see the greatest migration to cities in the world with more than 400 million people moving to urban areas (Vijayakumar 2015), then situation tends to be more alarming.

Inclusiveness is one of the main problems of Indian cities. A large section of society is not included in the development of cities. Urban poor face three types of vulnerability: residential vulnerability, social vulnerability and occupational vulnerability (P.K.Mohanty 2014). There is no program at the national level which embraces the solution for all these kinds of vulnerabilities. The grim condition of slums and urban poverty is a serious matter. It has given way to some really significant

1. This condition can also be seen in Indian cities like Mumbai where rise of various criminal gangs can be seen due to extreme poverty.

questions whether our cities are worth living, whether poor in our country have any rights to cities or actually they are indeed the islands of despair. Many cities in India still follow master planning, a technique emulated from England but the most ironical part is that while England has many a times amended this technique, India continues to follow it without any changes. These plans do not include the people with low income and hence create a virtual city instead of real city, ignore the possibilities of slums, self-created employment settlements and vendors and demand for the huge investments in cities without specifying any source to finance. Thus the master plans are all non-inclusive in nature. There is no place for poor in these kinds of cities. Government of India from time to time tried to redress the problems, one of such scheme is JNNURM.

### **Government initiatives**

The GoI has announced 100 smart cities in the budget of 2015-16 with a promise to alter the face of the Indian urbanization process. In fact, since Independence India is trying to make some model cities which were supposed to serve as examples for urban development in India. Chandigarh, Bhuvneshwar and Kolkata were some of these cities. But unfortunately only Chandigarh turned out to be a well planned city. Remaining two fell victim to tedious delays, faulty planning and lack of capacity building. Let us take the case of Kolkata more specifically because in 1966 the Basic Development Plan was geared up by Ford Foundation but due to change in the political regime this plan could not succeed till Indira Gandhi sanctioned a special recovery package for Kolkata (Sivaramakrishnan 2011). This way an innovative idea met with an untimely death due to political unwillingness and a city which was once upon a time the most attractive city of India got deprived of the development which it deserved. Before 1974 the word 'urban development' was not used in five year plans of India. Planners had recognized the importance of housing so NBO (National Building Organization) was created in 1954. Also the individual preferences of the political leaders induced the development in some cities like Nehru took interest in development of Chandigarh and Dr. B. C. Roy took the initiative of development of Kolkata. Important programs before the JNNURM 2005 are as follows:

#### **In Fifth Plan**

1. The Minimum Needs program for social and economic development of under privileged community by meeting minimum needs.
2. Environmental Improvement of Urban Slums for ameliorating the living conditions in urban slums by providing all basic needs.
3. Integrated development of small and medium towns to check growing migration to big cities.

#### **In Sixth Plan**

1. The Prime Minister's Grant project for development of slums like Dharavi, Mumbai

#### **In Seventh Plan**

1. Urban Basic Services for Poor to improve quality of life of urban poor.

2. Nehru Rozgar Yojana to provide both self-employment and wage employment to urban poor

### **In Eighth Plan**

1. Physical and financial development of infrastructures in mega cities.
2. PM's integrated Urban Poverty Eradication Program for removing poverty.
3. National Slum Development Program for upgradation of urban slums by providing physical amenities.
4. Swarn Jayanti Shahari Rojgar Yojana to create self-employment for the urban poor.

### **In Tenth Plan**

1. Urban Reforms Incentive Fund to give reforms linked assistance to states (reforms same as JNNURM)

But even with all these programs the true nature of urban problems could not be tackled properly. They faced many political and administrative hurdles. So the GoI launched a new program JNNURM in December 2005 for the specified period of 7 years. The main aim of this program was to finance the urban infrastructure and urban services in selected 65 cities of India. JNNURM embraced four schemes i.e. UIG, BSUP, UIDSSMT and IHSDP. The last two programs cover non-mission cities also and aim to provide integrated and basic services to slum dwellers and urban poor. In JNNURM the Central Government signed a tripartite agreement with state governments and ULBs. Accordingly, the state governments and ULBs made some reforms in procedures to receive financial help from GoI such as:

### **Mandatory Reforms**

**State-** 1. Implementation of the 74<sup>th</sup> constitutional Amendment; 2. Assigning city planning functions to ULBs.; 3. Reform in rent control; 4. Rationalisation of stamp duty to not more than 5%; 5. Repeal of ULCRA (Urban Land Ceiling Regulation Act); 6. Enactment of community participation law and 7. Enactment of Public Disclosure Law.

**ULBs-** 1. Accounting reforms: (i) double entry system and (ii) preparation of annual balance sheet; 2. Property Tax reforms: (i) Introduction of self -assessment tax, (ii) more than 85% properties to be under tax records and (iii) more than 90% tax collection; 3. Recovering User Charges 100% collection of operations and maintenance expenses; 4. E-governance set up; 5. Internal earmarking of funds for poor and 6. Provision of basic services to urban poor.

### **Optional reforms**

**State-** 1. Introduction of Property Title Certificate system in ULBs; 2. Earmarking 20 - 25% of land for LIG/EWS and 3. Simplification of framework of conversion of agriculture land to non- agriculture use.

**ULBs-** 1. Computerised process of registration of land and property; 2. Revision of building bye-laws to streamline approval process; 3. Bye-law for rain-water



harvesting; 4. Bye-laws for reuse of recycled water; 5. Administrative reforms; 6. Structural reforms and 7. Initiate PPPs.

As the first step, ULBs had to prepare a City Development Plan (CDP) and then a Detailed Project Report (DPR) based on priorities set by CDP. Funding of the projects covered under JNNURM is also unique because here, according to population of city, the States and ULBs had to contribute in the total cost.

### **Evaluation of Work Done Under JNNURM**

The evaluation of the working of JNNURM can be made by focussing on the changes brought in service delivery and in the living conditions of the people especially of slum dwellers. Otherwise in terms of infrastructure development it was hard to know the changes because these programs take very long time to complete. It was the first kind of experiment undertaken in India. Still the JNNURM has given some very positive results like some considerable improvements are seen in some states namely Andhra Pradesh, Karnataka, Gujarat, Maharashtra and Tamil Nadu. Also the Mission helped some ULBs to undertake big scale projects which turned into success stories of the cities. For example the Mission has funded 100% city wide sanitation program of Navi Mumbai and the solid waste management program in Rajkot which made it one of the cleanest cities of India. The India's first world class BRTS was also funded by the mission in Ahmedabad. Since it was the first experiment of its kind it was quite obvious that it would face some hurdles and expose itself to some weaknesses like:

1. **Selection of the cities-** The criteria of selection of the cities under JNNURM did not consider any analysis of the potential needs of the cities. Several cities which were not lacking in resources and where many projects were already going on were selected, but some cities like Kanpur which was stagnating for decades were kept out of it. The selection of city went first and then the city development planning came.
2. **Non-comprehensive structure-** The basic aim behind JNNURM was to introduce inclusive growth in cities. But the items covered under it were not comprehensive enough to fulfil this aim. It did not include health and education which are the basic needs of any community. Without being able to provide full social security to the urban poor, it was difficult to achieve the inclusive growth.
3. **More, to more-developed states-** the most benefits of the Mission were taken by better-off states. Maharashtra, Gujarat and Andhra Pradesh were the most favored states. Under UIG nearly 40% of the total projects were in these states.
4. **No distinction between Mandatory and Optional reforms-** Repeal of ULCRA and Rent Control Act are some very important mandatory reforms of JNNURM but in the footnote of the Mission document it was also mentioned that related to people oriented schemes like water and sanitation these can be treated as optional reforms. This clearly shows the confusion of the government regarding the reforms initiated. Moreover this repealing of the ULCRA does not go with the inclusive growth purpose of the Mission. It was not conducive with interest of urban



poor because it increased the prices of urban land and made urban land dealings market oriented. Also there was lack of clarity in the nature and content of reforms.

5. **Poor implementation of 74<sup>th</sup> Constitutional Amendment Act-** One of the main objectives of the JNNURM was the empowerment of ULBs. But this was not achieved by it. In many States the governments are still reluctant to pass on the powers to ULBs. The disinclination of the States to accept the self-governments and sharing of powers and functions is well known. The Ministry was also very ambivalent about it. Adding to this problem JNNURM guidelines treated parastatal organisation at par with democratically elected municipal governments.
6. **Reforms, just a formality-** Many a times state governments and ULBs commit to undertake many progressive reforms in order to get sanctions from the Central Government but when the time of asset creation and real implementation of reforms comes they prefer to step back from the former commitments. As a result the next instalment stops which halts the whole process which in turn acts as a punishment for the poor people for believing in the governments. One more default was the non-compliance of the clause of setting up of Metropolitan Planning Committee (MPC). Even where these were set up, they did not hold any powers to perform their work of planning because most of the resources and powers were in the hand of parastatal organizations and development authorities. There are several disconnects which halted the progress. There were many activities like preparing the CDPs and DRPs which were undertaken only for the name just to fulfill the formalities.

Due to development in urban areas the prices of urban land are rising high. Because of this and despite the Constitutional provisions State governments are not ready to give up their authority to municipal bodies. This is one of major reasons behind the failure of reforms based JNNURM.

### **Neoliberalisation and JNNURM**

In 1990's the neoliberal wave enveloped whole of India in itself. The new era marked the beginning of new liberal and global economy which was not only governed by rules of government but by market forces. Soon this wave engulfed our urban policies also. According to many economists NURM in neoliberal sense is just an instrument of big business houses and private investors to harness the resources of urban India. It is just an ideology armed with power, found to bring about patterns of domination and repression in many Indian cities (Banerjee-Guha 2004). This recent reconstruction of Indian cities has resulted in unequal growth aided by destruction of small scale industries, anti- poor legal orders, ban on informal workers, vendors and privatisation of basic necessities. The two reforms which have directly affected the inclusive element of NURM are the repeal of ULCRA and mandatory requirements of ULBs to become financially stable and self- reliant. The repeal of ULCRA directly gives

power to market forces to encroach upon the land reserved for urban poor. Now market agents can easily eye the land on which slums are established. In fact now it is very easy to reclaim the land on which slums are built. This will displace the large number of slum dwellers without any alternatives. Moreover, the alternatives which are provided to them are also not in best interest of them. Like in Kolkata most of the housing projects for poor are at outskirts of the city. These relocated settlements are without basic infrastructure and with heavy user charges (S. Banerjee-Guha 2009). According to new laws the slum dwellers are labelled as encroachers (Singh 2008). Secondly the clause of self-reliance for ULBs has resulted in reduction of budgetary allocation and restriction on their political and financial capacity. Moreover they have to raise money from capital market which will only be interested in mega projects even if they are not in favour of society (S. Banerjee-Guha 2009).

It is also seen that all the infrastructure projects have finished at a faster rate but still in many cities funds allotted for BSUP have remained unutilised. On the land snatched from poor, malls and luxury apartments are made. One third of 300 malls will be just in three cities that are Chandigarh, Jaipur and Ahmedabad (TOI 2009). This shows that how neoliberal policies have converted a pro poor mission into an anti-poor policy.

### **Lessons learnt**

Recently the high powered expert committee gave a report on Indian Urban Infrastructure and Services. The report has discussed every aspect of JNNURM and has felt that it is time to introduce and design the NEW IMPROVED JNNURM. The base of this new version will be the lessons learnt from the past. In this IM-JNNURM the main component will be strong capacity building and realistic but strong conditions for enforcement of it on ground level. This should not be a programme specifically meant for smart cities but for all the cities which are threatened of problem of exclusiveness. This programme can be a part of the policy structure for the smart cities. The suggestions given for proper functioning of IM-JNNURM are listed below (Ahluwalia 2011):

1. For the proper implementation of 74<sup>th</sup> Constitutional Amendment it is suggested to establish a National Development Council sub-committee for Urban development.
2. NI-JNNURM should have universal coverage and it should be extended to each and every town. Instead of project oriented approach it should have program approach. It should be extended for the time period of 20 years with funding of 0.25% of GDP every year from GOI. Also while covering all the towns it should differentiate between the capacities of small towns from mega cities. All the cities are not alike so one seed cannot be used on all kinds of fields.
3. Capacity building should be the main focus of the Mission. Strong programmes should be initiated to create capacity and to train officials. This capacity should not only be on institutional levels but should also include human resource capacity. At least 5% of total funds of IM-JNNURM should be reserved for it.

4. For ULBs a special window should be created especially for the projects which will be executed through PPP mode. An integrated framework should be made for the inclusion of PPPs and private resources in the city projects.
5. State governments have to play a proactive role in empowerment of local governments. They should create a transparent and competitive environment by passing laws like Community Participation Law, Public Disclosure Law, by setting up service level benchmarks and awards for performance. It should initiate a comprehensive regional planning in which ULBs will be in charge of the urban planning.
6. To make India slum free GOI should focus on to redevelop all existing slums and addressing the problem of shortage of affordable housing so that growth of new slums can be prevented. Slum development and infrastructure development under IM-JNNURM have to be coordinated so that this problem can be dealt with wholesome approach.
7. City governments should have a clear monitoring role and parastatal bodies should be made accountable to ULBs. This will help in maintaining the domain of ULBs and make them efficient and powerful.
8. The clause of formation of Technical Advisory Group (TAG) should be taken seriously by involving non-officials in order to guide and monitor the whole progress of government programme.

## Conclusion

Since JNNURM is the first reforms-linked funding project, it was unusual to expect many problems in its implementation but it is a fact that a program like JNNURM is highly necessary for the urban development of India. The only thing is that there is more need to work on the content and implementation part. As the new NDA government has declared smart cities as one of its main agenda, it is quite necessary to strengthen the policies, the resources and above all a strong political will to develop the cities. Cities are engine of growth and significant part of our society, the backbone of development. To quote Theodore Parker at the end "Cities have always been the fireplaces of civilization, whence light and heat radiated out into the dark world."

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# Smart Cities and Ageing Population: Making Smart City Concept Older People Friendly

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## **Abstract**

*Population aging is one of the most significant developments in India. This paper examines India's efforts to meet the challenges posed by its rapidly growing elderly population with an emerging community, home-based elder care, integrated with smart, digital technologies. When fully developed, this model of care has the potential to keep India's older people better engaged in society. Many countries are recognizing the need for new models of integrating and caring for the elderly. Both socially and economically, traditional models of care no longer seem to fit for elderly persons. This paper presents a unique, immensely promising approach to meeting this challenge: using smart, digitally-integrated, home-based care. The paper also suggests that the main focus of a smart city must be on its citizens, rather than anyone or anything else. The growing elderly population and increasing life expectancy have brought enormous challenges to many aspects of human life, especially in health and healthcare. A smart home which is a residence equipped with smart technologies providing essential services i.e. safety, security, entertainment, etc would allow elderly to maintain living independently in their homes and still in control of their healthcare cost and status.*

## **Acronyms/Abbreviations**

*EU: European Union, ICT: Information & Communication Technology, NGO: Non-Governmental Organization, NPOP: National Plan for Older Persons, WHO: World Health Organization*

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## **Introduction**

India has recently committed to develop 100 Smart Cities to meet the demands of its rapidly growing urban population. This effort will include construction of new municipalities and renovation of existing cities as the rural population shifts to urban areas. As the world's population shifts to urban areas, policymakers are pressed for answers to overcrowding, pollution, budget limitations, ageing infrastructure, resource constraints and the need for continuing growth. Despite the widespread popularity of smart cities in policy and research fields, and the ever-increasing ageing population in urban areas, ageing issues have seldom been addressed in depth in such programmes. The main focus has hitherto been on making physical environments 'older people friendly'. Here, we review the policies that show the multifaceted relationship between ageing and cities.

Considering the global setting of an increasing ageing population it is important to focus on elderly people as they will be the main city users of tomorrow. Older people can play a significant role in communities – in paid or volunteering work, transmitting experience and knowledge, or helping their families. These contributions can only be ensured if older persons enjoy good health and if societies address their needs. Making cities and communities age-friendly is one of the most effective policy approaches for responding to demographic ageing. ICT based independent living services can play an important role in helping older people to live independently. Innovations in areas such as remote sensors, embedded systems, robotics or wireless mobile networks provide building blocks for intelligent ambient systems that can support elderly people and allow them to stay in their home environment while being medically treated. Examples of such systems include portable or wearable devices for health care applications, or remote sensors and alarm installations that can detect and alert users to health emergencies in the home environment. It suggests how such models of care can meet the wants and needs of the elderly, providing vital services to the very sick, while keeping them more independent and also integrated into social and economic life. The benefits are immense in terms of cost savings and social benefits at the individual, local, and national level.

### **Smart City Concept: An Overview**

Human civilization has continued to advance through the centuries as a result of certain core engines of growth, including technical development and sophisticated social values. The world is being driven largely by advances in information technology. In fact, advanced societies have already begun to enter the age of the smart society, moving beyond the age of the information and knowledge society. A smart city can develop only through full-fledged communication among all its constituent parties. The smart city to which we aspire is a space for the sharing of an incredibly diverse range of things, and this can only be made possible by fostering solid trust among all its members and by making constant advances in information technology, the new growth engine of the 21<sup>st</sup> century.

The concept of a smart city is still emerging. The concept is used all over the world with different nomenclatures, context and meanings. A city can be defined as 'smart' when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and high quality of life, with a wise management of natural resources, through participatory action and engagement. The notion of empowerment of citizens and "democratizing innovation" should be added. The citizen-oriented concept stresses the need for public and private stakeholders to put the citizen at the heart of any Smart City project where citizens, which are the inhabitants of the intelligent cities become agents of change, fully aware of the city challenges and play a qualified role in the civic network, characterized by participation, civic engagement, territorial commitment and the will of sharing knowledge of creativity. A smart city has been defined as a 'knowledge', 'digital', 'cyber' or 'eco' city; representing a concept open to a variety of interpretations,



depending on the goals set out by a smart city's planners. We might refer to a smart city as an improvement on today's city both functionally and structurally, using information and communication technology (ICT) as an infrastructure. The concept of a smart city is evolving and the work of defining and conceptualizing the term is in progress. Some of the earlier outcomes of these activities included:

- "A city well performing in a forward-looking way (in economy, people, governance, mobility, environment, and living) built on the smart combination of endowments and activities of self-decisive, independent and aware citizens."
- "A city that monitors and integrates conditions of all of its critical infrastructures including roads, bridges, tunnels, rails, subways, airports, sea-ports, communications, water, power, even major buildings, can better optimize its resources, plan its preventive maintenance activities, and monitor security aspects while maximizing services to its citizens."

Smart cities demand careful planning and, at an early stage, it is essential that national and municipal governments, citizens and all other stakeholders agree on the smart city definition they aim to fulfil. A clear definition or strategy must address two key factors: the city's desired 'functions' and 'purposes', with its 'functions' referring to the appearance and operation of a city, and its 'purposes' to the benefits promised by a smart city model. Looking at its functions as well as its purposes, a smart city can perhaps be defined as "a city that strategically utilizes many smart factors such as ICT to increase the city's sustainable growth and strengthen city functions, while guaranteeing citizens' happiness and wellness." ICT is the basic infrastructure of a smart city, used not only in cyber space, but also as communicating elements of physical infrastructure, transmitting real-time data on a city's status by way of sensors and processors applied within real-world infrastructure. A diverse range of city functions and services rely on this ICT infrastructure, and this brings about a convergence of processes that enables a smart city to function as a giant, independent intelligent unit.

### **Demographic Profile and Emerging Trends in Greying Population**

Smart cities in India are passing through technological, social, cultural and demographic transition. The increase in the life expectancy has led to the increase in elderly population. Along with the growing number of the aged, the traditional family support system is fast disappearing from the Indian society. The aged are one of the most vulnerable and high-risk groups in terms of health and socio-economic status in the society today. In India, population ageing, as per 2011 Census of India, is 7.44% of the total which is equal to 75,622,321 senior citizens. By 2030, this figure will reach nearly 20 crores. The challenge is to ensure that the elderly are able to lead a healthy, stress-free and comfortable life ahead. They should have every opportunity to pursue the activities of their choice and be able to contribute to society even after retirement. It is the right of the elderly to be treated with respect and dignity and not be abused or exploited. The elderly challenges in the cities and societies are mostly related to the fact

that ageing causes age-specific barriers, such as limitations of mobility, visual and hearing impairments and a high disease susceptibility, especially for chronic diseases (diabetes, Parkinson's disease, dementia, cardiovascular diseases).

Relevant trends have been summarized by National Institute on Aging and National Institutes of Health, *Why Population Aging Matters* (2007) as:

- Most countries, including developing countries, show a steady increase in longevity over time, which raises the question of how much further life expectancy will increase.
- People aged 85 and over are now the fastest growing portion of many national populations.
- Chronic or non-communicable diseases are now the major cause of death among older people in both developed and developing countries.
- While world population is aging at an unprecedented rate, the total population in some countries is simultaneously declining.
- As people live longer and have fewer children, the family structures are transformed, leaving older people with fewer options for care.

### **Urban Design Paradigm and Ageing Population in Smart Cities**

Our societies are facing both demographic shift and urbanisation which imply major socio-economical, technological and environmental challenges to be addressed to ensure and further improve the quality of life. According to WHO, the physical and social environments are key determinants of whether people can remain healthy, independent and autonomous long into their old age. Built living environments indeed influence our activity patterns, mental and physical well-being. With age-friendly environments, the barriers can be removed to empower people to age in better physical and mental health, promote their social inclusion and active civic participation, to ensure a good quality of life. Smart Cities are planned cities aimed to improve, augment and upgrade urban living through the use of integrated smart solutions and performance to improve the well being of all its citizens, irrespective of social or economic class.

How do urban growth and an ageing population affect the planning at the national and regional level? At a time when economic stagnation, environmental concerns and demographic changes are affecting social and political discourses, they are also influencing urban form and development. Furthermore, as people are living longer, they still have much to contribute in their later years to their communities and to the economy. As a result, the policy and urban design paradigm is shifting as the relative importance of older people grows.

### **Integrating active Ageing Approaches to Policies**

The planning for aged people moves from the assumption that smart cities should be a better city for all young, old and children alike as WHO states, "because active ageing is a lifelong process, an age-friendly city is not just "elderly-friendly". Barrier-

free buildings and streets enhance the mobility and independence of people with disabilities, young as well as old. Secure neighbourhoods allow children, younger women and older people to venture outside in confidence to participate in physically active leisure and in social activities.” Significantly, the most rapid increases in the 65 plus population are occurring in developing countries, which will see a jump of 140 percent by 2030. The European Union (EU) uses the World Health Organization definition of active ageing, as the ‘process of optimising opportunities for health, participation and security in order to enhance quality of life as people age’. As a result of integrating active ageing approaches to policies, individuals can ‘participate in society according to their needs, desires and capabilities, while providing them with adequate protection, security and care when they need assistance’.

