ISSN 0024-5623

Local Government Quarterly

October - December 2015

A Journal of the
All India Institute of Local Self-Government

Brought out by its
International Academy of Urban Dynamics

About All India Institute of Local Self-Government (AIILSG)

All India Institute of Local Self-Government (AIILSG), established in 1926 has been actively working in the field of urban development management and is a diligent partner in promoting the cause of local governance in India and overseas.

The Institute has been the steadfast friend, philosopher and guide to Urban Local Bodies (ULBs) across the Country. For more than eight decades it has contributed to the principles and practice of urban governance, education, research and capacity building. It has designed and developed a vast array of training literature and courses and trained more than 1.5 million stakeholders in diverse areas of urban governance and urban services delivery.

These activities of the AIILSG are practiced through 30 regional centres located in different regions of the Country. The Institute anchors the Regional Centre for Urban and Environmental Studies (RCUES) of the Ministry of Urban Development, Government of India for Western India region. This Centre is actively involved in building capabilities of municipal officials, staff and elected members from the States of Goa, Gujarat, Maharashtra, Rajasthan and the Union Territories of Diu, Daman, and Dadra & Nagar Haveli by upgrading their knowledge and skills required for effective administration and implementation of various urban development programmes.

With a view to cater to the growing requirement of ULBs in regard to services, the AIILSG runs specialized capacity building institutions such as the National Fire Academy, the Nrupur Institute of Nursing Science and Research and the Centre for Environment & Disaster Management at Vadodara, PRUDA at Ahmedabad, National Resource Centre for Urban Poverty, International Centre of EQUI-T, the Disaster Management Cell and the Centre of GIS at Pune. It runs the Solid Waste Management Cell of the Government of Maharashtra. In recent years, AIILSG has ventured into rural and tribal capacity building and hand holding of rural institutions of self-governance.

In addition to the domestic activities, the Institute organises several tailor-made capacity building programmes for various countries in South Asia, viz, Bangladesh, Nepal, Sri Lanka and in other regions, including South Africa, Ethiopia, Indonesia, Malaysia, China, etc. The Institute has linkages with renowned international organizations including UNCHS (Habitat), UNDP, UNICEF, UNFPA, WHO, DFID, CITYNET, CLGF, US-AEP and the Ford Foundation. It is the anchor institution for Urban Management Programme (UMP-UNCHS-Habitat) for South Asia.

About International Academy of Urban Dynamics (IAUD)

International Academy of Urban Dynamics (IAUD) has been conceptualized and set up at the AIILSG with a view to support countries and cities and their stakeholders in their decisions towards a bright urban future.

The Academy offers strategic contribution to urban vision, policy and planning across countries and cities through multi-level research, documentation, debate, advocacy and capacity-building. It aids the crafting of innovative solutions to urban challenges through sharing, networking, dissemination and advisory services.

The Organization has embraced certain values including a pervading quest for excellence, perpetual learning, and the sharing and interpretation of knowledge that is grounded in ethics and truth. IAUD would undertake non-partisan analysis and evaluation of situations, facts and figures and render advice that is non-adversarial in intent and positive in content with a view towards better alternatives.

Vol : LXXXV, No. 4 October-December, 2015

Contents

Local Government Quarterly
Published by the
All India Institute of Local Self-Government

All India Institute of Local Self-Government
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
TPS Road No.12, Bandra (E), Mumbai – 400051.
Tel : +91-22-2657 17 13 / 2657 17 14 / 2657 17 15 Fax : +91-22-2657 21 15
E-mail : dg@aiilsg.org Website : www.aiilsg.org

Local Government Quarterly

Printed by Capt. Anant Modi, The Director General, All India Institute of Local Self-Government, at Copytronics, Bandra (E), Mumbai - 400 051 and published by him at the All India Institute of Local Self-Government, 11, Horniman Circle, Mumbai - 400 023.

Editorial

Sustainable Development Goals, Good Governance and Youth

Establishment of the framework of the Sustainable Development Goals (SDGs) was among the most crucial developments of 2015. The United Nations driven process of establishing this pan-global framework agreed upon by almost the entire development fraternity was certainly a monumental task. The next challenge will be translating these SDGs into practice. A fundamental step involved will be disseminating the SDGs to all the stakeholders, especially the common populace as primary stakeholders. A crucial sub-set of the primary stakeholders is Youth.

On this count there are valuable learnings on offer from two analogous processes associated with the UN which usually go un-noticed. They are-"Model UN" and "Volunteerism". The learnings on offer through these are not only relevant for dissemination and building ownership of the SDGs in common populations, especially youth, but also for improving governance through participation of youth.

As per the United Nations Population Fund (UNFPA's) "State of the World Population 2014" Report, India has the largest youth population in the world with 356 million in the age group 10-24 years. Though China has larger population size than India, it is second with 269 million young people, followed by Indonesia (67 million), the U.S. (65 million), Pakistan (59 million), Nigeria (57 million), Brazil (51 million), and Bangladesh (48 million).Total youth population of the world is slightly less than 1.8 billion out of the world population of 7.3 billion. That's up from 721 million people aged 10 to 24 in 1950, when the world's population totaled 2.5 billion. 9 of 10 youth (89%) in the world live in less developed countries.

Youth, conscious about their rights and responsibilities are crucial factors for any good governance. However their participation vis-à-vis governance is among the most neglected factors with respect to governance in India. It is an irony that the populations which are expected to be the key factors in governance of tomorrow are not at the center of radar of governance dissemination. They will play a crucial role

in expecting and demanding quality basic services in optimum quantity thus ensuring that the governments are fulfilling their fundamental duties to the satisfaction of citizenry. The same youth as providers of basic urban services by becoming in future, parts of the governance institutional mechanisms can ensure a good quality of life for everyone.

However the main source of knowledge on governance for the youth is till now, mainly through academics. This interaction with governance knowledge is usually of a very short duration, temporary nature whereby governance knowledge becomes a part of volatile memory limited to its reproduction in examinations. It quickly evaporates once this knowledge gets manifested into academic scores which are perceived to be the main raison d'etre.

The resultant situation is a young generation largely detached from governance, with lack of ownership and accountability as conscious citizenry. There are only a handful of initiatives, mainly by non-academic, non-governance fraternity from civil society, which try to fulfil this big gap between the youth and governance knowledge. Very significantly, there are hardly any avenues for the youth to participate consistently in the governance initiatives, especially at the level of local governments. National Service Scheme is one scheme distantly related to the current elucidation. However, it is more constrained to a few occasional programmes rather than a consistent continuum of youth initiatives. A significant opportunity lost is inculcating the spirit of volunteerism. Against this, there are two important illustrations of proactively creating avenues for enhancing knowledge of youth and priming their participation- Model United Nations and The United Nations Volunteers programme.

Model United Nations, an academic simulation of the United Nations, aims to educate participants about civics, effective communication, globalization and multilateral diplomacy. In Model United Nations, students step into the shoes of ambassadors from UN member states to debate current issues on the organization's vast agenda. They assume roles as foreign diplomats and participate in a simulated session of an intergovernmental organization. Participants research various countries, take on roles as diplomats, investigate international issues, debate, deliberate, consult, and then develop solutions to world problems. Youth, in order to play their ambassadorial roles in Model United Nations, undertake extensive study of the global problems to be addressed, and learn how the international community acts on its concerns about topics including peace and security, human rights,

the environment, food and hunger, economic development, and globalization. The Model United Nations youth delegates acquaint themselves with the rules and procedures of the respective United Nations bodies. Their participation is enabled with simplified version of those used in the real United Nations conferences. The student delegates in the Model United Nations prepare draft resolutions, plot strategies, negotiate with supporters and adversaries, resolve conflicts, and mobilize international cooperation to resolve problems that affect almost every country on Earth.

This extensive process enables youth to understand the spirit of the United Nations and groom them as future developmental leaders of the world. Another important illustration of the avenue for inculcating development spirit is 'United Nations Volunteers'.

The United Nations Volunteers is the UN organization that contributes to peace and development through volunteerism worldwide. It regards volunteerism as a powerful means of engaging people in tackling development challenges, and it can transform the pace and nature of development. UNV carries the conviction that "Volunteerism" benefits the society as well as the individual volunteer by strengthening trust, solidarity and reciprocity among citizens, and by purposefully creating opportunities for participation.

These two examples are of significance for ensuring good governance as well as for ensuring effective and accelerated progress in achieving the Sustainable Development Goals. This can be done by building on learnings from these two initiatives on effectively involving the youth in making this earth a better place for future generations through their own participation right from an early age. This forms the genesis of the crucial movement of All India Institute of Local Self-Government: "MY SDGs" (Movement of 'Youth for SDGs').

❐ ❐ ❐

Smart Housing in Urban India: Learning from the Peers

Arpan De Sarkar

[The observations are entirely personal and have no connection with the viewpoints of the ministry and the funding agency (DFID), the author works for.]

India remains the second largest country with a 1.31 billion population in 2015 and according to World Population Prospect 2015 findings, India is expected to surpass the population of China in next seven years. One in every sixth person in the world lives in India. Although the level of urbanisation in India is much lower than that in its BRICS counterparts like Brazil (84.6%), China (50.6%), Russia (73.8%) and South Africa (62%), India is witnessing a slow but steady shift from being 'rural' to 'urban'. India is standing today at the threshold of urbanization, and growth but at the same time, we are combating the associated challenges. Urbanization in the last few decades has emerged as one of the key trends in the whole country, which will shape the state over the next few decades as well. Our urban population is set to reach 600 million by 2030. Much before that, by 2021 the urban sector in India is expected to contribute almost 75% of our GDP.

Demographic analysis reveals that the share of urban inhabitants in the total increased from 17.97 percent to 31.16 percent in the last five decades. The decade from 2001 to 2011 is the first ever census decade which observed higher absolute growth in urban population than that of its rural counterpart. During this period, while the rural population grew by merely around 12 per cent, the urban population has grown to the extent of almost 32 per cent. Addition of 91 new Urban Agglomerations during this period is significant. Around 10 million urban inhabitants are being added on an average every year.

Since urbanisation has been taking place at a brisk rate, insufficient basic services alongside scarce urban

space are common disorders. It is obvious that the provision of adequate urban housing with basic services is very crucial in ensuring the wellbeing of expanding urban areas. A collection of programmes have been initiated recently to improve city-level efficiencies and to make the progression inclusive through Smart Cities Mission, AMRUT and Housing for All. Moreover, the National Urban Livelihood Missionaims to provide sustainable urban welfare by engaging and reaching out to the most vulnerable groups of urban population. These schemes are expected to focus on tackling the residential and occupational vulnerabilities of the urban poor alongside preparing urban India for the future. Although government initiatives have been running as separate programmes in the past, it is likely that these new initiatives will complement each other to provide a package of services to the urban poor ensuring their rights and entitlements as urban citizens in India.

Shortage

Technical Group (Kundu Committee) on Urban Housing Shortage (TG-12) (2012-17) estimated the housing shortage as 18.78 million units in 2012, out of which 56.18 percent is in the economically weaker segments (EWS) and 39.44 percent is in the lower income group (LIG) categories. Thus, more than 95% of the shortage is in the affordable housing segment or for an income class with families earning up to INR 2 lakhs per annum. State wise urban housing shortage distribution indicates top ten states (Uttar Pradesh, Maharashtra, West Bengal, Andhra Pradesh, Tamil Nadu, Bihar, Rajasthan, Madhya Pradesh, Karnataka, Gujarat) accounting for 13.31million units or 70.9 per cent. McKinsey Global Institute projects the housing shortage under business-as-usual circumstances at 38 million units by 2030. Distributing the housing shortage evenly over 18 years from 2012 to 2030, housing shortage during 2022 could be around 29.45 million units. As the parametric restrictions of these two estimates by Kundu Committee and McKinsey might have been different, the simple projection for 2022 is indicative.

Considering the same average annual addition to urban population as that of last census decade (2001 to 2011) and average size of the urban household remaining constant at 4.78, housing shortage in 2022 would be 37.78 million. With these simplifications in assumptions, urban India would need 1.9 million additional housing per annum. Considering the planned provision of 3 million urban affordable housing by the end of 12th FYP (i.e. 2017) expected shortage is 34.78 million units by 2022.In this backdrop, it is very important to prepare the route map to be followed by India to provide housing for all by 2022.

Learning from the peers

The issue of affordable housing has been the centre of much attention in almost every country across the globe. Different countries across the globe have dealt with similar issues in diverse ways. India can definitely offer smart housing to its urban citizens by learning from its peers. Someof the European countries have successfully addressed similar phases of economic development through social housing initiatives. There is no common meaning of the phrase "social housing" across Europe. Different aspects illustrate and distinguish social housing models and policies: the beneficiaries, the funding arrangements, the tenure, the provider, etc.

Germany

The relevant legal framework in Germany started developing since the early decades of the 20th century and is strongly correlated to German non-profit law and related set of laws. Launched as a policy measure mostly intended to manage the large intra-German relocation caused by the World War, housing policy surfaced as one of the central pillars of the German welfare state contiguous to public pensions, public health, public unemployment insurance, etc. In the federal system of Germany, all three tiers of government- federal, states and local bodies have defined accountability for housing policy. The abundant supply of social rental housing in Germany can mostly be credited to a few factors such as the inclination of private landlords and housing companies to get involved in creation of rental housing and prominent subsidization for the building stocks of social rental housing.

A typical feature of German housing market is that ULBs develop their own social housing programmes. State and federal governments arbitrate in case of overburdened ULBs. Other important features include payment of beneficiaries' share (rents/ mortgage payments) over and above municipal/state/federal contributions. Generally no dwelling unit under social housing scheme is produced as the property of the state or federal government. All such housing units in Germany are officially private. ULBs concerned hold the shares of municipal housing companies in Germany which are private bodies and administered by commercial law of the land (known as Wirtschaftsgesetzgebung).

Although Germany was one of the best examples of European social housing both quantitatively and qualitatively, the significance of social housing as a mechanism of urban policy has weakened noticeably in the last couple of decades. Housing policy in Germany has progressively shifted the focus from the supply of houses to support for individual families. As part

of social benefits system, the housing allowance provides support for adequate dwelling without any spatial element. Federal and state governments have gradually curtailed their control on the housing supply. Merely a few urban areas, with the highest home prices, have undertaken construction of fresh social housing.

UK

On the other side, subsidies for the provision of rental housing by local authorities, to some degree, were made available as early as the late 19th century in England. Social housing, in England, was endowed with specified intents to deal with the problems of particular groups, including those living in unhygienic and unsafe accommodation. Over the last couple of decades the role of social housing in England has undergone change. The social housing sector has become smaller by a good deal as a proportion of the total housing stock. In this backdrop, it would be interesting to observe the British policy response to sustain the affordable housing market.

There are about 4.1 million social rented dwelling units in England and Wales, covering 18 percent of households. Furthermore, there are around 0.6 million social rental dwelling units in Scotland, housing 23 percent of households. All over Britain, approximately 50 percent of the social rented reserve is in the possession of local authorities and the other half is in the possession of different housing associations. The greater part of social housing in Britain, counting stocks of housing associations, is dealt with by local authorities.

The range of the social rented sector in England attained its stature during late 70s with over 30% of the total housing stock. By 2005, owner-occupancy in England accounted for around 70% of an estimated stock of 21.8 million units. Although believed as an underestimation, private renting was measured at around 11% during the first decade of this century. Social renting in England thus dropped significantly and accounted for only 18% of the total stock during last decade. Looking into the aspect of financing, it is revealed that in the last three decades there has been a prominent change in the way housing subsidies are provided in England. It has moved from supply side subsidies intended to lessen the cost of housing units towards demand side subsidies to facilitate beneficiaries to pay for it. By 2003-04, as per some estimates, 30 percent of the £16 billion overall public support was in the form of supply side subsidy while two-thirds share was mainly in the form of Housing Benefits known as demand side subsidy.

The National Affordable Housing Programme (NAHP) in England,

announced during 2008-2011, aimed to boost the supply of affordable dwelling units through PPP arrangements. The objective of that programme was to provide social rental housing to the poor in England. It was further to provide affordable housing to meet the needs of eligible households including availability at a low cost which is determined in regard to local incomes and local home prices. The programme provides funding allocations to housing development partners to deliver homes for affordable rent and home ownership across the capital. The NAHP allocations were made during 2008-11 but construction of houses under the programme was continuing until 2015.Affordable Homes Programme (AHP) 2011-15 aims to boost the supply of fresh inexpensive homes in England. Throughout 2011-15, Homes and Communities Agency (HCA) envisages an investment of £4.5bn in affordable housing through the AHP and earlier commitments from the preceding NAHP. The majority of the new programme will be offered as Affordable Rent housing with some for inexpensive ownership housing, supported shelter and in some conditions, social rent.

Government initiatives to help build more new affordable homes on brownfield land: Department of Communities and Local Government (DCLG) plans to unlock brownfield land for 2 lakh new homes by 2020. Thousands of new homes are planned to be built on unused and previously-developed land under the government's plans to make it easier to build on brownfield sites suitable for housing.

Germany- UK comparison

Literature review shows that while the mission of social housing in the UK is for 'housing people in need', that in Germany is for a broader, 'housing people excluded from housing market' and providing opportunity of home ownership to middle and low income households. On the aspect of allocation criteria, Germany gives priority to vulnerable households most in need vis-à-vis priorities set by local authorities in the UK. In Germany income ceiling, higher than the average in European countries, is an important criterion but in the UK, residential link of the beneficiary to the ULB is attributed more importance. Although types of social housing providers in Germany mostly comprise 'private players for profit', those in the UK include local authorities, public owned companies, cooperatives and private players with both profit and non-profit motives. Sale of social rental dwellings is almost similar in two countries. While sale to existing tenants is allowed in Germany, the UK seems to support similar practice through the Right to Buy. While in Germany there exists income based rent or fixed rent ceiling alongside housing allowances, the UK

seems a little different with existence of value based rent besides housing allowances.

Nordic countries

In the Nordic countries (Denmark, Sweden, Norway, Iceland and Finland) housing is not exclusively supplied by the public sector. Mostly, housing is produced and distributed through the private housing market, but the state and local authorities put together regulations to achieve certain objects for the provision of housing via the market. Although over time there have been changes in the approaches towards the role of the government in the housing supply, in the Scandinavian countries, the political view towards housing has been more or less on similar lines. That view considers housing as something that is above all important for the health and welfare of society, and therefore perceives it as the state's task to guarantee a good supply of housing for all clusters in society. Therefore it is not only housing for vulnerable groups, which are supported, but also housing for all. In fact, the fundamental features of the Nordic model of welfare are benefits provided for all people irrespective of wealth and income.

According to the universalistic (or housing as public utility) approach, housing is a primary public responsibility and the objective of social housing is to provide the whole population with decent quality housing at an affordable price. Dwellings can be delivered either through municipal housing companies (as in Sweden) or through non-profit organizations (as in Denmark). The basic foundation concerning housing provision is housing tenure. In Denmark housing policy is based on renting, while in Sweden it is based on both type of tenures home ownership and renting. Hence the importance of ownership occupation has been dissimilar in the two national housing policies. In recent times all the Nordic countries have come across analogous stresses towards less state intervention and more market-oriented solutions in housing provision.

Denmark

Moderate public interest and social responsibility for the provision of housing developed gradually in Denmark during the twentieth century in the form of building and housing associations, special schemes to support the construction of housing for families with many children, subsidised social housing and, in several parts of the country, council housing for particularly vulnerable groups. After World War II, the public sector's involvement was extended to cover almost all housing irrespective of ownership, through tax rules, funding schemes and general social and housing policies. However, local authorities can

only allocate dwellings in social housing. Moreover, several local authorities have sold off council housing, either to cooperative housing associations or to private non-profit housing associations.

Denmark had strong social goals for housing but not as pronounced as in Sweden. More credence has been placed on the market and less on state control, especially of housing finance, which has been privatised since the early 1960s. For many years, special mortgage credit companies had a monopoly on giving loans with collateral in real estate. In recent years, these companies have been privatised and sold to banks or have become normal joint-stock companies. General tax subsidies, which have boosted home ownership, have been extensive until the beginning of the 1990s, when tax reorganizations very much reduced the subsidies. There has also been considerable support for social housing and the sector is sturdy, but in the recent past, subsidies have been reduced and the strict regulation of allowed building costs in the sector has reduced fresh building activity except for dwellings for the elderly.

Despite the general market orientation, there has been a strong rent control in the private rental market and regulations of prices in the co-operative sector, which are still functioning. There have not been any major housing reforms in Denmark in the last 10 years. Together with the rules for rent setting in the social sector, the consequences of this are that there is a great variation in rents and housing costs, which are not in accord with differences in housing qualities and location. As a result, there is a lack of housing and queues in parts of the housing market. Housing is not a social right by law in Denmark. But the local governments are in principle requiredto provide dwellings for people that are homeless. This includes refugees.

Denmark has relatively higher incidence of social rental stock (19% compared to the EU average of 8.3%) as a percentage of total housing stock. In Denmark, social housing provision is the prerogative of the private non-profit sector. Social housing habitations are owned by (non-profit) housing associations. The actual construction of the houses is conducted by private enterprises through a tendering offer. Since government subsidy is received by the housing associations, they are subject to scrutiny by the local authorities. The rent is set in a manner where expenditures and revenues in the individual units even out.

The expenses of social housing are financed as follows: Resident's deposit 2 %, Local authority capital grants 14 %, Mortgage loan 84 %. The resident's deposit is paid by the tenant when taking up residence. The deposit

is refunded when the resident vacates the housing. The capital grant is a loan issued by the local authorities. The loan, which covers 14 % of the acquisition cost, is interest free and repayments do not have to be made for up to 50 years. Most of the acquisition cost is financed by means of a mortgage loan (84 %). The State grants a repayment subsidy to cover the gross repayments on the mortgage loan not paid by the residents.

The social housing sector is characterized by widespread tenant involvement. The majority of the housing associations' board members are voted in by the tenants and each unit has an extensive degree of autonomy. The social housing associations are subject to municipalsupervision. Because of a reorganization of the sector's management in 2010, there is an increased focus on establishing dialogue and cooperation between the respective municipalities and housing associations, as well as obtaining thorough knowledge and documentation regarding the activities of the housing associations.

Sweden

Swedish housing policies are known as more universalas they are to a greater extent directed at housing for all and not only for susceptible groups. This means that support for housing is to a great extent available also for other income groups (MIG and/or HIG), particularly tax subsidies. Sweden has put the most credence on housing as a social good with equal promise for all. Before 1990, there was considerable state control with regard to finance for housing with subventions and a vibrant public housing sector. In the 1990s, it was shifted to the private market and subsidies curtailed. Even now a mode of rent control in the private sector still exists.

Although, Sweden had the prevalent social/public housing sector previously, switch to cooperatives has brought down the share of the sector to merely 14 per cent of the total housing stock. The housing policy framework has traditionally been apart of state involvements and subventions as a key function of welfare countries. The basis has been interest subventions for new buildings alongside housing grants, rent control directives, etc. In the last three and half decades, ever since the deregulation of housing and credit market in 1980s, many modifications have been done in the concerned policies.

The housing policy framework has started becoming more specific though that has grown from mostly concentrating on on consumers. Moreor lessevery housing subsidy for fresh construction has been withdrawn, and those are not balanced by augmented allowances. The sumused up on housing allowances has reduced.

Thepublic housing companies are not preferred any longer as they are supposed to operate on the identical terms as that of their private competitors. The rent regulating character of public housing is doubted as well. Regarding the state of affairs of private renting, Sweden has a moderaterent control and thus, regulation to some degree results in rentals below market rates.

Among Nordic countries, Sweden has a vibrant co-operative sector which has enlarged its share of the housing market in recent years due to switch from public ownership to co-operatives alongside more fresh housing stocks. Interestingly, prices of shares are market based. Individual subsidies are offered as housing benefits and tax relief on private loans.On the other hand, all rents in Sweden are set in consultations between the tenants' organisation and the property title. The system is called Bruksvärdessystemet (the use value system) and aims to achieve market equilibrium rents.

In 2002 and 2005, the European Property Federation (EPF) – an organisation representing the interests of the real estate industry – presented two complaints to the European Commission, questioning the legitimacy of state aid granted for social housing in Sweden. Due to the 'utility value' principle in force in Sweden, two dwellings with the same characteristics should have approximately the same rent. This means that Municipal Housing Companies, receiving public subsidies, set the benchmark for all rents in the market. According to EPF, this practice has distorted market competition and disadvantaged real estate developers. Accordingly, the Commission challenged the Swedish universalistic model of social housing, given that it does not only provide housing for disadvantaged groups, but rather for all citizens, and consequently does not comply with the restrictive definition of social housing as a service of general economic interest (SGEI). This action led to the Swedish government liberalising the social housing sector in 2007, removing this service from the list of SGEIs and abolishing the public service compensation for the Municipal Housing Companies. This decision was dictated by the desire to maintain the universalistic model of social housing without violating EU laws on competition. According to several analysts, operating according to a 'businesslike principle' could lead to an increase in rents, especially in urban areas with greater housing demand.

Malaysia and Indonesia

Like many other developing countries, Malaysia and Indonesia have also emphasized on programmes of housing for the urban poor. These two countries put their focus on providing

suitable and affordable housing for the society. The rapid rates of urbanization and development that has occurred in Malaysia over the last three decades has had a tremendous impact on urban poverty. It has been noted that the level of urbanization in Malaysia increased from 28.4 percent in 1970 to 61.8 percent in 2002 with the number of urban dwellers increasing more than fourfold. As stated in different Malaysian five-year plans, the purpose of the housing policy in Malaysia is to guarantee that all Malaysians, particularly the members of the low-income group have superior access to adequate and affordable shelter and associated conveniences. The National Housing Policy (NHP) in Malaysia aims to assist the private sector to respond to the Government's aspiration towards providing adequate and affordable houses for the lower income groups.

In Indonesia, the intent of government towards housing is to ensure habitable home to each Indonesian household and also increasing the availability of appropriate housing alongside affordable long term housing finance system. Ministry of Public Housing, Government of Indonesia is in charge of matters related to low cost public housing. Currently, government policies towards upgrading are organized under the Indonesia Slum Alleviation Policy and Action Plan (SAPOLA) funded by the World Bank, UN Habitat, and Aus-AID forming Cities Alliance (Cities Without Slums). This project supports the development of a National Slum Upgrading Policy and a National Slum Upgrading Action Plan, which have as a focus the enabling of local governments to improve living conditions in urban slums.

South Africa

South Africa has also emphasized on a programme of housing for the urban poor. In the backdrop of issues of the 21st century, like rapid urbanization, environmental and municipal resource constraints, urbanisation of poverty, etc., there are several commonalities between India and South Africa in respect of the efficacy of current planning norms. India too like much of Africa has intrinsic colonial (mostly British) planning frameworks which were established to counter a dissimilar socio-economic and political perspective. However some of these frameworks persist even today in both the countries, rendering urban planning ineffective, directly leading to spatial disparity and exclusion. Institutional restructuring in South Africa and efforts in putting into practice 'integrated development planning' are of much importance and relevance to India. The South African model is relevant particularly in the sense that the local authorities have been emerging as

strong stakeholders in renovating planning practices that could turn out beneficial for the urban poor. Planning has always been a key instrument for urban management in India though the implementation aspects, which have a key interface with the beneficiaries, have not been inclusionary so far to any significant extent.

Policy attention was given in the South African National Housing Strategy to afford ability in order to give emphasis on low-income households. National housing subsidy in South Africa predominantly made available completed dwelling units to low-income households with freehold tenure for free. In addition, the Discount Benefit Scheme, known as the Enhanced Extended Discount Benefit Scheme these days, was also offered. The rationale of that scheme was to support tenants to get hold of ownership of state financed rental housing. The scheme covered a concession on the selling price of the dwelling unit offered to the existing inhabitant. Although the preliminary objective of the housing subsidy programme was to offer shelter for poor, in 2004 the housing policy document named 'Comprehensive plan for the development of sustainable human settlements' more widely famous as 'Breaking New Ground' initiated the idea of 'housing as an asset'. The policy thus, was devoted to uphold the development of housing assets rather than providing just a 'starter' shelter. Understanding the multi-dimensional asset value of housing by the policy makers from the point of beneficiaries such as social asset, economic/productive asset and as financial asset, has definitely impacted the reduction of poverty and inequality in South Africa.