The concept of active ageing places an emphasis on the continued participation of older people in the labour market and in economic and social life, while at the same time providing for the needs of old age, such as assisted living, adult care, health monitoring, etc. As regards tackling of challenges, László Andor has rightly stated that ‘the key to tackling the challenges of an increasing proportion of older people in our societies is “active ageing”: encouraging older people to remain active by working longer and retiring later, by engaging in volunteer work after retirement, and by leading healthy and autonomous lives’. One of the emerging issues of active ageing is the question of intergenerational solidarity, which has implications on social cohesion and productivity. Creating a socially cohesive inter-generational society needs the awareness of each individual’s role in his/her community and in society. The idea of solidarity between generations aims to ‘reverse the idea that older persons are a burden on society’. The European Union’s commitment to the active ageing agenda is based on its core values, found in the EU’s Charter of Fundamental Rights, where article 21(i) prohibits discrimination based on any ground, including disability and age, and article 25 ‘recognises the rights of the elderly to lead a life of dignity and independence and to participate in social and cultural life’.

By 2050, about 70% of the population of India would be living in cities. With this population shift, the need of the hour is that Smart Cities support urban lifestyles – cities that ensure optimal living conditions and benefits to everyone where economic development is sustainable and rationally incremental, by virtue of being based on success-oriented market drivers – such as supply and demand. The accrued benefits would be for its citizens, businesses, the government and the environment. In effect, the components of a Smart City would include enabling a better life, with services, mobility, environment, e-governance, economy, sustainability and inclusiveness as the pillars for success.

In the beginning, the concept of social space had a strong focus on infrastructural and architectural aspect to enable barrier-free mobility and access to public facilities or green city space. Gradually, the investment shifted towards “soft” dimensions and a more direct integration of residents into their habitat. Consequently, the neighborhood has been specified as a place for, among others: (a) Health care, (b) Senior-friendly

living and caring,(c) Cooperative ways of living, (d) Senior-friendly infrastructure, (e)Development of public space for encounter and (f) Civil engagement.

### **Integrating the Smart City Concept with the Smart Homes**

Advances technologies have changed the way people live. A number of initiatives have improved the quality of living. Many smart home projects have been developed to explore the use of technology for home automation. King defined smart home as “a dwelling incorporating a communications network that connects the key electrical appliances and services, and allows them to be remotely controlled, monitored or accessed”. A smart home is equipped with smart technology and network such as smart lighting system, smart kitchen, energy usage monitoring, security system, etc that enhance people’s life in many aspects i.e. security, entertainment, convenience, etc.

Many terms are used in connection with smart homes such as connected home, digital home, adaptive house, and aware home. However, in order to simplify things only the smart home term is used in this context. Smart homes are based on automated and controlled homes. Controlled homes are homes that react to a deliberate user inputs such as turning on/off a stove as well as remotely closing the gates, remotely controlling the light with a device etc. By adding a capability to sense the environment and act upon events controlled homes are extended into automated homes. Automated homes are mostly characterized by sensors and timers. For example, passive infrared sensors which turn on the lights if people are present in a room; a floor that sense if it is dirty and automatically clean itself; receive notification on a mobile device if some appliances are detected left on and remotely be able to turn them off etc.

Smart home technology can be especially useful for elderly or disabled persons who wish to live independently. Smart home technology has led the idea that elderly person can maintain living independently in their homes and still in control of their healthcare cost and status. Elderly persons can take the advantages of smart home technology such as monitoring system, emergency system, dangerous kitchen appliance detection, fall detection etc. to maintain independent, healthy and safe living.

Although smart home technologies demonstrate potential benefits in assisting elderly people, a successful adoption of such technologies would require a thorough assessment of the need, perception, and concerns of related stakeholders i.e. careers, elderly persons, elderly families and relatives, etc. Devices and sensors in health-related issues such as preventing and detecting falls, assisting with visual or hearing impairments, etc were studied and the result showed that the seniors, in general, have positive attitude towards these devices and sensors.

In smart cities the citizens' activities are not limited to their homes; they live their lives in an entangled society. So, smart spaces need to address this challenge by connecting the inside and outside of the smart homes seamlessly into a cohesive context, i.e. a smart city must include a smart home concept. Smart cities need the latest information and communication technology (ICT) to create a better sustainable and

cost efficient environment. To make smart city the engine of transformation and a generator of solutions for wicked problems, a modern ICT based infrastructure, which integrates the smart homes into a smart city, is needed.

### **Making Cities and Communities Age-Friendly**

Urban design is a key component of age-friendly cities, impacting built environment, outdoor spaces, accessibility, mobility, social interaction opportunities, feeling of safety, and more generally the social inclusion of all generations. Good outdoor design, accessible transport, access to adequate and timely information and provision of social and civic participation spaces are essential to activate the full potential of older persons and make mobility and/or virtual participation possible for all.

The Global Network of Age Friendly Cities is a global initiative by the World Health Organization to create a network of cities focusing on the health and well-being of older individuals. It functions as a learning network for city administrations to prepare for ageing populations and increased urbanisation, through partnerships, exchange of best practices, technical support and training. Age-friendly cities focus on the eight domains of city life that influence the quality of life of older people and support active and healthy ageing, with city councils working alongside urban planners to make necessary changes in: (i) Outdoor spaces/buildings, (ii) Transportation, (iii) Housing, (iv) Social participation, (v) Respect & social inclusion, (vi) Civic participation & employment, (vii) Communication & information, (viii) Community support & health services. Over 40 cities signed the 'Dublin Declaration' at the culmination of the first WHO international conference on age-friendly cities in September 2011, committing to work towards meeting actions based on the WHO Global Age-Friendly Cities Guide.

To work towards "A Society for all Ages" is the message given by the UN Declaration on Ageing, known as the Madrid Declaration, 2002, the Plan of Action, Shanghai and also the Macao Plan of Action. The National Plan for Older Persons (NPOP) adopted by the Government of India in 1999 and the plans adopted by the various states also assert the need to ensure that the elderly lead a life of dignity, care and support. Apart from the government, the NGOs and civil society also have to play a very important role. By combining smart homes with smart cities, an ICT infrastructure may be provided that exploits the entangled connections between the ambient assisted living, the smart homes, and the smart cities. Health care is important for citizens in general and in particular for the elderly. Smart cities need to address all their needs including housing, social participation, health care, community support services, leisure and culture, in order to make smart city environment more elderly friendly.

Social and face-to-face interaction among citizens is very important for exchange of information and communication with others. To help old people feeling lonely, systems and processes are needed to maintain social networks support time spending with family, friends and relatives and to facilitate effective communication. Today younger citizens use services such as face-book, twitter, and short message service (SMS) to communicate. However, these services require some technical skills, which can



be very challenging for elderly citizens. In addition, these services do not provide the type of connectivity that is needed for physical contacts in a neighbourhood.

As noted above, digital technologies are now playing a central role in adapting public policy and the urban environment to an ageing population, especially in providing the data and means for the development and delivery of services, and in making them more accessible and effective, especially in the area of health. The global population is estimated to reach 9.3 billion people by 2050 where elderly people represent a growing share of the world population. In 1950, there were 205 million persons aged 60 or over in the world. By 2012, the number of older persons had increased to almost 810 million. It is projected to more than double by 2050, reaching 2 billion.

### **Public Safety, Security and Privacy**

Safety, privacy and security are important needs of the elderly and technologies must address security problems and typical fear factors such as burglary, fall or forgetting to switch off equipments etc. The city of Oulu in Finland has some pilot projects that deal with these challenges by using sensors to monitor the smart home.

Smart cities need to be safe for older people. From conventional street violence to complex financial offences, identity thefts or data breaches, a dynamic crime horizon can only be tackled by increasingly sophisticated technologies and processes. Tele surveillance systems are becoming increasingly pervasive in urban settings and, coupled with real-time communication capabilities, can help during emergency. In the immediate aftermath of a serious accident or catastrophic event, the ability to share information between agencies, to operate sophisticated telesurveillance systems to guarantee connectivity to incident response teams and first responders, to gather and analyse heterogeneous intelligence and data about incidents in real time, all in a reliable and secure way, allow municipalities and their emergency services to increase safety for citizens, businesses, assets and infrastructure.

### **Smart Health and Homecare Systems for Senior Citizens**

An essential condition for quality of life and well-being, as for a sustainable economic growth, is represented by health which is considered as a primary right for every human being (WHO Constitution 1948). European Union has then developed, starting from 2006, the Health in All Policies (HIAP) approach. It is obvious that people become more and more susceptible to chronic diseases, physical disabilities and mental incapacities in their old age. As age advances, due to deteriorating physiological conditions, the body becomes more prone to illness. The illnesses of the elderly are multiple and chronic in nature. Arthritis, rheumatism, heart problems and high blood pressure are the most prevalent chronic diseases affecting them. Some of the health problems of the elderly can be attributed to social values also.

The idea that old age is an age of ailments and physical infirmities is deeply rooted in the Indian mind and many of the sufferings and physical troubles which are curable are accepted as natural and inevitable by the elderly. Regarding the health problems of



the elderly of different socioeconomic status, it was found that while the elderly poor largely describe their health problems, on the basis of easily identifiable symptoms, like chest pain, shortness of breath, prolonged cough, breathlessness/ asthma, eye problems, difficulty in movements, tiredness, the upper class elderly, in view of their greater knowledge of illnesses, mention blood pressure, heart attacks, and diabetes which are largely diagnosed through clinical examinations. In a study by Mutharayappa and Bhat (2008) NFHS-2 data was analysed to examine the type of lifestyle adopted by the elderly and its effects on their health conditions. "It was found that lifestyle adversely affects health and increases morbidity conditions among the elderly. Lifestyle habits such as alcohol consumption, regular smoking and tobacco chewing have adverse effects on one's ability to control diseases."

Healthcare for senior citizens and disabled population will probably be one of the main issues for smart cities. Health and home care is important for citizens in general and for elderly citizens in particular. Health care contains important elements such as fitness and wellness, which are vital elements for enabling elderly to live longer at home. Smart healthcare systems can benefit from a connected approach, with Electronic Patient Records available to all medical services. This will enable public health professionals and clinicians to collaboratively access information in a secure way, at any time, from anywhere and from any device. In many cases, telemedicine solutions, connected through broadband, wireless or satellite, can prove vital in situations where the infrastructure or specific contingencies do not allow for the physical presence of a specialist—such as natural disasters or remote geographical locations. An ageing population needs traditional care, but also assisted living and health monitoring services to enable independence at home. This can be achieved through the utilisation of sensors and devices connected to health operators through broadband, wireless and data analytics, and crucially, the deployment of privacy, identification and security systems.

In the healthcare sector, smart systems must lead to better diagnostic tools, better treatment and quality of life for patients by simultaneously reducing costs of public healthcare systems. Key developments in this sector are smart miniaturized devices and artificial organs like artificial pancreas or cochlear implants. Patient data can be saved in a digitized system that can prevent medical errors, such as those associated with medication conflicts and previous medical history, through streamlined data sharing between physicians and other medical professionals.

Current trends in personal health systems, enabled by the advances in ICT, biomedical engineering, healthcare technologies, and micro-and nanotechnologies, can greatly contribute to the need for better health care and wellbeing solutions. Personal health systems offer pervasive solutions for health status monitoring, through vital signs measurements performed by bio-sensors, which will be exploited for the prevention and/or early diagnosis of harmful situations. Furthermore, efforts to support independent living encompasses social and medical assistance in the home or at an institution, in the form of face-to-face contact or assistance via tele-care services, in

the shape of assistive technologies, personal monitoring, etc. One can consider these categories: health; enhancing digital literacy, skills and inclusion; and assisted living.

### **Protecting and Strengthening Informal Support Systems**

The institution of the family needs to be protected and strengthened through professional welfare services, including financial support to low income families, and counselling services both to the elderly and family members. Old age presents its special and unique problems but these have been aggravated due to the unprecedented speed of socioeconomic transformation leading to a number of changes in different aspects of living conditions. In traditional Indian society, the informal support systems of family, kinship and community were considered strong enough to provide social security to its members, including older people. Urbanisation, industrialisation and the ongoing phenomenon of globalisation have cast their shadow on traditional values and norms within society. Gradual nuclearisation of the joint family particularly in smart cities, erosion of morality in economy, changes in the value system, migration of youth to urban areas for jobs or work and increasing participation of women in the workforce are important factors responsible for the marginalisation of older people in rural India. As a result, the elderly depend on 'money-order economy' and their intimacy with their children is only from a distance.

Changing traditional values, mobility of the younger generation, changes in family structure and role of women have contributed to a 'crisis in caring' for the elderly. Many facets of the generation gap contribute to marginalisation of older persons and their wisdom by the younger generation, leading to conflicts, lack of respect and decline of authority, neglect and sometimes even exploitation or abuse.

Though many ancient writers and poets have discussed at length the problems of old age, the scientific interest in ageing in India is a 20th century, post-independence (1947) phenomenon. If we look at the status now, the science of gerontology is still in its infancy in India. The interest of social scientists and social work professionals on various issues of ageing is of recent origin. Only recently older people were identified as a priority group in implementation of social welfare policies and government interventions.

### **Conclusion**

A country as large and complex as India, needs to work out an extensive plan for the care and well-being of the elderly as necessary according to differences in levels of urbanisation as well as in cultural and familial systems. The rural poor, who mostly work in the informal or unorganised sector face insecure employment, insufficient income, and lack access to any form of social security and good quality and affordable health care. Generally, they have to pay a large percentage of their income for even basic healthcare services. As the interrelation of health and Smart cities are on the increase worldwide, and especially within Europe there are many initiatives stimulated by the EC and the national governments. Local administrators and policy makers will be increasingly driven to make their cities competitive in order to attract businesses, talent

and taxpayers, and to comply with sustainable policies, greenhouse gas emission targets and carbon footprint guidelines. Smart city deployments will involve multi-faceted developments, carried out by a diverse ecosystem of providers in innovative domains, involving state-of-the-art technology including critical and complex ICT implementations.

Smart cities need the latest information and communication technology (ICT) and its services to create a better sustainable and cost efficient environment for elderly people. It is necessary to create the cities that are aware of the specific needs of aging population to support independent elderly living. Using ICT in a smart city/home context can provide personalized health care, social services and intelligent community services. Above all, It can be said that urban demographics require new approaches to services. Population aging generates many challenges not only about the future economic growth but also about healthcare and the well-being of people. So it is necessary to create cities well equipped to cater to the specific needs of aging population and facilitate independent elderly living.

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# Safe Cities and Gender Budgeting

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Dr Vibhuti Patel

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## **Abstract**

*Urbanisation often goes hand in hand with a rise in urban violence and crime that manifests in terms of street harassment of women and girls, stalking, sexual violence, blackmailing and extortion rackets. Children and women are seen as soft spots who can be victimized by predators. One such incident in the city is enough and the feeling of insecurity is spread like wild fire. It not only frightens girls and women, it controls every act they consider doing then onwards (UN Women, 2015).*

*Smart cities have to be Safe cities. Town planners, policy makers and budget experts need to do gender budgeting to ensure women-friendly civic infrastructure- water, sanitation, health care, safe transport, public toilets, helplines, skill development for crisis management and, safety at work place. While making budgets for social defense services, consideration must be given to safety of girls and women in schools and colleges in terms of prevention of child sexual abuse through public education and counselling facilities, separate toilets for girls and boys in schools, legal literacy on POCSO Act, 2012 and Prevention of Sexual Harassment Workplace Act, 2013. Provision must be made to have special cells in the police department to take action against display of pornographic images, SMS messages, cybercrimes that victimize young girls at public places, in public transport- buses, local trains, rickshaws and taxis.*

## **Acronyms/Abbreviations**

*POCSO: Protection of Children from Sexual Offence, NGO: Non-Governmental Organization, PMSSY: Pradhan Mantri Swasthya Suraksha Yojana, NUHM: National urban Health Mission, PA: Participatory Appraisal, SAP: Structural Adjustment Programme, PDS: Public Distribution System, LSG: Local Self Government, PCPNDT: Preconception & Prenatal Diagnostic Techniques, DV Act: Domestic Violence Act, MWCD: Ministry of Woman & Child Development*

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## **Law and Order Situation and Street Harassment:**

Crime against women is on the rise both in urban and rural areas in India. Conflicts in cities make women all the more vulnerable and society witnessing increasing number of rape, sexual harassment and physical assaults cases. Fear psychosis about safety of girls is also one of the major reasons for continuation of child marriages. Therefore, greater sensitivity and more budget allocation is needed to run efficient Police Helplines, better law and order system and One-stop crisis centres with in public hospitals for women survivors of violence. There needs to be adequate

financial provisions for medical services, counseling as well as emergency shelter and legal aid. Along with financial allocation, transparent guidelines for post trauma care, rehabilitation and compensation needs are equally important.

### **Urban Infrastructure and Safety of Women**

Gender friendly infrastructure plays pivotal role in creating gender friendly cities from the point of view of macroeconomic policy. City planners need to make budgetary provision for safe housing and night shelter for homeless women, half way homes for elderly women, information desk for women and children at railway / buse stations.

Road widening for 4 wheelers and heavy vehicles have taken toll of pavements. Proper foot paths for pedestrians, vendors, hawkers and budgetary allocation for installation of CCTV cameras must be made at all public places, highways and streets in the business hubs. Proper street lighting in the peripheral areas of the city is vital for safety of citizens, especially women, children and senior citizens. Regular safety audit by citizens' forum is important to identify unsafe areas. Safe, clean and free toilets for women at railway stations, bus stops, markets are urgently required in the cities. Allocation for gender sensitization workshops for police personnel is also important.

### **Advantages of safety for women**

Feeling safe is to feel protected. It is a feeling of well-being which can envelop a family, a community, a neighbourhood and a city. Its composition is hard to decipher, but it is an all-encompassing feeling of calm which is often as invisible as clean unpolluted air and, inversely, when fear and anxiety take its place, that feeling is as palpable as though it was a physical reality. Safe cities ensure more freedom and greater opportunities to women in terms of travel, education, jobs and career.

### **Gender Budgeting in Urban Local Self-Government Bodies (ULBs)**

With this perspective in mind, Urban Local Self Government Bodies have to work for gender budgeting and striving for 'Gender friendly' cities should be a strategic objective of urban planners, policy makers and practitioners. Citizens' fora, community based organizers and NGOs are publicly debating the issues concerning revenue generation and public expenditure of the urban bodies with gender lens. Right to information has proved to be an important tool in the hands of civil society for transparency in public expenditure (Patel, 2002).

### **Gender Budgets and Concerns**

There is need to integrate safety of women as a major concern in flagship centrally sponsored schemes such as Jawahar Lal Nehru Urban Renewal Mission (JNNURM), PMSSY, NUHM are supposed to have 30% of funds as Women's Component.

For past 15 years, gender economists and women's groups are making efforts to answer the following questions:

- How to enable women to direct economy through designing and constructing fiscal policy?



- How to link economic governance to political governance?
- How to enable EWRs to participate in the budget-making efforts?

They have used methods of Participatory Appraisal (PA) and Focus Group discussion (FGD) to identify gender concerns (Patel, 2003).

Trend analysis of allocation to social sector in the pre and post 1991 structural Adjustment Programme (SAP) phase has revealed that poor women have suffered the most due to drastic budgetary cuts in Public Distribution System and public health, safe public transport & child care facilities, food security, drinking water and sanitation. There is no gender mainstreaming with respect to safety of women in the budgets of ULBs.

**Gender sensitive budget** demands re-prioratisation of financial allocations by municipal bodies in favour of

- Working women's hostels, crèches, cheap eating facilities, public toilets
- Women friendly and SAFE public transport- local trains, Metro, buses
- Housing- Subsidized housing for single/ deserted/ divorced/ widowed women
- Nutrition- Strengthening PDS and nutritional mid-day meals
- Health- Abolition of user fees for BPL population, one stop crisis centre in public hospital for women/ girls survivors of violence linked with shelter homes
- Skill training centres for women and tailor made courses
- Safe, efficient and cheap public Transport-bus, train, metro
- Water- Safe drinking water in the community centres
- Waste Management- Technological upgradation- Occupational health & safety of recycling workers/ rag pickers
- Proper electrification in the communities
- Multipurpose Community centres, half way homes for elderly and mentally disturbed women

### **Revenue Generation**

Several state governments have sent GR regarding allocation of 5% of total revenues for women and children. This should be increased to 10%. Kerala has done this. Moreover, urban local self-government (LSGs) bodies can raise revenues by heavy taxes on Tobacco, alcohol, private vehicles and entertainment industry. Some amount of fine collected for causing damage to environment (introduction of Green Tax), high speed driving, wrong parking and breaking rules can also be used for welfare of women and children. Surcharge, earmarked charge for specific purpose such as Education Cess-2 % of salary, income tax for disaster management, has raised revenues for urban LSG. In Maharashtra, transport cess at the time of Bangladesh war in 1971, later on was diverted to EGS kitty.

### **Meetings with the stake-holders**

Urban LSGs should organize discussion on needs identified by EWRs with GOs, NGOs and SHGs. They should be made aware of Socio-economic Profile of the Municipality. The ward officers should ensure scrutiny of needs and perceived problems by impartial experts who can also suggest methods to fulfil labour, land, services needs. Financial aspects of programmes and projects also need to be discussed in a transparent manner.

### **Tasks of Citizens Association**

Civil society groups must be allowed to give their opinion on suitable budgetary allocations and generation of revenues from local sources. They can verify/cross check collected data and results of the surveys/interactive workshops and prepare a vision document. Sub-committees can work out details of different budget heads with the help of all stake-holder. Currently women's groups are lobbying for reprioritization of allocation to reflect women's interests e.g. allocation for implementation of Domestic Violence act, PCPNDT Act, utilisation of funds of Swadhar scheme for women in difficult circumstances and working women's hostels in urban centres (Patel, 2004).

**Activity Mapping:** Women's groups are discussing of micro economics involved in dealing with problems faced by women at ward levels such as drinking water, health centers, garbage-disposal and are moving beyond grievance redressal. Women's groups such as Anandi (Ahmedabad), Alochana (Pune), Stree Mukti Sangathana (Mumbai), National alliance of women's Organisations (Bhubaneshwar), Sagamma Srinivas Foundation (Bangalore), Action India (Delhi) are organizing workshops for awareness about technicalities of budget, building knowledge about programmes, schemes, projects under different departments, gathering procedural information about critical issues/felt needs, skills of proposal writing. Stack groups in support of EWRs are Self Help Groups, gender sensitive administrators, corporators / councilors, individuals within political parties, NGOs and Women in the communities. They make efforts to seek allocation under appropriate budget heads to identify streams of revenue, available revenue and the required expenditure.

### **Some unresolved Issues:**

Decision-makers in the urban LSG bodies need to address the following issues demanding urgent attention:

- How to bridge the gap between notional allocation and actual allocation?
- Auditing and record keeping of gender disaggregated data & allocation
- How to achieve physical and performance/ achievement targets?
- Implementation of maternity benefits, Tribal Sub Plan, S.C. Plan for poor
- Major departments claiming indivisibilities of allocation of resources
- Notional allocation projected as real allocation
- Absence of uniform guidelines and procedures

## Gender budgeting in Urban LSG Bodies

Process of gender budgeting demands special programmes targeting women based on enumeration of differential impact of expenditures across all sectors and services, such as gender disaggregated impact on literacy, school drop outs, mortality, morbidity, malnutrition, illnesses, safety and security. Hence, there is need to review equal opportunity policies and opportunities in the public sector-jobs, school education, wages, health care, skills, technical training, and computer education (Patel, 2005).

### Allocation and expenses of resources for women in Panchayat Budgets:

NIPFP has recommended the following classification of financial allocation on schemes and programmes for gender audit as well as gender budgeting:

- Women specific schemes where 100 % of the allocation is required to be spent on women by Ministry of Women and Child Development (MWCD).
- Pro-women schemes where at least 30% of allocation and benefits flow to women, e.g. all anti-poverty programmes.
- Gender Neutral Schemes meant for community as a whole (Employment generation programmes, Jawaharlal Nehru National Urban Renewal Mission).
- Residual schemes for disaster management

All India Institute of Local Self Government, gives details of all schemes under these four categories through its publications, workshops and training programmes (Virmani, 1999). Moreover, it also teaches the elected representatives the efficient ways of programme implementation through budgeting from below.

### Enhanced budgetary allocation for Protective and Welfare Services

These are the schemes directly benefiting women for crisis management of situations arising out of economic and socio-cultural subordination and dehumanisation of women such as shelter homes, short stay homes and rehabilitation schemes for women survivors of violence, pensions for widows and destitute women, help-lines for women survivors of violence.

Increase in budgetary allocation for Social Services Expenditure for capacity building, reduction of domestic drudgery and better quality of life for girls and women, Primary, secondary and higher education and vocational training for school/college dropout girls, overall health needs of girls and women, crèche, working women's hostels, housing, nutrition, water supply, sanitation-toilets, drainage, fuel, waste management and safe public transport.

### Quantum leap in budgetary allocation for Economic Services to provide economic opportunities to women

- SHGs-credit, loans to self-employed women
- Trainings -Vocational training in Sunrise sectors, e.g. Biotechnology, IT, etc.
- Physical infrastructure-transport, energy
- Urban housing-10 % reserved flats/tenements for single women

- Marketing facilities for women entrepreneurs & self-employed women- 10% of shops reserved for businesswomen, women vendors/traders in municipal markets, women's haats / bazars
- Public Toilets for women without user fees
- Safe and efficient transport for working women and women vendors

### **Budgetary allocation for Regulatory Services to put in place institutional structures and mechanisms**

- State Commission for Women/ Municipal Commission for Women
- Women Development Cell in municipal bodies
- Budgetary allocation and space for ward-wise WDC for prevention of sexual harassment of women in the organised and unorganised sectors
- Women's cell at the police stations, LSG offices, municipal hospital & schools
- Awareness generation programmes on women's legal rights and gender sensitization of government officials law and order machinery and citizens
- Implementation of PCPNDT (Regulation) Act (2002), Prevention of Domestic Violence Act (2005), Protection of Children from Sexual Offences Act (2012), Prevention of Sexual Harassment of Women at Workplaces Act (2013)

### **Need of the Hour**

State governments must devolve substantive powers, funds, functions and functionaries upon urban LSG bodies. The central government should strive for simplifications of programme guidelines by central ministries and departments regarding women specific schemes- Swadhar, working women's hostels, maternity benefits for BPL, etc. Moreover, centrally sponsored schemes must be recast to empower municipal bodies. PRIs must get untied funds to formulate plans according to their needs and priorities. Structures and mechanisms for RTI Act must be put in place to sort out problems concerning utilisation of funds allocated for area development. To avoid urban unrest and guarantee socio-economic justice, at least 100 days of employment at minimum wages must be provided under EGS in all urban centres.

### **Financial Matters and PRIs**

Elected representatives, ward officials and NGOs working in the area should act as facilitators in preparation of the plan for area development and social justice. The UN system has supported allocation of resources for women in PRIs, right from the beginning. "The evidence on gender and decentralisation in India thus suggests that while women have played a positive role in addressing, or attempting to address, a range of practical gender needs, their impact on strategic gender needs is not remarkable." Hence, WERs deserve to be empowered to address the strategic gender needs. There is a need for provisions in the composite programmes under education, health and skill development to target them specifically at girls/women as the principal beneficiaries and disaggregated within the total allocation. It may also be necessary to place restrictions on their re-appropriation for other purposes (UNDP, 2001).

## Conclusion:

Budgets garner resources through the taxation policies and allocate resources to different sections of the economy. Budget is an important tool in the hands of state for affirmative action for improvement of gender relations through reduction of gender gap in the development process. It can help to reduce economic inequalities, between men and women as well as between the rich and the poor. Hence, the budgetary policies need to keep into considerations the gender dynamics operating in the economy and in the civil society. There is a need to highlight participatory approaches to pro-poor budgeting, bottom up budget, child budget, SC budget, ST budget, green budgeting, budgeting for differently abled people, local and global implications of pro-poor and pro-women budgeting, alternative macro scenarios emerging out of alternative budgets and inter-linkages between gender-sensitive budgeting and women's empowerment. Serious examining of budgets calls for greater transparency at the level of international economics to local processes of empowerment. There is a need to provide training and capacity building workshops for decision-makers.

Gender Commitments concerning safety of women and girls must be translated into Budgetary Commitment. By using our Right to Information, transparency /accountability for revenue generation and public expenditure can be ensured. For reprioritisation in public spending we must prepare our 'bottom up budgets' and lobby for its realisation in collaboration with the elected representatives. Gender economists must lift the veil of statistical invisibility of the unpaid 'care economy' managed by poor women and highlight its equality and efficiency dimension and transform macro-policies so that they become women friendly.

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# Women in Urban Governance: The impact of Affirmative Action

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Durga P Chhetri

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## **Abstract**

*Women constitute almost half of the urban world population. Yet they remain underrepresented in both national and local governing bodies particularly from the upper echelons of power since women are not adequately represented in urban local bodies, they have a limited role in the urban local bodies. The introduction of affirmative action in the form of reservation has been a positive development towards participatory democracy and promoting representation of disadvantaged sections in local institutions. The 74th Amendment of the Constitution furthered the commitment to women in urban local governance by making provisions through reservation for SC, ST and women that were earlier marginally represented in governance. The inclusion of disadvantaged sections has in principle ensured equality of political opportunities. The Sikkim Government recently introduced legislation to ensure 50 percent reservation of seats in all urban local bodies. This paper is an attempt to evaluate the impact of affirmative action on women's representation and participation in urban governance in Sikkim, India.*

## **Acronyms/Abbreviations**

GoI: Government of India, SC: Scheduled Caste, ST: Scheduled Tribe

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## **Introduction**

The world is urbanising and is projected to grow to two-thirds of total population by 2050 from its present 54 per cent (UN, 2014). Women constitute half of the world, as well as in urban population. Despite their large numbers women, across many international contexts, remain underrepresented in both national and local governing bodies and they are absent particularly from the upper echelons of power. They have a very limited role to play in urban governance both in policy and decision making as women are not adequately represented in the urban local bodies. The introduction of affirmative action in the form of reservation is considered as an important means to ensure that decentralised institutions became participatory and disadvantaged sections could be represented in local institutions. India provides the most pronounced example of formal inclusion of excluded groups in urban local governments. The Constitution guarantees reserved seats at all levels of urban local government for women and for scheduled castes and scheduled tribes. It also guarantees to women one-third of the leadership (executive) positions in the councils. Hence, the 74<sup>th</sup>



Amendment Act furthered the commitment to women in urban local governance by making provisions through reservation of seats. Seats have been reserved for SC, ST and women that were earlier marginally represented in governance. The inclusion of disadvantaged sections has in principle ensured equality of political opportunities. State governments have adopted legislation to enforce these provisions, with some states having made up to a 50 percent reservation for women. The Sikkim Government has introduced legislation in July 2015 to ensure this 50 percent reservation of seats in all urban local bodies and minimum numbers are required for many local commissions and committees. Combined with decentralisation that shifted decision-making closer to the municipal level, women were given opportunities to influence local governance and development.

### **Urbanisation Trends in Sikkim**

As per 2011 Census data, the population of India was estimated at 121 crores. Of the 121 crore, 83.3 crore live in rural areas while 37.7 crore live in urban area. India's urban population rose from about 30 million in 1901 to 377 million by 2011 and the level of urbanisation also grew steadily from 11 per cent of total population to about 31.16 per cent during this period. The 12<sup>th</sup> Five Year Plan estimated that by 2031 India's urban population would be about 600 million; an increase of over 200 million in the next two decades (GoI 2014). Sikkim, like many other states of India, has been experiencing urbanisation over last few decades at somewhat slow pace and at stable levels, which is evident from the records of successive census documents. Total population in 2011 of Sikkim was estimated at 6.10 lakh with 153,578 i.e. 25.15 per cent in towns. The percentage of population living in urban areas in the state went up from 1.99 per cent in 1951 to about 11.1 per cent in 2001 to 25.15 per cent in 2011. Sikkim is thus witnessing urbanisation since Census of 1951 and reaches appreciable level in 1981 with urban population of 16.23 per cent but the share of urban population declined in 1991. The urban population in the last one decade has increased by 25.15 per cent. It is likely that the trend of urbanisation is inevitable consequent on the large-scale migration of rural people to urban areas. However, the drivers of urbanisation are changing with a shift away from rapid rural population influx in the post-independence era to a rapid growth of existing urban areas (Kundu, 2006). This rapid urbanisation is becoming a challenge to the government and to the administrators in terms of provision of minimum basic amenities to the people.

The urban sector in Sikkim comprises of one Municipal Corporation, one Municipality and five Nagar Panchayats. Urbanisation in Sikkim like the other parts of the country is linked to the designated cities and towns though several peculiarities are visible in the urbanisation process. The main reason for urban population growth in the state is the increase in the number of urban areas and also urbanisation of the peripheral areas of the existing major urban centres. The increase in the density in urban areas is due to the population increase in the state. The rural to urban migration, which accentuates urban problems and urban poverty, is only marginally present in the urban scenario of the state. It is interesting to note that Sikkim's level of urbanisation is relatively low to its town density in comparison to other states.

## Governing Urban Sikkim: Some Insights

Among the two forms of local government viz. the rural and urban, the later is very new in Sikkim. There was no urban local body in the state until the enactment of Bazaar Committee Act in 1969. As the Sikkim society is truly a rural society, the then 'Chogyal' (Dharma raja or king) perhaps felt no need for the establishment of such a body in the State. But the growth of towns in the middle of 20th century in different parts of the state has compelled the government to create a body to look after the affairs of towns (and in this case the Bazaar). The Government of Sikkim therefore enacted the Bazaar Committee Act in 1969 for the administration of the bazaar areas. The main objective behind this Act was the delegation of power to the officers working at the bazaar area. The Government of Sikkim by notification declares any area to be a Bazaar area. Under Section 2(1) of the Act, there were seven such bazaar areas in 1969. The Table shows the district-wise distribution of Bazaar area in Sikkim in 1969.

**District wise distribution of Bazaar Area (1969)**

Sl. No.	District	Bazaar Area
1.	East Sikkim	Gangtok including Deorali
2.	East Sikkim	Singtam
3.	East Sikkim	Rangpo
4.	West Sikkim	Gyalsing
5.	South Sikkim	Namchi
6.	South Sikkim	Jorethang including Nayabazar
7.	North Sikkim	Mangan

*Source: Sikkim (1969)*

The Committee comprises of six members i.e., a chairman and five members. Of these five members, two were elected from Sikkim subjects and two from non-Sikkim subjects residing in that area. The king nominated one person as a member who exercises same rights and discharges the same duties as any elected member. The District Officer or in his absence the Deputy Development Officer acts as the ex-officio chairman of a Bazaar Committee. The committee appoints its own secretary from amongst its members. The committee is elected for the term of three years but the term of committee may be extended, superseded or dissolved earlier. The committee meets once in every month but the chairman may call a special meeting if there is a requisition in writing by not less than three members of the committee, or the Executive Officer. The chairman and three members form the quorum of committee meeting.

The Bazaar Committee Act which was passed in 1969 was the only initiative taken by the government for the creation of urban local body in Sikkim before its merger to India. Sikkim was merged to Indian Union on 16<sup>th</sup> May 1975 by the 36<sup>th</sup> Amendment Act. The merger of state in 1975 led to establishment of democratically elected government where people can participate in the election process and choose their representative according to their choice. The Bazaar Committee Act that was enacted in 1969 to associate the people residing in the bazaar area in the management of local affairs has been repealed by the Sikkim (Repeal and Miscellaneous Provisions) Act

1985. The new Municipality Act was passed in 1985 which established the municipality in Gangtok, the capital of Sikkim. Consequently the Gangtok Municipality was formed but within a year the body was dissolved and the management and regulation of affairs of bazaar/town areas were transferred to the Department of Local Self-Government which was later rechristened as Department of Urban Development and Housing.

Thus in Sikkim, the concept of democratic institutions in the urban areas is very new to the majority of people. Except Gangtok, the capital of state, where the municipality was created for short period in the year 1985 but dissolved after a year, no such institutions were created in other notified towns of the state. Recently the government has enacted a new legislation, the Sikkim Municipality Act 2007, for the creation of local urban bodies in consonance with the provision of 74th Amendment Act 1992. The Act has been passed in line with the spirit of the Central Act, to bring in desired changes in policy environment to facilitate implementation of new measures introduced by the Government of India towards decentralisation of urban governance. The Act establishes the three-tier municipal board viz., Municipal Corporation in Gangtok, Municipal Council in Namchi, and Nagar Panchayat in five towns of state i.e. Singtam, Rangpo, Jorethang, Geyzing and Mangan (Chhetri, 2010).

### **Strengthening Democracy through Women's Political Participation**

The idea of democracy in its purest form, as J. S. Mill argues, is to ensure "a government of the whole body by the whole people, equally represented" (Mill, 1962). A legislature "should be an exact portrait, in miniature, of the people at large, as it should feel, reason and act like them" (Adams, 1951). The representation of people from all sections in decision-making bodies is very essential to attain the goal of democracy. The recognition of the right of every citizen to participate in public decisions is a basic element of democracy, which, to be effective, requires that the needs and interests of all members of the society are respected and represented. It is claimed that an enhancement in the inclusion and influence of the social groups that are unrepresentative or underrepresented would help the society in confronting the problem of structural social inequality and to find remedies for it (Young, 2000).

Under the Constitution of India, seats are reserved for historically disadvantaged groups Scheduled Castes (SC) and Scheduled Tribes (ST) in federal or state legislative assemblies and for both historically disadvantaged groups and women at all levels of the panchayats and municipalities. Articles 330 and 332 of the Constitution provide reservation of seats for SCs/STs in the central and state legislatures in direct proportion to their population size and these are mandatory in nature. Article 330 for instance, states that a certain number of seats should be reserved in the House of the People for both the Scheduled Castes and Scheduled Tribes. However, clause (b) of the Article includes Scheduled Tribes excluding those who live in the autonomous districts of Assam. Clause (c) of the Article includes the Scheduled Tribes belonging to the autonomous Assam districts. It is also mentioned in this Article that the total number of such seats assigned to the Scheduled Tribes of autonomous Assam districts should match the total number of seats allotted in the House of the People. The seats allotted to

the Scheduled Castes and Scheduled Tribes of a particular state or Union Territory should be proportional to the total number of seats reserved for such state or Union Territory in the House of the People.

Similarly article 332 of the Constitution states that a definite number of seats in every state's Legislative Assembly should be allotted to the Scheduled Castes and Scheduled Tribes. Political reservation for SCs and STs in the state legislative assemblies follows a single policy rule that applies to all states. According to Article 332 of the Indian Constitution, the number of seats reserved for SCs and STs is such that the share of total seats in the state assembly reserved for each group equals that group's share of the total state population in the last preceding census. The Scheduled Castes and Scheduled Tribes of the autonomous districts of Assam are also given seats in the Legislative Assembly. It is also specified that a person not belonging to the Scheduled Tribes category of Assam state cannot contest the Legislation Assembly election from any of the constituencies of the districts of the state. Also, all areas outside the periphery of the districts of Assam should not hold any constituency of the Legislative Assembly of the Assam state.

In reserved constituencies, only candidates from these communities can stand for election but voters of all social groups in the territorial constituency get to vote regardless of whether their constituency is reserved. These reserved constituencies shift from one election to the next. The Delimitation Commission is responsible for delimiting the constituencies for the national and state legislatures based on the new population data, revising the number of seats reserved in each state for SCs and STs based on the revised constituencies and each group's population share in the new census and designating which specific constituencies are reserved for SCs and STs (Chin and Prakash, 2009). The same procedure is followed at the sub-state level. In 2014, 84 (15.47 per cent) of the 543 seats in the Lok Sabha were reserved for SCs and 47 (8.66 per cent) were reserved for STs. Of the total number of seats in the State Legislative Assembly, more than 2000 seats were reserved for SCs and STs.

Articles 243D and 243T of the Constitution provides the reservation of seats for the weaker sections of the society and women in panchayats and municipalities. Seats are reserved for SCs/STs in every panchayats and municipalities and the number of seats so reserved shall bear the same proportion to the total number of seats to be filled by the direct election in that panchayat and municipality as the population of the SCs/STs in the panchayat/municipal areas bears to the total population of that area. The same principle may be followed for different constituencies in a panchayat and municipality.

### **Women's Participation and Affirmative Action**

The Constitution (Seventy Fourth) Amendment, 1992 has served as a major breakthrough towards ensuring women's equal access and increased participation in urban local government. The Amendment Act aims at constitutional guarantees to safeguard the interests of urban local self government to enable them to function as effective democratic and self governing institutions at the grass-root level. This

Amendment provides for reservation of 33 per cent of elected seats for women at local government level in urban area. There is also a one-third reservation for women of posts of chairpersons of these local bodies. The affirmative action in the form of reservation of seats has tremendously helped women in their participation in the decision making processes.

In conformity with Central Act of 1992, the Government of Sikkim has enacted the Sikkim Municipality Act in 2007 and Sikkim Municipality (Amendment) Act 2009. Both these Acts, among other things, have the provisions for the reservation of seats for SCs, STs and women in different tier of municipality. Table depicts the category wise distribution of elected members in 2010 election.

**Profile of Women, SCs, STs, OBC and MBCs in urban governance in Sikkim (as on May 2015)**

Urban Local Body	Total Seats Elected	Women	SCs	STs	OBCs	MBCs	Unreserved
Municipal Corporation	15	05	01	04	02	02	06
Municipal Council	07	03	0	02	01	02	02
Nagar Panchayat	25	11	02	05	04	03	11

The Sikkim Municipality (Amendment) Act 2009 is very important because this particular Act has raised the percentage of reservation of seats for women from 33 to 40 per cent which is more than the reservation provided by the Central Act of 1992. These provisions have provided great opportunities and challenges to women particularly in the local government field. This is of great significance, since this grass-root level participation has considerably broadened the base of women's participation in politics at local level. As a result of reservation, women's participation in local governments increased quite radically, with the enactment of the legislation providing 40 percent reservation of seats for women in local bodies. The Government of Sikkim on July 2015 has passed the new legislation by amending the Sikkim Municipality Act 2007 which has raised the percentage of seat reservation from 40 to 50 for the next election scheduled in October 2015. The legislation and its implementation will add another level in political participation.

### **Conclusion**

The transition from 'feudocracy' to democracy in 1975 has tremendously improved the stake of women in politics and decision-making in Sikkim. It is no doubt that women in other parts of the country still remain highly marginalized in all spheres of the socio-economic and political life. This is more obvious when the proportion of men to women in politics and decision making position is compared. The status of women in Sikkim is however far better than the women of other parts of the country. They are socially, economically and politically better empowered. Among other things,

the positive disposition of present government towards women's political empowerment and the growing interest of women to participate in politics have placed women as important player in the Sikkimese political topography. Like in rural governance, women in urban governance are actively participating in the governing processes and are empowered politically through the strengthening of affirmative action and allocation of quotas for them in politics and decision making positions. Women's access to power and decision making positions has improved and has been accomplished through the implementation of various strategies and measures including affirmative actions. It is, however, important that formal constitutional and legislative mechanisms be accompanied with capacity building and training workshops for women. The training should focus not only on the powers and responsibilities or on understanding planning and budgeting but also on confidence building and public speaking. These measures will certainly help the women representatives in governing urban areas more effectively and efficiently.

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# Intelligent Transportation System in India - A Review

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Tejas Rawal and V Devadas

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## **Abstract**

*Rapid vehicular growth partnered with ever increasing population, rural to urban migration and economic upsurge has put immense amount of pressure on transportation infrastructure, especially on traffic management practices in urban India. This paper, attempts to understand the application of Intelligent Transportation System (ITS) as a solution to the current traffic management practices. ITS and its components have been discussed, followed by best practices of ITS employed around the world. Further, examples of various ITS application and policy measures in Indian context have also been discussed. Finally, a critical brief discourse has been addressed about issues and challenges of ITS application in India.*

## **Acronyms/Abbreviations**

*ACVOS: Advance Commercial Vehicle Operations System, APMS: Advanced Parking Management System, APTS: Advance Public Transportation System, ARTS: Advance Rural Transportation System, ATIS: Advance Traveller Information System, ATMS: Advanced Traffic Management System, AVCS: Advance Vehicle Control System, BIFA: Border Information Flow Architecture, CAGR: Compound Annual Growth Rate, CAILM: Continuous Air Interface Long & Medium Range, DSRC: Dedicated Short Range Communications, GPS: Global Positioning System, ITS: Intelligent Transportation System, NTDPC: National Telecommunications Damage Prevention Council, RITA: Research & Innovative Technology Administration, TAS: Travel Advisory System, TMC: Traffic Management Centre*

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## **Introduction**

Population and economic growth has given boost to rapid outgrowth of vehicles on the streets of urban areas throughout India. India has experienced tremendous increase in the number of registered vehicles from about 0.3 million in 1951 to about 142 million in 2011 with Compound Annual Growth Rate (CAGR) of 9.9 % between 2001 and 2011. Apart from economy, rural to urban migration has amplified the demand for vehicular travel and ultimately the demand for vehicles and transportation infrastructure. However, the Indian urban areas are not capable enough to tackle this upsurge of vehicular growth and have resulted into higher traffic congestion levels on the roads, posing a massive challenge for urban authorities and decision makers. According to a World Bank study the monetary damages suffered on account of congestion and poor roads run as high as \$6 billion a year in India.

Intelligent Transportation System (ITS) is a well-known method to simplify, or nevertheless minimize traffic problems. The ITS aims at achieving traffic efficiency, reducing environmental degradation, energy conservation, reduction in travel time, and enhancing comfort and safety of the users, with the help of information and communication technologies. The overall application of ITS consists of data collection, analysis, and using the results of the analysis in the operations, control and research concepts for traffic management. ITS shrouds the components like means of transportation, physical functional setup, communication, and operations of any transportation forms including air travel, inland and ocean waterways, road and rail transportation.

### **Classification of ITS**

The ITS classification is mostly based on the application of the system to specific level, like vehicle level, infrastructure level and vehicle & infrastructure cooperative level, where the sensors, information processors, communication systems, roadside messages, GPS updates and automated traffic prioritization signals, etc., are key features in these systems. Apart from these, the common categorisation of the ITS, which uses aforementioned applications, comprises following:

- Advanced Traffic Management System (ATMS),
- Advanced Traveller Information System (ATIS),
- Advanced Vehicle Control System (AVCS),
- Advanced Public Transportation System (APTS),
- Advanced Rural Transportation System (ARTS), and
- Advanced Commercial Vehicles Operations System (ACVOS).