Importance of housing for all and the way forward

Housing for All by 2022 is not only important to provide shelter to every Indian citizen; it will also impact our economy to a great extent. Housing sector is the fourth largest employment generating sector in India. As per the NCAER findings, the housing sector accounts for 1.24% of the total output of the economy, 1.00% of GDP and 6.86% of the employment. For every lakh invested in the housing sector, 2.69 new jobs are created in the economy and for every rupee investment in the housing sector, the household income increases by Rs. 0.41.Furthermore, for every rupee invested in creation of housing, Rs. 0.12 is collected as indirect taxes. The economic and community lives of human civilisations revolve round shelter, working spaces and places for business and entertainment which is provided through some form of housing. Thus, the housing sector is a vital sector to concentrate on due to its huge socio-economic benefits. Owning a house by a family has huge impacts on the morale of family members as it

marks a sign of their social upliftment in our country. It has been found that commoners start investing in other qualitative aspects of life such as children's education, family health and so on after owning a housing unit.

It has been observed that offering mass affordable housing in urban areas continues to be a daunting task for the majority of welfare nations across the developing world. Since time immemorial, access to land has remained a strategic precondition for poverty elimination. In the backdrop of rapid urbanisation in the modern history of this planet, the prerequisites for urban poverty alleviation is the availability of affordable housing for all. Legal access to urban land and availability of formal housing finance are the fundamental necessities to facilitate a buoyant affordable housing market. The task of achieving Housing for All by 2022 is gigantic. It is necessary to make a combined and harmonized attempt towards the goal of providing housing to all sections of the population. It is important to remember that in the absence of an active market, provision of housing will not sustain. Aim should be to collaborate with multiple stakeholders including the private sector, Urban Local Bodies, corporate houses, civil society, community and financial institutions to achieve our Goal. Last but not least, one cannot ignore industry's roles and responsibilities to leverage all these benefits and make India adequately prepared at the earliest.

References

1 Paddy Gray et al., Review of social housing allocations policy, Department for Social Development, Northern Ireland Executive, Dec 2013; John Hill, Feb 2007;

2 TeyNaiPeng " Trend and Patterns of Urbanization in Malaysia , 1970-2000" in Ness G. D. and Talwar P. ed Asian Urbanization in the New Millennium Marshall Cavendish Academic 2005, pp178-221;

❐ ❐ ❐

Urbanization and the Sociological Theoretical Framework

Ramanath Jha

Introduction

Urban sociology is the study of causes that lead populations in an urban area to respond to their environment in the manner they do. It further studies how the dynamics of these reactions affect their lives, economics, structures and governmental processes of that specific area. It also embraces the consequential problems that arise from these interactions. The information acquired is vital in not only creating policies, but also in planning strategies for the growth of society in general. In other words, in the urban context, it is the sociological study of cities and their role in the development of society. Like most areas of sociology, urban sociologists use statistical analysis, observation, social theory, interviews and other methods to study a range of topics, including migration and demographic trends, economics, poverty, race relations and economic trends. This paper is an attempt at a brief presentation and analysis of urban sociological perspectives over more than a century.

1.1 Classical Theoretical Perspectives

Over the years, a number of urban sociology theories have been propounded. The classical theoretical perspectives that form the philosophical foundations of modern urban sociology were provided by such philosophers as Karl Marx, Friedrich Engels, Ferdinand Tonnies, Emile Durkheim, George Simmel, Max Weber and W.E.B. Du Bois. The reflections of the earlier sociologists throw light on these sociologists looking at urbanization in a highly negative light. They believed that the great city or a metropolis provided an inhuman, debasing social environment; that the money economy of the cities destroyed social life and mass urbanization nullified opportunities or political participation.

Marx (1818-1883) believed that people in pre-industrial and traditional

societies were generic, tribal beings and the rise of the city happened as a shift from barbarism to civilization and through the realization of political and economic freedom and productive specialization. He believed that social evolution of humans is not complete until capitalism got transformed into socialism. The emphasis on economics was at the heart of his thinking along with problems of inequality and conflict. Marx condemned the consequences of urbanization under capitalism. He viewed the concentration and misery of the mass of workers in the new urban agglomerations as a necessary stage in the creation of a revolutionary force. For him, pauperization and material degradation was one aspect of urbanization but equally important was the destruction of the social nexus of the traditional community and its replacement by the utilitarian world of the city. Both for theory and practice communism depended on urbanism.

In his book, The Condition of the Working Class in England (1845) Engels (1820-1895) offered a detailed analysis of the emerging industrial system in England that displayed an insatiable appetite for capital for profits at the expense of workers. He described living conditions, crowding, squalor, and deprivation. Engels offered an analysis of urbanization and the growth of towns and cities, based on the dynamics of factory production and the need for larger volumes of labour. He believed that "Industry and commerce attain their highest stage of development in the big towns, so that it is here that the effects of industrialisation on the wage earners can be most clearly seen." Engels observed that due to city layout and the working-class districts and the middle-class districts being quite distinct, it is quite possible for someone to live for years in a city, travel daily to and from his work without ever seeing a working-class quarter or coming into contact with an artisan.

Mumford in his book 'The City in History' sees cities as enlarging all dimensions of life as the scattered activities of society are brought together, thereby releasing the energies of mankind in a tremendous explosion of creativity. The city has augmented capabilities for participation and widened the basis of personal experience. Although he extols the immensity of experience that the metropolis has to offer, it is the cities of classical Greece and medieval Europe that govern his assessment of the city as a social container.

European sociologists were strongly influenced by an image of the pre-industrial world of small cities embedded in a matrix of village and region. Mass urbanization for them was neither progressive nor liberative, but signified a degeneration of social existence. Their writings reflect their concern about the eclipse of

community in an urban locale and the arrival of mass society in which political life, culture and personality are faced with decay.

In the writings of Neo-Marxists like Mills and Marcuse, there is a consensus that urbanization has a propensity to damage human personality. It hampers community formation, works against social engagement or involvement and promotes indifference, and alienation. Class consciousness is inhibited and diverted in mass movements, unreason and not reason typifies social response. Urbanization is no longer the sine qua non of a socialist transformation of society. If urbanization is progressively bankrupt in human terms, cities themselves are seen as instruments of capitalist or imperialist domination. The growth of cities depended on the effectiveness of their expropriation of the wealth of their satellites. Typically, the characteristic features of the cities is seen not as their economic specialization, but their role as centres of dominance.

Subsequent to the Marxist view of urbanization and urban life, sociologists in a long succession from Tonnies to Wirth developed a counter-theory of Marxism for the exposition of social change. This led to acceptance of a fundamental difference between rural and urban, tradition and modernism that was in sharp opposition to any variant on Marxist theories of development. The urban as a frame of reference and the urban society as a specific mode of social organization becomes the object of scientific study. Such an orientation of thought evolved over about half a century from 1887 to 1938 since it was called upon to deal with the after-effects of the ideological revolution crafted by Marxism and to explore the full implications of a sociological vocabulary for the study of urbanization.

The methodology of understanding metropolis and urbanism of the new generation of sociologists was sharply different from Marxist methodology of the dialectics of historical materialism. In the words of Tonnies, "In contradistinction to all historical theories deducting its findings from the past we take as an actual, even necessary starting point that moment in history when the presentspectator enjoys the inestimable advantage of observing the occurring events in the light of his own experience." This changed view of the "real" in society became the touchstone of sociological explanation representing rejection of the metaphysical terms in which the Marxist analysed social change. The abstract categories of capitalism, class, social formation, forces of production, alienation are dismissed as metaphysical speculations. The ideal typical concepts introduced by Tonnies and Weber are means to give experience a more coherent and concise

form. They developed a tendency to limit sociological discussion to the immediate context of experience. It has culminated in the extreme particularism of the Chicago School. This restriction of outlook is one of the most apparent differences between the sociologists and the neo-Marxists.

As important as the contrasts in methodology is the opposition by these sociologists to the analysis of history and society in economic terms. The rediscovery of concepts such as "community", "association", "status", "authority", "legitimacy", "culture", marked a shift in focus away from the struggle with the material environment and resultant relations of production to the social boards and forms of association as established between individuals. The resultant differences are very clearly seen in the discussions of community and alienation. To Marx community could never exist under conditions of alienated labour. "Species life, productive life, creating life, turns into a mere means of sustaining the worker's individual existence and man is alienated from his fellow man."

Ferdinand Tonnies (1855-1936), a German sociologist, dwelt on the social structure of the city. He explained the impact of the market economy on traditional forms of social association; the implications of urbanization and the development of the state for the conduct of social life and the mechanisms of social solidarity in an individuating society. He categorized basic organizing principles of human association into two. The first was what he called Gemeinschaft or community. This was characterized by a country village where people have an essential unity of purpose, work together for the common good and are united by ties of family and neighbourhood. The other was Gessellschaft or association. This was marked by a large city which is a mechanical aggregate with the attributes of disunity, unbridled individualism and selfishness and an emphasis on self as against the group.

While in both instances, there is peaceful co-existence, the unity in the former case is natural whereas in the latter case the unity is an artificial construct. He listed three kinds of relationships in Gemeinschaft. These were kinship, friendship and neighbourhood or locality. The first is family relationships where the father-child relationship is the first manifestation of authority. Kinship further develops and differentiates into locality that is based on a common habitat. Friendship is ensconced in the mind which requires a common mental community, such as religion.

Tonnies' distinction between social groupings is founded on the assumption that there are only two basic forms of an actor's will, to approve of other men. Following his "essential

will" ("Wesenwille"), an actor will see himself as a means to serve the goals of social grouping; very often it is an underlying, subconscious force. Groupings structured around an essential will are called a Gemeinschaft. The other will is the "arbitrary will" ("Kürwille"). An actor sees a social grouping as a means to further his individual goals; hence it is purposive and future-oriented. Groupings around the latter are called Gesellschaft. Whereas the membership in a Gemeinschaft is self-fulfilling, a Gesellschaft is instrumental for its members.

Tonnies describes the collapse of traditional forms of community life under the impact of a fully developed exchange economy. Production for sale and remuneration of labour in money strips labour of style, dignity and charm. The competition for markets leads to a growing impersonality and instrumentality of social life. The common culture disintegrates and the common people are drawn into Gesellschaft as members of the proletariat. Membership of trade unions and political parties signifies their full incorporation into the capitalist state. To Tonnies, the transition from an agrarian, parochial Europe to a commercial, cosmopolitan society had been a bigger break in human experience, than any that a socialist revolution could effect.

The account of urbanization found in Tonnies' book “Community and Society” forms the basis of the conventional social stereotype later developed by Wirth. The village and the town in which the physical real soil, the permanent location, the visible land, create the strongest ties and relations are compared with the city and metropolis where the continuity and intimacy provided by the neighbourhood is broken. The city represents the exaggeration of the principle of space. Localism is replaced by a restless cosmopolitanism, urban, national, even international interest that replaces those of home, village and town. In the city only the upper strata, the rich and the cultured set up the standards to which the lower strata have to conform. City life and Gesellschaft doom the common people to death and decay.

Urbanization leads in the direction of individuation, towards a situation in which each person is his own master; free to move where he will, associate with whom he pleases, for whatever ends he cares to name. Action is undertaken for predicted ends. The “self” of gemeinschaft is replaced by the “person” of gesellschaft. Instead of organic unity of the former we find an aggregate where independent individuals self-consciously maintain an artificial identity. Disassociation of community life in the aggregate of population necessitates new mechanisms of social control and integration in the cities. The law courts

and the police enforce the will of the state and formal legislation, convention and the public opinion become the means of social control and integration.

The lengthy analysis of the economic relations underlying the new urbanization and the explicit references to class and class dominationset Tonnies apart from much subsequent sociological discussion of cities and urbanization. The influence of Tonnies on the Chicago School of urban sociologist is considerable. However, while the Schoolaccepts the direction of social change brought out by urbanization, it does not subscribe to Tonnies' exchange economy of capitalism and the resultant class structure as the base line of analysis. Urbanization for Tonnies entails the acquiescence of the broad mass of the people in the life styles of the dominant class, while for the Americans (Chicago School) it was considered to bring about assimilation into society. The city's land market, not its exchange economy was considered to be the great leveller.

Emile Durkenheim (1858-1917), a French sociologist, is considered by some as the principal architect of modern social science and father of sociology. Much of Durkheim's work was concerned with how societies could maintain their integrity and coherence in modernity; an era in which traditional social and religious ties are no longer assumed, and in which new social institutions have come into being. Durkheim was also profoundly concerned with the acceptance of sociology as a legitimate science. For him, sociology was the science of institutions and its objective was to discover structural social facts. Durkheim was a major proponent of structural functionalism, a foundational perspective in both sociology and anthropology. In his view, social science should be purely holistic, that is, sociology should study phenomena attributed to society at large, rather than being limited to the specific actions of individuals.

Durkenheim considered the social structure of the city and social solidarity, the bond between all individuals within a society. He developed the model of contrasting social order types. The first was mechanical solidarity. This refers to social bonds constructed on likeness and largely dependent upon common belief, custom, ritual, routines, and symbols. Here people are identical in major ways and are therefore united automatically. This was common among prehistoric and pre-agricultural societies, and lessened in predominance as modernity progressed.

The second was organic solidarity. This social order was based on social differences, complex division of labour founded on specialization and greater freedom and choice for city inhabitants

despite acknowledged impersonality, alienation, disagreement and conflict. There was a new kind of social cohesion that stood on mutual interdependence that individuals in more advanced societies have on each other where their interdependence is on account of each performing his specific task.

George Simmel (1858-1918) considered the importance of urban experience or urbanism rather than urbanization. The essay that most closely relates to his exploration of the consequences of large cities for personal life is that entitled "On the Significance of Number of Social Life." Smaller groups have qualities, including type of social interaction among their members, which inevitably disappear when the groups grow larger. In the larger city, estrangement of the individual from society built up on his social relationships could be found. This sense of estrangement is due to the size of society. The larger group gains its unity only at the price of a great distance between all the structures of social integration and the individual members of the group. Alienation is an effect of the large scale characteristics of modern society and as such is inevitable. Formal administrative bodies, impersonal symbols of identity, the separation of the citizen from the city as a political community can all be related to the sheer size of urban agglomerate.

"The Metropolis and Mental Life" is an essay detailing his views on life in the city focusing largely on social psychology. Simmel tried to expound on three themes; first the consequences of a money economy for social relationships, second the significance of numbers for social life and lastly the scope for the maintenance of independence and individuality against the sovereign powers of society. He believed that the unique trait of modern city is intensification of nervous stimuli with which the city dweller must cope with unlike the rural setting where the rhythm of life and sensory imagery is more slow and habitual.

The city dweller develops a blasé attitude that is matter-of-fact and detached. Urbanites get highly attuned to time; and rationality is expressed in advanced economic division of labour and the use of money on account of the need of a universal means of exchange. But money being impersonal, unlike barter, promotes rational calculation in human affairs and replaces personal ties by impersonal ones that are limited to specific purposes. Money also increases personal freedom and fosters social differentiation. Simmel acknowledged the freedom felt in the urban locale and that new heights of personal and spiritual development could be attained; but he also feared that this could be overtaken by a sense of alienation. He advised that with a view to maintain a sense of individuality

and dissipate the mood of despondency arising out of the awareness that one is a cog in the machine, there was a necessity to do something different.

There are several themes running through the discussion of individual life in metropolitan city. One of these is that of arousal in face of physiological and socio-psychological stimuli deriving from the turmoil of the urban environment. In consequence the nonchalant attitude that gets developed is a consequence of the failure to react to surrounding self. The resultant strategy is that of reserve in face of the superficial and fleeting contact of the crowd. A second major theme is that of the money economy which is intimately associated with the intellectualism already attributed to the urban environment. Money had an impact on the urban personality in establishing the matter of factness of urban social relations and the effect of blunting discrimination and furthering a false attitude. A third theme flows from the first two - that of punctuality and precision. Money has turned the world into a mathematical problemand there is a calculative exactness to life which corresponds to the idea of natural science. Competition induces specialization and hence differentiation and individuality. The essential feature of urbanization, therefore, was the freedom it provided for individualization.

Max Weber (1868-1920) in his 'The City' has defined the city on the basis of political and administrative conception. He considered the social structure of the city and its ecological and demographic characteristics. For this purpose, he undertook the survey of various cities throughout the world unlike previous theorists who limited themselves merely to European cities. To constitute a full urban community a settlement must display a relative predominance of trade- commercial relations with the settlement as a whole displaying the following features:

- fortification
- market
- a court of its own and at least partially autonomous law
- a related form of association
- partial autonomy and voting rights.

According to Weber, the city was a relatively closed and dense settlement. A typical city required trade/commercial relations such as a market. It had a court and law of its own and a degree of political autonomy. It was militarily self-sufficient for self-defence and could display a fort-like formation. It had forms of association or social participation whereby individuals engage in social relationships and organizations. He suggested that cities stand linked to larger processes such as economic or political orientations and different cultural and historical conditions could result in different types of cities.

Weber rejected cities governed by religious groups or where the authority is enforced on personal rather than universalistic basis. He recounts a process in which the development of the rational-legal institutions that characterize the modern city enabled the individual to be free from the traditional groups and therefore develop his individuality. He emphasized the closure, autonomy and separateness of the urban community and stressed that the historical peculiarities of the medieval city were due to the location of the city within the total medieval political and social organization.

Weber's treatment of the city has limitations in application to contemporary society. It delineates too perfect a conception of urban existence to demonstrate how imperfect the present urban settlements are. Its usefulness rests in first, its methodology and second, in its outline of the essential features of social association in the cities of capitalism.

A more removed theorization in the context of urbanization came from Du Bois (1868-1963). This theorist was more interested with the centrality of "race" (racialized power dimensions) in the analysis of social structure. Du Bois (along with Woodson) presented strong arguments for considering race as the central construct for understanding inequality. For Du Bois, race and property create an analytical tool through which we can understand social and urban inequity. In this context, the "critical race theory" is pressed into service. This theory attempts to examine the human interactions both in their historical context and as part of the social and political relations that characterize the dominant society. Central to this analysis arefirstly a challenge to the traditional claims of legal neutrality, objectivity, colour-blindness, and meritocracy as camouflages for the self-interest of dominant groups in society, and secondly an insistence on subjectivity and the reformulation of social life to reflect the perspectives of those who have experienced and been victimized by racism firsthand. Critical race theory today is analogous to feminist theory of the late 1970s and attempts to provide a starting point for understanding contemporary urban problems and issues.

1.2 The Social Pathology Period

Early American sociologists were preoccupied with solving social problems resulting from industrialization and urban migration around the turn of the century. They were directly confronted with an urban life that clashed significantly with the values of their rural, middle-class origins. Although appalled by the poverty and slums, these early sociologists also had a religious commitment to moral reform. For them,

sociology was a science dedicated to human progress and amelioration of degrading conditions of urban life. In this regard, the writings of Auguste Comte (1978-1857) were highly influential through the second half of 19th century. Comte argued that civilization was constantly evolving in a progressive direction that was especially apparent in the forward advance of scientific knowledge. He believed that knowledge in physical and natural sciences had reached a stage of development where it would be possible to apply the combined resources of all the sciences to the study of society itself.

1.3 The Chicago School and the Social Disorganization Period

Urban sociology rose to prominence through a group of sociologists and theorists at the University of Chicago from 1915 to 1940 in what became known as the Chicago School of Sociology. The Chicago school is the name given to the work conducted at the University of Chicago since the 1890s. The school emerged at a time when the city was experiencing rapid social changes owing to a swift increase in population as a result of great migration. These massive social changes caused problems regarding housing, poverty and a strain on institutions and these interested sociologists.

The Chicago School combined sociological and anthropological theory with ethnographic fieldwork in order to understand how individuals interact within urban social systems. Unlike the primarily macro-based sociology that had marked earlier subfields, members of the Chicago School placed greater emphasis on micro-scale social interactions that sought to provide subjective meaning to how humans interact under structural, cultural and social conditions.

The dominant theories in Criminology preceding the Chicago school were classical criminological and positivist theories of crime. The Chicago School shared with the social pathologists an interest in urban problems. But whereas earlier sociologists attacked the city as the ultimate symbol of pathology, Chicago sociologists were fascinated by their urban environment. They viewed the rapidly changing, diverse city of Chicago as an ideal natural laboratory for scientific research on important sociological questions. Among the major goals of research by the Chicago School was its attempt to describe the nature and consequences of social disorganization in urban areas.

This concept was introduced by Chicago sociologists W. I. Thomas (1863-1947), and his collaborator, Florian Znaniecki (1882-1958). They defined social disorganization as a decrease of the influence of existing

social rules of behaviour upon individual members of the group. Urban ethnography was the second form of case study employed. These ethnographic techniques involved direct observation of individuals in their natural settings. Sociologists observed and recorded in detail the daily existence of persons living in "disorganized" areas or engaged in unconventional occupations. These two case study techniques were designed to obtain a view of the effects of social disorganization on the lives of individuals in the urban setting.

The ecological research of the Chicago School was mainly inspired by the teachings of Robert E. Park (1864-1944) and Ernest W. Burgess (1886-1966), the most influential sociologists at Chicago University during the social disorganization period. Burgess proposed a systematic application of this general ecological theorizing in his concentric zone model of urban growth (Burgess, 1925). This was the first model to demonstrate how urban land was used. This essentially meant that cities developed inside-out in concentric circles. Jobs, industry, entertainment, and administrative offices got located at the centre in the Central Business District. He felt that locational preferences within the city unleashed competitive processes resulting in the final location of activities in particular urban areas. Burgess used Chicago as a concretes illustration of his graphic model. He divided urban areas into five concentric zones based on patterns of land use for commercial or residential purposes. Zone I, the central busines district in Chicago is restricted to commercial uses, whereas Zones III-V are residential areas. Zone II, the Zone in Transition, is a mixed area, where low-rent, slum residences are being replaced by businesses and factories. Burgess believed that his model was most useful for understanding the process of ecological change in the city. As the central business district (Zone I) expands, commercial uses increasingly invade the residential areas in the Zone in Transition (Zone II). Because residential properties in Zone II will eventually be sold for commercial purposes, landlords allow them to deteriorate. This, in turn, leads to an expansion of the transitional, slum area into Zone III and so on. As a result of the ecological competition for space which originates in Zone I, all of the zones in Burgess' model steadily expand outward over time. The model demonstrated that there was a correlation in distance from the central business zone depending on class.

1.4 Contemporary Theoretical Perspectives

Patrick Geddes (1854-1932) was a pioneering thinker in the area of urban planning andsociology. He is credited with the introduction of the concept of

“region" to architecture and planning and coined the term 'conurbation'. Geddes championed a mode of planning that sought to consider "primary human needs" in every intervention, engaging in "constructive and conservative surgery". Geddes consciously worked against the tradition of the 19th century style of the "gridiron plan". Geddes disliked its "dreary conventionality" and for being unkind to old homes and to the neighbourhood life of the area. Geddes was a votary of civic survey in urban planning that included the geology, geography, climate, economic life and social institutions of the city and region. He was particularly critical of that form of planning which relied overwhelmingly on design and effect, neglecting to consider "the surrounding quarter and constructed without reference to local needs or potentialities".

Among the contemporary theoretical perspectives, Robert Ezra Park is an important name. He coined the concept of human ecology that attempts to apply biological processes to the social world. He maintains that the natural environment is an instrumental force in determining city characteristics. He believed the city to be a social organism with distinct parts bound together by internal processes, not chaos and disorder. The city was also a moral as well as a physical organization suggesting evaluative judgment. In his owns words, he saw the city as “man's most successful attempt to remake the world he lives in more after his heart's desire. But, if the city is the world which man created, it is the world in which he is henceforth condemned to live. Thus, indirectly, and without any clear sense of the nature of his task, in making the city man has remade himself”.

In 1945 Chauncy O. Harris and Edward L. Ullman wrote a scientific piece in the Annals of the American Academy of Political and Social Sciences called "The Nature of Cities". Their approach came to be known as the Multiple Nuclei Theory, which claims that cities have multiple centres (Nuclei) that yield influence on the growth and nature of an urban area. These scientists argued that a city's' growth and development can be universally predictable. Many other scientists since then have attempted to establish that some commonalities can be predicted, but each city has its own unique history, culture, geography, and resources.

Louis Wirth (1897-1952) developed the first urban theory in the United States with a focus on urbanism rather than on structure. His social-psychological theory investigates the human behaviour in an urban environment. He defined the city as a large, dense and permanent settlement with a socially and culturally

homogeneous people. He indicated that size, density and heterogeneity – regarded as the principal traits in defining cities – are conducive to specific behavioural patterns and moral attitudes (Wirth, 1938). According to him, population size enlarged diversity and 'social segmentalization'. Similarly, population density fostered separateness and population heterogeneity, broke down caste rigidities and enhanced social mobility. While Burgess, as cited earlier, deliberated on urban structure, Wirth chose to look at urbanism. According to him, urbanism is that complex of traits that makes up the characteristic mode of life in cities. Urbanism, as a way of life, may be approached empirically from three interrelated perspectives: (1) as a physical structure comprising a population base, a technology, and an ecological order; (2) as a system of social organization involving a characteristic social structure, a series of social institutions, and a typical pattern of social relationships; and (3) as a set of attitudes and ideas, and a constellation of personalities engaging in typical forms of collective behaviour and subject to characteristic mechanisms of social control. Louis Wirth shows two kinds of forces operating in urban society: the force of segregation and the melting pot effect; which has many unifying aspects like uniform system of administration etc. However, he concludes that urban society is based on a means-to-end rationality, which is exploitative and where the individual is isolated through anonymity. Wirth's theory is important for its recognition that urbanism is not just part of a society, but expresses and influences the wider social system. However, Wirth's observations are based on American cities, which are generalized to urban centres everywhere, where situations could be different.

Flinders Petrie came up with what is known as central Place Location Theory which assumed that the only or the main reason for the existence of a city is its function at a storage centre. Geographers still display a tendency to explain the location of urban site in terms of their functions as service centres. An elaborate scheme of this type was offered by a German geographer Walter Christaller. His basic assumption was that a given rural area supports an urban centre which in turn serves the surrounding countryside. Mackenzie was inclined to accept a similar view point when remarking that during this period of population dispersion the city was for the most part, the child and servant of expanding rural settlement. Christaller's view was introduced in America by Mann with modifications. This theory, however, is considered at variance with facts. Whether we examine the distance between larger cites or the general distribution of urban settlement we find no regularity in spacing. Perhaps the theorists were mainly influenced by the

fact of the growth of towns in the beginning as market centres.

Mann admits the vulnerability of the scheme for larger places. In highly industrialized areas, the central place scheme is generally so distorted by industrial concentration in response to resources and transportation that it may be said to have little significance as an explanation for urban location and distribution. But he claims that the theoretical ideal appears to be most nearly self contained. The central place hypothesis is the only existing theory which employs a single principle. Actually, contemporary cites and their location depends upon a multiplicity of factors. Hence, the central place location theory of cities fails to account for the location of contemporary cities.

Homer Hoyt (1895-1984), unlike Burgess, held that the city developed not in concentric circles, but in sectors. Each sector was marked by different economic activities. If the entire city were treated as a circle, then various neighbourhoods were sectors radiating out from the centre of that structure. Hoyt's main contentions were as follows:

1. Industrial areas do not develop around the central business district but along railroad lines and water fronts, or more recently, on the outskirts of a city. Industrial areas thus expand not in circles but in staring like patterns.

2. High class areas are not located in the last concentric zone on the periphery but only in one or more sectors. As the city grows the upper classes keep moving from the centre, abandoning areas to the lower classes which extend their habitats from the centre towards the outskirts in areas of triangular rather than circular shape.

3. High grade residential areas originate near the retail and office centre but tend to proceed along established lines of travel or towards another existing nucleus and buildings or trading centre preferably toward high ground or a lake, bay, river or ocean front.

4. The high priced residential neighbourhood tends to grow towards the homes of the leaders of the community.

As Hoyt's theory is based on the study of a few cities, it suffers from its own drawbacks. It cannot supply us anymore with a universal pattern of the growth of cities. As Hoyt wrongly contends, high class residential areas do not proceed along transportation lines,

as high class people prefer to live away from the din of urban traffic. Hoyt's theory does not explain the growth of suburban or satellite townships. It also cannot account for the concept of 'twin cities'. Moreover, city growth depends upon its location and one cannot expect every other city to be located near high grounds or a water front.

But the sector is definitely a welcome development over the concentric zone theory as it makes room for the modern concept of location of industries also for the growth of a variety of cities wherein the areas of concentric zone are located alongside in various sectors. Moreover it gives importance to city growth around transportation lines which is akin to the modern concept of convenient location of ecological areas of a city.