### **Components of ITS**

Traffic Management Centre (TMC) is the fundamental unit of ITS. It is basically a technical setup administered by the transportation authority, where the data is collected and analysed for further operations and control management of the traffic in real time. The efficient and proficient operation of TMC depends on the components like automatized data collection, data transmission to TMC, precise analysis of received data and communication of trustworthy analysed information to traveller.

**Data Collection:** Real time observation and strategic planning needs precise, extensive and prompt data collection through verified hardware and competent software, that lays the foundation of further ITS functions. Automatic vehicle identifiers, GPS based automatic vehicle locaters, sensors, cameras etc. are few hardware used for data collection. These hardware are connected to the servers, generally located at data collection centres, which store large amounts of data for further analysis. The hardware mainly record the data like traffic count, surveillance, travel speed, travel time, location, vehicle weight, delay, etc.

**Data Transmission:** This aspect of ITS consists of transmission of collected data from field to TMC and analysed information from TMC to traveller. Rapid and real time

information communication is the key to proficiency in ITS implementation. Traffic related announcements are communicated to the travellers through VMS, internet, SMS, etc. and on board units of vehicles. Other methods of communications are dedicated short range communications (DSRC) using radio and Continuous Air Interface Long and Medium range (CAILM) using cellular connectivity and infra-red links.

**Data Analysis:** The data that has been collected and received at TMC is processed further in various steps which, consists of error rectification, data cleaning, data synthesis and adaptive logical analysis. Inconsistencies in the data and errors are identified with specialised software and rectified that is further altered and pooled for analysis. This mended collective data is analysed further to forecast traffic scenario which is made available to deliver appropriate information to users.

**Traveller information:** Travel Advisory System (TAS) is used to inform the dependable transportation updates to the travelling user. This system delivers real time information like travel time, travel speed, delay, accidents on roads, change in route, diversions, work zone conditions, etc. This information is delivered by wide range of electronic devices like variable message signs, highway advisory radio, internet, short message services, automated cell phone messaging, public radio announcement, television broadcasts and other modern media tools.

### ITS World wide

The application of ITS is widely accepted and used in many countries for not only traffic congestion and demand control, but also for road safety and efficient infrastructure usage. Many organisations around the world have developed solutions for providing ITS applications, to meet need specific requirements. Because of the endless possibilities ITS has become multidisciplinary conjunctive field of work, among public sector, private sector and academia due to its endless possibilities of application.

**United States of America:** ITS is coordinated through Research and Innovative Technology Administration wing (RITA) of U.S. Department of Transportation in the country. Along some federal and private agencies, RITA focuses on ITS initiatives like Telephonic Data Dissemination, IntelliDrive, Next Generation 9-1-1, Cooperative Intersection Collision Avoidance Systems, Congestion Initiative, Integrated Corridor Management Systems, Clarus Initiative, Emergency Transportation Operations etc. and few are discussed as below:

- Telephonic Data Dissemination deals with designating nationwide 3 digit telephone number (511) to provide current information on travel conditions.
- IntelliDrive, with the help of wireless technology, allows communication among vehicles, infrastructure and mobile devices of travellers.
- Cooperative Intersection Collision Avoidance Systems deals with enabling cooperative communication systems to avoid crash problems at junctions and intersections.

- Congestion Initiative comprises of interactive approaches like reduction of congestion through toll payments, facilitating telecommuting to encourage work from home and application of latest technologies to support all possible congestion abbreviating measures.
- Clarus Initiative aims at providing a system that can provide real-time information regarding accidents, weather, road repairs, and delays to road users.
- Emergency Transportation Operations deals with Traffic Incident Management, Traffic Management for Planned Special Events, and Emergency Transportation Operations for disasters.

**Europe:** Europe's ITS broadly falls under Road Transport Informatics (RTI). RTI emphasises on two interrelating programs - Road Infrastructures for Vehicle safety in Europe (DRIVE) and PROgram for European Traffic with Highest Efficiency and Unprecedented Safety (PROMETHEUS). System development is the primary goal of the PROMETHEUS project, while DRIVE focuses on human behaviour issues and implementation of systems in the European community. Other public-private partnership programs aim on safety applications of ITS, eSafety, INVENT and PREVENT. These programs altogether look into following:

- Promoting development, deployment and use of Intelligent Vehicle Safety System
- Detection and Interpretation of the Driving Environment.
- Anticipatory Active Safety through automatic detection of crossing cyclists and pedestrians.
- Congestion Assistance through automatic cruise and headway control.
- Driver Behaviour and Human Machine Interaction.
- Traffic Performance Assistance by vehicle-data collection and analysis of traffic state.
- Network Traffic Equalizers use dynamic route guidance and navigation systems.
- Traffic Management in Transport and Logistics by intelligent route planning systems for deliveries and freight management.
- Traffic Impact, Legal issues and Acceptance evaluate the economic and business implications of the new technologies.

Through the CONNECT program, Austria, the Czech Republic, Germany, Hungary, Italy, Poland, Slovakia and Slovenia are united to help enhance cross-border traffic and transport through the use of ITS.

**United Kingdom:** In UK, few remarkable executions of ITS are as follows:

- There is a computerised map for speed limits in the entire city of London for personal, educational or commercial use.
- Cameras have been installed along the major routes of the country as a part of the

well appreciated Ring of Steel project to supervise the flow of the traffic and traffic activity.

- Electronic toll collection and management system has been installed at various locations to avoid bottlenecks on major routes and ensure seamless journey.
- Intelligent Speed Adaptation has been implemented which displays the allowable speed limit on the dashboard of the vehicle, that constantly reminds the driver not to exceed the limit by mistake. This system is facilitated by the vehicle mounted GPS that detects location of the vehicle and shows the allowable speed limit in the display.
- London Road Safety Unit enforces the speed limit laws by the use of camera, so that people don't break traffic signals.
- Installation of solar powered bus shelters for CCTV supervision and real-time passenger information on display, is under progress to facilitate the bus passengers.
- Conversion of old public transportation buses to hybrid vehicles, to reduce carbon footprint in the country.

**Dubai:** Middle East has been banking heavily on ITS for its fastest growing transportation sector in the world since 2001. The first phase of world's most refined ITS project was started by Dubai municipality that would facilitate rapid urban population growth and allied urban needs. Cohesive strategies have been planned as part of this mega project, which includes construction of new roads, interchanges, provision of public transportation and road network strengthening.

The features of the ITS in Dubai are as follows:

- Traffic jam alerts to vehicle drivers to alter the route.
- Diversion of inconvenience free normal flowing traffic from the lane having accident.
- Automated feasible changes in speed limits in the case of accidents or bottlenecks.
- Execution of pre-analysed and verified transportation management plans along traffic police.
- Traffic signal prioritisation for emergency vehicles, fire truck, ambulance and police vehicles.
- Automated traffic management plans to reduce congestion during special events and festivals.
- Provision of LED based Dynamic Message Sign system along the roads for real time traffic control through vehicle advice information.
- Dynamic on board navigation system for car users.
- Traveller information kiosk with touch screen navigation in public areas to provide travel related information to the public.

**Canada:** Canada is the first country to introduce ITS and Toronto was the first city in the world to install computer controlled traffic signal system on the road in 1959. Canada was also the first in the world to introduce computerised open access toll highway in year 1999. Along with US, Canadian government has developed Border Information Flow Architecture (BIFA), a technology based ITS solution, for simplified border crossing process. The ITS architecture of Canada's user services has following eight functions:

- Traveller Information Services, consisting route guidance and navigation.
- Traffic Management Services, consisting traffic control, incident management, demand management, operations and maintenance, dynamic warning and enforcement, non-vehicular road user safety, junction safety, etc.
- Public Transport Services, consisting transit management, traffic signal priority, real-time passenger information and automated voice & digital next stop.
- Electronic Payment Services.
- Commercial Vehicle Operations consisting vehicle electronic clearance, roadside safety inspection, on-board safety monitoring, intermodal freight management, fleet management, etc.
- Emergency Management Services consist of emergency notification and personal security, hazardous material planning, disaster response, emergency vehicle management, and incident response, etc.
- Vehicle Safety and Control Systems, consisting vehicle and infrastructure based collision avoidance system, sensor based driving safety enhancement, safety readiness, automated vehicle operation, etc.
- Information Warehousing Services consisting, weather and environmental data management and archived data management.

### **ITS Practices in India**

Quite a few ITS projects have been implemented in India mainly in Metros and other big cities like Delhi, Ahmedabad, Bangalore, Chennai, Pune, etc. These various projects are of individual nature, and focus limited functions of the ITS, like traffic signal management, organised parking management, public transportation management and highway toll collection centres to name a few. Most of these projects are pilot projects and are in primary operating stages for future large-scale implementation. Few examples of existing ITS practices in India:

**Chennai:** Chennai has initiated Advance Traffic Management System. This system comprises of putting up a complete monitoring system using surveillance cameras for traffic rules violators, especially at junctions, named as Traffic Regulatory Management System (TRMS). Special purpose cameras having latest technology and high resolution image capturing capacities like Automatic Number Plate Reader cameras, Pan Tilt Zoom cameras, and CCTV cameras have been installed at various



locations in the city, for additional help at various junctions. Automatic Traffic Control system, along with TRMS helps to supervise and adjust the traffic flows without physical interference in deciding and changing the duration of signal waiting time, by the computerised analysis of next three signalised intersection and its synchronisation. Apart from these systems, FM radio is also one of the significant sources of transmitting crucial information about traffic jams, road blockages due to extreme weather, etc. in Chennai.

**Mumbai:** Mumbai has implemented Area Traffic Control Project that deals with management of traffic flows at major junctions. Technological help is also taken from latest gadgets like, accelerometer guns, smart cameras for vehicle number detection, radar sensor, etc.

**Bengaluru and Hyderabad:** A pilot project has been introduced where real-time traffic scenario of major intersection and its secondary connector roads can be obtained through internet in Bengaluru and Hyderabad. The real-time images are available 24 by 7 on this internet based portal for these major intersections and these images are updated at every 15 second interval. In addition to internet advisory information system, SMS based system is also available to the road users and motorists to get the updates for traffic jams and restricted accesses due to ongoing construction and maintenance activities. This facility has been made available to the public for free, but prior registration has to be done to avail of these updates. The subscribers get these updates twice a day, i.e., in morning and evening peak hours.

**New Delhi:** In the year 2009 a pilot project known as 'The Traffic People' was launched to provide real time traffic conditions and updates of in-and-around New Delhi (including NCR region). Basically, with a web-based platform, this project was initiated for providing morning and evening peak hour traffic condition of selected locations. The idea was also to initiate SMS service with monthly subscription charges but this service failed to function due to weak response from the people and unavailability of the data.

**Others:** Several Electronic Toll Collection pilot projects have been proposed for major national highways, for example Chandigarh-Parwanoo NH-5 and Ahmedabad-Mumbai highway. ITS is widely used in Bus Rapid Transit Systems projects and Metro projects. Major ITS techniques applied in these projects are signal priority, vehicle tracking, surveillance and automatic fare collection. BRTS projects in the cities like Pune, Delhi, Ahmedabad, Indore, Mumbai, Hyderabad, Bangalore, Chennai, Coimbatore, Jaipur, Madurai, Nagpur, Vijayawada, and Visakhapatnam and metro projects Delhi, Mumbai, Bengaluru, Chennai, Hyderabad, Kolkata, Kochi, Jaipur, Ahmedabad, Nagpur, Pune, Lucknow, etc. have wide range of ITS applications. Advanced Parking Management System (APMS) is also one of the initiatives that involves application of ITS. Electronic Parking Guidance and VMS Smart Cards are a few technological solutions to parking management adopted in India. In Delhi, APMS has been applied and is under implementation at few parking lots and multi-level car

parking for example, parking lot at Palika Bazar and automated multi-level parking in Sarojini Nagar Market, which are under execution.

**Current ITS Policy Measures in India**

National Transport Development Policy Committee (NTDPC), established a working group on urban transport and published a report on urban transportation in March 2012. It identifies a great need of ITS application in urban transportation and explicitly emphasises that; people’s expectations and demands of service quality have changed significantly with the availability maps, GPS system, etc., people plan their routes based on distance, time and cost. Therefore, Information and Communication Technology (ICT) enabled transport management systems have been stressed upon. This will improve functional efficiency through better data collection and analytics leading to better decision making in urban transport planning and management. The report further advices that the Government of India needs to formulate the policy to include ITS and ICT applications in the current transportation practices; establish a Central Command Centre to monitor and manage the system with 24x7 Help Desk; training to drivers on use of new technology; GPS (or similar) devices, Speed Governors along with driver feedback systems; Internet hotspots and kiosks at bus and train stations; surveillance and security systems; contactless smart card system for payment and to provide service related updates through electronic means. NTDPC have further advised the ICT implementation plan, for systematic execution of ITS application .

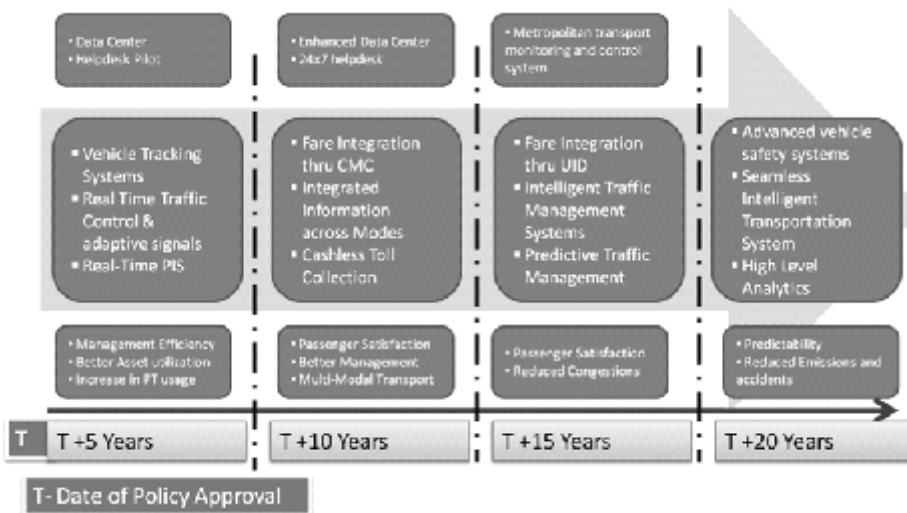


Figure 1: ICT Implementation Plan

**Issues and Challenges of ITS in India**

World Bank study reports some of the key concerns that India is facing in implementing ITS: inefficient road network structure, financial boundaries observed in the government, unorganised and out of control urbanisation and population growth, lack of willingness and also resources for operations and maintenance of the roads, lack of automation demand and road user awareness, negligence and avoidance of decision

makers. Efforts have been made to employ ITS applications in various cities as discussed in previous section, though all these projects are small-scale standalone pilot studies and not of integrated nature. So far no ITS application has been implemented, which is comprehensive and focuses on all aspects. This scenario says that though the ITS applications are becoming popular with transportation authorities, still there are lot of avenues for it to flourish, all needed is a systematic approach. Benefits of ITS can only be seen to the fullest when the application is done at road network level and not in small scale or corridor level. Apart from existing ITS applications in India, much needed aspects of focus has to be emergency management, congestion management, advanced traffic management systems, advanced traveller information systems, commercial vehicle operations, advanced vehicle control systems, etc. looking at the present transportation context. However, present projects show potential future advancements in ITS in India. The steps that can help overcome the ITS implementation issues can be: evolving an ITS standard for its various constituents and application; formulation of ITS regulatory authority under combined supervision of Ministry of Road Transport & Highways and Ministry of Urban Development which will monitor, regulate and document the upcoming and ongoing ITS projects; setting up fully functional Traffic Management Centres for coordinating the urban and regional ITS activities; evolving a set of methodologies for automatic data collection techniques for Indian traffic conditions; setting up a national data repository for ITS; involving multiple stake holders like academia, government agencies and industries for better decision making and implementation of ITS applications; to enable ITS application in wide spectrum, the current infrastructure has to be made competent enough for its successful functioning.

## Conclusion

The rapid vehicular growth partnered with ever increasing population, rural to urban migration and economic upsurge has put immense amount of pressure on transportation infrastructure and especially on traffic management practices in cities and towns of urban India. Based on the international experiences and best practices observed in the countries like USA, Dubai, Canada, European nations, United Kingdom, etc., the application of ITS seems a promising solution for advanced traffic control and management. There are many physical, social, economic and administrative challenges in front of ITS to flourish in India. India has just begun the journey in the field of ITS, still there is an urgent need of implementing the ITS applications more comprehensively, primarily by formulating an ITS based transportation policy and secondly by making it mandatory for urban areas.

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# Performance and Constraints of MSME Sector in India with reference to Mizoram

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NVR Jyoti Kumar and Lalhunthara

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## **Abstract**

*The Micro, Small and Medium Enterprises (MSMEs) play an important role in the economic landscape of India in terms of their contribution to the manufacturing output, employment and exports. In India's North East, the employment due to MSME sector has increased to 3.50 lakh, registering an annual growth rate of 11.1%, which is almost double of the national level (5.1%). The present paper highlights major constraints faced by micro enterprises in Mizoram, a small state of the North East region. Though Mizoram is considered as peaceful state in India, the basic infrastructure needed for the growth of enterprises in terms of electricity, transport, communication and banking facilities pose a big challenge. Moreover, lack of vision, lack of willingness to explore the opportunities and absence of entrepreneurial mind hamper the industrial development.*

## **Acronyms/Abbreviations**

*EDP: Entrepreneurship Development Programme, EPIP: Export Promotion Industrial Park, GSDP: Gross State Domestic Product, MSME: Micro, Small & Medium Enterprises, MSMED: Micro, Small & Medium Enterprises Development, NER: North East Region, SSI: Small Scale Industries, THDP: Tribal Handloom Development Project*

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## **Introduction**

In India, Micro, Small and Medium Enterprises Development (MSMED) Act 2006 defines Micro, Small and Medium Enterprises (MSMEs). The Act introduces the concept of 'enterprise' as opposed to the earlier concept of industry. According to the Act, MSMEs are classified into (i) enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the Industries (Development and Regulation) Act 1951 and (ii) enterprises engaged in providing or rendering services. The Act also provides for a statutory consultative mechanism at the national level with a balanced representation of all the sections of stakeholders and with a wide range of advisory functions. Establishment of specific funds for promotion, development, and enhancement of the competitiveness of these enterprises; notification of schemes/programmes, progressive credit policies and practices; preference to products and services of MSEs in the government procurement; more effective mechanisms for mitigating the problems of delayed payments; and a

scheme for easing the closure of business by these enterprises are some features of the Act. The limit for investment in plant and machinery or equipment for manufacturing and service enterprises respectively are shown as follows:

1. Micro enterprises for manufacturing sector not to exceed 25 lakh, for service sector not to exceed 10 lakh.
2. Small enterprises for manufacturing sector above 25 lakh but not to exceed 5 crore, for service sector above 10 lakh but not to exceed 2 crore.
3. Medium enterprises for manufacturing sector above 5 crore but not to exceed 10 crore and for service sector above 2 crore but not to exceed 5 crore.

### **Performance of MSME Sector in India**

The MSME sector has emerged as a highly vibrant and dynamic sector of Indian economy over the last six decades. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialisation of rural and backward areas thereby reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio economic development of the country.

The MSME sector contributes significantly to the manufacturing output, employment and exports of the country. It is estimated that in terms of value, the sector accounts for about 45% of the manufacturing output and 40% of the total exports of the country. The sector is estimated to employ about 59 million persons in over 26 million units throughout the country. Further, this sector has consistently registered a higher growth rate than the rest of the industrial sector. There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs in India. It is well known that the MSME sector provides the maximum opportunities for both self-employment and jobs after agriculture sector.

The relatively high labour-intensive MSMEs play a crucial role in reducing poverty and unemployment. For the Indian economy this sector has contributed significantly to the growth of GDP, exports and employment generation. During the last six decades it has acquired a prominent place in the socio-economic development of the country. Recognising the contribution and potential of the sector, the definition and coverage of Small Scale Industry sector (SSI) were broadened significantly in the MSME Act, 2006 which recognised the concept of 'enterprise' to include both manufacturing and service sector besides defining the medium enterprises.

The MSME sector in India is heterogeneous, dispersed, and mostly unorganized. It includes diverse types of production units ranging from traditional crafts to high-tech industries. By nature, MSMEs help in generating huge employment as it is a labour intensive sector while encouraging entrepreneurship for livelihood (Ghosh, 2013). Yet, it is often considered to be limited to large units among the SSIs which deal with high-tech industries or serve as ancillaries to large industries. Segments such as powerlooms,



handlooms, handicrafts, food processing, coir, sericulture, khadi, village industries, and wool, which are mostly unorganized, are fragmented across various ministries and often seen only as rural livelihoods. This is, however, far from the truth. Towns and cities such as Benaras, Berhampur are big handloom centres; Lucknow, Bhopal, Delhi, and Jaipur are famous for their handicraft products while powerlooms are normally only found in urban areas. The artificial fragmentation of the sector often pits the traditional MSMEs against each other and against non-traditional ventures. It also limits their access to capital, infrastructure, and support policies (Eleventh Five Year Plan Document, 2007-12).

Due to the unorganized nature of the sector, entrepreneurs and artisans face difficulties in accessing government schemes. Consequently, the workers engaged in the MSME sector-and these are often the most vulnerable and poor-have very little bargaining power and are exploited by the middlemen, unit owners, and big business houses. Unable to take up aggressive marketing, unlike big industries, they find it difficult in marketing the goods despite competitive prices.

The dispersed, unorganized nature of the industry also raises issues of quality, bulk production and inability of meeting big orders. Often individual units lack packaging facilities. As a result, markets, especially for traditional MSMEs are shrinking and workers are experiencing a dip in wages. As most of the non-traditional MSMEs serve as 'captive units' for big industries, often the workers do not get paid until the products are sold. The situation is same for the traditional sector where payments are made by traders and even government corporations only after the stock is sold. Thus money is held up, further impoverishing the workers.

### Performance parameters

The office of the Development Commissioner, MSME provides estimates in respect of various performance parameters relating to the sector. The time series data in respect of the sector on various economic parameters namely total number of units, number of persons employed, market value of fixed assets and gross output is given in Table 1. Although the number of enterprises had grown by more than four times during 2001-02 and 2012-13, their market value of fixed assets grew by over eight times and their gross output increased by over six times. However, the employment provided by these enterprises had grown only by about four times during the period.

Sl. No	Year	Total working enterprises (in lakh)	Employment (in lakh)	Market value of fixed assets (in crore)	Gross output (in crore)
1	2001-02	105.21	249.33	154349.00	282270.00
2	2002-03	109.49	260.21	162317.00	314850.00
3	2003-04	113.95	271.42	170219.00	364547.00
4	2004-05	118.59	282.57	178699.00	429796.00
5	2005-06	123.42	294.91	188133.00	497842.00
6	2006-07	361.76	805.23	868543.79	1351383.45
7	2007-08	377.37	842.23	917437.46	1435179.26
8	2008-09	393.7	881.14	971407.49	1524234.83
9	2009-10	410.82	922.19	1029331.46	1619355.53
10	2010-11	428.77	965.69	1094893.42	1721553.42
11	2011-12	447.73	1012.59	1176939.36	1834332.05
12	2012-13	467.56	1061.52	1269338.02	NA

Source: MSME Annual Report 2013-14, Ministry of MSME, GoI

### **MSME sector in North East**

The MSME sector plays a crucial role in reducing poverty and unemployment in North East Region in the country. However, only 3% of MSMEs in the country are located in the NER, of which more than 60% are in Assam. Sikkim is the state with least number of MSMEs. So far as the gross output is concerned, it is just 1.78% of the total gross output of India comes from this sector. The contribution of Assam is the highest in NER. This sector in NER provides only 3.11% of the total registered MSME employment in India. The investment in the MSME sector in NER is also very marginal. As per the Third Census of Small Scale Industries, fixed investment in NER was less than 2% of the national level (NER Vision 2020, 2008).

However, the recent statistical data reveal improved performance of MSME sector in the North East compared to its performance at the national level. Over the years the MSMEs at the national level have increased at annual average growth rate of 4.5%, while in NER the average annual growth rate was more than double at 12.8%. The sector has been recognised due to its extraordinary potential of generating vast employment opportunities at lesser investment. In NER, the employment due to MSME sector has increased to 3.50 lakh, registering an annual growth rate of 11.1%, which is double of the national level (5.1%) (MSME Annual Report, 2009-10). The employment opportunities provided by the MSME sector decreased by 0.2% at national level in 2010-11, while in the case of NER, it showed an increase by 7.2% as compared to the previous years (MSME Annual Report, 2011-12).

### **Performance of MSME Sector in Mizoram**

Mizoram, a small state in NER is a tribal dominated state and more than 60% of the population depends on agriculture for their livelihood. The state has no major industries worth mentioning and the entire state has been industrially backward due to non-existence of large or medium enterprises. The disadvantages due to topographical and geographical condition of the state coupled with underdeveloped infrastructure and transport bottlenecks are the main hurdles for the first generation entrepreneurs of the state to move towards industrialisation. The growth and performance of the manufacturing sector has been poor. However, the industries sector has contributed 26.05% of Gross State Domestic Product (GSDP) during 2013-14 as against 22.02% in 2012-13 (Statistical Handbook Mizoram, 2014). The state has witnessed a low scale of migration of workforce from agriculture to non-agricultural sector. Business activities such as tailoring, furniture making, automobile repairs, steel making, bakery, handloom weaving, and blacksmithy account for 80% of the total number of business enterprises in the state. There is little scope for big enterprises and as such micro enterprises dominate the industrial scenario acquiring a prominent place in the socioeconomic development of the state (Economic Survey: Mizoram, 2013-14).

### **Industrial infrastructure in Mizoram**

Development of industrial infrastructure in the hilly terrain of Mizoram is not an easy task. The state government despite its limited resources and geographical

disadvantages has established certain industrial areas with basic infrastructure as shown in Table 2. These industrial areas, though not fully provided with required infrastructure, are expected to solve many of the problems of industrial units. Allotment of industrial plots in various industrial areas has been made as per the Mizoram Industrial Areas (Management, Regulation and Control) Act, 2008. Upgradation of Export Promotion Industrial Park (EPIP) at Lengte is being executed under the funding from North Eastern Council (NEC). The table shows different industrial areas being developed in the state and their status.

Table - 2

<b>Industrial infrastructures</b>			
Sl No.	Industrial areas	Total area (in bighas)	Present status
1	Industrial estate, Zuangtui	314.70	Out of 231 demarcated, 197 plots are allotted to 165 industrial units
2	Industrial growth center, Luangmual	940.78	Allotment process is yet to be started and 29 units are now given provisional allotment
3	Industrial estate, Bairabi	26.20	Yet to be developed
4	Industrial estate, Kolasib	32.33	Yet to be developed
5	Intrgrated infrastructure development center, Pukpui	76.68	Demarcation of stall completed and allotment is made to 2 units
6	Industrial estate, Hmunhmeltha	104.40	Yet to be developed
7	Export promotion industrial park, Lengte	1390.22	32 plots had been developed and allotted to entrepreneurs, 3 units are now in operation. Upgradation of the park is being done.
8	Bamboo technological park, Sairang	148.20	The park is ready for plot allotment. Entrepreneurs are allotted plots for bamboo related activities

*Source: Economic Survey, Mizoram (2014-15), Planning and Programme Implemetation Department, government of Mizoram*

## **Profile of select industries in Mizoram**

Brief description of select industries in Mizoram is as follows:

### **Handlooms**

Handloom weaving is one of the oldest traditional crafts of the Mizos. From time immemorial, the Mizo society is characterised by the use of colourful traditional dresses crafted by local weavers. In many households, the Mizo women practice this art of weaving cloth. With their high traditional skills, they produce beautiful and

colourful designs, bags, shawls and so on. This conventional method of producing cloth with the help of loom takes long hours to weave a piece of cloth which results in higher cost of production. Presently most of the traditional loom have been replaced by Zo-loom and Fly Shuttle looms due to their higher working capacity. The government of Mizoram is running three handloom training centers in Aizawl, Lunglei and Saiha. The Mizoram Handloom and Handicraft Development Corporation Limited(ZOHANCO), a state government undertaking is implementing the Tribal Handloom Development Project (THDP) by way of providing necessary raw materials to the weavers and marketing finished products.

### **Bamboo based products**

Bamboo and cane producing units form another important traditional industry in Mizoram. Mizoram has abundant bamboo resources with a variety of species which is spread all over the state. The government of Mizoram collects the revenue of over Rs. 80.00 lakh every year. The annual availability from the total growing stock is estimated at 5.8 million MT. But presently only a small portion of it could be utilised as the total bamboo consumption of the state stands at 23,815 MT. A bamboo policy for the state of Mizoram was framed for optimum utilisation of vast untapped bamboo resource for improving rural economy and industrial development. ZOHANCO is entrusted by the state government with the responsibility of promoting handloom and handicraft enterprises in Mizoram. At present among the bamboo and cane products, Mizo hat is very popular. But if the art of bamboo craft is properly promoted and popularised, there can be many varieties of products like baskets, broom sticks, ceiling cleaner, mats, household furniture items etc. Though the market for these products is good for export potential, unfortunately it has not been exploited enough due to limited production.

### **Bakery**

One of the most popular food based industry in Mizoram is bakery. There are many units scattered in the state but mostly concentrated in the state capital of Aizawl. Zote, Holy Cross and Hmingliani Bakery are among the prominent firms. As the government of Mizoram realised the importance and potential of food based industry in the state, strengthening of secondary activities in the field of food processing has started gaining momentum. The process of building up food processing road map is under way. Under the Mega Food Park scheme of the central government in the Ministry of Food Processing Industries, the state government has initiated setting up of a Mega Food Park in which the primary produces of horticulture, agriculture and livestock would be properly linked with the processing centers through collection centers, primary processing and central processing centers. The introduction of organic cultivation and development of processing network is expected to boost the contribution of this sector towards the state economy.

### **Carpentry and furniture works**

Among the tribal people in North East, the Mizos are known for high degree of skills in carpentry. Carpentry is an important entrepreneurial activity in Mizoram

because the local demand of wood products is very high, which keeps the carpenters busy throughout the year. But scarcity of raw wood is one of the problems especially in Aizawl city. Further, the restrictions imposed by Supreme Court in January 1998 dampened the carpentry industry to some extent. According to the Supreme Court order, there shall be no fresh cutting of tress in the forest except in accordance with the working plan of the state government. Unfortunately, Mizoram is not having such working plan till now.

### Other industrial activities

They include automobile repairs, activities relating to construction of buildings such as steel fabrication, aluminum works and so on. The state has potential for developing food processing industry in respect of ginger and organic vegetables, and services such as health care and education.

### Growth of enterprises

The number of registered enterprises in Mizoram and the number of persons employed are given in Table 3. The number of units registered given in the table is the number of units registered during the year. It can be seen from the table that the number of registered units up to March 31, 2000 were 4554 and the total number of persons employed was 12,295. The number of persons employed showed an increasing trend up to 2008-09 (except in 2007-08 where there was a significant decline in the number of persons employed), but from 2009-10, there was a declining trend. On the other hand, the number of units registered per year was fluctuating. It can be seen that even though there has been a considerable increase in the number of units registered in some years, some particular years recorded a declining trend, indicating that the growth rates of the enterprises are remarkably fluctuating. A high growth rate in a particular year does not reflect a high growth in the following year and vice versa. In 2000-01 the number of units registered was 127 units, but in the next year there was a sharp decline in the number of units. At the same time the number of persons employed was increasing during this period. Again, from 2003-04 to 2007-08, the number of registered units was declining but the number of employees was increasing (except in 2007-08). One noticeable aspect is the year 2008-09 where there was a notable increase both in terms of

**Table-3 : No. of registered MSEs in Mizoram and No. of persons employed from 1999-2000 to 2013-14**

Year	No. of units	No. of employees	Average No. of employees
Up to 1999-2000	4554	12295	2.7
2000-01	127	335	2.6
2001-02	92	369	4.0
2002-03	203	750	3.7
2003-04	340	979	2.9
2004-05	302	1116	3.7
2005-06	302	1228	4.1
2006-07	258	1376	5.3
2007-08	153	564	3.7
2008-09	704	4113	5.8
2009-10	457	3977	8.7
2010-11	200	1328	6.6
2011-12	131	906	6.9
2012-13	122	930	7.6
2013-14	213	1440	6.8

Source: Compiled from Economic survey: Mizoram various issues, Department of Planning and Programme Implementation, Government of Mizoram, Aizawl.

registered units and number of persons employed. But from 2009-10, the number of units registered and the number of employees started declining. The registered units employed almost seven persons per unit during 2013-14, compared to only three persons per unit during 2000-01. This indicates the entry of units which could provide employment to more number of persons in recent past.

However, it may be noted that though the business enterprises were registered under the label 'small scale industries' in government records, most of them, in fact, were generally micro enterprises by nature and character. The industrial development in the state is of comparatively a recent phenomenon. The process of industrialisation is slowly growing up, especially micro enterprises. Due to inadequate infrastructures under the topographical and geographical condition of the state, the development of business enterprises could not attain optimum level. The long tradition of shifting cultivation embedded in the mind of the first generation entrepreneurs of the Mizos need to be transformed into permanent engagement in the industrial enterprises.

### **The Constraints**

In the recent study on entrepreneurship development in Mizoram, Lalhunthara (2012) found the major problems faced by the micro enterprises that obstructed their growth, based on the field study covering 406 enterprises in Aizawl district of Mizoram. Nearly 90% (364 out of 406 enterprises) were facing the problem of marketing. It was observed that biggest problem faced by them was competition from other micro enterprises (33.8% of rating), followed by slackness in demand (27.7% of rating), lack of advertising efforts (18.7% of rating), competition from large enterprises (9.2% of rating) and transport problem (8.9% of rating). The micro and small enterprises in Mizoram normally do not have a ready and regular market. Most of the products are for local consumption. On the other hand, there were entrepreneurs who set up their units not because of their entrepreneurial foresight but because of not finding gainful jobs elsewhere (Lalhunthara and Jyoti Kumar, 2013). As a result, such entrepreneurs are half-hearted in managing their enterprises. This is one of the reasons for industrial sickness of units.

With regard to the problem of raw materials, nearly 60% of the enterprises (241 out of 406) were facing the problem. The most serious problems identified were: scarcity, high price, low quality and transport problem in that order. Over the 94% (384 out of 406) of the enterprises were facing the problem of power. All the enterprises both in food processing and steel/metal were reported to be facing the problem of power. With regard to the problem of labour, 220 entrepreneurs (54.1%) reported not facing such problem. Among the entrepreneurs facing the problem of labour, the most serious problem is scarcity of labour (41.6% of rating), followed by high labour cost (31.2% of rating), labour turnover (18.3% of rating) and labour absenteeism (8.8% of rating).

With regard to the problem of finance, it was observed that high rate of interest was rated as the most serious problem (36.8% of rating), followed by meagre assistance from government agencies (22.4% of rating), red tapism in banks (22.2% of rating) and



red tapism also in government agencies (14.9% of rating). The study reveals that 47.8% of the entrepreneurs (194 out of 406) cited their own funds as a major source of initial capital. Only 6.7% (27 out of 406) of the entrepreneurs started their entrepreneurial activity by availing of bank loans. This indicates that only a small proportion of entrepreneurs could have access to bank loans because of the reluctance shown by banks to grant loans to micro entrepreneurs. It was further observed that 37.8% of the entrepreneurs could not repay their loans, 32.4% said that they could repay their loans with interest in time, and the remaining 29.7% said that they can repay only some portion of their loans. It was found that the biggest problem faced by the sample entrepreneurs for non-repayment of their loan is due to business loss, followed by high rate of interest and lack of liquidity.

The problem of internal management is not a serious problem confronted by the enterprises under the study conducted by Lalhunthara (2012), as over 60% of the enterprises were reported not facing the problem of internal management. Only one-fifth of the entrepreneurs found an opportunity to attend training or skill development programme. Of those who have experience of participating in such programmes, only 12.3% of them perceived those programmes as very useful. Over one-third of the entrepreneurs felt that such programmes were useful. The rest of 53.1% of the entrepreneurs were not satisfied with the training and development programmes they had attended so far.

### **Conclusion and Suggestions**

With respect to industrial development, Mizoram is lagging behind other states of India. Though the pace of industrialisation in the state had started during the British period, it could not attain much progress even after six decades of economic planning. Mizoram is endowed with fertile land and rich forest resources. Unless these resources are utilised within the territory with proper efforts in a systematic manner, the state cannot expect an economic boost. Though many new micro and small enterprises have been coming up in the state, the success rate is poor due to many problems. In a backward and remote state like Mizoram, micro and small enterprises are most suitable and they have a big role to play for the state economy. Though Mizoram is considered as peaceful state in India, the basic infrastructure needed for the growth of enterprises in terms of electricity, transport, communication and banking facilities pose a big challenge. Moreover, lack of vision, lack of willingness to explore the opportunities and absence of entrepreneurial mind hamper the industrial development.

The state government should take measures to create an environment conducive for the entrepreneurs to participate in the MSME sector. Towards this it is suggested that the state government should permit non-Mizo entrepreneurs to establish enterprises in the state subject to certain conditions. The state government should also take appropriate measures to integrate the regional markets with national and international markets in order to explore opportunities for the entrepreneurs. There is ample scope for the development of enterprises on the basis of factor endowments in the state. The state government along with other stakeholders like banks and other

financial institutions should encourage the entrepreneurs to set up more enterprises in the area of fruit processing, vegetable cultivation, horticulture, piggery and poultry in the state. Moreover, the state government should be proactive in evolving an industrial policy with a view to promote the large and medium enterprises in the state that would address the problem of industrial backwardness.

Mizoram is heavily dependent on other parts of the country for consumption of food grains. In spite of covering 7.9% of the country's total geographical area, the North East region produces only about 1.5% of the country's total food grains production. The food habit of the people in the region suggests tremendous demand for eggs, pork and chicken. There is a severe shortage of poultry and pork products in the region. Hence, the entrepreneurs should be encouraged to set up farms for poultry and piggery in order to meet the growing demand for such products. Similarly, there is a need to attract private investment in the area of animal feed production as Mizoram has sizable production of maize. The new entrepreneurs should be encouraged to set up animal feed ventures in the state.

It is suggested that the entrepreneurs must establish credibility first in terms of quality, price and competitiveness of products/services. They should acquire relevant techniques and skills on winning customers' loyalty. With a view to improve their competitiveness, government should undertake effective check on spurious goods available in the market. The problem of transport can be overcome to some extent by availing of transport subsidy which is permissible by the industrial policy of Mizoram and central transport subsidy. Market Promotion Council which acts as an advisory council coordinates and interacts with the marketing agencies elsewhere to promote sales of local products inside and outside the country. The entrepreneurs should be in touch with this agency so as to promote their products/services. It is also suggested that the government should establish proper and effective raw material depots from where the entrepreneurs can get scarce raw materials which are not locally available at a price controlled by the government. It is also suggested that a uniform quota system should be developed.

Collateral security should also be dispensed with by banks in the case of micro and small enterprises, provided they have reliable guarantors because many of the micro and small entrepreneurs in Mizoram belong to lower middle income group. Many of them have hardly any property or other assets in their own name to be guaranteed as collateral security. The decision making process in banks should be quick and time bound to minimise delays in sanction and disbursement of loans. Too much official formalities in banks should be avoided. Reluctance of banks to lend to micro and small entrepreneurs is primarily due to poor recovery. Banks are also partly responsible for poor recovery. Therefore, it is suggested that there should be effective follow up and monitoring by banks to ensure utilisation of loan after it is disbursed. This would create mutual trust and confidence between banks and entrepreneurs.

Entrepreneurship support organisations should make intensive promotional efforts to popularise their schemes of assistance for entrepreneurs so that more number

of entrepreneurs would be able to avail of the various schemes of financial and technical assistance. Entrepreneurship support organisations need to tap the reservoir of technically qualified persons by offering them better schemes of assistance and ensuring their proper implementation. Preference should also be given to them in the existing schemes of assistance. The support organisations should follow the participatory approach through bottom up while planning Entrepreneurship Development Programmes (EDPs). They should design curriculum keeping in view the needs of entrepreneurs and conduct EDPs for right mix of entrepreneurs at their convenience. More number of successful entrepreneurs should be involved in imparting skills and inspiring the participants. There is a need to organise trained entrepreneurs meet on a regular basis with the government departments and other organisations concerned at a state level and regional level. Such type of follow up action would be helpful to the micro entrepreneurs in resolving their problems. It is important to establish business incubators in the government and higher educational institutions in the state such as Mizoram University and National Institute of Technology (NIT) with a view to provide continuous support to micro and small enterprises. Many resource persons such as experts, policy makers and bankers would be associated with such business incubators.

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# A total Revamping of Higher Education is a Must in New India

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JV Vil'anilam

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## **Abstract**

*The new system of higher education being introduced in India's colleges is likely to improve the system beyond recognition, but students and teachers have to work hard for its success. Educational planners have to improve facilities for better high school education too. It will also make it more relevant to the solution of national problem of socioeconomic development. The nature of inter-disciplinary education is examined in this article in the light of international scholars' views.*

## **Acronyms/Abbreviations**

CSS: Credit & Semester System, ICT: Information & Communication Technology

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## **Conceptual Framework**

Knowledge is inter-disciplinary. Science is as humanistic as the humanities and the social sciences are as much scientific as pure sciences, and as much social as the humanities

This fundamental principle should open our eyes to the real nature of higher education. Perhaps this was not realized (or given real importance even when realized) in the 19<sup>th</sup> and 20<sup>th</sup> centuries, especially in India where the modern universities came into being in the latter half of the 19<sup>th</sup> century. Perhaps the earlier centuries in human history did not see any strict separation or compartmentalization of knowledge. Aristotle and others including ancient law givers in several areas of human endeavour in India saw knowledge as one and indivisible.

The awareness of the relevance of one branch of knowledge to the other branches is more recently recognized by the chemists, biologists, physicists, anthropologists, psychologists and sociologists.

The ancient Greeks were perhaps the first to develop true science as the systematic observation of Nature and as a way of understanding its inner workings. Aristotle was the first major theorist of science and he observed Nature in all its

manifestations. He taught by his own example that all branches of knowledge were inter-related and that there was no pure scientist, humanist or social scientist because all the various aspects of their knowledge and practice were inter-related.

But Aristotle and others spread this notion without realizing that they had advanced several theories based on false notions. Copernicus, Galileo, Newton and Einstein of subsequent centuries, and Stephen Hawking of our times were fortunate to have better tools to observe Nature and realize that keener observation of Nature could lead us to a better understanding of life and Nature. These new philosophers have underlined the importance of inter-disciplinary education where every student is given an opportunity to learn many disciplines and *uphold the relevance of everything to everything else*.

Education is not compartmentalized instruction; it is intimately intertwined with what is important in all walks of life. Therein lies the philosophy behind the new System introduced in India recently. The steady advancement of Knowledge in the past 20 centuries has enabled us in the 21<sup>st</sup> century to return to the ancients and realize once again the relevance of developing and integrating science, social science and the humanities without compartmentalization.

C. P. Snow, a noted physicist and a novelist of repute (and a Nobel Prize winner) in his Cambridge Lecture on “Two Cultures” drew pointed attention to the close relationship between the natural sciences and the humanities. The spirit of science and the strength of capitalism worked together to create a new world for us. Our educational endeavours in developing countries in the last three centuries could not but be reflectors of what was happening in the commercial world dominated by geopolitical forces. Here and there voices like those of Friedrich Froebel, Maria Montessori, Will Durant, Mahatma Gandhi and Ivan Illich drew our attention to areas that had escaped the attention of certain important thinkers in the recent past. The head, the heart, the hand and all human faculties had to be exercised in bettering the life situation of the entire world, it was held. Deschooling was tackled by the new thinkers including C. P. Snow in their new holistic approach to education.

No wonder, Ilya Prigogine, famous Nobel Prize winner for Chemistry was a Professor of Physics in the U of T at Austin! Chemistry could be enhanced by physicists and vice versa. Thus the new approach taken by Snow and others in mid-20<sup>th</sup> century gave a great fillip to the essential oneness of the fundamental principles of science, whether physics or chemistry.

Similarly, we can cite many examples for the fundamental principles of not only physical or natural sciences but those of the social sciences and the humanities. The universities in India are yet to recognize this universality of knowledge and implement it to the best extent possible in all educational institutions. This is particularly true in the geopolitical East, despite the sincere attempts by educationists to bring about important changes.

Illich's deschooling argues that the use of technology to create decentralized webs for informal education for three good reasons:

- i. provide to all seekers of knowledge/all pupils/the chance and access to information;
- ii. empower all those who want to share what they know to others who need and want to share;
- iii. furnish all who want to present an issue to the general public, with the opportunity to make their challenge known.

#### **Illich proposed four Learning Networks**

1. An Open Directory of educational resources available to all seekers of knowledge;
2. Skills Exchange: A Database of people willing to list their skills and the basis on which to share the list with others;
3. Peer-matching: A network that helps people to communicate their learning activities and aims -to find similar learners willing to collaborate; and.
4. A Directory of Professional Educators-a list of professionals, para-professionals and freelancers willing to participate in this deschooling project (or new schooling programme), with details of their qualifications, service records, and the terms on which they participate.

Although Illich has not thought through how his educational networks would work (during the past five decades nobody else has done it, either), it would be good if the latest IT technologies and thinkers can come up with fresh ideas or practical ideas to put Illich to practical use.

Illich's idea ought to be respected that the world has seen three major changes in human history, namely, (i) the invention of the alphabet, (ii) transition from the oral to written through printing and (3) the advent of the computer and word-processing, the mobile phone technologies, tweeting and texting that followed (about which Illich probably did not foresee), cannot escape our attention. The educational system has to change in the light of all these changes in our ICT. In contrast to these, what is happening in Indian universities?

To these ideas, I venture to add that the religious instruction that has gained so much importance in education during the past 5000 years needs a re-vamping. Particular creeds and practices are emphasized in different parts of the world or in different groups of people, but those that divide humanity rather than harmonize them under a totally different dispensation need revision. A new religious approach to life is the most essential requisite to re-build humanity as one. Does our present educational system give enough thought to this vital aspect? Our present stale system of education has continued for more than twenty centuries, and our approach to education has to undergo an immediate revision.