In the urban context, Henri Lefebvre (1901-1991) is known for introducing the concepts of the right to the city and the production of social space. Deeply Marxist in his philosophy, Lefebvre introduced the intertwined concepts of production of space and the right to the city. Lefebvre's central argument is that space is a social product, or a complex social construction which affects spatial practices and perceptions. Lefebvre argues that this social production of urban space is fundamental to the reproduction of society, hence of capitalism itself. The social production of space is commanded by a hegemonic class as a tool to reproduce its dominance.

Manuel Castells worked on the information society, communication and globalization and shaped our understanding of the political dynamics of urban and globaleconomies in the network society. Castells maintains that the Information Age can "unleash the power of the mind, which would dramatically increase the productivity of individuals and lead to greater leisure and would cause resource consumption to decrease. Castells was a key developer of urban sociology that emphasises the role of social movements in the conflictive transformation of the city. He introduced the concept of 'collective consumption' such as public transport and public housing and dwelt upon the role of new technologies in the restructuring of an economy. He introduced the concept of the "space of flows", the material and immaterial components of global information networks used for the real-time, long-distance co-ordination of the economy.

Anthony Giddens is credited with the theory of structuration and his holistic view of modern societies. The most recent stage concerns modernity, globalization and politics, especially the impact of modernity on social and personal life. He explores the question of whether it is individuals or social forces that shape our social reality. For

Giddens, urbanization is a unique feature of all societies characterized by far-reaching time-space distanciation. The city is the main locus of the state, anessentialhub for the creation of power and a place for elites forsecuring and consolidating their rule. Giddens holds that the study of the city is inseparable from the social whole and that urbanization associated with capitalism is quiteunlike the pre-capitalist cities, which were more of political and military centres than hubs of economic activity. Capitalism impacted the nature of the city as migration to urban areas by immigrants in search of work destroyed the city as a distinctive social form. As city walls disappeared, space became increasingly commodified and created space became the norm in capitalist cities. Environment in such cities was manufactured environment as capital tended to rework the very constitution of urban life according to its needs.

Giddens concentrates on a contrast between traditional (pre-modern) culture and post-traditional (modern) culture. In traditional societies, individual actions need not be extensively thought about, because available choices are already determined (by the customs, traditions, etc.). In contrast, in post-traditional society people (actors, agents) are much less concerned with the precedents set by earlier generations, and they have more choices, due to flexibility of law and public opinion. This, however, means that individual actions now require more analysis and thought before they are taken. Society is more reflexive and aware, something Giddens is fascinated with, illustrating it with examples ranging from state governance to intimate relationships. Giddens examines three realms in particular: the experience of identity, connections of intimacy and political institutions.

The most defining property of modernity, according to Giddens, is that we are disembedded from time and space. In pre-modern societies, space was the area in which one moved and time was the experience one had while moving. In modern societies, however, the social space is no longer confined by the boundaries set by the space in which one moves. One can now imagine what other spaces look like, even if he has never been there. In this regard, Giddens talks about virtual space and virtual time. Another distinctive property of modernity lies in the field of knowledge.

In pre-modern societies, it was the elders who possessed the knowledge: they were definable in time and space. In modern societies we must rely on expert systems. These are not present in time and space, but we must trust them. Even if we trust them, we know that something could go wrong: there's always a risk we have to take. Also the

technologies which we use, and which transform constraints into means, hold risks. Consequently, there is always a heightened sense of uncertainty in contemporary societies. It is also in this regard that Giddens uses the image of a 'juggernaut': modernity is said to be like an unsteerable juggernaut travelling through space.

In David Harvey's explorations of the right to the city, he believes that the astonishing pace and scale of urbanization over the last hundred years has had a very adverse impact on a sizeable number of urban dwellers. He contends that the right to the city is far more than the individual liberty to access urban resources. It is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. According to Harvey, from their inception, cities have arisen through geographical and social concentrations of a surplus product. Urbanization has always been, therefore, a class phenomenon, since surpluses are extracted from somewhere and from somebody, while the control over their disbursement typically lies in a few hands. Since urbanization depends on the mobilization of a surplus product, an intimate connection emerges between the development of capitalism and urbanization. Capitalists have to produce a surplus product in order to produce surplus value; this in turn must be reinvested in order to generate more surplus value. The result of such continued reinvestment is the expansion of surplus production at a compound rate.

In his examination of urbanization, from the 19th century onwards, Harvey finds urbanization as a primary stabilizer of capitalism, and of recent, of global capitalism. As in all the preceding phases, this most recent radical expansion of the urban process has brought with it great changes in lifestyle. Quality of urban life has become a commodity. So has the city itself, in a world where consumerism, tourism, cultural and knowledge-based industries have become major aspects of the urban political economy. Surplus absorption through urban transformation has an even darker aspect. It has entailed repeated bouts of urban restructuring through 'creative destruction', which nearly always has a class dimension since it is the poor, the underprivileged and those marginalized from political power that suffer first and foremost from this process. Urbanization, he concludes, has played a crucial role in the absorption of capital surpluses, at ever increasing geographical scales, but at the price of escalating processes of creative destruction that have dispossessed the masses of any right to the city whatsoever. As a solution, he

advocates greater democratic control over the production and utilization of the surplus. Since the urban process is a major channel of surplus use, establishing democratic management over its urban deployment constitutes the right to the city.

In terms of urbanism, it would be apposite to state that Harvey along with Castells saw urbanism as not an autonomous process, but as part of a larger political and economic process and change. Harvey believes that in modern urbanism, space is continually restructured. The process is determined by large firms, who decide where they should open their businesses, factories etc and by policies, controls and initiatives asserted by governments which can change the landscape of a city. Like Harvey, Castells stresses that spatial form of a city is very much related to the larger process of the society. Castells further adds the dimension of the struggles and conflicts of various groups who make up the cities. He gives the example of gay community who have reorganized the structure of San Francisco city. He believes that it is not only big corporations, businesses and government which influence the shape of a city but also the communities and groups who live in cities.

1.5 Evolution of Urban Sociology

The evolution and transition of sociological theory from the Chicago School began to emerge in the 1970s with the publication of Claude Fischer's (1975) "Toward a Theory of Subculture Urbanism" which incorporated Bourdieu's theories on social capital and symbolic capital within the invasion and succession framework of the Chicago School in explaining how cultural groups form, expand and solidify a neighbourhood. The theme of transition by subcultures and groups within the city was further expanded by Barry Wellman's (1979) "The Community Question: The Intimate Networks of East Yorkers"which determined the function and position of the individual, institution and community in the urban landscape in relation to their community. Wellman's categorization and incorporation of community focused theories as "Community Lost", "Community Saved", and "Community Liberated" which centreon the structure of the urban community in shaping interactions between individuals and facilitating active participation in the local community.

The 'community lost'concept was developed in the late 19th century to account for the rapid development of industrial patterns that seemingly caused rifts between the individual and their local community. Urbanites were claimed to hold networks that were “impersonal, transitory and segmental”, maintaining ties in multiple social networks while at the same time lacking

the strong ties that bound them to any specific group. The 'community saved' concept suggests that multi-stranded ties often emerge in sparsely-knit communities as time goes on, and that urban communities often possess these strong ties, albeit in different forms. Especially among low-income communities, individuals have a tendency to adapt to their environment and pool resources in order to protect themselves collectively against structural changes. Over time, therefore, urban communities have tendencies to become "urban villages".

The 'community liberated' concept suggests that the separation of workplace, residence and familial kinship groups has caused urbanites to maintain weak ties in multiple community groups that are further weakened by high rates of residential mobility. However, the concentrated numbers of environments present in the city for interaction increase the likelihood of individuals developing secondary ties, even if they simultaneously maintain distance from tightly-knit communities.

Along with the development of these theories, urban sociologists began to study the differences between the urban, rural and suburban environment. Researchers discovered that urban residents tend to maintain more spatially-dispersed networks of ties than rural or suburban residents. Among lower-income urban residents, the lack of mobility and communal space within the city often disrupted the formation of social ties and lent itself to creating an un-integrated and distant community space. In the 1970s and onwards, research into social networks focused primarily on the types of ties developed within residential environments. Bonding ties among tightly-knit neighbourhoods consisted of connections that provided an individual with primary support, such as access to income or upward mobility among a neighbourhood organization. Bridging ties, in contrast, were ties that weakly connected strong networks of individuals together.

However, as theory surrounding social networks has developed, sociologists such as Alejandro Portes and the Wisconsin model of sociological research began placing increased leverage on the importance of these weak ties. While strong ties are necessary for providing residents with primary services and a sense of community, weak ties bring together elements of different cultural and economic landscapes in solving problems affecting a great number of individuals. As theorist Eric Oliver notes, neighbourhoods with vast social networks are also those that most commonly rely on heterogeneous support in problem solving, and are also the most politically active.

As the suburban landscape developed during the 20th century and the outer city became a refuge for the wealthy and, later, the burgeoning middle class, sociologists and urban geographers such as Harvey Molotch, David Harvey and Neil Smith began to study the structure and revitalization of the most impoverished areas of the inner city. In their research, impoverished neighbourhoods, which often rely on tightly-knit local ties for economic and social support, were found to be targeted by developers for gentrification which displaced residents living within these communities. Research covering the social impact of forced movement among these residents noted the difficulties individuals often faced with maintaining a level of economic comfort, which was spurred by rising land values and inter-urban competition between cities as a means to attract capital investment. The interaction between inner-city dwellers and middle class passersby in such settings has also been a topic of study for urban sociologists.

Some of the cited theories have been subjected to criticism, particularly the ethnocentric approaches taken by many early theorists that lay groundwork for urban studies throughout the 20th century. Early theories that sought to frame the city as an adaptable "superorganism" often disregarded the intricate roles of social ties within local communities, suggesting that the urban environment itself rather than the individuals living within it controlled the spread and shape of the city. For impoverished inner-city residents, the role of highway planning policies and other government-spurred initiatives instituted by the planner Robert Moses and others have been criticized as unsightly and unresponsive to residential needs. Some modern social theorists have also been critical toward the apparent shortsightedness that urban sociologists have shown toward the role of culture in the inner city. William Julius Wilson has criticized theories developed in the middle of the twentieth century as relying primarily on structural roles of institutions, and not how culture itself affects common aspects of inner-city life such as poverty. The distance shown toward this topic, he argues, presents an incomplete picture of inner-city life.

1.6. Rural-Urban Continuum Perspectives

Some sociologists have used the concept of rural-urban continuum to stress the idea that there are no sharp breaking points to be found in the degree or quantity of rural-urban differences. Robert Redfield gave the concept of rural -urban continuum on the basis of his study of Mexican peasants of Tepoztlain. He believed that the rapid progress of urbanization

through the establishment of industries, urban traits and facilities have decreased the differences between villages and cities. Other sociologists, on the other hand, stress the dichotomies between the two and emphasize differences such as occupational differences, environmental differences, differences in the sizes of communities, differences in the density of population, differences in social mobility and direction of migration, differences in social stratification and in the systems of social interaction.

Redfield also studied four communities through field work in the Yucatan peninsula from 1927 to 1936. He arrived at certain conclusions on the basis of his studies and combined these observed characteristics into three major categories of urban change: (a) the increase in cultural disorganization, (b) the increase in secularization, and (c) the increase in individualization. He saw cultural disorganization as a concomitant of urbanization because he believed that the strong ties that integrated the individual into the fold or peasant community were inevitably loosened or destroyed by the growth of urban society. "Folk society in which the same kind of people are doing the same kind of thing" created an unambiguous, monolithic social structure which was destroyed by the growth of the city. The single social fabric of meanings typical of folk communities are torn and replaced by that of the numerous goals, actions and meanings of urban society. The wholeness of folk culture in which all cultural elements were related, became a cultural patch work in urban society. As a result, conflict and disorganization were the marks of urban culture.

Cities and towns were more secular in their values than were villages. Secularization lessened the importance of the Church and of the religion in society and emphasized rational and practical judgements. The individual was free from traditional control. Collective functions disappeared and individual activity increased in the urban society. The extended family with its widespread network of obligations was reduced to a small, nuclear and self-contained unit. Decline of religion and its control gave the individual more freedom from social ties of the folk society. Urbanization increased individualization. Redfield's folk-urban continuum explains the process of evolutionary change which describes how little communities give way to larger, urban secular society.

A third view regarding rural and urban communities has been given by Pocock who believed that both village and city are elements of the same civilization and hence neither rural urban dichotomy, nor continuum is meaningful. M.S.A. Rao points out in

the Indian context that although both village and town formed part of the same civilization characterized by institution of kinship and caste system in pre-British India, there were certain specific institutional forms and organizational ways distinguishing social and cultural life in towns from those in villages. Thus, according to Rao, rural urban continuum makes more sense.

Maclver remarks that though the communities are normally divided into rural and urban, the line of demarcation is not always clear between these two types of communities. There is no sharp demarcation to tell where the city ends and country begins. Every village possesses some elements of the city and every city carries some features of the village. R. K Mukherjee, however, prefers the continuum model by talking of the degree of urbanization as a useful conceptual tool for understanding rural-urban relations. P. A Sorokin and Zimmerman in 'Principles of Rural-Urban sociology has stated that the factors distinguishing rural from urban communities include occupation, size and density of population as well as mobility, differentiation and stratification.

Walter Christaller explained the location of cities in terms of their functions as service centres. The basic assumption was that a given rural area supports an urban centre which in turn serves the surrounding countryside. There are smaller towns for smaller areas and bigger cities for larger regions. This concept permitted Christaller to build up an integrated system of cities according to their size. His viewsconceiving a city as a central place within a rural area was elaborated by Edward L. Ullman with considerable modifications. He admits the vulnerability of the scheme for larger places. In highly industrialized areas the central place scheme is generally so distorted by industrial concentration in response to resources and transportation that it may be said to have little significance.

1.7 Theory Snapshot

The various theoretical sociological perspectives, for the sake of a sharper and briefer understanding can be looked at through the 'Theory Snapshot Table' below: **Table 1.1**

In the following paragraphs, an attempt has been made to provide a concise explanation of each theoretical perspective and their key assumptions.

Functionalism: A basic debate within the functionalist perspective centres on the relative merits of cities and urbanization: In what ways and to what extent are cities useful (functional) for society, and in what ways and to what extent are cities disadvantageous and even harmful (dysfunctional) for society? Put more

simply, are cities good or bad? In essence, there is no one answer to this question, because cities are too complex for a simple answer. Cities are both good and bad. They are sites of culture, population diversity, and creativity.

Conflict Theory: While functionalism has mixed views about the benefits and disadvantages of cities and urban life and thus of urbanization, the views of conflict theory are uniformly critical. It assumes a basic conflict between society's "haves" and "have-nots," or between the economic and political elites and the poor and people of colour. This type of conflict, says the conflict theory, manifests itself especially in the nation's cities, in which the "haves" and "have-nots" live very different lives. On the one hand, the rich live in luxurious

Table 1.1 Theory Snapshot

Theoretical perspective	Major assumptions
Functionalism	Cities serve many important functions for society but also have their dysfunctions. Functionalist theorists differ on the relative merits and disadvantages of urban life, and in particular on the degree to which a sense of community and social bonding exists within cities.
Conflict theory	Cities are run by political and economic elites that use their resources to enrich their positions and to take resources from the poor and people of colour. The diversity of social backgrounds found in cities contributes to conflict over norms and values.
Symbolic interactionism	City residents differ in their types of interaction and perceptions of urban life. Cities are not chaotic places but rather locations in which strong norms and values exist.

apartments and work in high-rise corporate buildings, and they dine at the finest restaurants and shop at the most expensive stores. On the other hand, the poor and people of colour live in dilapidated housing and can often barely make ends meet.

Beyond this basic disparity of city life, conflict theorists add that the diverse backgrounds and interests of city residents often lead to conflict because some residents' beliefs and practices clash with those of other residents. More recent applications of

conflict theory to urbanization emphasize the importance of political economy, or the interaction of political and economic institutions and processes. In this way of thinking, political and economic elites in a city (bankers, real estate investors, politicians, and others) collaborate to advance their respective interests. Thus urban development often takes the form of displacing poor urban residents from their homes so that condominiums, high-rise banks and other corporate buildings, posh shopping malls, or other buildings favouring the rich can be built. More generally, these elites treat cities as settings for the growth of their wealth and power, rather than as settings where real people live, go to school, work at a job, and have friends and acquaintances.

Symbolic Interactionism: Symbolic interactionism is a view that focuses on the nature of urban residents' interaction with each other, the reasons for their patterns of interaction, and their perceptions of various aspects of urban life. Their work has yielded many rich, vivid descriptions of the urban life. Many and probably most of these accounts have concerned the lives of the poor and of people of colour. This view depicts cities as places where various norms and values prevail, in contrast to views of cities that depict them as wild, chaotic places. Building on these more positive accounts, recent work by sociologist Elijah Anderson emphasizes that most poor urban residents are decent, law-abiding people. He also emphasizes that cities are filled with parks and other public settings in which people from different racial and socioeconomic backgrounds gather every day and interact in various ways that help foster interracial understanding. Anderson calls these settings "cosmopolitan canopies," and says they "offer a respite from the lingering tensions of urban life and an opportunity for diverse peoples to come together…Through personal observation, they may come casually to appreciate one another's differences and empathize with the other in a spirit of humanity" (Anderson, 2011).

Other work in the symbolic interactionist tradition seeks to understand the different lifestyles of city residents. Sociologist Herbert Gans (1982)authored a classic typology of urban residents based on their differing lifestyles and experiences. Gans identified five types of city residents.

The first type is *cosmopolites*. These are people who live in a city because of its cultural attractions, restaurants, and other features of the best that a city has to offer. Cosmopolites include students, writers, musicians, and intellectuals. *Unmarried and childless* individuals and couples are the second type; they live in a city to be near their jobs and to

enjoy the various kinds of entertainment found in most cities. If and when they marry or have children, respectively, many migrate to the suburbs to raise their families. The third type is ethnic villagers, who are recent immigrants and members of various ethnic groups who live among each other in certain neighbourhoods. These neighbourhoods tend to have strong social bonds and more generally a strong sense of community. Gans wrote that all these three types generally find the city inviting rather than alienating and have positive experiences far more often than negative ones.

In contrast, two final types of residents find the city alienating and experience a low quality of life. The first of these two types, and the fourth overall, is the deprived. These are people with low levels of formal education who live in poverty or near poverty and are unemployed, are underemployed, or work at low wages. They live in neighbourhoods filled with trash, broken windows, and other signs of disorder. They commit high rates of crime and also have high rates of victimization by crime. The final type is the trapped. These are residents who, as their name implies, might wish to leave their neighbourhoods but are unable to do so for several reasons: they may be alcoholics or drug addicts, they may be elderly and disabled, or they may be jobless and cannot afford to move to a better area.

1.8 India and Indian Sociologists related to urbanization

M.S.A. Rao (1970) analyzes urbanization and urbanism keeping in mind the larger social structures of Indian society. For him, urbanism is a heterogeneous process and hence there can be many forms of urbanisms giving rise to many types of urbanization. Rao states that the dichotomy between cities and villages is incorrect as both have the same structural features of caste and kinship and are parts of the same civilization. Moreover, urbanization and westernization are not identical and should not be confused. Urbanization does not lead to the breakdown of traditional structures of caste and joint family. The traditional and modern structures coexist in the urban milieu because of which various types of urbanisms exist – post-industrial, preindustrial, western, non-western etc. Further, urbanization is seen in relation tosocial change and no real social transformation is associated with it. However, due to urbanization new forms of social organization and association have emerged. Thus, for Rao, urbanization is a complex, multifaceted process comprising ideological, cultural, historical, demographic and traditional sociological elements. Rao defines a city as a centre of urbanization and urban way of life. Urbanization is a two way process. Urbanization in India is

not a uniform process but occurs along different axes - administrative, political, commercial, religious and educational - giving rise to several types of urbanisms. These different axes give rise to different types of contact which the city has with the villagers leading to distinct patterns of urbanization.

He distinguishes three kinds of situations of social change in rural areas resulting from urbanization: villages near an industrial town, villages with a sizable number of emigrants working in towns and cities, and villages on the metropolitan fringe. Rao believed that through the study of migration, one could observe the similarities, dissimilarities and continuity between villages and towns. Rao's sociological approach is the most complete approach to the study of urbanization because he tries to examine them in all their different facets and relate these facets to one another and to a sociological understanding of urbanism and urbanization.

Ashish Bose's demographic classification emphasizes quantitative factors like demography rather than qualitative factors in defining urbanization. For him, urbanization, in the demographic sense, is an increase in the proportion of the urban population (U) to the total population (T) over a period of time. As long as U/T increases there is urbanization. The process of urbanization is a continuing process which is not merely a concomitant of industrialization but a concomitant of the whole gamut of factors underlying the process of economic growth and social change.

Bose outlines the characteristic features of urbanization in India. He made a decade-wise differentiation in terms of percentage of urbanization. Here urbanization is affected by trends in migration. He recognizes the push-back and turn-over factors of migration. He considered four variables affecting urban growth:

a) Proportion of new towns to total urban population;

b) Proportion of declassified towns to the total population;

c) Proportion of declining towns to the total population;

d) Proportion of rapidly growing towns to the total urban population.

Bose believes that only when these are combined will it be possible to analyze the process of urbanization in India. Bose uses the concepts of towns and cities interchangeably.

1.9 Social Effects of Urbanization in India

The impact of urbanisation on larger societal processes and structures has been the subject of interest of urban

sociologists who have studied this country.

Family and kinship: Urbanization has been seen to affect not only the family structure but also intra and inter family relations, including the functions the family performs. With urbanization, there is a disruption of the bonds of community and the migrant faces problems of replacing old relationships with new ones and to find a satisfactory means of continuing relationship with those left behind. Several empirical studies of urban families conducted by scholars like I.P. Desai, Kapadia and Aileen Ross, have pointed out that urban joint family is being gradually replaced by nuclear family. The size of the family is shrinking, and kinship relationship is confined to two or three generations only. In his study of 423 families in Mahuva town in Gujrat, I.P. Desai (1964) showed that though the structure of urban family is changing, the spirit of individualism is not growing in the families. He found that 74 percent families were residentially nuclear but functionally and in property joint, and 21 percent were joint in residence and functioning as well as in property and 5 percent families were nuclear. Kapadia (1959) in his study of 1,162 families in rural and urban (Navsari) areas in Gujrat found that while in rural areas, for every two nuclear families there were three joint families; in urban areas, nuclear families were 10 percent more than joint families.

Aileen Ross (1962) in her study of 157 Hindu families belonging to middle and upper classes in Bangalore found that

1. about 60 percent of the families are nuclear
2. today's trend is a break with traditional joint family into the nuclearfamily unit.
3. Small joint family is now the most typical form of family life in urban India.
4. Relations with one's distant kin are weakening or breaking.

Though intra-family and inter-family relations are changing, it does not mean that youngsters no longer respect their elders, or children completely ignore their obligations to their parents and siblings, or wives challenge the authority of their husbands. One important change is that 'husband-dominant' family is being replaced by 'egalitarian family' where wife is given a share in the decision-making process. I.P. Desai maintains that'in spite of strains between the younger and older generations, the attachment of the children to their families is seldom weakened'.

Sylvia Vatuk maintains that the ideal of family “jointness” is still

upheld although living separate. The extended family acts as a ceremonial unit and close ties with the members of extended family are maintained. Also, larger kinship clusters including groups of bilaterally related household within the same or closely adjacent mohallas exist. There is a tendency towards bilateral kinship in urban areas. In her study of Rayapur in 1974-1976, Vatuk mentions the increasing tendencies toward individualizing the marital bond and decline of practices such as widow inheritance, widow remarriage, marriage by exchange, polygyny etc. The impact of urbanization is also seen in the urban pattern of increasingly homogenized values and ways of behaviour.

Thus, gradual modification of the family structure in urban India is taking place such as diminishing size of the family, reduction in functions of family, emphasis on conjugal relationship etc. Kinship is an important principle of social organisation in cities and there is structural congruity between joint family on the one hand and requirements of industrial and urban life on the other. In his study of nineteen families of outstanding business leaders in Madras, Milton Singer(1968) argues that a modified version of traditional Indian joint family is consistent with urban and industrial setting.

Urbanization and Caste: It is generally held that caste is a rural phenomenon whereas class is urban and that with urbanization, caste transforms itself into class. But it is necessary to note that the caste system exists in cities as much as it does in villages although there are significant organisational differences. Caste identity tends to diminish with urbanization, education and the development of an orientation towards individual achievement and modern status symbols. Andre Beteille (1966) has pointed out that among the westernized elite, class ties are much more important than caste ties.

A noticeable change today is the fusion of sub-castes and fusion of castes. Kolenda (1984) has identified three kinds of fusion: (i) on the job and in newer neighbourhood in the city, persons of different sub-castes and of different castes meet; (ii) inter-sub-caste marriages take place, promoting a fusion of sub-castes; (iii) democratic politics also fosters the fusion of sub-castes.Studies of many sociologists like Srinivas (1962), Ghurye (1962), Gore (1970), D'Souza (1974), Rao (1974), have shown that caste system continues to persist and exert its influence in some sectors of urban social life while it has changed its form in some other sectors. Caste solidarity is not as strong in urban areas as in the rural areas. Caste panchayats are very weak in cities. There exists a dichotomy between workplace and domestic situation and both caste and class situations co-exist.

In respect to the change in the distribution of power, we find that in pre-British India, upper caste was also the upper class. But with education and new types of occupations, this correlation of caste and class is no longer true. Beteille (1971) pointed out that higher caste does not always imply higher class. This disharmony is most often found in the Indian cities where new job opportunities have developed.

In many ways the vitality of caste system seems to hold. The most powerful role that caste identity is playing is in politics which governs the power dimension. Caste acts as a 'vote bank' in both rural and urban areas. Caste also becomes a basis for organising trade union like associations, which serves as interest groups that protect the rights and interest of its caste members. Certain aspects of behaviour associated with caste ideology have now almost disappeared in cities. Rules of inter-dining among castes have little meaning and the frequency of inter-caste marriages has increased.

Neighbourhood interaction in urban settlements is marked by a high degree of informality and caste and kinship are major basis of such participation. Lynch's (1967) study of an untouchable caste, Jatavs, in Agra showed that Jatavs had well-knit mohalla (ward) organization which resembled a village community in many respects. Doshi's (1968) study of two caste wards in the city of Ahmedabad also refers to the traditional community organization.

Urbanization and Status of Women: Women constitute an important section of rural urban migrants. They migrate at the time of marriage and also when they are potential workers in the place of destination (Rao). While middle class women get employed in white collar jobs and professions, lower class women find jobs in the informal sector. Women are also found in the formal sector as industrial workers. The onslaught of forces of rapid industrialization in a patriarchal social system led men to move out in order to qualify for the labour market by acquiring specialized skills. Women were traditionally relegated to the informal and family setting.

But many positive developments took place in the socio-economic lives of women as a result of increasing urbanization. Increasing number of women have taken to white-collar jobs and entered different professions. These professions were instrumental in enhancing the social and economic status of women, thereby meaning increased and rigorous hours of work, professional loyalty along with increased autonomy. The traditional and cultural institutions remaining the same, crises of values and a confusion

of norms have finally resulted. The personally and socially enlightened woman is forced to perform dual roles - the social and the professional roles Gore (1968), Kapur (1970), Ross (1983).

In the cities of India, high level education among girls is significantly associated with the smaller family size. Though education of women has risen the age of marriage and lowered the birth rate, it has not brought about any radical change in the traditional pattern of arranged marriages with dowry. Margaret Cormack (1961) found in her study of 500 university students that girls were ready to go to college and mix with boys but they wanted their parents to arrange their marriage. Women want new opportunities but demand old securities as well. The status of urban women, because of being comparatively educated and liberal, is higher than that of rural women. However, in the labour market, women are still in a disadvantaged situation. D'Souza (1963) reveals the psychological, household and social problems to which they are exposed.

Urbanization and Rural Life: Urbanization through migration to urban centres is a global phenomenon. Many migrate to cities because of the availability of jobs there. Migration has become a continuous process affecting the social, economic and cultural lives of the villagers. Rao (1974) examined the social changes in a metropolitan fringe village (Yadavpur). He distinguished three kinds of situations of social change in rural areas resulting from urbanization:

1. In villages from where a large number of people have sought employment in far offcities, urban employment becomes a symbol of higher social prestige.

2. In villages that are situated near an industrial town with a sizable number of migrants working in towns and cities, such persons face the problems of housing, marketing and social ordering.

3. The growth of metropolitan cities accounts for the third type of urban impact on the surrounding villages. As the city expands, some villages become rural pockets in the city areas. Hence the villagers participate directly in the economic, political and social activities, and cultural life of the city.