There are 650-odd districts in our country. Instead of controlling our educational institutions from the centre, a decentralized system may be devised so that each district



can survey its geographic area and determine how many children there are in the following age groups: 3-6; 6-10; 10-14; and 14-18; all children 18 or below will be divided into four such groups, corresponding to pre-primary; primary; middle and high school levels, respectively. The current system of having two divisions for lower and upper kindergarten may continue. The major consideration should be to build proper kindergarten, primary, middle and high school buildings for all children in the total age group of 3-18.

The guiding principle here is that each district must have enough number of schools at various levels. We cannot depend on the existing statistics because there are many areas in the country which have not been covered. Sometimes, some states and union territories claim wrongly that they have enough number of schools but may not give us a true total picture. They do this simply for the sake of prestige. Sometimes, it is essential to do a fresh survey of the number of children in a particular area—especially children belonging to different age groups, so that all children in each age group, may be sent to the proper classes depending on their age and level of knowledge. It may be required to build more than one school for certain age groups. For example, there may be more children at the primary level, which means there may be more than one or two primary schools within a radius of three kilometers. The idea is that all children at the primary level within a radius of three kilometers must attend school.

The school buildings should be pucca and built to withstand the wind, weather and heat. Each school should have adequate drinking water facilities and dining halls, lavatories and bathrooms, a sick room for children who need medical care. There should also be space set apart for games and sports at every school. If the Government of India could stipulate comforts and conveniences, and adequate area for pumps and parking at every petrol station, similar facilities could also be provided in every centre of learning in the country. In fact, more attention has to be given to the building of an educated group of citizens in every district than to petrol bunks. A nation is built on the strength of its citizens, not on its petrol bunks!

There should be adequate number of middle schools and high schools in a radius of five kilometers. Every high school will have vocation classes, workshops, swimming pools and simple job-training facilities. A boy or girl at 18 should be able to utilize their high school education for a useful job that can help them to earn a living and support their families. Nationally, there shall be no school without proper class-rooms, with four stone walls, teachers' rooms, labs and libraries, games and sports fields, in any part of the country. High school education must be re-organized in the country so that college education and research will improve. Our educationists are more concerned with college education, without realizing that higher education will never improve without improving lower education. And school buses should be provided for those children who have to walk more than two kilometers from home to school. All this will involve some expenditure. All residents in a certain area within the school catchment area must pay a school tax of say, two per cent of their annual income, irrespective of parenthood to meet part of the expenses but the school district authorities should meet

the remaining expenses with help from state and central governments. Education is not only the responsibility of the parents, but the local and central governments. State and Central governments and school district authorities and big industrialists, philanthropists and community service organizations should take up educational matters more seriously. Let those organizations who start huge, curative and high-technology hospitals to earn big money from wealthy clients turn their attention to the future citizens of the country and set apart a small percentage of their investment on the building of healthy citizens through better primary and secondary schools.

The present practice of sanctioning schools to all those who apply for it will lead to a degeneration of the quality of schooling. In other words, there should be strict quality control from local, state and central governments, and teachers should be selected strictly on the basis of their qualifications and their ability to teach. Selection interviews should be conducted by experts who have no personal axe to grind. Candidates must be given a teaching test so that the best can be selected. Teachers' behaviour with students in class has to be observed by experts and teachers' willingness to allow blunders and silly answers from students who honestly make some mistakes should be observed, because there are too many instances reported from different parts of the country about punishing children in a brutal and savage manner by teachers and headmasters for making silly errors. Teachers are not Gods and they do not have any authority to resort to corporal punishment. Children have to be treated with gentleness, tact and affection. Many teachers have to undergo lessons in child psychology when they take their teachers' training. Teachers without such training should never be allowed to teach. A teacher is a parent to the child at school. Sometimes disciplining a child may become necessary; but corporal punishment has to be avoided at all costs. There are other harmless systems of punishment.

When the school system is organized in a more scientific manner, higher education will improve. At the college and university level, properly trained high school graduates, especially at the threshold of youth will choose the subjects of study with interest and awareness and engage in research—social science, natural science, sociology, technology and the humanities. They know the fundamentals well and argue about matters they learn from teachers, classmates, other elders, and the library (hard copies and soft), raise their dissenting voices with conviction and evidence and learn from their opponents. They arrive at conclusions on firmer grounds, instead of depending on moral policemen and false prophets, examine their own statements and opinions in a scientific manner. Earning higher degrees for the sake of degrees should not be the goal of those who go for higher education; they should be able to listen to others who question their pet theories and examine their own stand, ready to revise their stand, if necessary, for the sake of the nation. Above all, they will realize that all knowledge is inter-disciplinary, inter-related. Everything is relevant to everything else in this inter-connected world of ours.

A university or college exists for the following clear objectives:

1. to advance and extend the benefit of knowledge by teaching and research, and to do it by publication;

2. to create a special atmosphere of disinterested pursuit of learning in which both the teachers and the taught recognize their inter-dependence and mutual help.

A university or college ought primarily to be a place of learning, debates, discussions, practical training and research, learning the fundamental principles of living an orderly and mutually respecting place where our attention should be on matters relating to the principle of “living and letting others live” in a humane society that honours the rights of others to exist in an atmosphere of mutual love, respect and dignity.

May I conclude this article with a quote from the famous Magsaysay Award Winner and illustrious editor of several leading newspapers of India, namely, the late B. G. Verghese:

“(Several years) after the passage of the Right to Education Act, 2009 a child rights Act that the State should have endeavoured to have delivered by 1960 in accordance with Article 45 of the Constitution, and the Education Commission in 1966 had advocated common schools to promote social and cultural mixing in a highly plural society with huge income differentials,” we still have educational experts pleading for minority rights to run their own casteist, parochial and narrow-minded school systems even on the basis of huge donations unaffordable to the common man! “Cultural barriers are more likely to break down at any early age when children are less conscious about class, caste, colour and community” and religious differences, and work together in nation-building activities in a harmonious manner.

When will our educational institutions drop the clause on caste/community/religion from their application forms for admission? When will the authorities take stringent action against institutions that receive “donations” and parents that give them? Corruption in the Indian society starts at the kindergarten level! Search the recesses of your own memory!

This is where the essential oneness of all knowledge is to be recognized. This is where pure sciences, social sciences, and the humanities shed their superficial differences and dissolve in the infinity of knowledge.

# Honour Killing and Women's Human Rights

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Nidhi Gupta

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## *Abstract*

*Honour Killings are acts of violence committed by male family members against female family members who are held to have brought shame to the family. They are treated as family issues. Even the senior women members of the family support the crime. These are most prevalent in the Middle East and South Asia. Honour killing violates the basic human right of women i.e. the right to life with dignity. Killing of daughters, sisters and wives by their fathers, brothers and husbands in the name of honour is a matter of serious concern. The article aims to illustrate various legal provisions in the Indian Constitution and other countries like Pakistan, UK, Jordan which can be used to stop the horrendous crime. It also discusses international provisions made to protect women's rights while pointing out the need of a specific law on honour killing.*

## *Acronyms/Abbreviations*

*CEDAW: Convention on the Elimination of all Forms of Discrimination Against Women, NGO: Non-Governmental Organization*

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**“In the area of violence against women, human rights ideas are powerful precisely because they offer a radical break from the view that violence is natural and inevitable in intimate relations between men and women. Defined as human rights violation, gender violence becomes a crime against the state that the state must punish.”**  
**- Salle Engle Merry**

An Honour Killing also called customary killing, is the murder of a typically female family or clan member by one or more fellows mostly male family members, in which the perpetrators and potentially the wider community believe the victim to have brought dishonour upon the family, clan or community. Human Rights Watch defines ‘Honour killings’ are acts of violence, usually murder committed by male family members against female family members, who are held to have brought dishonour to the family.

‘Honour killings’ take place in many states, for example, the United Nations Special Rapporteur on extrajudicial summary and arbitrary executions and the Special Rapporteur on violence against women have received reports from Bangladesh, Brazil, Ecuador, Egypt, France, Germany, India, Iran, Israel, Italy, Jordan, Lebanon, Morocco,

Pakistan, Syria, Sweden, Turkey, Uganda, the UK and Yemen.<sup>1</sup> 'Honour killings' have also taken place in the USA and Australia. It seems, however, that honour killings are most prevalent in the Middle East and South Asia. The reporting of the main human rights NGOs is concentrated on Pakistan and Jordan. National NGOs in countries such as Jordan, Israel, Pakistan and Turkey have been very active in their campaign against 'honour killings' and some national NGOs have taken up the cause elsewhere as well. As 'honour killings' largely remain a private family affair, it is hard to obtain reliable official statistical data on it and thus it is difficult to collect accurate data on the occurrence of 'honour killings' in a given country. Hundreds, if not thousands, of women are killed by their families each year in the name of 'honour'. It is difficult to get precise number of the killings as many instances go unreported, the perpetrators remain unpunished and even justify the act in the eyes of some societies. Most 'honour killings' occur in countries where the concept of women as a vessel of the honour predominates, said Marsha Freeman, director of International Women's Rights Action Watch at the Hubert Humphrey Institute of Public Affairs at the University of Minnesota. 'Honour killing' is considered to be "a crime that threatens the unity and harmony of the community, and it acts as a barrier preventing women from progressing in their lives".<sup>2</sup> The practice was condoned under the rule of the fundamentalist Taliban government in Afghanistan, and has been reported in Iraq and Iran. But while 'honour killings' have elicited considerable attention and outrage, human rights activists argue that they should be regarded as part of a much larger problem of violence against women.<sup>3</sup> Recently, there have been a spate of 'honour killings' in India and this has led the government to take a stand on what law can be put in place to stop this heinous crime.

The latest cases of 'honour killings' were reported, when in 2014 Bhavana Yadav a 21 year old student of Venkateshwara College, was allegedly murdered by her family because she had married a boy from another caste, Deepti Chikara was killed in 2012 by her brother and uncle as she married a man who was from a different caste, a man bludgeoned his 18 year daughter to death over her hanging out with boys and spending time in malls and a girl, Vimla (20) was murdered by her father and a guard named Robin, after they found 28 year old Hari from Jalandhar and Vimla lying in a compromising position in an under construction building in New Friends Colony.<sup>4</sup> Crimes of passion, which are treated extremely leniently in Latin America, are the same thing with a different name, some rights advocates say. "In countries where Islam is practiced, they are called 'honour killings', but dowry deaths and so-called crimes of passion have a similar dynamic in that the women are killed by male family members and the crimes are perceived as excusable or understandable," said Widney Brown, advocacy director for Human Rights Watch. The practice, she said, "goes across cultures and across religions".<sup>5</sup>

Complicity by other women in the family and the community strengthens the concept of women as property and the perception that violence against family members is a family and not a judicial issue. "Females in the family – mothers, mothers-in-law,

sisters, and cousins – frequently support the attacks. It's a community mentality," said Zaynab Nawaz, a program assistant for women's human rights at Amnesty International. In April 1999 a 29-year old Samia Sarwar was shot dead in Lahore, Pakistan, apparently because of her attempt to divorce a severely abusive husband, which was seen as bringing shame on the family. Samia had fled her home a month earlier to seek refuge in a women's shelter. Her mother's car driver shot her on the request of her mother in the presence of her lawyers. A police report was filed but no one was arrested for the murder.<sup>6</sup> In Pakistan 300-1000 women are killed in the name of honour every year.<sup>7</sup> In Jordan, an average of 25-40 women are killed each year in the name of honour and honour protection is the motive for 55% of the cases of violence against women in Jordan. Approximately 26% of all crimes in Jordan are honour crimes.<sup>8</sup> The charges of premeditated murder were reduced to misdemeanor by the Criminal Court because of the victim's "unlawful and dangerous acts", as stipulated by Article 98 of the Jordanian Criminal Code.<sup>9</sup>

### **Honour killings-A Violation of Women's Human Rights**

'Honour killings' are a form of intra-family violence, where women, who are seen as the repositories of the man's or family's honour, and as such must guard their virginity and chastity, are killed, usually by their male relatives, because they are seen to have defiled the honour and must be killed in order to restore it. 'Honour killings' originate in the ancient customs that have been incorporated into many cultures. According to such tribal custom the woman is the repository of her family's honour.<sup>10</sup> For example, in Pakistan, women are seen to embody the honour of "the men to whom they belong". By being perceived as having entered into an 'illicit' relationship, or otherwise behaved in an 'inappropriate manner' they are seen as having defiled her guardian's and family's honour. A man's ability to protect his honour is judged by his family and neighbours. Therefore, he must publicly demonstrate his power to safeguard his honour by killing those who have damaged it and thereby restore it. Consequently, 'honour killings' are often performed openly, as, for example, in the cases of Samia Sarwar and Lal Jamilla Mandokhel. The other motive for 'honour killings' is covering up shameful incidents, such as extramarital relationships, rape, incest or other sexual abuse. For example, according to tribal principles of Palestinian society any such "scandals" must be concealed or mitigated in accordance with the principles of *sutra* and *dabdabeh*, e.g., by means of forced marriage or ultimately, by killing the woman concerned. The understanding of what behaviour defiles honour varies and has become very loose in some societies. Sometimes rumour, belief or insinuation are enough to defile honour.<sup>11</sup> 'Honour killings' are usually resorted to when a woman is believed to have engaged in a sexual relationship outside marriage. Also rape victims may be killed in the name of honour – the consent or lack of it is seen as irrelevant to the question of lost honour. Women are killed in the name of honour for expressing a desire to choose a spouse of their choice, marrying against the will of their families and for demanding divorce from their husbands. The *kari-karo* tradition in certain areas of Pakistan and the system of compensation to the man who has lost his



honour provide opportunities to make money or to conceal other crimes. Some have even spoken about the 'industry'. It has been argued that the 'honour killing industry' turns the honour code on its head and indicates its degeneration.

Honour crimes are a wider category including also other violence committed against women (battering, acid throwing, rape, etc.) in the name of honour. The following case from Pakistan may serve as a tragic example of an honour crime. An 18 year-old girl was gang-raped by four men after a local tribal council (panchayat) had ordered them to do so to punish the girl's family after her 11 year-old brother had been seen walking (unchaperoned) with a girl from a higher tribal caste because this was seen as an insult to the tribe's collective dignity. Reportedly four men then dragged her into a hut and raped while hundreds of people stood outside. Afterwards she was forced to walk home naked in front of hundreds of onlookers.<sup>12</sup> It has been argued that the social function of honour crimes has changed as a reaction to the changed society, changed perceptions of what is honourable and dishonourable behaviour and changed sexual practices.<sup>13</sup> There are also reports from Pakistan stating that the number of 'honour killings' is increasing. No doubt, media coverage of 'honour killings' has increased in recent years giving rise to increased number of reported crimes. With this the actual number of crimes has risen as well; as has apparently the sense of righteousness manifested in the manner the killings are committed, publicly, in broad daylight.

Several reasons have been given for such an increase. Many men resent the exposure of women to the outside world, and their increased self-confidence. At the same time especially young women are becoming more aware of their rights. Similarly, in Palestine, tribal leaders reportedly perceive participation of women in work outside the home, women's increased freedom and economic power as having contributed to changes in social roles, away from traditional Arab and Islamic values, and thus as the reason for moral decay. Tribal leaders have proposed that a return to traditional roles for men and women, prohibiting work for women outside the home, early marriage, polygamy and a prohibition of mixing of sexes would be the best way to prevent 'honour killings'.<sup>14</sup> The increased occurrence of 'honour killings' can thus be seen as a reactionary trend, or so-called "reactive culturalism". An additional aspect of the problem is 'honour killings' that occur amongst immigrant communities in societies where honour killings traditionally do not exist. In these cases the dishonouring behaviour that the victims are guilty is often adaptation to the culture of the majority, which is seen as unacceptable by the woman's family. It has even been claimed that the risk of becoming a victim of 'honour killing' is higher in certain immigrant communities in the west than it is in the countries where those immigrants come from.

### **The term Honour Killings and the Motivations behind it**

When discussing 'honour killings' as a violation of international human rights law it must be established what is meant by the term honour and what the implications of use of such terms are. Even though crimes of passion and crimes of honour are put

together in the same category of human rights abuses in certain UN resolutions, these crimes do differ. The point where they differ is the rationale of the crime and the underlying perceptions of honour and passion.

The understanding of honour varies from culture to culture and language to language. For example, according to Cambridge Advanced Learners Dictionary the English word 'honour' stands for a "quality that combines respect, pride and honesty." In the traditional Greek mountain communities, honour referred in some contexts to pride, respect or esteem, and in others honour indicated certain qualities on which the reputation of a group or an individual depends, and more specifically honour referred to the sexual virtue of a woman. Honour expressed the idea of worth, whether this was an economic value or social worth and integrity.<sup>15</sup> In the Turkish language honour has many meanings ranging from a quality derived from achieved status (*seref*) and generosity towards others (*izzet*) to certain physical and moral qualities that women ought to have (*namus*).<sup>16</sup> Honour has been and still is a gendered term both in western and non-western cultures. Further, the honour (or rather shame) of women and the loss of such honour implicate the honour of men. For example, the principle of honour in the traditional Greek mountain communities included qualities that distinguished between the ideal moral character of men and women; the manliness of men and the sexual shame of women. If a woman was dishonoured, 'soiled', she marked with her dishonour all those who were close to her through kinship or marriage. Honour and shame can be seen as parallel concepts, honour being masculine, shame feminine; not opposites. Also the Turkish understanding of honour distinguishes between words for the term honour that are gender neutral in application, or that apply only to women (*namus*) or men (*seref*). Honour can be described as a collective understanding of the relationship of several men towards one woman, where the men are obliged to defend their public image of their masculinity that in turn is embodied in the chastity and virginity of the woman. The societies where 'honour killings' occur are characterized by the existence of codes of honour, that is, sets of rules that specify what is and what is not honour. In accordance with such rules honour can both be won and lost. A person's honour is dependant on the behavior of others and that behavior must therefore be controlled. Honour is about a right to respect, in the sense of claim for respect. The community has a duty to respect a person, so far as the code of honour is followed. If the code of honour is breached, the person (and his family) loses his honour. Consequently, honour killings are highly unlikely unless the transgression becomes known in the community. Thus, the ideas of honour and lost honour are based on the notion of justification of collective injury, the emphasis is on the nature of the act, not the actor (perpetrator of the crime). What is crucial is the 'dishonourability' of the victim. By contrast, passion exists in a private relationship between a man and a woman. The idea of passion excludes all men who are not or cannot be sexually involved with a woman (fathers, sons, brothers). The issue at stake is more passionate jealousy than violated masculinity.<sup>17</sup> To summarize, "honour is based on ideas of kin, status, honour and

collectively, while passion is based on ideas of individualism, romantic fusion, and sexual jealousy". Therefore, in 'honour-cultures' the women who get killed are daughters, sisters and mothers, while in 'passion-cultures' it is wives, ex-wives and girlfriends that are the victims of murder and other crimes. To somewhat simplify the issue: the results of 'crimes of honour' and 'crimes of passion' are the same – but the reasons are different. Thus Abu-Odeh points out, crimes of honour occur in the "East", crimes of passion in the "West". It has, however, been argued that the conception of honour in Europe in the Middle Ages was not very much unlike the understanding of honour and honour codes of the contemporary Middle East and South Asia. According to such views the "European" honour concept started to focus on the inner aspects, such as personal integrity, of honour during the 16th and 17th centuries. Thus, it has been argued that the locus of honour in the west has shifted from the traditional extended family to the individual man due to the increasing role of individualism and the nuclear family. Therefore, it may be that an honour rationale underlies also so called killings in the name of passion in the west.<sup>18</sup>

In India "honour killings", are widespread in some of the economically advanced States. Perpetrated under the garb of saving the "honour" of the community, caste or family, such incidents occur often. The acts of violence include public lynching of couples, murder of either the man or the woman concerned, murder made to appear as suicide, public beatings, humiliation, blackening of the face, social boycotts and the levying of fines. The largest number of cases were found to have occurred in Punjab, Haryana and Uttar Pradesh. One reason for the increased visibility of such crimes is the trend of more and more girls joining educational institutions, meeting others from different backgrounds and castes and establishing relationships beyond the confines of caste and community. Such individuals, both boys and girls, are being targeted so that none dares to breach the barriers of castes and communities. Significantly, in the majority of cases it is the economically and socially dominant castes that organize, instigate and abet such acts of retribution.

In Muzaffarnagar district in western Uttar Pradesh, at least 13 honour killings occurred within nine months in 2003. In 2002, while 10 such killings were reported, 35 couples were declared missing. It was estimated that Haryana and Punjab alone account for 10 per cent of all honour killings in the country. It is not surprising that no such category of crime exists in government records. Data for such incidents are seldom available and they would mostly be classified under the category of general crimes. Moreover, most of such cases go unreported and, even when reported, often first information reports are not filed and post-mortems are not conducted. Caste councils have come to play an increasingly important role in Haryana and elsewhere, especially in situations where political patronage also exists. Central to the theme of honour and violence is the subordinate position of girls and women in all castes and communities. A woman's chastity is the "honour" of the community and she has no sovereign right over her body at any point of her life. The retribution is particularly swift and brutal if she crosses caste and class barriers to choose a lower-caste man as her partner.

When moving to the discussion on 'honour killings' on the international human rights agenda, the question is should only (the "eastern") honour killings be dealt with as a human rights violation, or should also (the "western") 'crimes of passion' be included? When it comes to considering any violence committed by private actors as a human rights abuse, the central consideration must always be whether these acts are in any way condoned by the state or whether the state in any other way fails to protect the fundamental human rights of the victims of such abuses. Despite this it is important to bear in mind the different nature of 'honour' killings and 'passion' killings, as understanding that difference will help the reader to understand the rationale of the acts of the perpetrators as well as the conduct of police officials, judges and legislators, as members of the community they live in. Also, it seems that most of the cases where there is impunity are indeed motivated by reasons of honour, not passion.

It should also be noted that some objections have been made as to the use of the term 'honour' at all in the context of honour killings, for example, the word "femicide" has been advocated by some as a better alternative. Others have spoken about "so called honour killings" or "shame killings"<sup>19</sup> as former UN Secretary-General Kofi Annan preferred to call the practice. Such statements seem to express a wish to de-link the term 'honour' from violence and murder. However, as was discussed above, 'honour' is a very complex concept and codes of honour prescribe various forms of conduct, including in extreme cases, killings committed in the name of honour – not in the name of shame or "so called honour".