Srinivas (1962) outlined the general impact of both industrialisation and urbanization on villages. He showed how the different areas of social life are being affected by urban influences. He pointed out that migration in South India has had a caste component as it was the Brahmins who first left their villages for towns and took advantage of western education

and modern professions. At the same time as they retained their ancestral lands and they continued to be at the top of the rural socio-economic hierarchy. Again, in the urban areas they had a near monopoly of all non-manual posts.

Majumdar (1958) in his study of Mohana village near Lucknow, noted that the village economy is influenced by the urban market, although in an indirect way. Eames' (1954) study of a village in U.P. showed that many emigrants have left their families behind, and they regularly send money home. Such a 'money-order economy' has enabled the dependents to clear off loans, build houses and educate their children. R.D. Lambert (1962) in his extensive review of studies concerning the impact of urban society upon village life, points out different degrees of urban influence on therural life. Social changes are maximal in areas where displacement is sudden and substantial due to urbanization.

Thus migration is a key process underlying the growth of urbanization. Far from being a mechanical process, it is governed by economic, social and cultural factors. This culture contact initiates certain processes of interaction and different modes of social adjustment in urban areas. Migration has acquired a special significance in the context of commercialization of agriculture; it has major implications for urbanization, slums and social change; it has notable feed-back effects on the place of origin, as the migrants maintain different kinds and degrees of contact, thus increasing the continuity between rural and urban areas. Many cultural traits are diffused from one area to another. Also, new thoughts, ideologies are diffused from the cities to the rural areas due to increase in communication via radio, television, newspaper etc.

Urban Politics: Rao (1974) has identified four problem areas in the study of political institutions, organization and processes in the urban context: 1)Formal political structure 2)Informal political organizations, 3)Small town politics and 4)Violence.

There is the formal political structure, municipal or corporation government where national, regional and local political parties compete for positions of power. Lloyd Rudolph's (1961) essay on Populist Government in Madras outlines the struggle for power in the Madras Corporation and shows the decisive dominance of the D.M.K, a regional political party. It also reveals the control exercised by the party leaders in the context of the anti-Brahmin movement and the populist support the party has acquired. The study brings out clearly the relationship between urbanization and the changing power structure.

Besides formal structures of power, informal political organisations

operate through caste, religious and sectarian groups, and occupational categories. Associations formed on these lines acquire political dimensions in so far as they act as pressure groups, and in some cases they even form part of organized political parties. Lynch's (1968) study of the Politics of Untouchability describes the processes by which the Jatavs became a politically viable group in Agra city. It is significant to note that they form part of the Republican Party to compete for positions of power at the city, state and national levels.

A third aspect of politics in the urban context refers to the small town politics where elites, factions or ethnic groups, more than political parties, are significant in understanding the power structure. Ethnic groups get politicized and act as vote banks and pressure groups articulating their interests, and complete for various benefits of urban life. This results in a situation of conflict between ethnic groups and between the migrant ethnic groups and the locals. A.C. Mayer (1953) in his study of municipal elections in Devas in Madhya Pradesh analysed the networks and 'action-sets' of influential leaders. R.G. Fox (1969) showed that a Muslim-Bania conflict characterizes the politics in a small town in Uttar Pradesh. There has been a shift in the authority from the Muslim zamindars to enterprising banias (merchants).

Another important feature of urban politics is violence resulting from communal conflict, political disturbance, student strikes and regional armies such as the Shiv Sena in Bombay. Besides these problems of urban violence, Tangri (1962) and Kothari (1970) have drawn attention to the political implications of urbanization. Different conflict situations have arisen with the growth of urbanization such as unemployment and slums which contribute to political instability.

Owen M Lynch (1980) studied the political mobilization and ethnicity among the Adi-Dravidas in a Bombay slum, who are a low-ranking caste from southern India and who have migrated to Bombay. Here, different political parties compete for their votes. One party calls on them to identify as 'untouchables' on all-India basis; another party bids them to remember their South Indian roots. The way in which the Adi-Dravidas define themselves politically is thus related both to their position in Bombay as rural migrants from another region and to their caste.

In summation, it could be stated in broad terms that the process of urbanization is bringing about certain sociological changes that need to be further studied. While caste and kinship still matter in cities, there is a degree of weakness witnessed and there is

additionally the emergence of class as a strong force. The family is undergoing change and though some forms of a modified joint family system still holds, the nuclear family is increasingly becoming the norm. Women in cities have greater education and are moving up the job ladder. Inter-caste marriages are happening and a number of social changes are taking place in the peripheral villages.

1.10 Urban Sociology in the 21st Century

The twenty-first century mega cities are being marked by the manifestation of some novel developments. Saskia Sassen in her paper 'Urban sociology in the 21st century' states as follows: "Most of social life in cities probably still corresponds to older continuing and familiar trends. That is why much of urban sociology's traditions and well-established subfields will remain important and continue to constitute the heart of this discipline. At the same time, if one were confined to traditional concepts of urban sociology, one would overlook or underestimate critical aspects of major new trends coming together in a growing number of cities."

One major trend is that 'multiple globalization processes assume tangible localized forms; electronic networks intersect with thick environments, and new subjectivities arise from encounters of people from all around the world. Thus today's large cities have emerged as a strategic site for a whole range of operations, particularly pertaining to the global economy. This trend is accompanied by "a major shift among state policy toward targeting particular sub-national spaces for development and resource allocation— and away from the promotion of convergence in national territorial development. Particular types of cities and advanced high-tech industrial districts are two of the main targets, with global cities and "silicon valleys" the most extreme instances. This shift toward privileging particular subnational spaces partly arises from globalization and the new information technologies."

"To this we can add a second critical trend associated and enabled by globalization and the expanding presence of the new information technologies in all domains of social life: the emergence of new cultural forms that cannot be contained exclusively within national framings, such as global imaginaries and cultural transnationalisms….. While these trends today may hold especially for major cities, they are directly or indirectly affecting a rapidly growing range of diverse types of cities. ….These are having the effect of partly denationalizing urban space. What gets revealed to sociologists through these conditions is that cities are now nodes,

where a variety of economic, political and subjective processes intersect in particularly pronounced concentrations. A large city is becoming one of the spaces of the global, and it engages the global directly and there is therefore the emergence of a global civil society." These developments are preponderant in the cities of the developed world but are also present in the developing world.

The growth of information industries and telecommunications led some people to argue the demise of cities as firms and workers could remain connected and work from any place. This was because there was visible dispersal of economic activities outside the cities. At the same time, quite the opposite trend of concentrated specialized professional activities and top-level management and control operationswithin cities was also visible. This was on account of place-centred processes that needed to happen within cities. Many cities witnessed their highest growth rate in decades through the concentration of high-end offices, shopping, hotel and entertainment and residential apartments. This seems to have happened on account of complexities of economic transactions thrown up by globalization and cities emerging as key sites for the production of services. There is the formation of a new urban economic core of high-level management and specialized service activities replacing the older, typically manufacturing- oriented office core. At the same time, these cities compete with each other and service each other on the global scale.

At the same time, rather surprisingly, there was witnessed "the multiplication of low-wage jobs and low-profit economic sectors. This whole new workforce, often increasingly immigrant and minoritized citizens, who take on the functions once performed by the mother or wife of the older middle classes." These poorer economic sectors have had to compete for space and have experienced displacement.

A growing service intensity has also been seen in the organization of all industries. This development "has contributed to a massive growth in the demand for services by firms in all industries, from mining and manufacturing to finance and consumer services. Cities are key sites for the production of services for firms. Hence, the increase in service intensity in the organization of all industries has had a significant growth effect on cities beginning in the 1980s. It is important to recognize that this growth in services for firms is evident in cities at different levels of a nation's urban system. Some of these cities cater to regional or subnational markets, others cater to national markets, and yet others cater to global markets."

The "implantation of global processes and markets has meant that the internationalized sector of the economy has expanded sharply and has imposed a new valorization dynamic—that is, a new set of criteria for valuing or pricing various economic activities and outcomes. This has had devastating effects on large sectors of the urban economy. High prices and profit levels in the internationalized sector and its ancillary activities, such as top-of-the-line restaurants and hotels, have made it increasingly difficult for other sectors to compete for space and investments. Many of these other sectors have experienced considerable downgrading and/or displacement; for example, neighborhood shops tailored to local needs are replaced by upscale boutiques and restaurants catering to the new high-income urban elite.

A related question in urbanization is the one of primate cities, especially in the context of Latin America and the Carribean. Primacy is not simply a matter of absolute size, nor is large size a marker of primacy. "Primacy is a relative condition that holds within a national urban system. The disintegration of rural economies, including the displacement of small landholders by expanding large-scale commercial agriculture, and the continuing inequalities in the spatial distribution of institutional resources are generally recognized as key factors strengthening primacy." In terms of the impact of economic globalization on cities there has been a contribution "to the development of new growth poles outside the major urban agglomerations. In others, it has actually raised the weight of primate urban agglomerations, in that the new growth poles were developed in these areas. The implantation of global processes seems to have contributed to sharpening the separation between cities, or sectors within cities, that are articulated with the global economy and those that are not. This is a new type of interurban inequality, one not predicated on old hierarchies of city size. The new inequality differs from the long-standing forms of inequality present in cities and national urban systems because of the extent to which it results from the implantation of a global dynamic, be it the internationalization of production and finance or international tourism".

It is also interesting to note that both globalization and the international human rights regime have contributed to create operational and legal openings for non-state actors to enter international arenas once exclusive to national states. "Various, often as yet very minor developments, signal that the state is no longer the exclusive subject for international law or the only actor in international relations. Other actors—from nongovernmental organizations and First-Nation peoples

to immigrants and refugees who become subjects of adjudication in human rights decisions—are increasingly emerging as subjects of international law and actors in international relations. That is to say, these nonstate actors can gain visibility as individuals and as collectivities, and come out of the invisibility of aggregate membership in a nation-state exclusively represented by the state."

In summary, three broad outcomes can be listed as outcomes of twenty-first century urban dynamics that are leading to an emergent scholarship in urban sociology that has been focusing on these issues through the lens of global and world cities. Firstly, while urban systems are meant to be national, they havein reality become strategic sites in the global economy and in some ways disengage them selves from their region and their national urban systems, thereby undermining a key proposition in traditional scholarship about urban systems. Secondly, certain propensities are contributing to new forms of inequality among cities and within cities. While these types of inequality have been part of the character of cities since their inception, they are now getting sharpened due to the impact of advanced economic sectors and high-level professional classes. of an increasing number of cities. Thirdly, there is the emergence of a broad set of cross-border networks involving the poor, challenging the hypothesis that the urban poor are not part of larger networks. These are among the several challenges that urban sociology confronts as we enter the twenty-first century.

References

1. Anderson, E. (2011). *The cosmopolitan canopy: Race and civility in everyday life.* New York, NY: W. W. Norton.

2. Burgess, E., "The growth of the city: an introduction to a research project," in Park, R. E. (ed) *The City,* Chicago: The University of Chicago Press, pp. 47-62, 1925Flanagan, W., Contemporary Urban Sociology Cambridge: University of Cambridge, 1993.

3. Caro, R., *The Power Broker: Robert Moses and the Fall of New York Vintage: New York,* 1975.

4. Carter;, Mitchell Duneier; with photographs by Ovie; Hasan, an afterword by Hakim (2001). *Sidewalk* (1st paperback ed. ed.). New York: Farrar, Straus and Giroux. ISBN 0374527253.

5. Dromi, Shai M. (December 2012). "Penny for your Thoughts: Beggars and the Exercise of Morality in Daily Life". *Sociological Forum*27 (4): 847–871. doi:10.1111/j.1573-7861.2012.01359.x. Retrieved November 18, 2012.

6. Gans, H. J. (1982). *The urban villagers: Group and class in the life of Italian-Americans* (Updated and expanded ed.). New York, NY: Free Press

7. Granovetter, M., "The Strength of Weak Ties", *American Journal of Sociology,*78(6), 1360-1380, 1973.

8. Harvey, D., "From Managerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism". *Geografiska Annaler. Series B, Human Geography,* 71, pp. 3-17, 1989.

9. Martin, D.G., "Chicago School" in D. Gregory, R. Johnston, G. Pratt, M. Watts and S. Whatmore, eds., *The Dictionary of Human Geography,* London: Blackwell, 2009.

10. Mishra, R. P., 1998. Urbanization in India: Challenges and Opportunities, Regency Publications, New Delhi.

11. Molotch, H., "The City as a Growth Machine: Toward a Political Economy of Place". *American Journal of Sociology,* 82(2), pp. 309–332, 1976.

12. Oliver, E., *Democracy in Suburbia* Connecticut: Princeton University Press, 2001.

13. Park, R., *The City: Suggestions for Investigation of Human Behavior in the Urban Environment* Chicago: University of Chicago Press, 1984.

14. Portes, A., and Sensenbrenner, J.,"Embeddedness and immigration: notes on the social determinants of economic action," *American Journal of Sociology,* 98, pp. 1320-1350, 1993.

15. Ramachandran, R., 1989. Urbanization and Urban Systems In India, OUP, Delhi.

16. Rao, M .S. A. (ed.), 1974. Urban Sociology in India, Orient Longman, New Delhi.

17. Sassen, S., *New frontiers facing urban sociology at the millennium* The British Journal of Sociology: Volume 51, Number 1, 2000.

18. Smith, N., *The New Urban Frontier: Gentrification and the Revanchist City,* London: Routledge, 1996.

19. Trepl, L., *City and Ecology* Capitalism Nature Socialism: Volume 7, Number 2, 1996.

20. Well man, B., *The Community Question: The Intimate Networks of East Yorkers* American Journal of Sociology: Volume 84, Number 4, 1979.

21. Wirth, L., *Urbanism as a Way of Life* The American Journal of Sociology: Volume 44, Number 1, 1938.

22. 21st Century Sociology, Chapter 48, edited by Clifton D Bryant & Dennis L Peck, Sage Publications, 2008.

The Social Pillars of Sustainable Development: A Framework for Policy Analysis

Mukesh Kanaskar
Sunita M. Bhole

Introduction

The concept of sustainable development (SD) generally refers to achieving a balance among the environmental, economic, and social pillars of sustain ability. However the meaning and associated objectives of the social pillar remained vague since its inception. Indeed, it has been described as the most conceptually elusive pillar in SD discourse (Thin, 2002). Moreover, the social dimensions of sustain ability have not received the same treatment as the other two pillars and there are various interpretations regarding what issues should be addressed. The selection of social measures in sustainable development indicator sets (SDIs) is often a function of power rather than policy coherence, as influential groups are more likely to have their concerns included. These indicators reflect different sociocultural priorities and as such are often picked for political rather than scientific reasons (Fahey, 1995).

These ambiguities suggest that a greater understanding of the social pillar of SD is desirable. The literature also indicates that it is necessary to develop greater linkage between the social and environmental pillars. This article contributes to establishing such connections by presenting a conceptual framework for understanding the social pillar and outlining its environmental implications. A review of eight bodies of literature related to SD suggests four pre-eminent policy concepts.

The literature highlights the relatively limited treatment afforded to the social pillar. In particular, SDIs and the social sustain ability literature present us with policy concepts and objectives specifically identified as "social" and represent a significant contribution to how the social pillar is conceived. However, it is argued that establishing clearer links with the environmental pillar will further enhance this concept, an argument rooted in an understanding of SD as a

concept requiring interpillar linkages. In this respect, the links between the social and environmental pillars are particularly underdeveloped. It is therefore useful to expand the parameters of the social pillar by connecting it empirically to environmental imperatives. Furthermore, while existing approaches tend to present the social pillar in terms of national welfare objectives for current generations, it is useful to broaden the understanding of the social to incorporate international and intergenerational dimensions. In doing so,a policy framework emerges that provides the basis for an alternative set of social indicators to those specified in international SDIs or implied in the social sustain ability literature. This approach constitutes a set of policy objectives that have clear social and environmental dimensions. The framework may be employed to conduct an empirical analysis of how different states and organizations understand the social pillar and to what extent they develop social/environmental links.

Constructing a Social Pillar

The proposed framework is built from social concepts and policy objectives derived from the literature described in Table 1. This literature was reviewed to explore how the "social" in SD debates is variously understood and, as such, it provides the basis upon which a social pillar of SD is constructed. As this is not an exhaustive record of all documents reviewed, it identifies primary texts in each branch of literature.

Section 1 of Table 1 refers to key UN policy statements regarding the meaning of SD and its associated policy objectives. The section 2 summarizes key European policy statements on SD. The section 3 identifies important multilateral SDI sets that are specifically relatedwith social concerns and how progress in these policy areas might be measured and section 4 highlights literature that specifically focuses on the social aspects of SD.

Section 5 draws on texts from the social policy literature that specifically seek to establish relationships between welfare issues and environmental concerns and section 6 underscores significant work from the environmental justice literature, which highlights the disproportionate burden faced by low income or vulnerable groups regarding the distribution of environmental risks (or "bads"). Section 7 refers to central texts in the ecological modernization literature. Section 8 refers to salient research in the Environmental Policy Integration (EPI) literature, which is focused on enhancing the compatibility of sectoral policy objectives with environmental objectives.

These eight bodies of literature provide the foundations of the conception of

the "social pillar" outlined in this article. They were selected on the basis that they fulfill one or more of the following criteria: they are influential texts in SD discourse; they discuss the social objectives of SD; and they examine the relationships between social and environmental policy.

Table 1 Literature that provides the building blocks of a social pillar of sustainable development.

Section 1. Key United Nations Sustainable Development Policy Documents	United Nations Environment Program (UNEP) (1972)	Stockholm Conference on the Human Environment
	International Union for the Conservation of Nature (IUCN) (1980)	World Conservation Strategy
	World Commission on Environment and Development (WCED) (1987)	Our Common Future
	United Nations Conference on Environment and Development (UNCED) (1992)	Documents from the United Nations Conference on Environment and Development
	World Summit on Sustainable Development (WSSD) (2002)	Documents from the World Summit on Sustainable Development
	United Nations Economic, Social, and Cultural Organization (UNESCO) (2004)	United Nations Decade of Education for Sustainable Development (2005-2014) Framework for the International Implementation Scheme
Section 2. Key European Sustainable Development Policy Documents	European Sustainable Cities and Towns Charter (ESCTC) (1994)	Aalborg Charter
	United Nations Economic Commission for Europe (UNECE) (1998)	Aarhus Convention
	Commission of European Communities (CEC) (2001)	A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development

Table 1 Literature that provides the building blocks of a social pillar of sustainable development.

Section 2. Key European Sustainable Development Policy Documents	Office of the [UK] Deputy Prime Minister(ODPM) (2005)	Bristol Accord
	Council of the European Union (CEU) (2006)	Renewed European Union Sustainable Development Strategy
	Commission of European Communities (CEC) (2009)	Mainstreaming Sustainable Development in EU Policies: 2009 Review of the European Union Strategy for Sustainable Development
Section 3. Key Multilateral Sustainable Development Indicators Documents	United Nations Commission for Sustainable Development (UNCSD) (1996)	Indicators of Sustainable Development, Framework and Methodology
	United Nations Department of Social and Economic Affairs (UNDESA) (2001)	Indicators of Sustainable Development, Framework and Methodology
	Commission of European Communities (CEC) (2004)	EU Member State Experiences with Sustainable Development Indicators
	United Nations Department of Social and Economic Affairs (UNDESA) (2007)	Indicators of Sustainable Development: Guidelines and Methodologies
	Organization for Economic Cooperation and Development (OECD) (2008b)	Measuring Sustainable Development: Report on the Joint UNECE /OECD / Eurostat Working Group on Statistics for Sustainable Development
	Organization for Economic Cooperation and Development (OECD) (2009)	Society at a Glance 2009-OECD Social Indicators
	Eurostat (2005)	Measuring Progress Towards a More Sustainable Europe: Sustainable Development Indicators in the European Union

Table 1 Literature that provides the building blocks of a social pillar of sustainable development.

	Eurostat (2007)	Measuring Progress Towards a More Sustainable Europe: 2007 Monitoring Report of the EU Sustainable Development Strategy
Section 4. Social Sustainability Literature	George & Wilding (1999); Barton (2000); Barron & Guantlet (2002); Good land (2002); Omman &Spangenberg (2002);Thin (2002);	
Section 5. Green Social Policy Literature	Irvine &Ponton (1988); Cahill (1991); Ferris (1993); George & Wilding (1994); Barry (1998); Fitzpatrick (1998); Huby (1998); Trainer (1998); Cahill (2001); Fitzpatrick & Cahill (2002);	
Section 6. Environmental Justice Literature	Barry (1993; 1999); Hofrichter (1993); Beckerman (1995; 1999); Bryant (1995); Harvey (1996); Faber (1998); Bullard (1999; 2000); Miller (1999); Norton (1999); Wissenburg (1999);	
Section 7. Ecological Modernization Literature	Hajer (1995); Christoff (1996); Mol (1999; 2000); Frijns et al. (2000); Mol & Spaargaren (2002; 2004); Spaargaren (2000; 2003; 2006); Spaargaren & van Vliet (2000); Spaargaren & Mol (2008)	
Section 8. Environmental Policy Integration (EPI) Literature	Collier (1997); Lenschow (1997; 2002); Liberatore (1997); Lafferty (2002); Lafferty &Hovden (2003); Jordan et al. (2003); Persson (2004); Baker (2007);	

Inherent meaning of Social Pillar

Identifying a social pillar presents certain challenges. A myriad of different meanings are attached to the term "social". The Oxford Concise English Dictionary presents seven definitions referring to both nouns and adjectives. Littig & Greissler (2005) note that the term has both "analytical" and "normative" meanings. There are also difficulties regarding the identification of "purely" social issues, as considerable overlaps exist across SD's three pillars. This overlap is particularly pronounced with respect to the economic and social pillars (Thin, 2002), with many issues, most notably employment and unemployment, deemed relevant to both dimensions (OECD, 2009). Despite these circumstances, the literature points to

certain policy concerns that have been identified as "social" within the overall SD framework. These have been variously described as social categories.

The policy objectives emanating from this literature are broadly similar and form the basis of what might be understood by the notion of "social" in the context of SD. These classifications are primarily derived from SDI sets and the social sustain ability literature. Various "social pillars" emerging from these literatures are outlined in Tables 2 and 3 and discussed in tandem below.

Table 2 identifies social classifications in SDIs and Table 3 includes both classifications and examples of social policy objectives. Similar policy concerns feature in UN and EU SD literatures. They are also prominent in the other literatures outlined in Table 1, although to varying degrees. The purpose of Tables 2 and 3 is to give a general flavor of the kinds of social concepts and policy objectives included in various discussions of the social pillar.

Table 2 Social classifications and objectives in social indicator sets.

Author	Social Classification
UN Commission for Sustainable Development (UNCSD,1996	Social "Categories",Combating poverty, Sustainable demographic dynamics, Protecting human health, Promoting human settlement, Promoting education, public awareness, and training
UN Commission for Sustainable Development (UNDESA, 2001)	Social "Themes",Equity, Health, Education, Housing, Security (combating crime),Population
UN Commission for Sustainable Development (UNDESA, 2007)	"Themes"2 , Poverty, Governance, Health, Education, Demographics
EU Sustainable Development Indicators (Eurostat, 2007)	"Themes"2 , Social inclusion, Public health, Demography, Good governance
OECD Social Indicators (OECD, 2009)	Social "Organizing Dimension", Economic self-sufficiency, Equity, Health, Social cohesion

These tables do not set up a detailed discussion on classifications or policy objectives. The authors already provide a fully comprehensive and detailed exposition of the conceptual and policy contours of these social dimensions and there is little need to revisit this work. On the one hand, this literature, and the level of consensus regarding policy objectives that it suggests, implies that there is less mystery surrounding the social policy objectives of SD than is generally acknowledged. On the other hand, considerable ambiguity remains with respect to the relationship between the social and environmental pillars and it is to this uncertainty that attention turns. The literature outlined in Tables2 and 3 assists this task by fulfilling two important functions. First, it serves to identify what is generally understood as the "social" in SD discourse. Second, it provides classifications, or umbrella groupings, under which the policy objectives of the social pillar may be usefully subsumed.

Table 3 Social policy concepts and objectives from the social sustainability literature.

Author	Social classification	Description of Policy Objective
Littig & Griessler (2005) "Social dimensions of sustain ability"	• Basic Needs and Quality of Life • Social Justice • Social Coherence • Social Infrastructure	• Satisfaction of basic material needs and self-fulfillment • Equality of opportunity • Harmony among different social groups
Chan & Lee (2008) "Factors of social sustain ability"	• Availability of Job Opportunities Accessibility • Townscape Design • Preservation of Local Environment	• Physical infrastructure which delivers locally based services and opportunities for social interaction • Employment • Engaging in essential work and leisure activities should not entail too much travel
Cuthill (2009) "Key factors of social sustain ability"	• Social Capital Social Infrastructure • Social Justice + Equity • Engaged governance	• Promoting social networks and a sense of social responsibility • Providing facilities which address need and capacity for participation
Dempsey et al. (2011) "Dimensions of social sustain ability"	• Social Equity • Sustainability of Community	• Reducing inequality in life chances by ensuring local access to key services • Encouraging social interaction/social networks in the community
Vavik & Keitsch (2010) "Three goals of social sustainable development"	• Poverty • Illiteracy • Access	• Promoting "inclusion" by providing basic needs • Promoting access to education • Promoting access to participation in decision making

This framework employs these four conceptual classifications as "organizing dimensions" (OECD, 2009), generalized policy concepts from which more specific policy objectives may be derived. Such classifications allow a large number of policy objectives to be synthesized into a smaller number, which facilitates easier communication and comparison. While the selection of these policy concepts borrows from SDIs and the social sustain ability literature, the framework seeks to expand the scope of such "social pillars" by linking these four social concepts to environmental imperatives. The scope of the social pillar may also be expanded to include international dimensions. While international SDI sets and the social sustain ability literatures have addressed a significant gap by fleshing out social policy objectives at a national level, the international dimensions of SD suggest that the "social" be extended to encapsulate global challenges. For example, while the social concepts of equity and social cohesion refer to key national welfare concerns, they also have significant international implications for SD policy. As such, it is appropriate that the international dimensions of these social concepts feed into SDIs.

Developing Links between the Social and Environmental Pillars

The novelty and essential contribution of SD as a concept and policy approach resides in its requirement to develop interpillar links. The Brundtland Report states that the "deepening interconnections" among the pillars is "the central justification for the establishment of the Commission" (WCED, 1987). Jordan & Lenschow (2008) claim that the report's greatest contribution was to highlight the need for mutual compatibility among the pillars. The Aalborg Charter states that policy must seek to "integrate people's basic social needs as well as healthcare, employment and housing programmes with environmental protection" (ESCTC, 1994). Similarly, the EU Sustainable Development Strategy calls for the "integration of economic, social and environmental considerations so that they are coherent and mutually reinforce each other" (Council of European Union, 2006). In fact, the European Commission argues that the presentation of SD issues without reference to their interpillar relationships may be described as "bundling", "artificial", and "false" (CEC, 2004). Jordan & Lenschow's (2008) review of EU documents points to a clear requirement that environmental and social imperatives be integrated. Developing these interconnections via policy may be linked to the concept of EPI and in particular horizontal environmental policy integration (HEPI), which refers to incorporating environmental concerns into all sectors of policy, including social policy.

A Social/Environmental Framework

The proposed framework consists of thirteen policy objectives with both social and environmental dimensions, grouped under the four conceptual classifications of equity, awareness for sustainability, participation, and social cohesion. The following discussion explains the meaning of each objective in policy terms, examines the social-environmental policy implications, and outlines the justification for the selection of each objective. What emerges from this treatment is a set of social objectives, linked to environmental imperatives, which may function as a tool of analysis with which to examine how different states and organizations understand social policy concepts within the broader SD framework. States and organizations may be analyzed for their relative commitment to the social pillar with respect to the other pillars and their commitment to develop interpillar relationships. While this framework does not include a detailed set of indicators, it provides the foundation upon which such a set may bedeveloped. It should be noted that this discussion does not view this framework as a replacement for the social pillars outlined in Tables 2 and 3, but seeks instead to augment existing approaches. Table 4 outlines the framework for expanding the social pillar in terms of social/environmental policy objectives.

Equity

Equity is a key social concept in SD discourse. In policy terms, it refers to the distribution of welfare goods and life chances on the basis of fairness and it applies to national, international, and intergenerational contexts. Equitable redistribution means that all citizens, regardless of gender, should have an equal opportunity to both survive and fulfill their development potentials. This very broad conception of equity refers to a wide spectrum of policy areas ranging from the provision of clean water, nutrition, employment, education, shelter, essential medicines, and an unpolluted environment to access to social networks. It also includes the promotion of freedom from discrimination on the grounds of gender, religion, or race. Policy objectives related to equity are articulated in all of the publications identified in Table 1 and in almost all cases equity is understood as a central component of sustain ability.

Presenting the concept of equity in such broad terms masks myriad conceptual and ideological debates that a rigorous examination of the concept would expose. However, as previously noted, such arguments are well-rehearsed elsewhere. The purpose here is to examine how the concept of equity has been linked to environmental imperatives and what policy implications emerge from these

Table 4 A Social pillar of sustainable development.

Organizing Dimension	Policy Area	Policy May Be Analyzed For:
Equity	• The "export of pollution" • Climate change and the development needs of global southern countries • Vulnerable groups and the effects of climate change • Vulnerable groups and fiscal measures	• Commitment to curb the "export of pollution" • Commitment to economic transfers to global southern countries rather than relying solely on carbon-trading mechanisms • Commitment to assist vulnerable groups in adapting to the effects of climate change • Commitment to protect vulnerable groups from fiscal measures designed to mitigate climate change
Awareness for sustainability	ESD and environmental awareness programs and campaigns. Content of ESD Programs and campaigns	• Commitment to designing and implementing educational programs for SD through the formal and informal education sectors • The level to which these programs embrace a challenge to the traditional growth paradigm including nonmaterial conceptions of happiness
Participation	Broadening the participative base of environmental planning processes	• The level to which the views and preferences of weaker groups including future generations are reflected in environmental planning processes
Social Cohesion	Promoting social cohesion and environmental objectives simultaneously	• Commitment to infrastructural planning which promotes social integration and environmental sustainability simultaneously

synergies. The relationship between equity and environmental objectives is steeped in complexity and a simple correlation between increased equity and environmentally benign outcomes cannot be assumed (Ferris, 1993; Humphrey, 2002; Dobson, 2003b).

To develop this relationship theoretically, Dobson (2003b) calls for empirical examples that highlight how both objectives may be simultaneously promoted. To this end, it outlines five ways in which equity has been empirically linked to environmental issues and articulates these in terms of. policy objectives. In some cases, these goals refer primarily to the national level while others are relevant to the international sphere. These policy objectives are considered here in a relatively cursory manner, addressing only the basic contours of the pertinent arguments. Despite such limitations, these objectives provide a broad base for discussion regarding how the environmental dimensions of equity may be understood and developed into indicators.

First, evidence suggests that pollution in general, and the effects of

climate change in particular, are and will be disproportionately felt by the poor. For example, Gough et al. (2008) argue that the risks associated with climate change are likely to exacerbate inequalities, as lower income groups are more likely to live in higher risk areas and marginal lands, have fewer resources to cope with harmful environmental events, and have much less insurance coverage. In this context, the fallout from Hurricane Katrina indicates that those on low incomes are least able to protect themselves from extreme weather (Singer, 2006; Dryzek, 2008).

Second, Stern (2006), among others, argues that future generations will face serious environmental risks as a result of climate change that has been linked to economic growth (OECD, 2008b). This issue raises the question of intergenerational equity. While some commentators claim that market mechanisms and technological developments may be harnessed to combat climate change, others argue that such approaches will be insufficient (Andersen & Massa, 2000).

Third, economically developing countries will disproportionately feel the effects of climate change, partly for geographical reasons and partly because they have limited resources to engage in mitigation or adaption strategies (Baker, 2006; Stern, 2006). This situation reflects the fact that relatively poor countries have contributed least to the problem, yet will suffer most from it, which raises the question of equity. While some scholars and policy makers advocate for international carbon trading, others have suggested that wealthy countries continue to unfairly dominate negotiations around these mechanisms in ways favorable to their own interests (Backstrand & Lovbrand, 2006). Alternative or stronger approaches tend to focus on the idea of considerable wealth transfers to assist mitigation and adaptation policies.

Fourth, policy should seek to ensure that intergenerational and intragenerational equity are made compatible (Pearce et al. 1989; Redclift, 1993; Fitzpatrick & Cahill, 2002). This means that in protecting future generations via environmental policies, attention and funds must not be diverted away from addressing the needs of today's poor. At the same time, policy mustensure that the provision of welfare for the presently disadvantaged is carried out without diverting attention or funds away from addressing the needs of future generations.

Finally, it has been noted by writers such as Rowley & Holmberg (1995), Moffat (1996), and Purvis & Grainger (2004) that pollution is inequitably distributed on a global level.

Awareness for Sustainability

Awareness for sustainability is a key social concept in SD discourse. The associated policy objectives refer to raising public awareness of sustainability issues with a view to encouraging alternative, sustainable consumption patterns. Policies typically include "green" advertising campaigns, ecolabelling, awareness-raising events, environmental education programs, and education for sustainable development (ESD) programs. These initiatives and campaigns encourage consumers to engage in more environmentally benign behavior and to accept the legitimacy of coercive environmental legislation. This objective is clearly articulated in key UN documents. Awareness for sustainability receives relatively less treatment in the social sustainability literature, though education as an end in itself is often seen as a key objective. This focus represents a significant weakness, as all contributors to SD debates articulate the need for awareness. Including indicators related to ESD in SDI sets would more effectively embrace the spirit of linking social- environmental objectives.

An important distinction between UN documents and the ecological modernization literature warrants attention. While UN materials embrace a more radical position on awareness, the ecological modernization position does not move too far from traditional western development norms. For example, the Brundtl and Report argues that western consumption levels are ecologically unsustainable and that attitudes must be changed to arrest such trends (WCED, 1987). In addition, Agenda 21 states that awareness programs should stimulate ethical consciousness, address socioeconomic issues, and encourage spiritual development (UNCED, 1992).

In contrast, the ecological modernization approach is more politically modest. Most comprehensively and coherently expressed in Spaargaren's theory of consumption (Spaargaren, 2000; 2003; 2006; Spaargaren &Van Vliet, 2000; Spaargaren & Mol, 2008), this understanding places great faith in a combination of environmental awareness and market mechanisms to deliver sustainability. As a result of greater environmental awareness and a sense of ethical responsibility, consumers will seek opportunities to "green" their lifestyles and domestic routines. In particular, proponents of ecological modernization claim that environmental innovations introduced during the 1990s, such as organic food products, green electricity schemes, or greywater-management systems were a direct result of environmentally aware consumer demand (see, e.g., Spaargaren &Van Vliet, 2000).

Participation

Participation is a critical concept in SD discourse. In terms of policy, it refers to the goal of including as many social groups as possible in decision-making processes. This approach is justified on the basis that benefits accrue to both citizen and state. By joining in participatory processes, individuals and groups can enhance their social inclusion. In addition, the participation of more social groups increases the likelihood that civil society will deem government policy legitimate. By including a range of voices, increased public engagement promotes social cohesion and social sustainability (Goodland, 2002;). Numerous observers also view participation as important for promoting environmental goals; furthermore, policy objectives in international documents point to the need for governments to engage with civil society to achieve environmental sustainability (WCED, 1987).

However, the link between increased participation and environmentally benign outcomes can be problematic (Jordan, 2008). Certain participating groups have more power than others and may dominate policy-making processes to promote their own ends in ways that undermine environmental goals (Meadowcroft & Lafferty, 1996; Baker, 2006). Countless examples from the literature illustrate how business groups, frequently supported by the state, often use their considerable resources to thwart environmental goals (Keohane, 1998). Furthermore, correlations between diffusing power to the local level and achieving environmental goals are also problematic. For example, Toke et al. (2008) point to evidence that regional/local planning systems that allow for citizen participation have in some cases hindered the development of wind power in the UK. On the basis of such outcomes, some observers contend that "equally strong arguments can be made against widespread public involvement" in environmental planning decisions (see, e.g., Connelly, 2007).

Social Cohesion

Social cohesion is a salient concept in social policy discourse and debates; that the OECD (2009) lists it as one of four key themes in its social indicator set of 2009 indicates its centrality. Within SD discourse, the promotion of social cohesion as a policy objective appears to occupy a particularly important place in the social sustainability literature and EU SD policy. It receives less treatment in UN documents and is ignored in ecological modernization literature. The meaning of social cohesion is variously defined. According to several commentators, social cohesion is central to the concept of social sustainability (Jorissen et al. 1999;).

This literature represents a welcome improvement on EU SD documents in that it suggests clearer policy objectives and links social cohesion to the need to foster civic participation in public affairs (Omann & Spangenberg, 2002); and to combat cultural intolerance (Cuthill, 2009).

Of the four concepts in this framework, social cohesion is most weakly connected to environmental imperatives. The links that do exist fall into two categories. First, policies and initiatives exist which simultaneously promote social cohesion and environmental objectives (win-win). Second, environmental factors pose threats to social cohesion. Policy objectives there fore refer to initiatives that combat the kinds of environmental conditions that promote social disharmony or upheaval. As such, policy approaches may be assessed on the basis of four commitments: 1) to infrastructure planning that concurrently promotes social integration and environmental sustainability, 2) to the promotion of social activities that have an environmental focus, 3) to the development of "transition towns" or initiatives of a similar nature, and 4) to combating the kinds of environmental conditions that cause civic strife.

Conclusion

While the social pillars of SD is a relatively less explored territory hitherto, some of the work highlighted above suggests that a broad understanding is emerging regarding key concepts and policy objectives. This awareness is rooted in social policy discourse and has been transposed onto the social sustainability discourse, work that represents a major contribution to our appreciation of the social pillar.This article argues that these social pillars may be expanded to incorporate a stronger emphasis on environmental, international, and intergenerational dimensions and that this enlargement would also extend to SDIs. This contention is based on an understanding of SD as a holistic concept requiring simultaneous recognition of these dimensions. Existing social pillars focus on promoting welfare at national levels and the environmental implications of such provision need to be clearly articulated.

While the social sustainability literature appears to have broadly answered the question of "what is the social pillar of SD," a host of supplementary questions emerge under the remittance of the social pillar. These questions form the basis of the social pillar framework proposed in this article. For example, how can the environmental impact of current welfare provision be minimized? How might the goal of global equity be made compatible with environmental objectives? How might education

systems be altered to resocialize citizens for sustainability? How might participative mechanisms incorporate the aspirations of vulnerable groups, current and future? The answers to these questions can form the basis of an alternative set of social indicators that could serve to supplement existing "social pillars" in ways that embrace environmental, international, and intergenerational dimensions. This framework could be used to analyze how different states and organizations conceive of the social pillar and the extent to which social and environmental dynamics have been linked.

References

1 Andersen, M. & Massa, I. 2000. Ecological modernisation: origins, dilemmas and future directions. Journal of Environmental.Planning and Policy 2(4):337-345.

2 Baker, S. 2009. In Pursuit of Sustainable Development: A Governance Perspective. Eighth International Conference of the European Society for Ecological Economics. June 29-July 2, Ljubljana.

3 Barron, L. & Gauntlett, E. 2002. Housing and Sustainable Communities Indicators Report: Project Stage 1 Report Model of Social Sustainability. Perth: Western Australian Council of Social Service.

4 Barry, B. 1993. Intergenerational justice in energy policy. In M. Fisk (Ed.), Justice. pp. 223-237. Atlantic Highlands, NJ: Humanities Press.

5 Barry, B. 1999. Sustainability and intergenerational justice. In A. Dobson (Ed.), Fairness and Futurity: Essays on Environmental Sustainability and Social Justice. pp. 93-117. New York: Oxford University Press.

6 Barton, H. 2000. Conflicting perceptions of neighbourhood. In H. Barton (Ed.), Sustainable Communities: The Potential for Eco-Neighbourhoods. pp. 3-18. London: Earthscan.

7 Beckerman, W. 1995. Small is Stupid: Blowing the Whistle on the Greens. London: Duckworth.

8 Beckerman, W. 1999.Sustainable development and our obligations to future generations. In A. Dobson (Ed.), Fairness and Futurity: Essays on Environmental Sustainability and Social Justice. pp. 71-92. New York: Oxford University Press.

9 Bryant, B. (Ed.). 1995. Environmental Justice: Issues, Policies, and Solutions. Covelo, CA: Island Press.

10 Bullard, R. 1999. Dismantling environmental racism in the USA.

11 Bullard, R. 2000. Dumping in Dixie: Race, Class and Environmental Quality. 3rd ed. Boulder, CO: Westview Press.

12 Cahill, M. 1991. The greening of social policy? In N. Manning (Ed.), Social Policy Review 1990-91. New York: Longman.

13 Cahill, M. 2001. The Environment and Social Policy. London: Routledge.

14 Commission of the European Communities (CEC). 2001. A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development. Brussels: CEC.

15 Commission of the European Communities (CEC). 2004. EU Member State Experiences with Sustainable Development Indicators. Luxembourg: Office for Official Publications of the European Communities.

16 Commission of the European Communities (CEC). 2009. Mainstreaming Sustainable Development in EU Policies: 2009 Review of the European Union Strategy for Sustainable Development. Brussels: CEC.

17 Connelly, S. 2007. Mapping sustainable development as a contested concept. Local Environment 12(3):259—278.

18 Council of European Union (CEU). 2006. Renewed European Union Sustainable Development Strategy. Brussels: European Council.

19 Eurostat. 2005. Measuring Progress Towards a More Sustainable Europe: Sustainable Development Indicators in the European Union. Luxembourg: Office for Official Publications of the European Communities.

20 Eurostat. 2007. Measuring Progress Towardsa More Sustainable Europe: 2007 Monitoring Report of the EU Sustainable Development Strategy. Luxembourg: Office for Official Publications of the European Communities.

21 Ferris, J. 1993. Ecological versus social rationality: can there be green social policies? In A. Dobson & P. Loucardie (Eds.), The Politics of Nature. pp. 145—60. London: Routledge.

22 Fitzpatrick, T. 1998. The implications of ecological thought for social welfare. Critical Social Policy 18(54):5—26.

23 Fitzpatrick, T. 2001. Making welfare for future generations.

Social Policy and Administration 35(5):506—520.

24 Frijns, J., Phoung, P., & Mol, A. 2000. Ecological modernisation theory and industrialising economies: the case of Vietnam. Environmental Politics 9(1):257—292.

25 George, V. & Wilding, P. 1994. Welfare and Ideology. London: Harvester Wheatsheaf.

26 Hajer, M. 1995. The Politics of Environmental Discourse: Ecological Modernisation and the Policy Process. New York: Clarendon Press.

27 Hansen, J. 2006. Can We Still Avoid Dangerous Human-made Climate Change? Presentation February 10, New School University, New York. http://www.columbia.edu/~jeh1/2006/ NewSchool_20060210 .pdf.

28 Harvey, D. 1996. Justice, Nature and the Geography of Difference. Malden, MA: Blackwell.

29 Huby, M. 1998.Social Policy and the Environment. Buckingham: Open University Press.

30 International Union for the Conservation of Nature (IUCN). 1980. World Conservation Strategy. New York: United Nations.

31 Irvine, S. & Ponton, A. 1988. A Green Manifesto: Policies for a Green Future. London: MacDonald.

32 Jordan, A., Wurzel, R., Zito, A., & Bruckner, L. 2003. Policy innovation or muddling through? New environmental policy instruments in the UK. Environmental Politics 12(1): 179-200.

33 Keohane, K. 1998. Reflexive modernisation or systematically distorted communications: an analysis of an environmental protection hearing. Irish Journal of Sociology 8(1):71-92.

34 Lenschow, A. (Ed.). 2002. Environmental Policy Integration: Greening Sectoral Policies in Europe. London: Earthscan.

35 Lenschow, A. 1997. Variation in EC environmental policy integration: agency push within complex institutional structures. Journal of European Public Policy 4(1):109-127.

36 Meadowcroft, J. 2005. From welfare state to ecostate. In J. Barry & R. Eckersley (Eds.), The State and the Global EcologicalCrisis. pp. 3-24. Cambridge, MA: MIT Press.

37 Meadowcroft, J. 2008. From welfare state to environmental state. Journal of European Social

Policy 18(4):325-344.

38 Miller, D. 1999. Social justice and environmental goods. In A. Dobson (Ed.), Fairness and Futurity: Essays on Environmental Sustainability and Social Justice. pp. 151-172. New York: Oxford University Press.

39 Moffat, I. 1996. Sustainable Development: Principles, Analysis and Policies. New York: Parthenon.

40 Mol, A. & Spaargaren, G. 2002.Ecological modernisation and the modern state. In A. Mol& F. Buttel (Eds.), The Environmental State Under Pressure. pp. 33-52. Amsterdam: Elsevier.

41 Norton, B. 1999. Ecology and opportunity: intergenerational equity and sustainable options. In A. Dobson (Ed.), Fairness and Futurity: Essays on Environmental Sustainability and Social Justice. pp. 118-150. New York: Oxford University Press.

42 Pearce, D., Markandya, A., & Barbier, E. 1989. Blueprint for a Green Economy. London: Earthscan.

43 Persson, A. 2004. Environmental Policy Integration: An Introduction. Stockholm: Stockholm Environment Institute.

44 Purvis, M. & Grainger, A. 2004.Exploring Sustainable Development: Geographical Perspectives. London: Earthscan.

45 Redclift, M. 1993. Sustainable development: needs, values, rights.

46 Rowley, J. & Holmberg, J. 1995.Stabilizing population: the biggest challenge. In J. Kirby, P. O'Keefe, & L. Timberlake (Eds.), The Earthscan Reader in Sustainable Development. pp. 115-124. London: Earthscan.

47 Spaargaren, G. & Mol, A. 2008. Greening global consumption: redefining politics and authority. Global Environmental Change 18(3):350-359.

48 Spaargaren, G. & van Vliet, B. 2000. Lifestyles, consumption and the environment: the ecological modernisation of domestic consumption. Environmental Politics 9(1):50-76.

49 Stern, N. 2006. Stern Review: The Economics of Climate Change, Executive Summary. New York: Cambridge University Press.

50 Thin, N., Lockhart, C., & Yaron, G. 2002.Conceptualising Socially Sustainable Development. London: Department for International Development and World Bank.

51 Toke, D., Bruekers, S., &Wolsink, M. 2008. Wind power deployment outcomes: how can we account for the differences? Renewable and Sustainable Energy Review 12(4): 1129—1147.

52 Trainer, F. 1998.The significance of the limits to growth for the discussion of social policy. International Journal of Sociology and Social Policy 18(11—12):21—46. Turkington& Sangster, 2006;

53 United Nations Commission for Sustainable Development (UNCSD). 1996. Indicators for Sustainable Development, Framework and Methodology. http://esl.jrc.it/envind/un_meths/UN_ME_c.htm. January 29, 2012.

54 United Nations Conference on Environment and Development (UNCED). 1992. Documents of the Rio Conference on Environment and Development. New York: United Nations.

55 United Nations Department of Social and Economic Affairs (UNDESA) 2001. Indicators of Sustainable Development: Framework and Methodologies. New York: United Nations.

56 United Nations Department of Social and Economic Affairs (UNDESA) 2007. Indicators of Sustainable Development: Guidelines and Methodologies. New York: United Nations.

57 United Nations Economic Commission for Europe (UNECE). 1998. The Aarhus Convention. http://ec.europa.eu/environment/aarhus/. January 29, 2012.

58 United Nations Educational, Scientific, and Cultural Organization (UNESCO). 2004. United Nations Decade for Sustainable Development 2005—2014 Draft International Implementation Scheme. Paris: UNESCO.

59 United Nations Environment Program (UNEP). 2007. Sudan: Post Conflict Environmental Assessment. Nairobi: UNEP.

60 Weber, C., Peters, G., Guan, D., & Hubacek, K. 2008. The contribution of Chinese exports to climate change. Energy Policy 36(9):3572-3577.

61 Wissenburg, M. 1999. An extension of the Rawlsian savings principle of liberal theories of justice in general. In A. Dobson (Ed.), Fairness and Futurity: Essays on Environmental Sustainability and Social Justice. pp. 173-198. New York: Oxford University Press.

Sustainability And Urban Development

V.V. Kulkarni

Introduction

The UN General Assembly convened a conference on "Human Environment" at Stockholm in June 1972 which laid down the guiding principles on the subject. It emphasized that man has the fundamental right to environment of quality and also that he has a responsibility towards protecting the environment for present and future generations. It also maintained that natural resources of the earth must be safeguarded for the benefit of present and future generations. About a decade later, to address the issues concerning continuing depletion of natural resources and unsustainable development, the World Commission on Environment and Development (WCED) was created in1983,popularly known as the Brundtland Commission (1983). The Commission named after its Chair Gro Harlem Brundtland convened by the United Nations in 1983, described sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". After twenty years of the Stockholm Declaration, the UN Conference on 'Environment and Development' (also known as 'Earth Summit') held at Rio de Janeiro in 1992 adopted an action plan, popularly known as'Agenda 21'.

Agenda 21 promised inter alia, to reduce poverty, provide clean water and health care, and protect the natural resources. Also to be noted is the fact that among the Millennium Development Goals (MDGs) are eight goals to be achieved by 2015 that respond to the world's main development challenges. Drawn from the targets and actions contained in the Millennium Declarations in the UN Millennium Summit in September 2000, these have urged for ensuring environmental sustainability and reduction in the percentage of the population under extreme poverty. Similarly, explaining the implications

of climate change for sustainable development, the Intergovernmental Panel on Climate Change (IPCC) notes the importance of social and environmental equity in development. Thus all the major world conferences and initiatives so far on environment and development have stressed on economically viable development, socially equitable development and protection of the environment for attaining sustainable development.

Sustainable urban development specifically means achieving a balance between the development of the urban areas and protection of the environment with an eye to equity in employment, shelter, basic services, social infrastructure and transportation in the urban areas. With rapid expansion of urban population around the world, there has arisen a wide awareness about minimizing the environmental costs of urbanization. Concerns are raised about environmental damages, depletion of non-renewable resources and rising levels of pollution in urban areas. In recent times, cities have become places of urban environmental degradation and wasteful use of resources, which is proving to be costly to generations present and future. In order to mitigate the problem, we need to minimize the depletion of non-renewable resources and resort to environmentally sustainable economic development. But this has to be done in ways that are socially, economically and politically acceptable. While planning for sustainable development of cities and towns, we should also take into account the factor of climate change. According to this, ensuring environmental sustainability means taking steps, which include:

a) integration of the principles of sustainable development in the policies of the country,

b) reversal of loss of environmental resources,

c) reduction of the proportion of people without sustainable access to safe drinking water, and

d) improving the lives of slum dwellers.

Before discussing the different aspects of sustainable urban development and city form, we explain the relation of climate change with sustainable urban development and city form in the next section.

We realised that it is not the country's wealth alone but the welfare of its people too, that is equally important. The major limitation of using GDP as an indicator of development in this case was that it did not consider the standard of living and human well-being.Hence, with the changing scenario, our concerns and commitments have also changed. It was apparent that, if one wished to prevent

the rapid destruction of life systems, the development paradigm had to change. We thus moved ahead beyond the concept of development, from 'growth' to 'growth plus equity' whereby social justice, equality of opportunity and access for all the people in the country's prosperity are the major concerns. With this concept of development in mind, two aspects become very evident:

- Development involves continuous growth.
- It is concerned with human and environmental well-being.

Sustainable Development (SD) implies economic growth together with the protection of environmental quality, each reinforcing the other. Sustainable Development, thus, is maintaining a balance between the human need to improve lifestyles and feeling of well-being on the one hand, and preserving natural resources and ecosystems, on which we and future generations depend, on the other.

Sustainable Development may also be defined as "To improve the quality of life while living within the carrying capacity of ecosystems". International Union of Conservation of Natural Resources (The World Conservation Union), 1991 clearly stated that sustainable development does not focus solely on environmental issues. More broadly, it encompasses the three general policy areas namely, economy, environment and society. However the Swiss 'Monitoring of Sustainable Development Project' proposed the definition: 'Sustainable development means ensuring dignified living conditions with regard to human rights by creating and maintaining the widest possible range of options for freely defining life plans. The principle of fairness among and between present and future generations should be taken into account in the use of environmental, economic and social resources. Putting these needs into practice entails comprehensive protection of bio-diversity in terms of ecosystem, species and genetic diversity, all of which are the vital foundations of life.'

Another definition has been put forth by the famous Robert Prescott Allen, who founded IUCN-The World Conservation Union and chaired several of its influential projects.With nearly two decades of experience evaluating and advising development strategies on four continents, he stated that ”Sustainability is just another way of saying "the good life" as a combination of (a) a high level of human well-being, and (b) the high level of ecosystem well-being that supports it.”

The main features that all the above definitions have (either explicitly or implicitly) are as follows:

- A desirable human condition: a

society that people want to sustain because it meets their needs.

- An enduring ecosystem condition: an ecosystem that maintains its capacity to support human life and others.

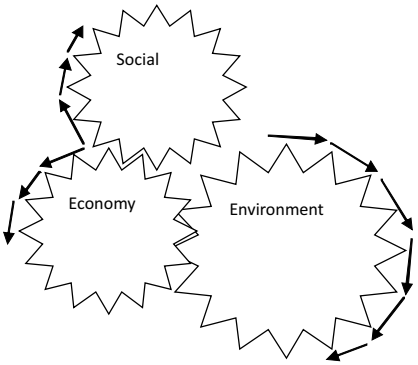
- A balance between present and future generations; and within the present generation.

Models For Sustainable Development

Moving towards sustainable development presents tremendous challenges. Man has all the tools necessary for achieving it. However we tend to forget that in order to survive, we need to adapt to nature and not vice-versa. We need to develop the ability to make a choice which respects the relationship between the three "Es" - economy, ecology and equality. If all the three "Es" are incorporated in the national goals of countries then it would be possible to develop a sustainable society. Models help us understanding the concepts of Sustainability better. Achieving SD thus, requires more effective, open, and productive association among the people themselves. Models help us gather, share, and analyse information; they help coordinating work; and educate and train professionals, policymakers, and the public in general.The following are some of the constructive models for understanding SD.

Three Pillar Basic Model

This is one of the most well-known models created using the three dimensions -Economy, Environment and Society. The diagram shows three interlocking circles with environmental (conservation), economic (growth), and social (equity) dimensions. Sustainable Development is modeled on these three pillars. This model is called 'three pillars' or 'three circles' model. It is based on the society, butdoes not explicitly take into account 'human quality of life'.

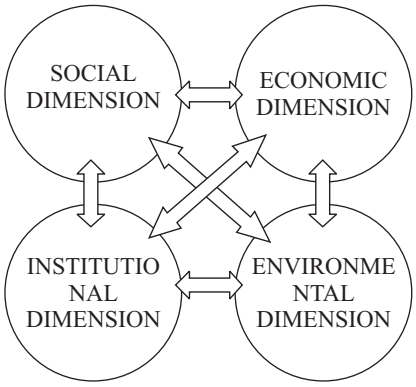


Three Pillar Basic Model

Dimension of Sustainability

However an improvement to this three circles model has been made and another dimension is being incorporated along with social, economy and environment. This fourth dimension is the institutional dimension that is playing a crucial role in sustainable urban development,

whether it is government institution or private institution or an alliance of both.



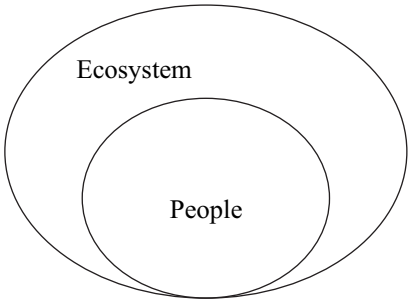
Dimensions of Sustainability

The Egg of Sustainability

The 'Egg of Sustainability' model was designed in 1994 by the International Union for the Conservation of Nature, IUCN (cf. Guijt & Moiseev 2001).

It illustrates the relationship between people and the ecosystem as one circle inside another, like the yolk of an egg. This implies that people are within the ecosystem, and that ultimately one is entirely dependent upon the other. Just as an egg is good only if both the white and yolk are good, so a society is well and sustainable only if both, people and the ecosystem are well. Social and economic development can only take place if the environment offers the necessary resources: raw materials, space for new production sites and jobs, constitutional qualities (recreation, health, etc.). Ecosystem is therefore to be regarded as a super coordinated system to the other dimensions of the triangle or prism models: social, economic, and institutional. These latter can only prosper if they adapt themselves to the limits of environmental carrying capacity.

Thus according to this model: sustainable development = human well-being + ecosystem well-being



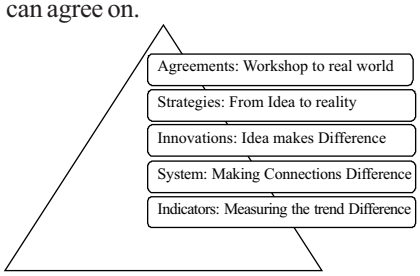
The Egg of Sustainability

IUCN's egg of sustainability (Source: IDRC 1997)

Atkisson's Pyramid Model

The AtKisson Pyramid process supports and accelerates the progress from identifying the vision of sustainability, through analysis and brainstorming and agreements on a credible plan of action. The Structure of the Pyramid guides through the process of first building a firm base of understanding, searching for and collecting relevant information and

ideas, and then focusing and narrowing down to what is important, effective, doable, and something that everyone can agree on.