### **Laws on Honour Killing**

The concept of honour crimes is a complex legal issue. Defendants in Western criminal courts tend to justify their acts in form of customary norms and moral conformity (of the woman). They seek mitigation on the grounds that the murder was committed as a consequence of the need to defend or protect the honour of the family. The doctrine of habeas corpus certainly does not exist in Islamist societies; therefore, a woman's right to liberty is not guaranteed. Honour crimes do not specifically feature in criminal legislation of countries that sanction or tolerate such crimes (eg, Pakistan, Jordan or Turkey). Sharia law does not specifically mention honour killing and Islam does not support the death penalty for misconduct related to honour.<sup>20</sup> Yet, Sharia law prescribes severe punishments for zina (extramarital sex) where certain cultures (eg, Northern Nigeria) still recommend that premarital sex should be punished by up to 100 lashes, and adultery is penalized with lethal stoning – in itself not considered as "honour killing". Islamic courts tend to deal rather leniently with bail applications. Pakistani courts, for instance, tend to find "extenuating circumstances" in honour killings, setting the threshold on provocation as very low.<sup>21</sup> Usually, the defence of provocation succeeds, and defendants are acquitted if they can prove that the woman in question brought an "assault on a family member's manhood". In December 2004, Pakistan's Senate approved a Bill which was to strengthen the law against honour killings. The Bill proposed that the death penalty was to be the maximum punishment for crimes in which victims are killed if judged to have brought dishonour on the

family. Zobiaida Jalal, Pakistan's only woman cabinet minister at the time, stated that the Bill would not go far enough to protect female victims and the defence of provocation would remain where the woman was perceived to blemish her family's tribal honour. The Jordanian Penal Code specifically accepts that the "purifying" of a wrong to a tribe is necessary.<sup>22</sup> Honour killings rarely reach the courts and if they do, sentences average six months (usually involving the brother or father of the victim). In spite of Jordan's Queen Rania's campaign against honour crimes in her country, the Jordanian Parliament overwhelmingly rejected proposed legislation to outlaw honour killings in October 2004.<sup>23</sup> Until June 2005, local Turkish Judges had the power to hand down reduced sentences to a small number of honour killers who were caught. However, since the introduction of a new Turkish Penal Code, designed to conform to EU law, honour killings have been recategorized as murder with a life sentence attached.<sup>24</sup> The offenders on the other hand, seek a defence and mitigation in their cultural tradition. This leaves Western European law enforcement agencies largely ignorant of dealing with the problem occurring on their territories. Muslim-dominated states condone honour killings, such crimes fall within the criminal codes governing homicide or serious offences against the person.

There have been 12 reported honour killings in the UK since 2000, but to date, only a few perpetrators have been prosecuted. In 2003, London's Metropolitan Police set up a specialist task force unit to investigate honour killings. Honour crimes are permitted the defence of "extreme provocation"; if successful, the defendant will be acquitted or receive a lenient sentence. According to Turkish Criminal Code, article 453 permits a reduction in any sentence when an illegitimate baby is killed immediately after birth and article 463 reduces imprisonment by one-eighth when a killing was carried out immediately before, during or immediately after a situation of anticipated adultery or fornication.

One of the most publicized cases of honour killings was that of 16-year-old Heshu Yones from a Kurdish family in London. In 2002, Heshu's father Abdullah set about killing his daughter in her bathroom by attacking her with a kitchen knife, stabbing her eleven times with such ferocity that the floor was slippery with her blood. At his trial, Abdullah Yones stated in his defence that he felt provoked by Heshu's Western-style dress and Christian boyfriend. Other defence statements included that he was "forced to kill" because Heshu had put her father in an "untenable position" by bringing a "stain" on the family honour.

All forms of gender based violence, "crimes of honour" deprive women of the right to life, liberty and security of person, the right to be free from torture or cruel, inhuman or degrading treatment or punishment, right to equality in the family and the right to the highest attainable standard of physical and mental health. In the broader context of patriarchal principles motivating "crimes of honour", India is obligated as a state party to ensure that all discrimination against women in matters relating to marriage and family relations are eliminated, providing them with the same right to



enter into marriage and to freely choose a spouse and to enter into marriage only with their free and full consent. This includes ensuring that informal decision making bodies operating on customary laws, such as the khap panchayats, are refrained from enforcing their dicta, and interfering with the right of women to choose their spouse.

India, as a state party to CEDAW has the legally binding obligation, "to eliminate discrimination against women by any person, organization or enterprise," as mentioned in article 2 (c) of CEDAW.<sup>25</sup> State parties have to take appropriate measures to eliminate prejudices and customary practices, such as "crimes of honour", "which are based on the idea of the inferiority or the superiority of either of the sexes". Creating statutes that criminalize the different types of acts that fall within the ambit of "crimes of honour", while essential, is certainly not adequate if there is no systematic enforcement of the statutes. Active prosecutions are one of the means to achieve the practical realization of eliminating discriminatory principles such as "crimes of honour", in order to ensure that state parties meet their obligations to "take all appropriate measures to eliminate discrimination against women.

## **Conclusion**

Whilst honour crimes are increasingly occurring in the society they are often compounded by state ignorance and indifference by law enforcement agencies or the courts. Though honour killings have been a culturally and legally accepted phenomenon in countries like India, Turkey, Jordan or Pakistan, it should not mean that such horrendous killings ought to be given the benign treatment.

The perpetrators who have appeared in courts have repeatedly tried to justify their actions on various grounds. Therefore, when dealing with honour crimes courts should regard these as an "aggravating (rather than a mitigating) factor"; under no circumstance should a trial Judge permit a form of "cultural" or "religious" defence. The prosecution should adopt a "zero tolerance" attitude, the religion or culture should not be used as a form or judicial excuse in form of a legal defence of provocation in such killings.

Law enforcement agencies should receive appropriate training over and above domestic violence issues, reflecting an obligation towards women from different ethnic origins where honour killings are prominent. Criminal law enforcement agencies should ensure that honour crimes are effectively and sensitively investigated. The courts should not accept "honour" in mitigation, or as a justifiable motive of such crimes. Above all, the community at large needs to get involved in order to increase public awareness of violence against women in the name of honour. It should at least be acknowledged that the culture related honour crime is complex and that recognising early warning signs will be the first step towards saving lives. Active policing and serious penal sanctions can be the only antidote to this most dishonorable practice.



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21. *Section 300(1) of the Pakistani Penal Code of 1990 reads: "Culpable homicide is to murder if the offender, whilst deprived of the power of self-control by grave and sudden provocation, causes the death of the person who gave the provocation."*
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23. *In August 2004, the Upper House, the Jordanian Senate, had upheld both Bills, after they were rejected by the Lower House. In October 2004, both Bills were rejected. Only an intervention by the Jordanian monarch, King Abdullah, would ensure such a law to come into effect now.*
24. *According to the Turkish Criminal Code, the punishment for first-degree murder is 24 years. If murder is committed by a family member, the punishment may be life imprisonment without parole.*
25. *Article 2 (c) of CEDAW providing that States parties undertake to establish legal protection of the rights of women on an equal basis with men and ensure through competent national tribunals and other public institutions the effective protection of women against any act of discrimination.*

# Urbanization and Poverty (A Discussion Paper)

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Priyanka Maheshwari and Rinku Gupta

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## **Abstract**

*This is a discussion paper dealing with various aspects of urbanization, industrialization and poverty. It also reveals the fact that urbanization in Asia and Africa has not been able to eradicate poverty, rather it shifts poverty from one place to another. Urban poverty is a multidimensional phenomenon. Poverty and urbanization are two economic patterns that have continuing trends some individuals may find disturbing. Poverty is not only the state of being without often associated with need, hardship, and lack of resources across a wide variety of circumstances but also inability to participate in the mainstream societal processes. Urbanization is the expansion of a city, namely the proportion of total population in urban localities and increase in population engaged in non agricultural activities. In this paper, it has been tried to discuss the connection between the two and try to see if urbanization directly affects poverty.*

*(Suggestions and valuable opinions from the readers are welcome on the effects of urbanization on poverty.)*

## **Acronyms/Abbreviations**

SOEs: State Owned Enterprises

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## **Introduction**

Urbanization means an increase in the proportion of population living in urban areas compared to rural areas and also an increase in the percentage of population engaged in non-agricultural sector. An urban area is a built-up area such as a town or city. As a country industrializes, the number of people living in urban areas tend to increase. During the Industrial Revolution in 19<sup>th</sup> century, people started moving towards the cities in the hope of obtaining jobs in factories or industries as the job opportunities in agricultural sector had reduced.

In ancient times prosperous and efficient villages attracted less prosperous tribes. The areas with fertile land and river valleys attracted the migration of people from neighboring areas which resulted in increase in the production of food and security. Ancient cities like Babylon, Ur, Erech, Mohanjodaro, Harappa etc. were small cities and were supported by rural population and according to some historians approximately

50-90 farmers were required to support one man in the city. As a result, universal urbanization led to the depletion of natural resources which ultimately destroyed the cities.

This urbanization initiated innovation and new conceptions. This period is also known for developing iron tools and weapons, alphabetic writing, making of cheap coins, improving sails boats, democratic institutions etc. All these resulted in increase in production, stimulate trade and expand effective political units. Romans used their abilities to develop a system for its people to support cities through conquering other states, an art to organize and govern an empire, how the hinterland could be converted into a fruitful cultivation and importantly they colonized other areas and brought slaves, goods, food to Rome which made a strong Roman Empire.

In the first stage ancient cities were based on agricultural economy. Handicrafts played a secondary role. Military strength was also needed to survive. In the later stage the western Europe made improvements in agriculture and transport and opened upto new lands and trade routes. This increased the world trade and now the urban population drew its sustenance from a wider area i.e. the entire world e.g. Britain, Holland, Japan etc. could not maintain their urban population solely from their own territories. During 19<sup>th</sup> century western Europe saw advancements in the field of production, textiles, steam engines and machine based production. The rise in production activities due to machines led to industrialization and true urban revolution.

### **Industrialization**

The Industrial Revolution in early 19<sup>th</sup> century resulted in manufacturing of machines which began to change the dimensions of production and encouraged the establishment of factories throughout Europe. The development of steel encouraged founding of many textile mills, coal factories etc. With this, a huge increase was observed in the business from the development of railways. The industrialization lessened the need of manual labor but increased efficiency, resultantly it developed monopolies capitalizing on cheap labour.

In UK under the "Land Enclosure Act" (1773-1882), the rights of cultivating/raising livestock on common land were stripped off from the farmers and their ownerships were given to the wealthy aristocrats and capitalists. As a result the poor farmers were left with no other option apart from getting forcefully migrated to the industrialized cities. This provided a large cheap workforce for industries and thus sparked the first phase of industrialization. The development and boom in the industry lessened the needs of manual labor, artisans/skilled workers as they were being replaced by the machines. As a result they became unemployed and out of aggression they started destroying the factories and the group came to be known as "Luddites".

However industrialization also proved to be a boon in certain areas like availability of clothes at cheaper rates as their production cost and transport cost got reduced. In contrast industrialization had certain adverse effects too like for mass production fewer skilled workers were required as majority was being replaced by

machines. The loss of work increased unemployment which in turn deteriorated the working and living conditions of the people, mostly it affected the lower class. Many children who worked in factories became deformed/crippled. 12 hours x 6 days shifts were the norms for workers. Chronic hunger and malnutrition prevailed in Britain and France till late 19<sup>th</sup> century. Industrial Revolution did not improve the life of people from 1790 to 1850. It was only after 1950 that the real wages of people began to improve with 50% increase.

The Industrial Revolution created a middle class of professionals with better living conditions which overtook former landed nobility and finally Capitalism emerged from the middle class. Capitalists required two things- inexpensive and readily availability of raw materials and the market and this need led to colonization, weapons and wars. With this, globalization also started.

### **Industrialization, Urbanization and Employment**

As a result of industrialization people with different cultures and traditions came together and started living in the cities. Deplorable living conditions caused many problems such as alcoholism, illicit relationships, feeling of loneliness etc. The mechanical industrialization has led to replacement of workers by machines which resulted in increase of unemployment rate. More and more capital was accumulated by entrepreneurs. Industrialization miserably failed to increase the job opportunities. The lack of non agricultural employment in rural areas caused the loss of traditional livelihoods. The conversion of agricultural land into non agricultural for the establishment of industries took away the job from almost 10 rural workers per one hectare arable land. It was expensive for the rural people to settle in the cities. This can be very well understood from the example that the cost for settling of the rural workers in China has been estimated at \$106 billion per year. Land revocation in 2001-2005 in Vietnam affected 2.5 million including 6,28,000 households and 9,50,000 rural workers.

Industrialization always fascinated and encouraged urbanization. The number of cities with a population of 1.00 lakh in the year 1800 was only 50 which increased to 900 in 1950. At present, the rate of urbanization in developed countries is comparatively slow whereas on the otherhand it is increasing in developing countries. The maximum of urbanization can be seen in Africa and Asia. Since the present urbanization took off from North-West European countries and cultures, so most of the urbanized countries have followed their culture.

By 2050, the UN estimates that almost 64% of the population of developing countries and 86% of the developed countries will be living in cities. Besides, the cities in Asia like Osaka, Karachi, Jakarta, Mumbai, Shanghai, Manali, Seoul, and Beijing will have population of more than 2 million each and the population in Peat River Delta, Delhi and Tokyo will surpass the figure of 4 million. Unemployment rates in urban areas are higher in developing countries during early stage of industrialization. In African countries it can be seen that over last few decades urban and industrial growth has failed to absorb effectively redundant rural workers. Income distribution has been

unequal. In Vietnam, industrial sector has low capacity of labour absorption. Most SOEs capital intensive firms and their employment share has remained same during last two decades.

### **Poverty**

Poverty can be understood as a state or condition in which a person or community lacks the financial resources and essentials to enjoy a minimum standard of life and well being that is considered acceptable in society. It can also be defined as marginalization in political sense and discrimination and rootlessness in socio-cultural sense. People who are highly exposed to vulnerable disasters, hazards and threats take the negative form of poverty.

There are two types of poverty:

1. **Absolute poverty**- It is synonymous with destitution and occurs when people cannot obtain adequate resources (measured in terms of calories or nutrition) to support a minimum level of physical health.
2. **Relative poverty** - it occurs when people do not enjoy a minimum level of living standard as determined and unable to participate in mainstream societal processes. Relative poverty occurs everywhere and may vary from country to country or within country.

If we talk about statistics of poverty in India then almost 50% do not have shelter, 70% do not have proper toilet facilities, 35% of the households do not have a source of water, 85% of the villages do not have secondary school and 40% of these villages have no proper roads connecting them.

According to the World Bank Report 2008, approximately 400 million of India's people i.e. one-third to the world's population are still living in severe poverty. It has been observed that a 1% growth in agricultural sector reduces poverty almost two to three times more effectively in comparison to non agricultural sector.

Few bitter facts about poverty say that nearly 800 million people are not getting sufficient food to eat and about 500 million are chronically malnourished. The problem of malnutrition is more common among children. In industrialized countries, more than 100 million people still live below poverty line, more than 5 million are homeless and more than 37 million are jobless. The list still does not end here as 1.2 billion people still do not have access to safe drinking water.

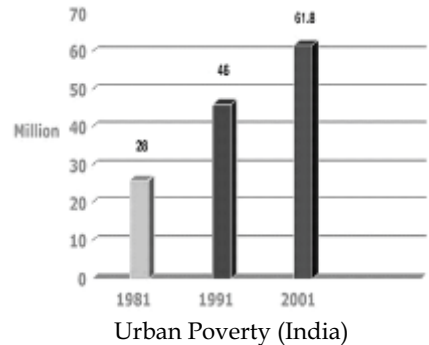
### **Resources for eradication of poverty**

Our economy has sufficient resources to eradicate poverty. The only question is how these resources are being employed? The cost of eradication of poverty is only 1% of the global income. The net wealth of the 10 richest billionaires is \$133 billion, which is more than 1.5 times the total national income of the least developed countries. Expansion and providing access to basic social services would cost only \$80 billion which is less than the net worth of the seven richest men in the world. There are six countries which can spend almost \$700 million in only nine days on dog and cat food

and if we talk about the world then it is observed that about \$92 billion is spent on junk food , \$66 billion is spend on cosmetics and nearly \$800 billion in 1995 was spent for defense expenditure. If the data is correct then it is not that difficult to eradicate poverty from the world. The irony is that we have sufficient money to spend for reducing poverty but we don't have will to do that.

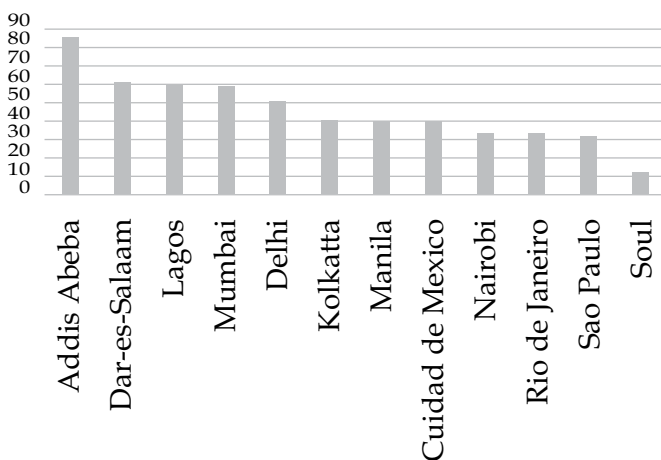
**Urban poverty**

The graph of poverty is constantly growing in cities. Poor people are left with no other option apart from migrating to cities and this number is increasing day by day. The main cause of migration of poor to cities is lack of employment opportunities in rural areas. They move to cities in expectancy of getting jobs but actually the high living costs there also becomes reason for enhancement of poverty. The situation of poor inhabitants of slums is worse than that in rural areas. Rural poor are urbanizing faster. In Sub-Saharan Africa, population mostly is being urbanizing in hope of jobs, yet little reduction in aggregate poverty is being witnessed. Urban inequality rate is rising with African cities being most unequal. The quick unplanned urbanization keeps bringing a larger part of poverty into cities.



**Slums in India**

Slums can be defined as a compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions.



Share of urban population living in slums

Reasons for increase of slums in India:

- Income inequality between various classes of workers with no justification.
- Lack of economic growth in some parts of the country.



- In-migration from villages where people are rendered jobless.
- Excessive/obsolete regulations of colonial period still prevail.

All reasons together lead to poverty which actually results in formation of slums. Slums often demonstrate a concentration of multiple deprivations experienced by the urban poor:

1. Uncertain employment and inadequate income
2. Inadequate access to drinking water
3. Inadequate food
4. Inadequate clothing
5. Inadequate safe and secure shelter/housing
6. Inadequate provision for land
7. Inadequate provision for infrastructure facilities and utilities such as education, health, sanitation, drainage, transportation etc.
8. People are excluded from achieving their political, social and economic rights.

### Classification of Urban population

As per one estimate the share of urban population can be classified as given in the box attached. (the percentage may change depending on the growth and policies of the country)

Rich Class	5%
Higher Medium Class	10%
Medium Class	10%
Lower Medium Class	25%
Poor	25%
Below Poverty Line	25%

In undeveloped countries the percentage of poor people and people living Below Poverty Line is constantly increasing. Consequently they are migrating from the rural areas. Lower middle class which is found to be generally educated manages to get suitable jobs or start their own business. On the other hand people who are poor and living below poverty line (which comprises almost 50%) work in unorganized sectors and thus are not able to afford houses and as a result start living in slums. It is all due to high rate of unemployment which actually occurs due to the increasing rate of urbanization instead of increase in rate of economic development. It is also an irony that higher the growth better the percentage of rich, low/ high and medium classes.

In India slums are increasing at a higher rate. The main reason is inequalities in the distribution of income and wealth, high inflow of villagers to cities in expectancy of jobs but no jobs or poorly paid jobs are available. Governments for the sake improving the infrastructure of the city and to make it look beautiful removes the poor people from one area to another area but fails to eliminate the poverty and give it the name of 'Development and Beautification'. Some planners call it "Gentrification".

### Some Points for Discussion

1. Provisions for control in Rural Poverty (as it shifts to cities)
2. The strategy for development of villages
3. Education to be job oriented/ making it cheaper
4. Development of small and cottage industries in rural areas
5. Jobs oriented industries
6. Pro-poor urbanization will require labor-intensive growth
7. Informal sector to be strengthened/ encouraged
8. Penetration of banks and micro-finance to be promoted
9. Better living conditions in slums boost productivity

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# Small-Scale Solid Waste Management System -A Replicable Model from Mudichur, Tamil Nadu

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R Ramesh and P Siva Ram

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## **Abstract**

*The domestic waste generated in rural households of India is increasingly becoming an issue of serious concern. In order to manage waste in a desirable way, there should be a proper waste management system in place. Without a functioning waste collection and disposal system at the grassroot level, it is arbitrary to hold individual households responsible or blame them of irresponsibility. The Government of India (GoI) as well as many state governments are looking up to Village Panchayats to come up with a system, which can be replicated, and spread across Indian states as a model for small-scale solid waste management. Interestingly, Mudichur Village Panchayat in Kancheepuram district, Tamil Nadu has such a model. It is functional for more than seven years now. This paper tries to assess viability of Mudichur model in other parts of the country.*

## **Acronyms/Abbreviations**

CBO: Community Based Organisation, GF: Green Friends, HHIDS: Hand-in-Hand Inclusive Development Services, IHHL: Individual household latrines, INGO: International Non-Governmental Organisations, NGO: Non-Governmental Organisation, ODF: Open Defecation Free, VP: Village Panchayat

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## **The Changing Face of Rural India**

Until a few years ago, the type of waste generated in Indian villages was mostly of organic in nature, such as kitchen refuses, agricultural wastes, and cow dung. Although there was no use for such waste inside a house, still it was never considered as *household refuse or domestic refuse*. People had their own ways of reusing such as by composting or using as manure in their farms. In fact, the excess [compost domestic-refuse] used to be sold for money to farmers in need that would help them rejuvenate the nutrients the soil might have lost due to erosion or repetitive farming. Hence, 'household waste management' was a concept applicable only to Indian towns and cities.

Waste generation is more to do with the way people choose to live in a society. Exposure to urban ways of living; consumerist culture getting popular through TV commercials even in Indian villages, and the demonstrative styles of living people are increasingly adoring, have multiplied the amount of waste generated even in villages .

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All these, necessarily, have made solid waste management as a subject of significance at village panchayat level as well. This is inevitable or inescapable when the economy of a country moves more in the direction of marketization.

### **Domestic Refuse in Rural Areas**

The concern is that the domestic-refuse should be handled responsibly. Inconsiderate littering leads to poor sanitation resulting in unhealthy or poor quality of living. In order to manage waste in the desirable way, there should be a functional waste management system in place. Without a functioning waste collection and disposal system at the Panchayat level it is unreasonable to hold individual households responsible, or blame them of irresponsibility.

It can be centralized system put in place by the state governments; it can be a decentralized system to do with Village Panchayats at grassroots level; it can be a market-based or private sector based system; it can be a system primarily of the local bodies in association with some CBOs, or NGOs etc. Since rural sanitation in Indian context is in the purview of Village Panchayats, the government can play the role of facilitator and can fund to whatever extent is feasible. But, the onus of putting a system in place to make it functional on a day-to-day basis is with the Village Panchayats – and rightly so. Therefore, the Government of India (GoI) as well as many state governments are looking to Village Panchayats to come up with such a system (a model), which can be replicated, and spread across Indian states as a model for domestic refuse management in Village Panchayats.

Considering the heterogeneity of the nature of Indian villages, one model to become applicable in all conditions and situations is most unlikely to emerge. Therefore, what we can look forward to is *a sensible model to work with, alter and improvise*. Interestingly, Mudichur Village Panchayat in Kancheepuram district, Tamil Nadu has such a model. Mudichur has been successfully implementing a household solid waste management system since 2007. It has evolved over the years, and since 2010-11 it is reported to be operational in a successful way.