Atkisson's Pyramid Model

Alan AtKisson's Pyramid

The AtKisson Pyramid is a blue print for the SD process. Its five steps or levels include: Agreements, Strategies, Innovations, System and Indicators.

This model is designed to help groups of people move quickly up the sustainability learning curve, from basic principles and frameworks, to systems analysis, to innovative strategies for action. Along the way, groups practice cross-sectoral teamwork, make linkages, generate dozens of new ideas, and work toward an "Agreement" which is a set of actions they agree to follow through within the real world.

The Amoeba Model

The Amoeba Approach is a model used to visually assess a system's condition relative to an optimal condition. The model is circular with the various indicators positioned around the outside. Lines radiate from the center to the indicators, on a continuum from unsustainable (in the center) to sustainable (the outside of the circle). A circle would indicate the optimum conditions. This type of model allows simultaneous assessment of different indicators, and easy comparison between components of the system. "The Amoeba Model" is a powerful technique for accelerating the innovation process and training to be far more effective in achieving SD.

A Tale of Two Indias

India with its 30 states and seven union territories displays great regional disparities in terms of economic growth and specialization. A two-speed, divergent India has emerged with infrastructure development as a key piece of the puzzle. Under typical patterns of economic development, countries or areas tend to go through labor-intensive manufacturing cycles before they specialize. But in India, fast growth states or areas have skipped steps in the economic development models and focused where they appear to have comparative advantage, according to a 2006 International Monetary Fund working paper. That is, leading regions like Delhi, Karnataka (Bangalore), and Maharashtra (Mumbai) which embraced the IT wave with their first-tier cities, have realized faster growth and rising incomes

alongside better infrastructure offerings.

Conversely, slow growth or lagging regions — Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh —suffer with growing, less-educated populations, which are expected to follow more traditional economic growth and development patterns. These areas may also be a political force for redistributing resources unless they are incentivized to reform governance, business climates, and infrastructure offerings. Recent research reports suggest that politicians in electorally competitive states announce large numbers of infrastructure projects ahead of elections, and then don't follow through. States, particularly in lagging regions, have proved wasteful and corrupt in infrastructure spending.

An antidote for both fast growth states attracting most of the foreign investment—in dynamic cities such as Delhi, Mumbai, Bangalore, and Chennai—and lagging states, may be a new approach to private investment in infrastructure. As a new form of public-private partnership, global capital markets can offer a viable source of funds, promote better governance, and bring transparency to infrastructure's complexities. With India ready to further embark on public-private partnerships for infrastructure projects, getting the formulas right is imperative. This can make the difference between further regional divergences and politicization which deters reforms and development, and the opportunity for more balanced growth for those who will need it most.

How Environment And Climate Change Affect Sustainability In Urban Development

While planning for sustainable development of the towns, we should also take into account the factor of climate change. Explaining implications of climate change for sustainable development, the Intergovernmental Panel on Climate Change notes(5)"Sustainable development represents a balance between the goals of environmental protection and human economic development and between the present and futureneeds. It implies equity in meeting the needs of people and integration of sectoral actions across space and time." (Cruz et al, 2007). One of the greatest challenges that the world is facing today is climate change. Climate change is the variation in the earth's global climates over time. It involves changes in the variability or average state of the atmosphere over durations ranging from decades to millions of years. These changes can be caused by dynamic processes on earth, external forces including variations in sunlight intensity and more recently by human activities. Human influences can be by increase in CO2 levels due to

combustion of fossil fuels, aerosols, cement manufacture, etc. Other factors like ozone depletion, animal agriculture and deforestation also cause climate change. The effect of climate change can be found among other things, on rising sea levels that may accelerate coastal erosion, on increasing temperature, on increase in intensity of natural disasters, and very importantly on vector borne diseases. There has been an increasing trend in the annual mean temperature in India. In recent decades the east coast has been experiencing fewer rainy days while the northwest has been experiencing heavy summer monsoon. There have also been some extreme climatic events like heat waves, intense rain, floods and droughts in India. Researchers have documented the increase in frequency of hot days and multiple-day heat waves in the past century. There has been record rainfall in Mumbai, India on 26 to 27 July 2005, which led to loss of large numbers of lives. Consecutive droughts between 2000 and 2002 caused crop failures, mass starvation and affected millions of people in Orissa. Also, increased water stress poses a major problem for India. Accelerated glacier melt is likely to cause increase in the number and severity of glacial melt-related floods, slope destabilisation and a decrease in river flows as glaciers recede. Researchers have predicted that with the current trend in the melt of glaciers, the Ganga, Indus, Brahmaputra and other rivers could likely become seasonal rivers in the near future and affect the lives of people residing around them (Cruz et al, 2007).

Thus, it is likely that climate change will hamper sustainable development of India as it increases the pressures on natural resources and the environment associated with rapid urbanization, industrialisation and economic development. In order to reduce the effects of climate change, we need to include climate-proofing concepts in national development initiatives. Urban areas mostly faceproblems of air pollution, greenhouse gases, unsustainable consumption and inadequate sanitation and water supply. Thus translated into policy initiatives, environmental sustainability of urban form should aim at energy efficiency in transport and buildings, optimal planning solutions in terms of locations, distances and spaces, which will reduce air and noise pollution. It should also aim at sustainable management of sanitation and water supply, promote equity in provision of services and of course, reduce deforestation. The National Action Plan on Climate Change by the Prime Minister in June 2008visualisesmaking economic development of India energy efficient. All these concerns, questions and initiatives about sustainable environment and climate change have resulted in experiments and debates

over city forms that are sustainable. Before discussing the relevant city forms it would be pertinent to discuss the sustainable management of urban basic services and the inefficiency in the land policy in India and its implications for sustainable city form and development in India, which is done in the next part.

Urban Basic Services In India

Sustainable city planning should aim at achieving social and environmental equity while improving the lives of the people. For that to happen, we need to have a sustainable city form as well as provision and proper management of services. Thus, in order that a city or urban area is sustainable, it needs to produce and manage basic services like water, waste, energy, and transportation in a way that conforms to the principles of sustainable development. In other words, the city should be able to produce and distribute the services in an economic, environment friendly and equitable way. Cities in developing countries are deficient in the provision of basic services that pollute the environment. It is to be noted that though there are some differences between cities and between rich and poor nations, in general, urban infrastructure systems are designed without much attention to the environmental and social impacts. The delivery of services like water, energy, waste and transportation, are largely based on non-renewable energy sources (Pinderhughes, 2008). Moreover, the inequality in the provision of these services is very high. Indian cities are characterized by high density of population, deficiency in services and air pollution.

Densities of Indian cities are very high. Management of the basic services should be done keeping in mind the deficiency in the services, the environmental impacts and the inequality in the provision of the services. Thus we have two issues here, the first one is covering the deficiencies in services and the second one involves how to provide the services in an environment friendly way. We discuss some of the options and environmental management of the services.

Sustainable Management of Urban Basic Services

Water supply management: The effect of climate change on water supply will be negative in almost every country. Thus care should be taken to develop energy efficient alternative systems. As for efficient practices, water consumption can be limited by using raw water and recycled water for gardening and landscaping. There have been other scattered evidences of use of wastewater but the example of a city doing it on a large scale is rare. In India, the water from Sewage Treatment

Plants (STP) in factories is used for landscaping and gardening. However, in developing countries the main challenge is to provide clean drinking water to all the urbanresidents adopting sustainable water management practices. Rainwater harvesting has its possibilities for partially managing water supply. Conservation of old water bodies like lakes and ponds can be adopted for increased and sustainable water supply. It has been considered as an optional reform under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in India. In Delhi itself, one after the other, marshlands and water bodies are being converted into residential areas, garbage dumps,petrol pumps and so on, the latest victim being the Jahangirpuri marshland (Hindustan Times, 2008). Marshlands recharge ground water substantially. Much is yet to be done regarding this in India. Other environmentally sustainable methods can be explored.

Waste management: Waste management practices should be started from the production and distribution stages of economic activities through reuse and recycling. Reuse of material like metals, glass, paper, plastic, textiles, organic waste and water will reduce demand for energy, raw materials, fertilizers and fresh water sources (Pinderhughes, 2008). However, care should be taken that hazardous waste does not go for recycling. Use of plastic needs to be curtailed.

In Delhi more than 5000 tons of municipal solid waste is generated everyday, which is disposed of in landfills. Too much land is being consumed for disposal and is creating danger of ground water contamination. As such the department of environment of the government of India recommended that other 'best practices' in waste management should be adopted on a large scale. These practices include vermiculture, pelletisation, aerobic composting, and so on. A research study by NEERI has recommended mechanical composting as the viable option for such a huge amount of waste. The Supreme Court of India, hearing a public interest litigation on solid waste management of Delhi directed the Municipal Corporation of Delhi to improve the system.

Energy management: Energy management practices should be encouraged in the planning of buildings and the city form. Buildings and city forms that are energy efficient and use sustainable energy sources like solar and wind should be considered. There are fragments of evidence in India of settlements using solar power, water recycling techniques and waste management practices. But in general, such environment friendly techniques are yet to be practiced in urban areas, especially in large cities where the

differences would be felt. City forms should be such that they use energy efficient transport. Coming to the financing part, it can be said that the policies should help energy efficient practices. Loans should be easily available and tax benefits provided for such practices.

Reduction in inequality: Management of basic services in the cities should reduce inequality in services between the rich and the poor. The concept of commercial viability does not always hold for social services. City form should take into account social conditions also. The ability of the urban poor to pay for the full cost of water supply would remain low in India. Thus reduction in grant of the government and introduction of private sector in this sector is likely to make the situation worse. It is also well known that much of the subsidized schemes in the past have gone to the middle and high-income areas (Kundu and Thakur, 2006). Apart from deficient, non-environment friendly and unequal basic services, the other major problem in developing a sustainable city form in India is inefficient land policy of the country, which we discuss next.

Inefficient Land Policy of India

Since this paper has reference to India, it would be pertinent to mention the inefficiencies of land policy of India in this context. This is because land is an important input for producing goods and services for urban development. Under the conventional analysis, factors of production i.e. land, labor and capital flow to make goods and services but the social and environmental consequences are not reflected in such analyses. Sustainable urban development does take account of social and environmental effects and means balance between the development of the areas and protection of the environment with an eye to equity in employment, shelter, basic services, social infrastructure and transportation in the urban areas. For this to happen, one has to ensure that land is properly used to meet these objectives. Urban India is plagued by shortage of housing facilities and scarcity of land for social overheads like roads, footpaths, parks and schools. The root of these problems can be found in the inadequate, inefficient, iniquitous land policy of the country. This is why it is important to have an effective and appropriate land policy that would promote sustainable development.

National Commission on Urbanization of India (NCU, 1988) recognized the need for adequate supply of land, efficiency and equity in allocation of land and promotion of flexibility in land use. Thus it mentioned that the objectives of urban land policy should be:

a) to achieve an optimum social use

of urban land,

b) to make land available in adequate quantity to both public authorities and individuals at reasonable prices,

c) to encourage cooperative community effort as well as individual builders to develop land and construct houses,

d) to prevent concentration of land in few hands,

e) to use land to finance urban development,

f) to encourage socially and economically efficient allocation of land so that land development conserves resources and land utilization is optimal, and

g) to promote flexibility in land use in response to a growing city.

The Eleventh Five Year Plan (2007-12) of India emphasizes "governments at appropriate levels including local authorities have to strive to remove all possible obstacles that may hamper equitable access to land". It identifies failure to adopt appropriate urban land policies and land management practices as the primary cause of inequity and poverty. Thus the Eleventh Five Year Plan calls for a flexible land policy which will make conversion from one use to another, cost efficient and promote equity. It finds that urban planning tools like master planning, zoning and regulations are not enough to ensure the requirement of land supply for rapid urbanization. The problem has also been addressed somewhat by Jawaharlal Nehru National Urban Renewal Mission in India. This section discussed the role of land in sustainable urban development with particular reference to land policy of India.

Summary and Way Forward

In this paper, we have dealt with some issues relating to sustainable development and sustainable urban development with special reference to India. The paper first discussed the concept and importance of sustainable development and especially that of sustainable urban development. All the major conferences on world environment have stressed on the need for development of the economy with social equity and protection and conservation of the environmental resources. In recent times, cities have become places of wasteful use of nonrenewable resources and urban environmental degradation. That apart, climate change is posing a challenge to the world and it has the potential to affect the economies of the rich and the poor, both. This is likely to affect the water supply and ecosystems among other things. Climate change would affect the poor of the world more

because they are more vulnerable and do not have the means to protect themselves against the vagaries of extreme climatic conditions. Manmade pollution of water, air and environment seriously affect the climate. Sustainable urban development should take account of all this and try to reduce the ill effects of climate change, depletion of nonrenewable resources and degradation of the urban environment.

The paper discusses the deficiency in urban basic services in India and its management for sustainable urban development. It also mentions the role of land in sustainable urban development and inefficiencies in the land policy of India. Urban form is important for sustainable urban development but equally important are the environmental friendly management of basic services like water-supply, sanitation and energy. The issue of equity in delivery of services is one important requirement of sustainable urban development, which should be kept in mind while planning for them. There are three main issues here, which are; meeting the deficiencies in services, how to manage the services in an environment friendly way and the need to make them more equitable.

The issues can be numerous and varied for attaining sustainable urban development. But all of them should consider economic, social and environmental aspects of development. In the end, it can be said that economic development does not mean merely economic growth. True economic development should contribute to increase in efficiency and quality of life of a community. It is to be ensured that positive externalities (such as higher employment) of economic growth of a city do not give rise to negative externalities like air pollution, and traffic congestion. It is also to be remembered that such an effort should be made at local, regional and global levels. Above all, the solutions should take into account the local characteristics, acceptability and indigenous practices.

References

1 AtKisson, A, (1999) Believing Cassandra: An optimist looks at pessimistic world, p 22 and p 32-33.

2 Bertolini, L. (2005). The multi-modal urban region: A concept to combine environmental and economic goals. In Future Forms and Design for Sustainable Development, M. Jenks and N. Dempsey eds. Oxford, U.K.

3 Breheney, M. J. (Ed.) (1992). Sustainable Development and Urban Form, Pion, London.

4 Census of India (2001).Analytical Report on Housing Amenities, Series 1, India.

5 Centre for Science and Environment. http://www.cseindia.org/ html / lab_air_p ollution.htm last accessed on 6.08.2008.

6 Chen H., B. Jia , S.S.Y.Lau (2008). Sustainable urban form for Chinese compact cities: Challenges of arapidly urbanized economy. Habitat International Vol.32, Issue 1, March 2008, pp.28-40.

7 Cruz, R.V., H. Harasawa, M. Lal, S. Wu, Y.Anokhin, B. Punsalmaa, Y. Honda, M. Jafari, C. Li and N. Hu Ninh (2007): Asia. Climate Change, 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to The Fourth Assessment Report the Intergovernmental Panel on Climate Change, M.L.Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson Eds, Cambridge University Press, Cambridge, U.K. 469-506.

8 Dempsey, N. and M. Jenks (2005). Future forms for city living? In Future Forms and Design for Sustainable Cities, M. Jenks And N. Dempsey eds. Elsevier, Oxford, U.K.

9 Govt. of India, Ministry of Environment and Forests, White Paper on Pollution in Delhi with an Action Plan.http://envfor.nic.in/

10 Govt. of India, Planning Commission (2008).Eleventh Five Year Plan, 2007-2012 vol. III. Oxford, India.

11 Hindustan Times, (2008).Death of the lakes. In Hindustan Times, August 5, New Delhi, Metro Edition.

12 Jenks, M. & N. Dempsey, (2005). The language and meaning of density In Future Forms and Design for Sustainable Cities, M. Jenks And N. Dempsey eds. Elsevier, Oxford, U.K.

13 Kenworthy J. and F.B. Laube (1999). An International Sourcebook of Automobile Dependence in Cities 1960-1990, University Press of Colorado, Boulder.

14 Kundu A. and S. Thakur (2006). Access to drinking water in urban India: An Analysis of emerging spatial pattern in the context of new system of governance In Managing Water Resources: Policies, Institutions and Technologies, V. Ratna Reddy and S. MahendraDev eds. Oxford, New Delhi.

15 National Commission on Urbanisation, (1988). Report of the National Commission on Urbanisation , Vol. II.

16 Opp. Susan M. (2008). Roles and realities. In Local Sustainable Urban Development in a Globalised World, Lauren C. Heberle and Susan M. Opp eds. Hampshire, Ashgate Publishing Limited, England.

17 Pinderhughes, R. (2008). Alternative urban futures: Designing urban infrastructures that prioritize human needs, are less damaging to the natural resource base and produce less waste In Local Sustainable Urban Development in a Globalized World, Lauren C. Heberle and Susan M. Opp eds. Hampshire, Ashgate Publishing Limited, England.

18 Prud'homme R. and Lee, C. (1999).Size, Sprawl and the Efficiency of Cities.Urban Studies, 36 (11).18491858.

19 Pucher, J., N. Korattyswaropam, N. Mittal, N. Ittyeraah (2005).Urban transport crisis in India.www.elsevier.com/locate /

❐ ❐ ❐

An Invitation

The Local Government Quarterly invites contributions in the form of articles and research papers from its readers and well wishers.

Contributions may be sent in the manuscript form though we would prefer to have a digital copy e-mailed to us.

Articles should normally be between 3000 and 4000 words, though we do not wish to limit the size.

Contributors may mail their artcles to the Chief Editor, Local Government Quarterly.

All India Institute of Local Self-Government
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
TPS Road No.12, Bandra (E), Mumbai – 400051, India.
Tel : +91-22-2657 17 13 / 2657 17 14 / 2657 17 15
E-mail : aiilsgquarterlyjournal@gmail.com
Fax : +91-22-2657 21 15

Europe and Asia Perspective of Migration with a Model of Leadership for Change

Nitin R. Vaidya

Introduction

Human migration has a crucial significance for urbanization. As human migration is on the rise, whether as a migrant, refugee or asylum seeker; everybody is talking about "Leadership and No Walls". People are facing tragic situations with a lot of trauma whether for migration or asylum. Nations should work together to provide humanitarian assistance to those who need it and in doing so they need to design and implement policies which can facilitate more economic migration and social inclusion. This can only happen if nations provide the right leadership depending upon the demographics and work collectively with other nations. This article is an effort to demystify the migration in Europe and Asia with a model for leadership to create a change.

Definition of human migration:

Human migration is considered as the movement of people from one origin place to another destination place with the sole idea of temporary or permanent settlement in the new location. Migration may be of individuals or families with different intents.

Various studies have been conducted to dissect the rationale behind migration. According to Lee's law 1966, migration has been classified in two forms- push and pull factors. Push factors are the ones in which the conditions are unfavorable to the person where he resides while on the other side, pull factors are the ones in which the conditions are more appealing to make the transition to the desired location. Some researchers have sub classified the push and pull factors on the basis of social, economic, political, technological, labor, and religious factors. Some researchers have mentioned that major motives of migration are due to economic uncertainty, poverty and unemployment, while others have mentioned war, social and political situations as a major factor of migration.

According to Castles(2002) theory, the model of migration has two faces: first is about permanent migration according to which the immigrant gets integrated into the host country socially and the second one is the temporary migration model according to which the migrant stays for a short duration. Based upon the work of Lee's theory Nonna (2010) has proposed a migration model with two basic criteria of importance which are push and pullfactors. Generally the push factors are the negative ones which drive the person into leaving the country of his origin whereas the pull factors are positive situations s which make the destination location more appealing.

According to Nonna (2010) there are four groups of migrants based on their motives: highly motivated, predominantly pulled, predominantly pushed, less motivated.

Figure-1: Push-Pull matrix

	High Pushed	Low Pushed
High Pulled	**Highly Motivated**	**Predominantly Pulled**
Low Pulled	**Predominantly Pushed**	**Less Motivated**

Source-Adapted from: Kushnirovich 2010 Motives for migration contingency of choice andwillingness to remain in the host country

According to Lee's theory, below are the various push and pull factors:

Table1: Push and Pull Factors

Push Factors	Pull Factors
Not enough jobs	Job opportunities
Inadequate conditions	Better living conditions
Desertification	The feeling of having more political and/or religious freedom
Famine or drought	Enjoyment
Political fear or persecution	Education
Slavery or forced labor	Better medical care
Poor medical care	Attractive climates
Loss of wealth	Security
Natural disasters	Family links
Death threats	Industry
Desire for more political or religious freedom	Better chances of marrying
Pollution/Discrimination/Poor Housing/War	

According to Antonio Golini, migration is a structural component of population change. According to him the main reason is demographic disequilibria between the countries in North and South which contributes to migration pressures. In coming times this trend is likely to increase and thereby make international migration more vulnerable. According to Golini the five fundamental aspects which will help to manage the present situation are as follows:

1. Awareness of migratory processes
2. Setting realistic aims
3. A mix of long-term and temporary migration
4. Bilateral, multilateral and international agreements and
5. Adequate statistical information systems on international migration

According to him, improved migration management can be achieved by establishing four regional groups based on geo-political and economic commonalities. This group can be formed as Euro-Africa; the Americas, the Indian sub-continent and the Far East and Pacific.

In this era of globalization the agenda of international migration has already attained its peak. On the international platform, various nations are struggling to understand how to manage migration especially with respect to temporary vis-a-vis permanent migration and about their development and human rights. Till date there is no consensus on what should be done and what should not be. However, various agencies such as GFMD and the United Nations are holding various dialogues to come up with progressive solutions for resolving the migration issue with respect and dignity for the host countries.

Migration in Europe and Asia

It has come to light in the past few years that migrations from Asia to EU and from EU to Asia are very unbalanced. It is seen that migration of Asian population to Europe has got highly intensified whereas migration from Europe to Asia is almost non-existent.

According to an OECD report there were around 232 million international migrants living in the world today. Since 1990, the number of international migrants in the North increased by around65%, while the migrant population in the South grew by around 35%. Today, nearly six out of every ten international migrants reside in the developed regions.

The trends in international migration stock are given below:

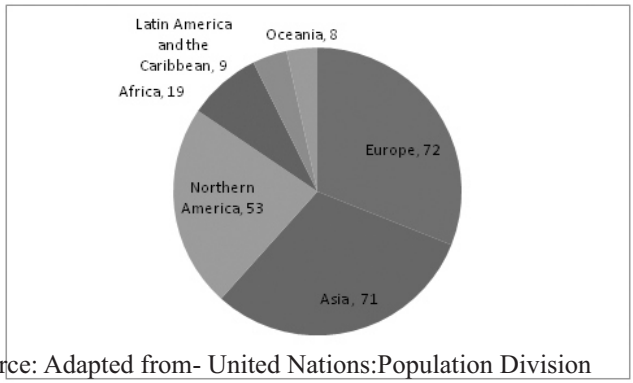
Table-2: International Migration Statistics– (in millions)

	1990	2000	2010	2013
World	154.2	174.5	220.7	231.5
Developed Regions	82.3	103.4	129.7	135.6
Developing Regions	71.9	71.1	91	95.9
Africa	15.6	15.6	17.1	18.6
Asia	49.9	50.4	67.8	70.8
Europe	49	56.2	69.2	72.4
Latin America and the Caribbean	7.1	6.5	8.1	8.5
Northern America	27.8	40.4	51.2	53.1
Oceania	4.7	5.4	7.3	7.9

Source: Adapted from United Nations 2013- Trends in International Migration Stock

In the context of migration movement in Europe and Asia, they both host the largest number of international migrants. Europe and Asia jointly host nearly two-thirds of all international migrants worldwide. In 2013, 72 million international migrants were residing in Europe, compared to 71 million in Asia. Northern America hosted the third largest number of international migrants which is 53 million, followed by Africa which is 19 million. Latin America and the Caribbean has around 9 million migrants, and Oceania has 8 million migrants.

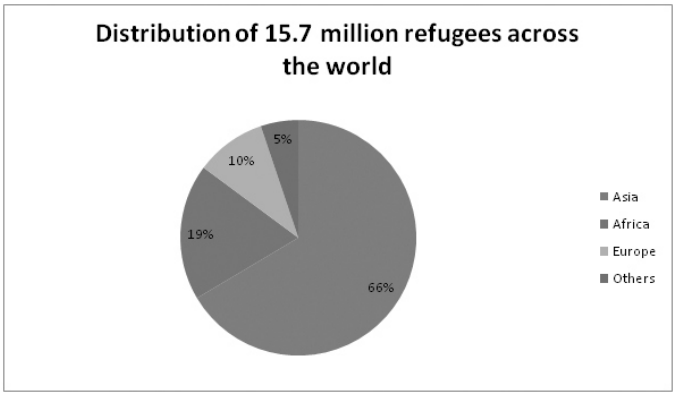
Figure2: International migrants by major area in millions



Source: Adapted from- United Nations:Population Division 2013- Population Facts

In these figures of migration, the proportion of refugees is relatively very small. Based on statistics for 2013, the total number of refugees in the world was estimated at 15.7 million, representing about 7% of all international migrants. Between 1990 and 2010, the global number of refugees declined from 18.6 million to about 15.4 million. However since then, the number has increased. The refugee population is gradually increasing after 2010 which is also an alarming sign for nations faced with the challenges of migration. As 7% are refugee migrants, it can be said that most are migrating due to some other reasons. The issue of immigration of these refuges has to be dealt with sensitivity.

Figure3: Refugees by major area



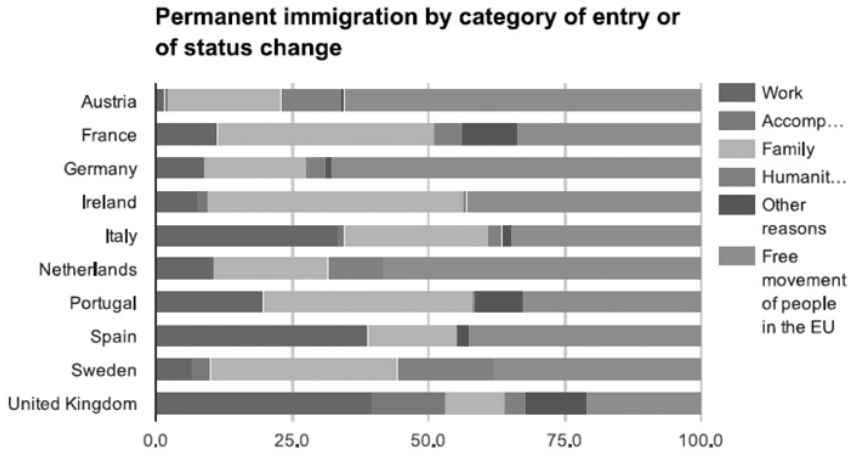
Source: Adapted from United NationsPopulation Divsion (2013). Population Facts

Migration to Europe:

It has been seen that the large scale migration is more prominent intoday's era for European countries than others like the USA, Canada or Australia. Migration to Europe is very heterogeneous: European countries have a largemigrant population which differs in terms of their ethnicity, origin, and educational attainment. For example, 70% of the foreign born population in Ireland comes from within the EU, while this share is only 21% in the neighboring UK, where almost one third of the migrant population comes from South Asia.

It has been noticed that the migration to European countries happens due to the free circulation policy within the European Economic Area. This happens because of freedom of movement of person in the EU as per the Article 45 of the treaty on the functioning of the European Union. In Europe, 45% of migration is of family and 8% of migration is on humanitarian grounds excluding free circulation to this area.

Figure 4: Permanent Immigration in the EU



Source: Giovannini 2015- 5 FACTS ABOUT IMMIGRATION IN EUROPE

Migration to Asia:

According to the United Nations Department of Economic and Social Affairs, half of the world's population lives in the Asia-Pacific region.

Migration to Asia is not new: westward movements from Central Asia helped shape European history in the Middle Ages, while Chinese migration to Southeast Asia goes back centuries.

Maximum number of migrants fleeing to the Asian region is irregular in nature. It hosts the largest number of undocumented migrants in the world mainly between neighboring countries. Mixed migration is characteristic of this region as some population moves for the betterment of lifestyles while others move due to conflicts and persecution. At the same time, Asia hosts the largest number of refugees and displaced persons in the world. A key feature of the region is the significance of Statelessness and its nexus with migration. Apart from ethnic groups that are not recognized as citizens in their countries of residence, there is the issue of second-generation migrants not registered at birth by their parents, who are thus in an irregular situation, and are at risk of Statelessness. Moreover, Stateless persons, in the absence of a national identity document, often have no access to international travel documents and therefore no option but to resort to irregular migration channels. Their status often limits their social and economic opportunities and makes them more vulnerable to targeting by traffickers.