### **Scenario Prior to this Initiative**

Prior to the launch of the solid waste management model, it was just like other places where most of the people would keep their houses clean, but would be unconcerned of the filth on the street. Irresponsible littering and accusing the neighbors for their irresponsibility was quite common. The massive campaign run by the state government to stop open defecation, motivated the Panchayat functionaries to work towards making the Panchayat open defecation free (ODF). Mudichur Panchayat got Nirmal Gram Award in the year 2007 for facilitating each household to own and use individual household latrines (IHHL). Cent per cent toilet coverage was achieved. The village Sarpanch however, was not satisfied with the distinction of being an ODF panchayat since the issue of handling domestic waste still remained unaddressed.

### Profile of Mudichur Village Panchayat, Tamil Nadu

*Mudichur is in St Thomas Mount Block in Kancheepuram district of Tamil Nadu. This is close to Chennai (about 37 km) towards south. Total population is 15,000 (2011), and number of households is 5326 (2012). There are 12 wards and 209 streets and lanes. There are more than 520 shops. The Village Panchayat head is a business person, who has inherited passion for community service through his father, and sister-in-law, who were former Panchayat heads of Mudichur and is supported by a team of committed local youth. The Panchayat Secretary - being an MBA degree holder - is equally active too. With the support of the district administration and an NGO called Hand-in-Hand, the Mudichur panchayat has achieved a successful solid waste management system.*

### Issues and Challenges

When the Panchayat decided that something concrete work must be done to manage the domestic refuse, Hand-in-Hand (an NGO from Kancheepuram primarily known for micro credit, and micro finance activities) pitched in for help. But initially Hand-in-Hand had to grapple with several problems due to unawareness and casual attitude of local residents. The two major challenges were:

- awakening the people from their slumber to make them see the problem of inconsiderate throwing of domestic waste at street corners;
- putting in place a *domestic waste collection and disposal system*, and aligning people's attitude to fall in line with the arrangement so that the practice becomes regular and the system becomes functional.

### Strategies Adopted

Incidentally, the Additional Collector, DRDA Kancheepuram called for a meeting of all stakeholders - including Panchayat functionaries and NGOs - to discuss about solid waste management in villages. This supportive signal from the state government gave the much needed impetus to Hand-in-Hand to confidently lend a helping hand to Mudichur Panchayat to develop a solid waste management system. Thus Mudichur Panchayat took Hand-in-Hand and the DRDA into partnership to create a solid waste management system.

For any system to become functional there must be an operational structure (i.e. institutional set up) that implements the plans and programmes envisaged through a policy. Figure - 1 briefly puts across the institutional partnership and the role each institution played in creating a 'solid waste management system' at the grassroots level in Mudichur Panchayat.

What constitutes Mudichur model can be explained as follows.

Figure 1: The Institutional Partnership and their roles



**POLICY:** There is clear policy goal. That is to establish a waste collection, transport, and treatment and disposal system within the Panchayat. The waste collected should be segregated into biodegradable and non-biodegradable wastes at the source itself. The biodegradable wastes go into making *biocompost* and *vermicompost*, while the other types of wastes are sold to recyclers or sent to landfill as the case may be. Thus, keep the village clean; and considerably reduce the amount of waste that ends up in the landfill, became the objective.

**TECHNOLOGY:** Hand-in-Hand brings in the treatment technologies, other equipment and tools required for daily collection and treatment; the government machinery has given the required land to construct a treatment plant and the capital cost that was required to construct the vermin-compost bed, shed etc.

**INSTITUTIONS:** As it was a tri-patriate partnership among the Village Panchayat, DRDA Kancheepuram and Hand-in-Hand, they had their clear-cut roles to play. The Panchayat ensured community cooperation and support, and approved in the Gram Sabha for the entire operation to get grounded, besides supporting Hand-in-Hand to make the model functional by implementing the arrangement on a day to day basis. Hand-in-Hand recruited and trained a team of youth, locally known as Green Friends (GF), who do the entire operation- from collection at the doorsteps of households to secondary segregation to composting to sending the non-biodegradable to the landfill.

**FUNDS:** The funds for operation are raised through user fees – initially fixed at Rs.20 pm per household (pmph), later revised to Rs.30 pmph and currently it stands at Rs.50 pmph. The Green Friends are paid a monthly salary of Rs.4500 – Rs.6000. This is paid partly from the user fees collected and partly from the funds made available by Hand-in-hand. As an incentive the GFs are allowed to take away and sell recyclable wastes such as bottles, plastics, iron pieces etc. The maintenance of equipments and tools such as tricycles used for collection, and tools such as broomsticks are met out of the sale proceeds of vermin-compost.

There are aspects like technical management, financial management and institutional management of the system. Putting them together and making it functional is done with the efforts of the Panchayat and active support by this NGO – Hand-in-Hand. That they have been able to sustain it for more than 5 years from the year 2010 makes it out of the ordinary, and appealing to study it for replication.

### **Steps Involved in the Process of Implementation**

**Awareness Campaigns:** Preparing the households (i.e. the community) to understand, appreciate and agree to go with the arrangement was considered the first and foremost thing to be done. A series of awareness campaigns were organized in all the streets of the Panchayat to nail this arrangement in the mind of the local community. It included stakeholder meeting; mass awareness campaigns; door-to-door campaign; auto-rickshaw campaign; Tri-cycle campaign; special campaigns for SHGs, youth, school teachers and school children; campaigns at temple entrance; litter picking campaign; mass cleaning campaigns and so on.



**Appoint and train Green Friends:** Recruitment and training of Green Friends on various aspects of waste collection, segregation, treatment etc. is part of the programme to make sanitation as part of preventive health care in a community. Each Green friend is provided with two sets of uniforms, one cap, footwear, ID card, a whistle, a pair of gloves, raincoat, and soap. They also undergo periodical health checkup to guard themselves against any possible personal infection.

**Get started in a small way:** It was started only in 4 of the 12 wards to start with, for two reasons. One was to learn from experience and gain confidence from practice in order to be able to expand it further to the entire Panchayat; and the other reason was the facilities the Panchayat and Hand-in-Hand could mobilise at that point of time was considered inadequate to cover all odd streets in the Panchayat.

**Segregation at Household Level:** Each household was provided with two garbage bins – green one for kitchen wastes, and red one for other types of wastes. About 70 – 75 per cent of the households are reported to be giving waste segregated at household level. Yet, for the remaining the GFs do the segregation themselves.

**Secondary Segregation:** Whatever awareness and education community members are given, there are households that mix-up wastes. Necessarily, the GFs have to do a secondary segregation for which the Panchayat has allotted a small piece of land. In order to reduce the time spent on secondary segregation, the GFs while receiving waste from households, segregate waste at their door steps, which also helps gradually to educate the people on waste segregation. The GFs have been trained to segregate bottles, plastics, papers, cardboards, iron pieces, batteries and degradable waste etc. during secondary segregation. It helps to ensure what should go to land fill does not get into vermin-compost beds, which might upset the process.

**Waste Processing:** Bio-composting and vermin-composting are the two processing activities done. The rest of the unusable garbage ends up in the landfill, once the recyclables are shifted. The physical facilities needed for setting up a ‘waste processing shed’ is presented herein.

#### **The Physical Facilities Required for Compost Park**

Land to construct the segregation shed plus the vermi-beds

Setting up a compost shed / segregation yard

Containers for households – 2 per household

Tri-cycles for every 300 households – 1

Green Friends for every 300 households – 2

Uniforms, tools and equipment (brook sticks, bins, tin, sheets etc.)

**User Fees Collection:** Those households that wish to pay user charges at the Panchayat Office can pay. The GFs have also been authorized to collect user fees at door steps, issue a receipt and remit the amount collected at the Panchayat the same day.

**Expand the facilities and the Coverage:** The Panchayat functionaries with the support of Hand-in-Hand started implementing this model in 2007 in a small way in four wards. People in other uncovered streets started urging the Panchayat head to

expand coverage to their streets as well, volunteering to pay the monthly user fees regularly. In 2010-11 facilities were expanded with a new shed constructed in a place provided by the government, and the whole operation was expanded to cover all the 12 wards of the Panchayat. Since, then Mudichur is attracting lot of visitors (development tourists) to learn from this model.

**Review Meetings for GFs:** There is monthly review meeting conducted for the GFs to share their views for making the system function better, and also to express the difficulties, if any, they face. The Panchayat and Hand-in-Hand together address the issues raised by GFs so that the system sustains, and goes on.

**Feedback from Households:** The GFs carry a Register for the households to put down community views on the system, as well as to provide for lodging complaints, if any. This Register is reviewed during monthly review meeting of GFs.

The institutional arrangement looks well-built to sustain the system given the strong Panchayat in place with a gifted leader. Yet, there are other questions that remain to be answered, for instance:

- (i) How about the financial sustainability of the system?
- (ii) Given the situation now, does it financially break even with the user fees collected and from the sale proceeds of the vermin-compost?

These are some of the questions that linger in the mind of an enthusiast who tries to recommend this model for replication.

**Does the Income Breakeven?** As such, the Panchayat is not able to breakeven, given the income sources and the items of expenditure, they have to meet out.

<b>Income and Expenditure for a Solid Waste Management Project</b>	
(It is worked out assuming that this project is for 300 Households)	
<b>Items of Expenditure</b>	<b>Possible Income Sources</b>
<u>One-time Expenditure (Capital Cost)</u>	User fees
Containers (600 numbers)	Sale of compost items
Tricycles - 3	Sales of recyclables
Compost pit, segregation shed	Fine and penalties
Uniforms + accessories	
Tools & equipment	
<u>Recurring Expenditure (Operational)</u>	
Supervisor Salary	
Sanitary Workers Salary (Green Friends)	
Consumables / bleaching powder	
Repair and maintenance	

In the case of Mudichur, the funds required for the construction and purchase of tri-cycle, equipment and tools are provided as 'capital cost' through a project from the

state government, and partly met out by Hand-in-Hand (NGO). Beside this, there are other expenses like awareness generation campaigns, uniform and salaries to the Green Friends, tri-cycle maintenance etc. All these cannot be met out of the local income generated as user fees, and from the sale of compost. If one calculated the items of expenditure and sources of income to meet the expenses one can understand why many solid waste management projects fail.

If one can figure out a sustainable source of fund for meeting out the operational expenses month after month, one can be confident of being successful in running a solid waste management project. Finding funds for meeting out the capital cost requirement (i.e. non-recurrent one-time investment) must be possible either through a government programme, or as one-time grant from an NGO or INGO. But, daily operation and sustainability depends on being able to meet the operational expenses regularly. This is a matter for serious consideration.

**Sustainability Plan:** From the foregoing statements of the Panchayat President, Mudichur, one tends to ask: *then how are they being successful?* In fact, this is a pertinent question. The success of Mudichur must be put across in two stages.

**Stage - 1:** Hand-in-Hand (NGO) has been bearing the operational expenses of the solid waste management system in Mudichur bearing a monthly expenditure of nearly Rs. 40000 through a special project. Sustainability of this arrangement was a matter of concern for quite a few months, until they found a way out.

**Stage - 2:** It was decided that the system must be made self-sustaining, and some strategy must be devised towards that. In 2011, it was decided that Hand-in-Hand shall financially support Mudichur Panchayat to install a Reverse Osmosis Plant (RO Plant with a capacity of 4000 litre per hour) for drinking water supply under Hand-in-Hand Inclusive Development Services (HHIDS). The understanding was HHIDS will work with Mudichur Panchayat to:

- o Provide the residents of Mudichur Panchayat with potable water conforming to WHO and BIS standards.
- o Provide packaged drinking water to local shops and marriage halls at half the existing market prices.
- o Support the Solid Waste Management Project at Mudichur with the revenues earned out of the Project.
- o HHIDS will operate and run the plant for a period of four years to recover the investment made over the plant before handing over the plant and its operation to the Panchayat.
- o Hand-in-Hand is running the plant successfully now through their network of local SHG women. Rs.3.3 million invested in the RO Plant (including construction of an open well of 30 feet depth and 30 feet diameter) is treated as SHG loan.
- o The RO Plant, the open well and vermi-compost shed are all in 2 acres of land

given to the Panchayat by the government. The HHIDS sells a 20 litre water can at Rs.11 to SHGs. The SHGs are allowed to sell it for an MRP of Rs.15 to households in Mudichur. On an average 800 cans are sold daily.

- o This arrangement has made local SHG women also to earn an income out of this operation. This can be considered as a social enterprise.
- o As of now (March 2015), there are one and a half years left for the HHIDS to recover the investment they made on the plant. After one and a half years, HHIDS shall hand over the plant to the Village Panchayat.
- o The plant is functional successfully, and the income from water sale is used to make up for the loss incurred in solid waste management plant. This is the financial sustainability strategy that Mudichur Panchayat has devised and is implementing successfully.

### **Lessons from Mudichur for replicability in other parts of the country**

For solid waste management, there is no dearth of technologies. What is required is a functional management system (model), like Mudichur. The Panchayat President of Mudichur with the help of a team of young Green Friends is managing household waste admirably. Certainly, the role of Hand-in-Hand (NGO) in making this system functional deserves to be appreciated as well. The challenges presented here, alongwith the factors that have contributed to the success of Mudichur Model, could be taken as a lesson for those who wish to replicate Mudichur Model. In replication, the following points deserve emphasis:

**Systemic Thinking:** Measures to be taken in advance to avert possible failures and to secure good results are imperative in a solid waste management project. Right from collection, transportation and disposal, Mudichur model has taken care of all logistics be it technological or financial aspects, or roping in the support of external agencies where required.

**System Sustainability:** The experience of Mudichur puts it clearly that finding the sources of income for meeting out the 'operational expenses' (day-to-day running expenses) month after month, determines the real system sustainability. Without a viable source of income to meet the operational expenses no system can function successfully.

**Social Enterprise Model:** In order to meet out the expenditure involved in managing the solid waste management system, the source of income from user fees collected plus sale of compost etc. were found to be insufficient. This did not deter them. They have thought out of the box to come up with sensible solution, instead of being on the same sludge grumbling about the impossibility. So the excess income earned out of RO plant through sale of drinking water is used to make up for the loss incurred in running the solid waste management system for the same community. It is win-win in terms of both drinking water supply and environmental sanitation in a given community.

# Banwasi Seva Ashram

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## Shubha Bahan

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### **Abstract**

*Banwasi Seva Ashram (BSA) is a voluntary organisation believing in Gandhian principles of life. It came into existence in 1954 when its primary work area - South Sonbhadra (earlier known as South Mirzapur) - was facing severe famine. Shri Govind Vallabh Pant and Gandhian Shri Vichitra Narain Sharma were the founding fathers of the Ashram. The Ashram believes that village self-sufficiency is vital for the country's development therefore the Ashram has undertaken a variety of development activities in the South Sonbhadra area.*

*The BSA has nine major programmes: Women's Empowerment, Education, Khadi and Village Industry, Agriculture, Animal Husbandry, Health, Environment, Support to other Volunteer Groups, Gram Nirman or Village Development. Most of the facilities related to these departments are located at the Ashram headquarters (campus) in Govindpur. Over the years, Ashram has been carrying out variety of short and medium term (three to five years) projects in association with governmental as well as non-governmental and national / international funding agencies. These projects are closely linked with the long term programmes of the Ashram. All round development of weaker sections is the prime objective of the BSA.*

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### **Overview**

Banwasi Seva Ashram (BSA) is a voluntary organisation believing in Gandhian principles of life. Banwasi Seva Ashram came into existence in 1954 when its primary work area - South Sonbhadra (earlier known as South Mirzapur) - was facing severe famine. Shri Govind Vallabh Pant, the then Chief Minister, and Gandhian Shri Vichitra Narain Sharma were the founding fathers of the Ashram. BSA develops and implements programmes to achieve Gramswarajya - that is simple productive cooperative self-sufficiency and self-reliance at the village level with the involvement of the beneficiary community. With a wide range of activities and programmes spanning over the last sixty years, the Ashram has helped in bringing about visible and remarkable changes in the tribal villages of south Sonbhadra.

### **Vision**

Banwasi Seva Ashram envisages a strong new village culture, incorporating the positive values of traditional life and benefits of modern knowledge in such a way that neither people nor nature are unduly exploited. Banwasi Seva Ashram believes that village self-sufficiency is vital for the country's development.

## Mission

The mission of Banwasi Seva Ashram is to address basic problems of life faced by the forest dwelling community, especially the most vulnerable people (tribal, SC, OBC) through confidence creation, capacity building and innovative development plans.

## Approach

Banwasi Seva Ashram analyses problems faced by the communities, tries to identify the root cause to find workable solutions and implement these solutions by helping community members work out models which can be managed by them, with appropriate training and support service. In this process the Ashram involves the community and all stake-holders, subject experts and also the government officials. The Ashram's efforts all through have been to initiate action, foster confidence and hand over the responsibility of sustenance to the community. A positive thinking process and change in mindset can be said to be the main contribution of the Ashram.

## Achievements

Over the past 60 years, BSA has established rapport with the people living in villages in the four community development blocks of south Sonbhadra. A three tier people's Gram Swarajya Organisation has been set up to promote people's initiative for community development at village level, followed by village development centre level and Ashram level. There are Gram Swarajya Sabhas in 445 villages (hamlets) to resolve village disputes within villages itself. These *sabhas* introduce social reform; promote women's equality and development, and also promote communal harmony. The villagers share responsibility in implementation of the development programmes, and assert themselves to get their decreed entitlements, and are aware in containing corruption. The Ashram has undertaken a variety of development activities in the south Sonbhadra area, such as

- Water and soil conservation, land development
- Employment oriented apprentice training in crafts and services needed for the development activity and for employment elsewhere
- Rural health education and rural health service
- Women's development and empowerment
- Education: schools, non-formal education, total literacy campaign, skills development, life orientation of adolescents and youth through camps
- Public interest litigation in Supreme Court for land rights, rights of the displaced and bonded labour
- Study and representation of environmental pollution problem in south Sonbhadra at different levels
- Whole village development projects
- Securing rural entitlements

In addition, through of Gram Swaraj Sanghatan, the Ashram has addressed a variety of social issues in the tribal villages through Gram Swaraj Sanghatan, such as:



- Bondage with moneylender of land and person
- Witchcraft and social taboos

The organisation has also helped in rehabilitation of people displaced due to industrialisation and problems faced by village craftsmen and increasing unemployment.

The Ashram's policies have been successful as far as fostering confidence and handing over responsibility for continued activity to the community are concerned. The villagers now make small independent community action plans.

### **Ashram Facilities**

At present, the Ashram has nine major programmes (departments): Women's Empowerment, Education, Khadi and Village Industry, Agriculture, Animal Husbandry, Health, Environment, Support to other Volunteer Groups, Gram Nirman or Village Development. Most of the facilities related to these departments are located at the Ashram headquarters (campus) in Govindpur.

**Demonstration Farm:** The Ashram has a demonstration farm on its premises where experiments are conducted on the production of grains, vegetables, fodder, and gardening.

- **Orchard, Nursery and Forest:** The Ashram has a model orchard where trees like banana, lemon, karaunda, mango, jamun and amala have been planted. The Ashram has also raised a forest on 35 acres of its land where Arjun trees are planted on 11 acres for cocoon rearing.
- **Goshala:** Ashram campus has a dairy-farm where crossbreed cows and bulls are maintained to help local farmers with artificial insemination. The Ashram dairy-farm also provides veterinary services and training to the local farmers. Now the local breed cows are promoted in Ashram dairy.
- **Khadi and Gramodyog (Village Industry) Production and Training Centre:** This centre trains local villagers in
  - o Spinning and weaving of cotton, silk, woolen (blankets),
  - o Soapmaking, both washing soap (with mahua oil base) and bathing soap (coconut oil base),
  - o Mustard oil pressing and paddy processing,
  - o Making shoes, bricks, Agarbattis and
  - o Orientation training for local blacksmiths and carpenters.
- **Agrindus Health Clinic:** Health clinic at the Ashram campus attracts patients not only from Sonbhadra district but also from neighbouring districts of Uttar Pradesh and neighbouring States of Jharkhand and Chhattisgarh. The clinic also serves as a training centre for village health friends.
- **Library:** The Agrindus Institute in the campus maintains a library of books useful for various programmes run by the Ashram which has a good collection of books on Gandhian thought.

- **School:** BSA runs a high school on its premises. In addition, there are five junior high schools and one primary school at Village Development Centres.
- **Administrative Building:** Ashram's administrative building houses offices of various departments. In addition, the Ashram has facilities such as a meeting hall (for conducting short term workshops/programs) and a small guest-house to accommodate visitors.
- **Gram Nirman Kendra (Village Development Centres):** The Ashram maintains thirteen Gram Nirman Kendras in the main work area of the Ashram. At each centre, a team of volunteers is posted to help the surrounding villages in implementing the Ashram's development initiatives.

### **Partners and Collaborators**

Over the years, Ashram has been carrying out variety of short and medium term (three to five years) projects in association with governmental as well as non-governmental and national/international funding agencies. These projects are closely linked with the long term programmes of the Ashram. In fact, most of the programmes have grown out of series of such projects. The relations with other Gandhian institutions and other voluntary organisations with common interests are intense, with mutual exchange of knowhow, training facilities for villagers, many forms of support for product sales, etc.

People can join Banwasi Seva Kendra as volunteer and contribute in realizing to realize Gandhiji's dream of Gram Swaraj.

# Institute of Development Management (IDM)

## Invitation to Authors

Authors writing on various development issues may send their papers for the forthcoming and final issue (of 2015) of the Journal of Development Management and Communication to be basically devoted to the theme of smart cities and various aspects of life as per following:

### October-December 2015: Quality of Life in Smart Cities

Improving quality of life is the ultimate goal because technological innovations are meant to ensure betterment of life in common-man's life. While developing smart cities, one cannot ignore that health, happiness and wellbeing are of utmost importance. While speaking of wellbeing, it cannot remain restricted to the health and happiness of a certain section of society. It has to be the wellbeing of all sections of society. Therefore, it may be pertinent to include:

- Life in posh areas as well as dwellings of lower income groups
- Health care system-public and health insurance
- Ensuring education and healthcare for all individuals irrespective of upper or lower income groups

There may be many more issues related to smart cities and development and writers are welcome to contribute their out of the box thinking.

In addition to the main theme, IDM Journal also publishes regularly articles on Waste Management, Gender issues, Law, Right to Information and Institutional Profile etc.

### Instructions to Authors

- The authors may send their papers/articles electronically to [journal@idm.org.in](mailto:journal@idm.org.in)
- The papers/articles should not have been published in part or whole elsewhere.
- The papers/articles should be around 4,000 words including abstract, tables, graphs. The authors should also mention acronyms/abbreviations, if applicable.
- References to published work should be provided by the authors in proper order.
- All manuscripts must be accompanied by a signed statement that the manuscript is original and has not been submitted/accepted for publication elsewhere.

### Reprint to Authors

Five reprints (without cover) of the paper will be provided free of cost to the authors (in case of joint authors to the first named).

### Previous issues:

<b>2013:</b>	January-March	:	Solid Waste Management & Environment
	April-June	:	Water
	July-September	:	Energy
	October-December	:	Citizen Centric Governance
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	April-June	:	Urbanization: Dynamics & Consequences
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	October-December	:	Education for Sustainable Development
<b>2015:</b>	January-March	:	Smart Cities and Law & Governance
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