Table-3: International migrant stock in Asia

	Í ÞÖ NÑǾŎŅÌ ÒŅǾMŌPCĔĂPOŎÞCĔMŌÑCǺ		HŌŃǾÑÖ ÑŌP (thousands)	ĖCQÑǾMŊÑ MŌŌÞMŌ growth (%)
	ĈEEĆ	ČĆĈĆ	ĈEEĆ-2010	ĈEEĆ-2010
ĖCĔM	DĆĐĐĎ	ĎĈĊČÇ	ĈĆÇÇĐ	ĆĔE
FÑŌPǾMŌĖCĔM	ĎĎČĐ	ÇEĐĆ	ĈĎĐĐ	ĈĔÇ
ĜMŌĔÑǾŌĖCĔM	ÇÇĐÇ	ĎÇĐD	ČĆĈČ	ĈĔĐ
ĬŎÞPO-Eastern Asia	ĊĆĎĆ	ĎĐĈD	ĊĎDÇ	ĊĔE
ĬŎÞPOÑǾŌĖCĔM	ČĆĈEĎ	ĈÇĊĆÇ	Á5892	ÁE.7
J ÑCĔÑǾŌĖCĔM	ĈĎDĆĐ	ČĐĐDĆ	ĈČĊÇČ	ČĔĐ
Î ŃÑMŌŎM	ÇĊĎD	ĎĆĈD	ĈĎDĆ	ĈĔĎ

Source: Adapted from Henning 2011- International Migration and Development in Asia and the Pacific:Key Issues and Recommendations for Action.

Migration overview in the Asia-Europe context

The main destinations of South Asian migration flows are largely in Asia, particularly in West Asia (e.g. the United Arab Emirates, Saudi Arabia, and Qatar). There is also a considerable outflow from India and at a lower number from other South Asian countries to North America.

The flows and patterns of migration from East and South East Asian regions are rather different, although common features are present too. There is some migration from Indonesia and the Philippines to West Asia and to the neighboring states of the same region. There is also a considerable long distance migration flow particularly from China to North America and also from various countries of the regions to North America, Australia, Oceania and Europe. These migratory flows are quite balanced.

On the other hand, according to statistics, migration from Europe to East and South East Asia is hardly recognizable. The volume of migration from Asia to Europe and from Europe to Asia is very unbalanced. However, in the cases of the chosen countries there is migration in both directions. If we measure the number of migrants from Europe to selected Asian countries, it has been noticed that the numbers are small (except in the case of Turkey). Most migrants from Europe to Asia are from Germany and the Netherlands.

Migration and Urbanization

Population and International Migration Linking

Given the significant size of population moving to new destination nations in some regions, migration will shape future demographic trends. By 2050, it is expected that 15-36% population of various countries in

Western Europe will be of 'foreign origin'. International migration impacts a receiving country's age structure in three ways: through the numerical size of the immigrant population, the concentration of immigrants among the working-age adult population, and the fertility rate among immigrants.

Migration also has economic effects on developing countries, particularly through remittances, or money sent from international migrants to their families at home. In 2009, a total of $316 billionin remittances was sent to developing regions; in nine countries, these sums exceeded one-fifth of national gross domestic product. In many countries, remittances are very effective at reducing poverty in the families of those who have migrated, and to a lesser degree, in their surrounding communities.

Population and Urbanization Linking

As populations progress through the demographic transition, the change over time from higher to lower mortality and fertility rates fertility tends to decline earlier and at a more rapid pace in urban areas. Demographic household surveys conducted in sub-Saharan Africa since 2000 show that urban fertility rates are lower than those in rural areas by at least one child per woman in 22 of 23 countries. This disparity in fertility between urban and rural areas tends to diminish as countries progress to lower overall fertility rates. In cities, a number of factors contribute to lower fertility rates. These include higher costs of raising children, a more educated population, higher age at marriage and greater access to contraception.

The growth of cities large and small is often thought to be a result of migration. But higher urban population growth is due to natural increase from high birth rates than to urbanization itself.

Migration Challenges

The relationship of migration and development is still a challenge to understand; in spite of several research links between migration and development, the relationship is still only loosely understood. A large number of research gaps will need to be plugged to establish a comprehensive evidence base for policymakers. Several key issues stand as obstacles and need to be dealt with.

- Brain drain: It is commonly assumed that the departure of highly skilled people represents a net loss to the sending country in terms of productivity. There is a need to identify when and where brain drain really counts for development.
- Labor market impacts: The departure of highly skilled

workers points to the need to understand better the broader labor market impacts of migration on sending countries.

- Remittances: While the evidence concerning the scale of remittances is growing (World Bank), empirical understanding of their impacts on growth, poverty and inequality still remains vague. This is increasingly important as many governments are looking to formulate policies to maximize remittance earnings.

- Diasporas: Existing evidence suggests that countries can benefit from their diasporas in various ways. However, the instruments used to channel these benefits and the actual outcomes are very context-specific. Further systematic evidence of the role played by diasporas, in particular through capital flows and transnational networks, in contributing to development in their home countries is needed.

- Return migration: It remains difficult to assess the overall effects of return migration on local development as there is a lack of evidence available concerning both, the extent to which return migration is occurring, as well as the characteristics and implications of the return of workers to developing countries of origin.

- Migration and inequality/poverty: There are few analyses of both the impact and indirect effects of migration upon inequality and poverty in developing countries. Issues remain as to the effect of migration on inequality, whether some groups who are left behind in any way gain from migration and, indeed, whether some are made worse off. There are further questions as to whether the outward flow of people, particularly the highly skilled, affects overall rates of poverty.

- Internal/International migration: Internal migration, especially in countries such as China and India, occurs on a massive scale, often with greater impacts on development than international migration. Understanding the impacts will necessarily require further consideration of how the two interact. Who moves between regions and who moves internationally? What are their different characteristics and behaviors? How do they impact development?

- Disaggregated data: Much of the data on migration need to be disaggregated in order to better gauge the key features of migration. Systematic collection of data regarding the length of stay of

migrants, types of migrants and outcomes in the host country will help better understand the development impacts of migration on sending countries.

- Increasing policy coherence and coordination
- Ensuring policy effectiveness
- Greater international dialogue and cooperation

Leadership Framework for Migration

While many of us are struggling to find a solution to migration, people involved in there cent example of the European migration crisis are yelling saying that they need leaders and not walls.

Tackling the issue of migration will take political courage and leadership, together with policies to manage the movement of people across borders, according to a panel at the World Economic Forum 45th Annual Meeting in Davos-Klosters. With growing hostility towards migrants in the wake of the recent Paris and Brussels attacks, panelists agreed on the need to recognize the significant contribution migrants make to their communities around the world.

At a global level we need leadership which can deliver results on the migration issue. Considering the above aspect, a proposed model of leadership to address the issue is given below:

Figure-5: Leadership-Migration Matrix

Political Leadership	Globally Responsible Leadership
Social Leadership	**Adaptive Leadership**
Temporary Migration Low Migration	Permanent Migration High Migration

Source: Author

The model suggests following cases of leadership which is explained below:

1. High Migration-Temporary Migration: In this scenario the adaptive leadership is best suited as it is a practical leadership framework that will help individuals and organizations at national and local level to adapt and thrive in challenging environments. It is being able, both individually and collectively, to take on the gradual but meaningful process of change. It is about diagnosing the essential from the expendable and bringing about a real challenge to the status quo.

2. High Migration-Permanent Migration: In this scenario the globally responsible leadership will play a good role as it involves the globally responsible leaders who have a sense of purpose, they have the guiding principles with them such as fairness, humanity, tolerance, transparency, responsibility and solidarity and sustainability. The leadership involves creating the policies to create economic and social progress in a sustainable way.

3. Low Migration-Temporary Migration: In this scenario the social leadership plays a fundamental role as the social leadership will create an environment of collaboration with common purpose thereby creating commitment of leaders towards civility for social inclusion.

4. Low Migration-Permanent Migration: In this scenario the best role would be played by political leadership as it involves key decision makers who will investigate broad policies with the view to challenging them and review the decisions. It also involves responsibility of all political stakeholders towards their electorate to consider their views and to weigh them in the right way to go for social inclusion of migrants.

Considering these various leadership strategies to tackle the migration issue, it is of prime importance that individual stakeholders who will be the part of resolution team for solving the migration issue should assess themselves and combine various tactics mentioned in the above model of leadership and develop such skills to address the migration issue on national and international levels.

References

D'Amato, L. Q. (2008). Globally Responsible Leadership. Center for Creative Leadership.

European Commision : Socio-Economic Sciences and Humanities. (2009). Moving Europe : EU research on

migration and policy needs. Directorate-General for Research Socio-economic Sciences and Humanities : European Commission.

Giovannini, A. (2015, 10 12). 5 FACTS ABOUT IMMIGRATION IN EUROPE. Retrieved 12 4, 2015, from http://eutopiamagazine.eu: http://eutopiamagazine.eu/en/alessandro-giovannini/columns/5-facts-about-immigration-europe

Hartley, K. M. (2006). A model of politcal leadership. In Human Relations (pp. 483-504). Sage Publication.

Henning, S. (2011). International Migration and Development in Asia and the Pacific:Key Issues and Recommendations for Action. Strengthening dialogue between ESCWA and ESCAP countries. Lebnon: United Nations.

Hugo, G. (2005). Migration in the Asia-Pacific region. Global Commission on International Migration.

Internation Organization for Migration. (2008). International migration and development. The Center for Migration Studies of New York.

International Organization for Migration. (2006). Migration and Development : Opportunities and Challenges for Policymakers. International Organization for Migration.

Kerr, S. P. (2008). Economic Impacts of Immigration: A Survey. Harvard Business Review.

Korpela, P. P. (2014). CHARACTERISTICS OF TEMPORARY TRANSNATIONAL MIGRATION. University of Tampere.

Kushnirovich, N. (2010). Motives for migration contingency of choice and willingness to remain in the host country. Research Gate.

Maak, T. (2007). Responsible Leadership, Stakeholder Engagement, and the Emergence of Social Capital. Journal of Business Ethics, 329-343.

Martin, P. (2009). Migration in Asia-Pacific Region-Trends,Factors,Impacts. United Nations Development Reports.

Maytree Foundation. (2012). Practice to Policy : Lessons from Local Leadership on Immigrant Integration. Cities of Migration.

RICHARD BLACK, LARISSA JONES, MARIA CRISTINA PANTIRU, RACHEL SABATES-WHEELER, RONALD SKELDON, ZANA VATHI. (2007). Understanding Migration as a Driver of Poverty Reduction in Europe and Central Asia. Development Research Centre on Migration, Globalisation and Poverty.

Rinus Penninx, D. S. (2008). Migration and Integration in Europe : The

State of Research. ESRC Centre on Migration, Policy and Society (COMPAS).

Stephen Castles, E. V. (2012). The internal dynamics of migration processes and their consequences for Australian government migration policies. University of Sydney.

United Nations : Population Divsion. (2013). Population Facts : International Migration. United Nations.

World Bank, J. U. (2015). Local Leaderhsip on Mobility, Migration and Development. UN Secretary-General's Special Representative on Migration. NewYork.

❐ ❐ ❐

Bicycle Friendly Campus Planning – Case of Guru Nanak Dev University, Amritsar, India

Sakshi Sahni, Hardeep Singh Sekhon

Introduction

Campuses are communities in themselves which have various activities of academic or educational, recreational and cultural nature. These are places of interaction at various levels. The campuses today have become problematic due to issues of congestion and parking, thereby leaving the faculty, students and administration disturbed. This research paper is an attempt to provide sustainable transportation solutions to Guru Nanak Dev University by making it bicycle and pedestrian friendly taking lessons from global experiences.

Campuses

Balsas 2003 states "Campuses are diverse communities where people from various backgrounds, incomes, lifestyles and attitudes come closer together to live, study, work and recreate" (Balsas, 2003, p36). Campuses are generally self-contained neighbourhoods where library, classrooms, offices, apartments, auditorium, play grounds, student's centres, child care facilities, performance halls, art galleries, gymnasiums, swimming pools, sports centres, daily need shops and shopping centres are in nearby locations. They have their own streets, squares and open spaces, where people can stroll and get together (ibid).They are also major traffic generators, which require extensive parking areas(ibid). Campuses also interact, interrelate and affect their surrounding neighbourhoods as they offer off-campus housing, generate traffic and impact parking (ibid). Campuses also draw large number of people and are often major employers for a city(Warren, Davidson, Cervenka, Davy and Parsons, 2004 cited in (Antasia L, 2014,p198).While some trips to and from the campus involve commutes by private vehicle or public transit, many initiate from nearby

locations and are better suited for walking and bicycling. The result is a multimodal environment with high levels of vehicular traffic (Antasia L, 2014, p198). This co-existence of multiple transportation modes in the bounded setting gives planners the opportunity to explore non-motorised traffic modes like bicycling and walking thereby creating congenial environment of the campuses. Tolley 1996 cited in Balsas 2003, p36 argues the major environmental impacts of motorised transportation on college campuses include disturbance to teaching, loss of natural environment and greenery, despoliation of the visual environment by parking provision and health effects on staff and students. The solution to this can be thought of in terms of sustainable transportation planning which provides incentives for walking, bicycling, using mass transit like metro or BRTS, ridesharing or car-pooling, reducing the use of single occupancy cars by transferring the full costs of parking to drivers and linking transportation planning to land use planning (Balsas,2003, p37). In this research paper, an attempt has been made to make Guru Nanak Dev University Campus pedestrianised and bicycle friendly.

Research Study and Question

Due to increase in vehicular traffic in Guru Nanak Dev University, Amritsar over the past few years, parking areas in the campus have started shrinking, hence creating congestion on roads thereby resulting in parking of cars on the access roads, which has created disturbance of visual aesthetics and landscaping. There is a need to shift to a non-motorised vehicular mode of transportation on the campus like walking or pedestrianisation and making the campus bicycle friendly. The aim of the research paper is to provide bicycle friendly plan and pedestrianisation of the campus. In this paper, we have tried to make Guru Nanak Dev University campus pedestrian and bicycle friendly learning from best practises across the globe.The research is an attempt to adapt to sustainable transport modes by learning from international case studies and literature review. The research tries to find out how well GNDU campus can be adapted to sustainable modes of transport or non-motorised modes of transport.

Methodology

The research paper is based on both primary and secondary data available. Based on the secondary data available from various sources, literature review has been done. From international and Indian experiences, lessons are drawn and recommendations for Guru Nanak Dev University have been made. The research is not funded by any organization. A study done by a student

on parking spaces of campus has been referred.

Literature Review

Campuses are multi modal settings with very high levels of walking and cycling in conjunction with high levels of vehicular traffic, thereby increasing risks for pedestrians and bicyclists (Antasia L, 2014,p198).Balsas(2003) states that campus planners have struggled to provide access and mobility without destroying campus' distinct qualities. In today's context there is a growing concern regarding air quality, increasing congestion, lack of land for parking, the high cost of constructing parking structures, pressures to reduce traffic's impact on surrounding neighbourhoods and constraints on financial resources. Many universities are exploring a range of environmentally appealing solutions to alleviate congestion and improve safety for all campus users (Poinsatte and Toor 2001, cited in Balsas 2003,p35).

There has been an increasing volume of literature in the past few years on sustainable transportation with respect to non-motorised transport and pedestrian safety like Balsas, 2003. We will find abundant published literature on walking and bicycle safety, with little focus on campus planning. While the UK and USA have a lot of researchers in this context, India still lags behind. Publically, while going through online source, little is available on bicycle friendly campuses in India. Although a number of research articles are available on non-motorised transportation or bicycling and pedestrian friendly cities in India, there is little in terms of bicycle friendly Campus or university. I am aware of IISc Bangalore and IIT Roorkee which have made their campuses eco-friendly by promoting non-motorised transport but I could not find much literature on it. Hence, mostly international case studies have been referred and inferences drawn from them.

Bicycle friendly campuses

Balsas, 2003 states that walking and bicycling are complementary modes of transportation to get to and around the campus. In case of many colleges, a high percentage of students lives on campus, and another considerable percentage of students and staff lives within a reasonable walking and cycling distance. The bicycle offers riders speed and flexibility over short distances. It produces no pollution, uses no energy, is silent, can be accommodated in relatively little space, is fast and cheap, and is also accessible to many people who cannot drive, especially the young (Tolley, 1996, p. 215 as cited in Balsas, 2003,p38).

Internationally, many universities have made their campuses bicycle friendly thereby becoming more dependent on non-motorised modes like bicycling and walking. Some of these

include, University of California, Santa Barbara, University of Arizona, Tucson, University of California, Berkeley, and University of Wisconsin, Madison. All these universities have among the best signage practices (Martini, 2012). In India, certain campuses like IIT Roorkee, IIT Delhi, and IISc Bangaloreare promoting non-motorised transport initiatives. Since not much literature is available online and through secondary sources about campuses in India, we have tried to learn from international case studies. A table has been prepared regarding bicycle and pedestrian movement in these campuses.

Best signage practices adapted from draft report of "Best Practice Study of Bike Friendly Universities: Sidewalks & SignagePolicies, Western Michigan University"

Figure 1 : 'No Bike' sign at ADA cutout

Source: Martini et al, 2012

At the University of California, Santa Barbara, non-motorized traffic control is mostly done by enforcement and infrastructure. For example, bike paths are demarcated with lines to split paths into lanes for each direction of travel. There has been a conscientious effort to keep signage limited to avoid signage pollution, but some locations do use a 'No Bike' sign as Americans with Disabilities Act (ADA) cutouts on sidewalks to discourage pedestrian sidewalks from being ridden on by cyclists (figure 1). Additionally, A-frame sandwich boards are used at high priority/high traffic locations.

The signs indicate a 'Pedestrian Only' area, instruct cyclists to dismount, and inform them of a $150 fine if they are found in violation of this policy. If a student is charged a fine, he/she can participate in the Fixit Ticket program, which allows them to take a cycling safety class with public safety in order to be charged a reduced fine fee (Martini et. al, 2012,p3)

Figure 2 : Standard Signs

Source: Martini etal, 2012

University of Arizona, Tucson makes use of the 'No Bike' symbol at some ADA cutouts to deter cyclists from riding on pedestrian use sidewalks. Additionally, some standardized signage is used, including the MUTCD 'Walk your Bike' sign, which is used at dismount zones and the 'Yield to Peds' sign, which is used on shared use pathways (figure 2). Cycling is encouraged on roadways, which are marked with inlaid shared lane markings (also known as 'sharrows') made from reflective thermoplastic (figure 6). Anecdotally, sidewalk signs have proven to be most effective when used in conjunction with posted signs (Martini et al, 2012, p3).

Figure 3 : Pedestrian priority zone sign

Source: Martini et al, 2012

Boise State University communicates their policy through signs and on pavement markings. Posted signs are used to indicate 'Pedestrian Priority Zones' while pavement markings are used as a visual indicator of where bikes should go (figure 3) (Martini et al, 2012, p3). It helps people to distinguish between bicyclist priority zones and other zones giving preference to bicyclists and pedestrians on these roads.

Figure 4 : Shared-use sign

Source: Martini et al, 2012

University of California, Berkeley has developed a modifiedsign, which is both permanently posted, and used with a mobile, A-frame variant for temporary applications (figure 4)(Martini et al, 2012,p4).

Figure 5 :Walk zone mobile A-frame

Source: Martini et al, 2012

University of Wisconsin, Madison uses pavement markings (Similar to MUTCD signs) on shared use pathways to keep bike traffic on theright and pedestrian traffic on left of the shared path (figure 5)(Martini et al, 2012,p4).

Figure 6 : Shared lane marking

Source: Martini et al, 2012

Georgia Institute of Technology has a limited implementation of non-motorized transportation control signage. Currently they make use of thermoplastic inlay sharrows on roadways (Martini et al, 2012, p4) (figure 6).

We have tried to do a comparative matrix for the three universities i.e. North Carolina University, University of Virginia, University of Texas and the

Table 1 : Progrms in various Universities across the globe

Programs	North Carolina University	University of Virginia	University of Texas
Bicycle signage	✓		
Bicycle share program	✓		
Bicycle lockers/Storage facilities	✓		✓
Creation of Bicycle Master Plan	✓	✓	✓
Bicycle Path/Lanes	✓	✓	
Bike Racks	✓	✓	
Bicycle Advisory Groups			**Bicycle Committee**

Figure 7 : Bicycle racks at the University of Texas

Figure 8 : Cycle-Safe lockers offer protection from theft and the elements

Source: University of Virginia, Bicycle Master Plan

kind of programs they are running can be learnt and if suitable, on same lines Guru Nanak Dev University can start the programs. Refer table no 1

Figure 9 : Wave style racks under overhang, NCSU

From the above literature review, conclusion can be drawn that Universities across the globe are running their Bicycling programs quite effectively and efficiently and lessons can be drawn from them as mentioned in Table 1. Incentives to be given to the students and faculty members who contribute in making the campus car free i.e. pollution free.

Case Study- Guru Nanak Dev University, Amritsar

Location of campus

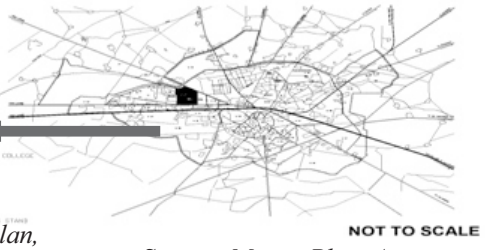
"Guru Nanak Dev University" was established in Amritsar, Punjab, India on November 24, 1969 to mark the 500th birth anniversary of the first guru of Sikhs, Sri Guru Nanak Dev Ji. The site is located on the road leading to Attari border and Ramtirath road on northern side which makes the site easily accessible. Site is located next to the Khalsa College, Amritsar on the Attari road of Amritsar. (Refer figure no:I).

Guru Nanak Dev University is spread over an area of 500 acres (2 square km). It has 36 academic

Fig no II: Map of G.N.D.U.

Source: North Carolina Master Plan, 2011

Fig no I: Map of Amritsar



Source: Master Plan, Amritsar.

departments. In addition to academics, the University has created necessary facilities for recreation and all round development of its students and faculty in the form of the Department of Youth services, National Service Scheme, a 900 seat auditorium, half a dozen seminar and conference halls, a modern hi tech sports complex, sports hostel, faculty club, students centre, health centre, day care centre, working women's hostel, and Baba Buddha College Bhawan along with on campus residential facilities for students, teachers and administrative staff. Total number of students in the campus in the year 2014 – 15 is 11,297.

Around 4000 students reside in five hostels. Teaching staff number 465 and non-teaching staff is 530. There are a total of 11 parking lots serving 36 departments under 11 academic blocks. There is insufficient availability of parking space in various lots leading to on-street parking thereby reducing the effective road width.

Initially when the Guru Nanak Dev University Campus was established in 1969, it was a pedestrian and bicycle oriented campus. Cars and two wheelers were not in fashion as they are today. Both teaching and non-teaching departments and staff of the

Table 2 : Details of Parking Lots in Academic Zone of GNDU Campus

Parking lot no.	Influence Area	Area (sq.mt.)	Capacity (E.C.S)	Type of Parking
1.	Computer Science and Engineering Block, Physics Bock, Bhai Gurdas library	1483	82	2 wheeler
2.	Computer Science, Physics ,Bhai Gurdas library	1724	96	4 wheeler
3.	Electronics Deptt., Deptt. of Botanical Sciences and molecular biology, Centre for emerging life sciences	2303	128	2 wheeler
4.	Guru Nanak Studies, Law Deptt,Arts Block	3102	172	4 wheeler
5.	Students Centre, Arts Block& Law Deptt.	2427	135	2&4wheeler
6.	Deptt of Architecture, Social Sciences, Asia House, GRD School of Planning	1860	103	2&4wheeler
7.	BhaiGurdas Library, Dashmesh Auditorium	538	30	2&4wheeler
8.	Chemistry and Applied Sciences	1753	97	2&4wheeler
9.	Physics Department	320	18	2&4wheeler
10.	Faculty of sports and medicine	575	32	2&4wheeler
11.	Biology Block	1516	55	4wheeler
Total area under parking		**17645**		

Source : Singh Prabhjot (2015) Primary Survey

University came either on foot or bicycle. With the passage of time, the bicycles have been replaced by motor vehicles thereby disturbing the peace and serenity of the campus. This has resulted in shrinking of spaces both parking and roads thereby causing congestion. The bicycle today has remained as a mode of transportation only for the security guards or the non-teaching staff of the University.

Existing Parking Facility

There are totally eleven parking lots which serve 36 departments under 11 academic blocks. There is insufficient availability of parking space in various parking lots in the campus. On-street parking is leading to reduction in the effective width of roads (Refer Table 2).

There are other parking lots which includes administrative zone which have 5 parking lots and ECS is 275 for 530 employees covering an area of 4954.3sqmt.The total recreational space which includes swimming pool/Astro turf hockey stadium, gymnasium and botanical garden have total area of 5234 sqmt. and ECS of 291(Singh Prabhjot, 2015)

Parking Utilization Index has been calculated as the ratio of occupied spaces to the total parking spaces. Parking index is %age of parking bays actually occupied by vehicles as compared to the theoretical number available. Singh 2015 conducted parking utilization survey of six parking lots of academic blocks and came to the conclusion that two parking lots are overutilized while the rest four are fully utilized (Refer Table 3).

Table 3 : Parking Utilization Index of GNDU Campus

Parking No./Adjoining Deptt	Total available parking spaces	No. of occupied spaces	Parking Utilization Index	Status
Parking 1: Computer Science	185	214	116%	Over Utilized
Parking 2: Computer Science and Physics Deptt.	290	276	95	Fully Utilized
Parking 3:Bhai Gurdas Library	55	63	115	Over Utilized
Parking 4 : Law and Arts Parking	215	210	98	Fully Utilized
Parking 5: Guru Nanak Bhawan Parking	330	305	92	Fully Utilized
Parking 6:Electronics ,Botanical, Biological, Life Sciences	358	301	84	Fully Utilized

Source: Singh Prabhjot, 2015, Field Survey

Hence from the above data, we can conclude that there is a dire need to shift to other modes of transportation in order to make campus planning more safe and sustainable. The parking lots of the campus are already over utilized or fully utilized.

Existing bicycle facilities at the campus

The existing parking facilities for the bicyclists in the campus includes the bicycle parking stands in front of the security office in the library building used by the security guards. The bicycle parking stand is also present in some of the parking areas like Maharaja Ranjit Singh Bhawan which is seldom used or is used as a parking barrier.

The condition of bicycle stand is not good. They are age old bicycle stands which already have lived their life and need to be replaced or discarded or painted. Learning lessons from the literature review, bicycle stands need to be present in each and every parking lot thereby encouraging pedestrians and bicyclists. Also parking fee of bicycle is to be kept minimal or free as compared to cars in order to encourage the bicyclists.

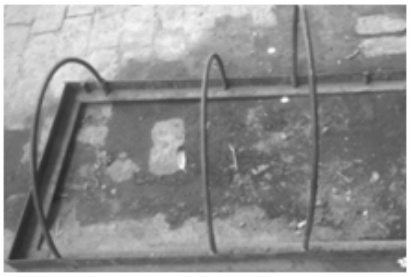
Figure 10 :Existing bicycle stand in front of security office

Source: Primary survey by the authors, April 2015

Existing Pedestrian Pathways

The pathways are present in the front entrance of GNDU from G.T Road and in the central or academic zone of the campus. From the entrance to the main library building, pathways are present. But these pathways are not covered by shady trees. Boy's hostel connectivity with the academic zone is poor. There are no pathways for the access of students to reach to the academic zone. Similar is the case in Junior Boy's hostel for reaching academic zone. The hostel is about 450 m from Gurudwara which is also without access to pathways.

Figure 11 : Existing condition of bicycle stand

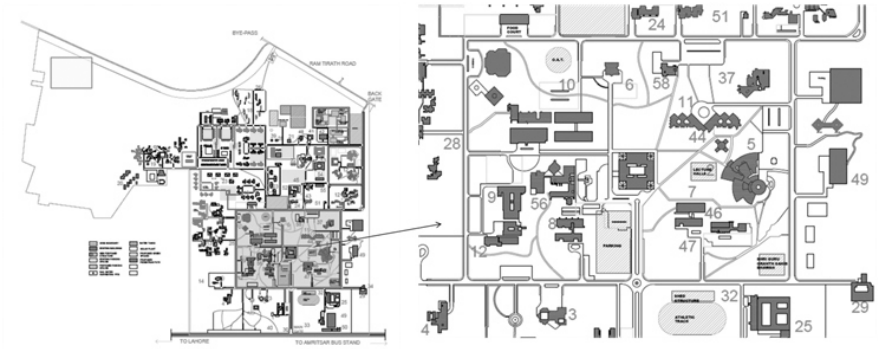


Source: Primary survey by the authors, April 2015

Proposed Pedestrian Pathways

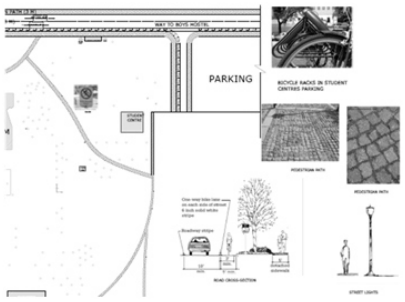
The zoomed in portion shows the proposed pedestrian pathways in the campus. These include the pathways surrounding the main library building. Some of these have recently been implemented by the University authorities. We have tried to connect various pathways through different buildings as connected points.

Figure 12 : Proposed pathways near main library



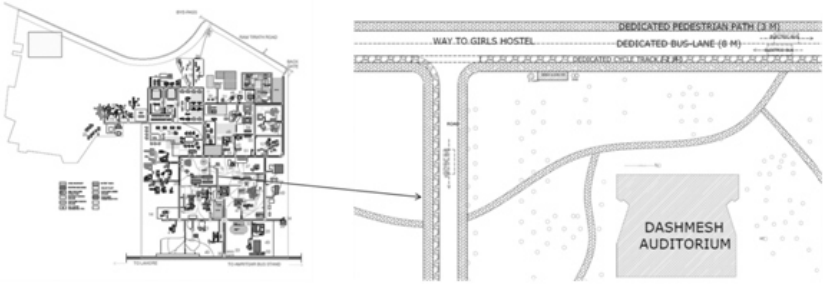
The above map at Figure 13 shows the details of foot path near the students' centre. The road cross section also describes the bicycle path and the pavement pattern can be both green and hard, i.e. soft and hard elements. Along the pedestrian pathways, shady trees and street lights should be present for ease of pedestrians during the night. In order to make these pathways more interesting, there can be rocks along the side as in the case of Japanese gardens, which can act as a hard element. The

Figure 13 : Proposed blowup of pedestrian and bicycle parking near Boy's hostel road



signage can help pedestrians in a better way to move from one department to another on these pathways. In figure 14, we have made a proposal for pedestrians on the back of Dashmesh auditorium leading to girls' hostel. These are some of the zoomed in portions of the GNDU campus where pedestrian paths are required.

Figure 14 : Blowup near Dashmesh Auditorium of pedestrian path



Recommendations for Safer Campuses

From various sources, we have come to the conclusion that Bicycle week can be celebrated, and a GPS bicycle route can be developed in the GNDU campus. A bicycling website can be developed by the Computer Science Department, funding of the bicycle program can be run through grant by Ministry of Transport, bicycle parking facilities to be made in various parts of the campus. Another suggestion is to hike the existing parking fee for motorised vehicles to four or five times so that bicycling is encouraged in the campus. According to Antasia L, 2014, p210 establishment of short and long term campus master plans for walking and bicyclists, the banning of automobiles from inner campus streets, the installation of attention grabbing traffic signage on the campus, the creation of bicyclist networks, etc. can all be adopted. Campus administrators should consider conducting a web based survey every four to five years. Campus planners should assess the feasibility of reorganizing non-motorised traffic near major activity hubs (Antasia L, 2014,p211). Improvements include channelling bicyclists through 'Bicycle Only' paths near activity hubs and converting pedestrian heavy paths into 'Pedestrian Only' zones. Campus should also pay particular attention to its major entry points; because it is where different modes interface. It is important that the traffic control strategies deployed in the campus access hubs prioritize the smooth passage of pedestrians and bicyclists (Antasia L, 2014,p211). Traffic signals at intersections should give generous time for pedestrians on

crosswalks leading to the campus, and traffic calming measures (e.g. vertical or horizontal deflections, medians) should be considered. Good lighting and signage are also important at all access points. Campus bicycle plans should be cognizant of the origins and destinations of pedestrian and bicycle commuters so that 'Pedestrian Only' and 'Bicycle Only' access points are appropriately selected around the campus (Antasia L, 2014, p211). Dobbs 2009 and Guyton 1983 cited in Antasia L, 2014, p199 suggest that there should be a separation of pedestrians, bicyclists and motorists on campuses to reduce intermodal interactions and hence points of conflict. Intersections and mid-block crosswalks with distinct features in terms of texture and colour, to remind motorists that they are in a campus setting (Benekohal et at;2007, Rodriguez- Seda,2008;Zeger, Seidermanetal. 2002). Reduced usage of personal vehicles on campus (limiting number of student parking permits; giving incentive for employee rideshare; providing priority parking for carpools and vanpools) (Guyton,1983, Rodriguez – Seda 2008)

Recommendations from University of Virginia Master Plan

- Bicycle lanes and pedestrian paths should be well lit, provide ample space for passing bicycles/pedestrians, and provide properly spaced emergency call boxes. Additional amenities such as bicycle lockers, water fountains, and enhanced landscaping can also help (University of Virginia, Bicycle Master Plan)
- The master plan redesigns campus routes to include bicycle paths, lanes, roadways and corridors, with bicycle traffic and parking permitted exclusively on and in designated streets and areas. Recreational bicycle paths will run parallel to pedestrian paths
- Establish a bicycle advisory committee to address bicycle related issues and assist with future transportation and Grounds plans
- Incorporate bicycle facilities into new construction
- Implement a bicycle registration policy
- Arrange for free rides on buses for University community members as an alternative to bicycling when weather conditions or other factors make bicycling challenging
- Provide covered and secure bicycle storage facilities such as bicycle lockers
- Provide bicycle amenities such as

showers, changing areas, and air pump stations

The above mentioned points make it quite clear that learning from various experiences worldwide, these recommendations can be used in order to make an efficient sustainable bicycle campus plan. If we implement these recommendations, Guru Nanak Dev University campus can be made a car free pedestrian friendly and bicycle friendly campus in the near future and our future generations will appreciate us for pollution free environment. The following explains it well:

"The most sustainable way is to not make things. The second most sustainable way is to make something very useful, to solve a problem that hasn't been solved" – Thomas Sigsgaard

References

- Anastasia Loukaitou-Sideris, Aditya Medury, Camille Fink, Offer Grembek, Kevan Shafizadeh, Norman Wong & Phyllis Orrick (2014) Crashes on and Near College Campuses: A Comparative Analysis of Pedestrian and Bicyclist Safety, Journal of the American Planning Association, 80:3,198-217, DOI: 10.1080/01944363.2014.978354 Retrieved on 15/04/2015
- Balsas Carlos J. L, Sustainable transportation planning on college campuses, Transport Policy, vol 10, 2003, pp35-49
- Martini Kevin, Hollander Matthew and Glasser Harold, Best Practice Study of Bike Friendly Universities: Sidewalks & Signage Policies, Draft Report also available at http://wmich.edu/sites/default/files/attachments/u159/2014/WMU%20OfS%20Best%20Practice%20Study%20of%20Bike%20Friendly%20Universities%20Sidewalks%20and%20Signage%20Policies%20KM.pdfretrieved on 27/04/2015
- Andrew Greene et al, University of Virginia, Bicycle Master Plan ,
- Campus bicycle and pedestrian Plan, North Carolina State University, October 2011
- Kincaid, Virginia, "A Policy and Infrastructure Analysis of Bicycle Friendly Campuses: an Examination of Three Atlanta-area Universities." Thesis, Georgia State University, 2014. Available at http://scholarworks.gsu.edu/iph_theses/331
- Singh Prabhjot, Planning for Parking in GNDU Campus (2015) , Unpublished Thesis , Guru Ramdas School of Planning, Guru Nanak Dev University, Amritsar

❐ ❐ ❐

My Well, Our Water: Can Citizens become Stewards of Groundwater?

Aditi Hastak, Avinash Krishnamurthy, Shubha Ramachandran, Vishwanath S, Rajiv Hemanth

Groundwater is used by more than 1.5 billion urban dwellers worldwide, although there is no systematic and comprehensive data to quantify trends (Foster et al, 2010). Groundwater resources will continue to form an important element in urban water supply given that global urban population is expected to nearly double to 6.4 billion by 2050, with about 90% of the growth in low-income countries and a predicted increase in the number of urban slum dwellers to 2.0 billion in the next 30 years (Foster and Vairavamoorthy, 2013).

Furthermore, India's groundwater usage is significant with statistics available for irrigation and rural drinking water supply. Recent data from various sources clearly indicates that 'urbanizing' India also has a significantgroundwater-footprint (Kulkarni and Mahamuni, 2014). Three recent statistics point to how at least half of urban India clearly depends upon groundwater for its various needs.

1. Averaged for 71 cities and towns, groundwater constitutes 48% of the share in urban water supply (Narain, 2012).

2. In India, 56 per cent of metropolitan, class-I and class-II cities are dependent on groundwater either fully or partially (NIUA, 2005).

3. Unaccounted water in urban areas exceeds 50% according to the CGWB's report on the groundwater scenario in 28 Indian cities (CGWB, 2011).

The city of Bengaluru is familiar to this situation. A quick glance at the table below suggests that approximately 40% of the total water demand in the city is met by groundwater. The following calculation considers demand of 135 litres per capita per day (lpcd) in urban area. However, Biome trusts' field experiences suggest that the actual water consumption is beyond 135 lpcd, sometimes upto 200 lpcd.

Population as per 2011 Census	8.4 million
Population in 2015	11 million
Demand @ 135 LPCD	1485 MLD (Million Litres a day)
Quantity of water sourced from Cauvery by BWSSB	1410 MLD
Leakages – 40%	~500 MLD
Groundwater to the rescue!	~575 MLD

There are certain pockets in Bengaluru which are completely dependent on groundwater as there is no piped network to supply water. Yamalur watershed, which is the project area for aquifer mapping program, falls within this category. The complete dependence on groundwater has led to significant falling in the borewell depths, increased hardness of water, increase in number of failed borewells, drying of borewells, etc. over the years.

To tackle such level of crisis, citizens have come together and are working with the city's governance institutions for better groundwater management. A residential layout, Rainbow Drive on Sarjapur road succeeded in sustainably managing the water resources within the layout with stringent measures. The layout has completely banned private borewell drilling, has installed a phytoremediation based sewage treatment plant and has more than 350 recharge wells at community level and within storm water drains and has achieved 100% rainwater harvesting within their campus and wastewater treatment- reuse for landscaping. Through these measures the layout has successfully moved from being dependent on groundwater overdraft to being very significantly water positive.

Furthermore, citizens voluntarily started coming together for resolving the issues around lakes. Several citizen groups like MAPSAS, PuttenahalliLake group, White field rising, Agara Lake, etc. have been formed over last decade and more are being formed. Each of the citizen groups works together with the civic agency, with other residents in the community and with corporates, for maintaining the lake in the best possible way.

The response by the citizens has forced the private market and the formal institutions to take concrete steps. The builders and developers have started to adopt responsible innovations in their services. For instance, rainwater harvesting and sewage treatment plants are being set up at the apartments and are operated and managed efficiently.

While there are many examples and demonstrations of good practices by citizens, they have been disparate. The disparateness can also be attributed to the fact that groundwater is a complex common pool resource. There is a need to upscale and coordinate these practices into a management response to the groundwater crisis. Currently groundwater abstraction, particularly in the urban context, is atomized. Combinations of formal and informal openwell, borewell, groundwater and water treatment markets enable citizenry to cope with formal institutional water supply & sanitation service inadequacies and shortcomings. The greatest challenge of groundwater management is therefore the need to embed management responses in the practices of this universe of dispersed actors. Yet our understanding of Aquifers, the logical "unit" for groundwater management is very poor. Therefore, Biome Environmental Trust & ACWADAM with support from Wipro and Mapunity, are attempting to explore an approach-participatory aquifer mapping- to help holistically address some of the challenges mentioned above.

This approach is an attempt to test the following hypotheses on ground in Yamalur watershed, located south east of Bengaluru:

- Owing to the fact that these dispersed set of actors are through their own way responding to the groundwater crisis, can the process of developing an understanding of the aquifer – drawing the aquifer map – itself be driven by the participation of these actors? Can these actors share the stories and data of their wells, borewells and STPs? It is hypothesized that the closing of the feedback loop by sharing interpretation of this data through the lens of hydro geology back to the citizens increases the possibility of citizens becoming water literate, improves their understanding of groundwater knowledge. This is a pre-requisite for practices to collectively represent a management response to the groundwater crisis.

- Further it is hypothesized that such a process of engagement and the knowledge sharing, in the context of the experience of the water crisis will drive citizens towards forms of self-regulation: demand management, rainwater harvesting, groundwater recharge and appropriate wastewater reuse & management. This willconstitute a groundwater management response. It will

further add value to forms of citizen actions at neighborhood levels viz. citizen activism to save and revive lakes.

- And lastly it is hypothesized that such self- regulation and associated behavior change will have learnings for governance institutions to embed in the policy for water and groundwater management in Bengaluru. This will also have lessons for urban groundwater management across India.

The concept of this program evolved as a result of the conversations that emerged between Biome Environmental Trust (Biome) with WIPRO Technologies Ltd (Wipro), a corporate entity "wanting to be responsible in their water use". The program receives support from Wipro under their sustainability initiatives. The program intentionally drives a community engagement "beyond the efficiency, rainwater harvesting and waste water reuse measures within the campus fence". The project is work in progress and the summary elaborates on the learnings of the first year of the project.

Process of engagement with citizens

Yamalur watershed:

The project area is located in south east part of the city spread across 33.81 sq.km. It consists of 8 micro-watersheds with a mixed land use pattern of residential, commercial and Panchayat. The area is completely groundwater driven with no piped supply and underground sewerage network. The BBMP area with multiple wards and Halanayakanahalli Panchayat account for a population of 117844 and 5936respectively (2011 data).

Pertaining to the diverse group of population and diverse nature of the data to be collectedfor better groundwater management, a combination of methods was used.

The nature of data that the project seeks can be classified into following categories broadly:

a) Well and borewell data – static water levels, pumping and water quality

b) Water demand/consumption data

c) Waste water generation data

d) Data on waste water management

e) Narratives from citizens about water and wastewater

The data collection involves a mix of primary data collected through field visits and also stories contributed in a participatory manner by people. The

primary data will attempt to achieve two things:

- Ensure a basic set of data points whose quality is ensured
- Capture forms of data that participatory methods may not provide.

Data by participatory methods will enrich and bring alive what's happening on the ground and the basic primary data is then interpreted through the science of hydro geology.

To facilitate the primary data collection as well as participatory engagement, a combination of methods was used. The table below describes the nature of engagement with different actors:

Types of Stakeholders	**Processes of engagement & nature of participation**	**Contribution**
Residents' Welfare Associations, Plot Owners Associations individual households and individual citizens	Contribution of data from their own records, permission to install regular monitoring devices, one time measurements onsite. Engagement through events / workshops. Creation of "Citizen Data Volunteers".	Data about demand, supply, wells/borewells & waste water management. Skills such as documentation, video/photo & communication design. Open source tools such as for data collection & mobile apps.
Schools & Educational institutions	For creating awareness about sustainable water management- through rainwater harvesting, recharge well construction, water quality awareness.	

Types of Stakeholders	Processes of engagement & nature of participation	Contribution
Business campuses and their employees	Sharing of the questionnaire for data collection through emails and telephonic discussion.	
Service providers (Borewell diggers, camera inspection, tanker operators, etc)	One-on-one conversations, Events & workshops.	Data from their service records, knowledge of what's happening in the region.
Other researchers	Knowledge partnering.	Research skills, other data and knowledge
Formal institutions (Central Ground Water Board, Bruhat Bengaluru Mahanagar Palike (BBMP), Karnataka State Pollution Control Board (KSPCB), etc.)	Creating a space for dialogue between citizens and the institutions, direct engagement for knowledge exchange.	Secondary data, lake Detailed Project Reports, knowledge sharing.
Informal settlements/Slums	Understanding issues faced by them, ways of water management in their settlements.	Exposure to still existing open wells near the construction workers' settlement, water meters at labor colony as an interesting way of keeping a tab on water usage by builder.

The first year of the project struggled with identifying relevant community for particular set of data. The engagement in the first year for data collection was primarily with RWAs, POAs and other residential groups. However, we do realize the importance of engaging with all other actors mentioned above and further steps are being taken.

Additionally, a software platform (www.groundwaters.in) is also developed which is thought of as a place of interaction i.e. a gateway for conversation around water.

While the project is still trying to understand the visualization that will help the citizens to better understand the science of groundwater, the platform will try to facilitate the following:

a. Close the feedback loop and communicate back to the communities the interpretation of all data and the aquifer map

b. Communicate to citizens the implications of this, what good practices are, how they can be implemented, what this means in terms of regulations and laws, contacts of various service providers to enableimplementation, etc.

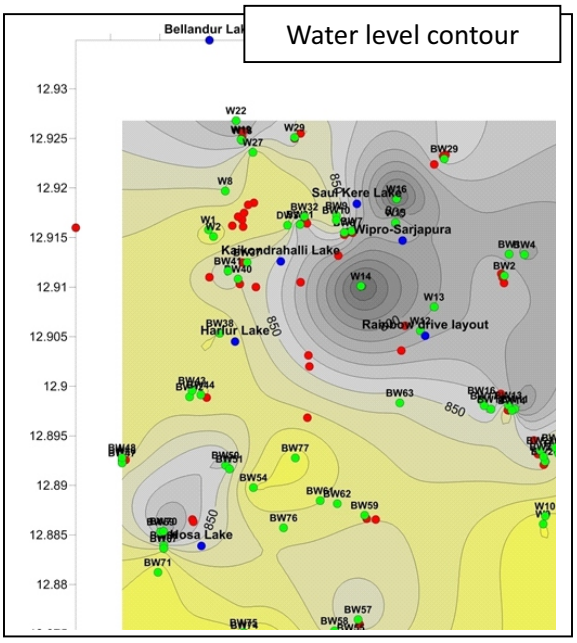
c. Provide a space for continued conversations by citizens which can enable peer learning, more data to come in and new stories to be captured

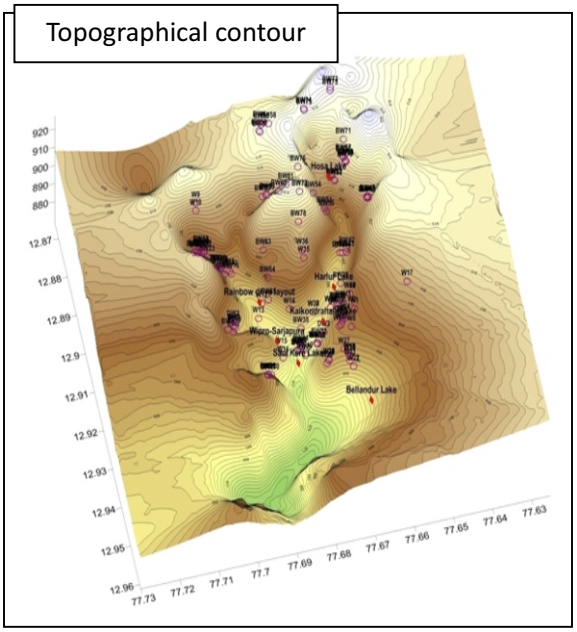
Learnings so far

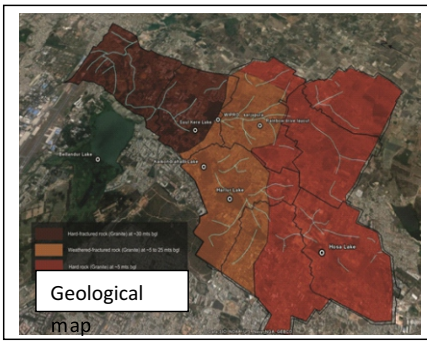
➢ As mentioned above, data collection process was facilitated with range of methods. Yet, not all the data was easy to obtain. The data related to geology, depth at which water was struck was difficult to obtain as drilling agencies do not maintain borewell logs nor is the owner aware of it.
Also, even if the data is available it is segregated with different concerned departments like BBMP, BWSSB, KSPCB, etc. making it difficult to access.

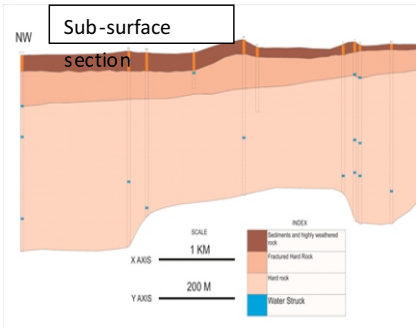
➢ Hydrogeology and the interpretation of data: Based on the data collected through traverses, individual borewells and static water levels a mapping exercise was conducted.

The aquifer map developed is in preliminary stages. However, in the first year a clear learning is that communicating hydro geology is more easily done through case studies. It may also incentivize them to participate in future- be citizen volunteers- for taking the understanding to many other people and making informed decisions. For instance, understanding and establishing the linkages between groundwater recharge and borewell yield, groundwater depth and water quality from on-ground exercises at


Water level contour
Bellandur Lake
Sauf Kere Lake
Wipro-Sarjapura
Kaikondrahalli Lake
Harlur Lake
Rainbow drive layout
Hosa Lake
850
12.93
12.925
12.92
12.915
12.91
12.905
12.9
12.895
12.89
12.885
12.88


Topographical contour
Bellandur Lake
920
910
900
890
880
12.87
12.88
12.89
12.9
12.91
12.92
12.93
12.94
12.95
12.96
77.73
77.72
77.71
77.7
77.69
77.68
77.67
77.66
77.65
77.64
77.63





places like Rainbow Drive Layout will guide further steps for better groundwater management. Yet, demystifying the science of groundwater in ways which citizenry finds useful is a challenge in itself.

➢ The engagement with citizens helped in realizing a practical problem of excess treated wastewater. Many apartments are left with excess treated water and yet, KPSCB's zero discharge norm prevents citizens from discharging the treated water outside the campus. After realizing thisgenuine issue, an audience was sought with KSPCB and KSPCB was more than willing to listen to citizens' difficulty and address the problem. The dialogue helped in sharing of concerns by the citizens with the KSPCB and also in creating a direct line of contact. Currently, engagement with KSPCB is on-going and conversations with apartments for discharge of treated wastewater into lake and/or recharge well is in process.

➢ It is beneficial to exchange knowledge within the community-peer to peer learning- so that people become aware of the good practices adopted by others in the community and to learn from them. The exchange of thoughts also helps in understanding the challenges they encountered and overcame as well as to create a sense of competition to move towards managing water in a better way.

➢ It was also realized that service providers- an informal group of people who are very important in the water sector- need to be recognized and engaged in a more effective way. They are a source of huge inventory of data as well as low cost technology and innovations which when explored appropriately are a treasure.

➢ And lastly, the program also has learnings for corporates on how to engage in the domain of groundwater management within their fence as well as outside the fence.

The program is very much work in progress and the fundamental hypothesis is yet to be completely validated or negated. However, as hypothesized, the process of engagement has resulted already in very interesting outcomes such as KSPCB citizen dialogue and other communities exploring replication of practices like Rainbow Drive Layout.

References

1 Central Ground Water Board. (2011). Groundwater Scenario in Major Cities of India. Ministry of Water Resources, Govt. of India

2 Foster, S., Hirata, R. and Garduno, H. 2010. Urban Groundwater Use Policy – Balancing the Benefits and Risks in Developing Nations. GW-MATE Strategic Overview Series 3. World Bank, Washington, DC, USA.

3 Foster, S. and Vairavamoorthy, K. 2013. Urban Groundwater-Policies and Institutions for Integrated Management. Global Water Partnership.

4 Kulkarni, H. and Mahamuni, K. 2014. Groundwater in Urban India. Paper submitted as input to Shah, M. 2015. Urban Water Systems in India: A Way Forward. Position Paper for ICRIER-GGGI, New Delhi.

5 Narain, S. (2012).Excreta matters, Vol 1. Center for Science and Environment, New Delhi

6 NIUA. (2005). Status of water supply, sanitation and solid waste management in urban areas. New Delhi

7 When pigs fly: Citizens at the center of integrated urban water management. A report on Rainbow Drive Layout's efforts towards water sustain ability accessed from http://www.indiawaterportal.org/sites/indiawaterportal.org/files/Rainbow%20Drive%20Layout%27s%20efforts%20towards%20sustainability_Biome_2009.pdf

8 http://dpal.kar.nic.in/ao2011/25of2011(E).pdf for Karnataka Groundwater (regulation and control of development and management) Act, 2011

❐ ❐ ❐

The Quantity-Quality Trade-off of Urbanisation: Does it exist in Rajasthan?

Neha Paliwal

Introduction

Urbanisation is a continuous process which is unabated in every country of the world. Simply defined, urbanization is the process of growth in the proportion of the population living in urban areas. When urbanisation is measured as a growth in proportion of urban population it becomes a quantitative phenomenon then the question arises as to how it could be a qualitative one. When the impact of urbanisation on quality of life of urban people is realised and assessed then its qualitative aspect comes into the picture. Urban quality of life in general terms may be described as representing how well needs of human beings are met or the extent to which individuals or the community experience satisfaction in various domains of urban life (Costanza et al.2007). There is no agreement regarding how urbanisation affects the quality of life.

To some it has been seen as a positive force in economic development which improves quality of life of people, as economic activity shifts out of agriculture to more remunerative activities(Fujita et al. 1999; Duranton and Puga 2004). Indeed, longstanding theories of economic development, going back to Arthur Lewis and Simon Kuznets, have viewed population urbanization as a core part of the process leading to economic growth and distributional change (including poverty reduction) in poor countries (Lewis 1954; Kuznets 1955). Urban living is often associated with higher levels of education, better health, greater access to social services, and enhanced opportunities for cultural and political participation

To others, urbanization has been viewed in a somewhat less positive light — a largely unwelcome for bearer of new poverty problems. The rapid and unplanned urban growth threatens sustainable development when the necessary infrastructure is not

developed. The present experience of the world shows that despite the comparative advantage of cities, urban areas are more unequal than rural areas and hundreds of millions of the world's urban poor live in sub-standard conditions.

Accelerated urbanisation thus emphasises on quantity-quality trade-off of urbanisation which means that the increase in quantity or degree of urbanisation will result in deterioration of the quality of life of the urban population. The importance of quality of life in development discourse lies in the effective allocation of scarce resources. The role of urbanization is ambivalent given that the process can either enhance effective population management and improve quality of life or erode these, depending on the competence with which the process and phenomenon are handled. Urbanization in developing countries has proceeded faster than in developed countries, but the correlation of the rate of urbanization with economic growth has been weaker than in developed countries (United Nations, 2013b).

Whether the quantity-quality trade-off of urbanisation exists or not simply means whether due to the high level of urbanisation do people have to compromise with quality of life or not. This totally depends on what is the degree of urbanisation meaning how much urbanisation has already takes place and how it is handled so its effects can vary across countries, regions and places. Therefore, instead of relying on experiences of other countries or places it is better to study the impact of urbanisation on quality of life regionally so that future prospects of urbanisation can be judged and better policy measures can be suggested.

This paper is an effort in this light which gives some insights into the pattern of urbanisation in Rajasthan and tries to explore whether quantity–quality trade-off of urbanisation exists in Rajasthan or not.

The basic research questions with which this paper deals are

1. What is the level, trend, pace and pattern of urbanisation in Rajasthan?
2. Does the quantity-quality trade-off of urbanisation really exist in Rajasthan? In other words, does the current urbanisation level have any negative impact on urban quality of life in Rajasthan?
3. What are the reasons for such type of incidence in Rajasthan?
4. What is the future prospect of urbanisation in Rajasthan and what policy suggestions can be made regarding this?

Data And Methodology

This research study is basically based on secondary data and undertakes cross-sectional data of various districts of Rajasthan for the analysis of quantity-quality trade-off of urbanisation in Rajasthan. The Data are collected from secondary sources for the year 2011, and if not available then latest available (2009 or 2010) from various sources. Since data for urban area of Banswara and Pratapgarh districts were not available for some indicators, they are not included in the study. To analyse the quantity effect of urbanisation on its quality following steps are taken:

1. Index Construction:

Two types of indices are constructed- (1) Urbanisation Quantity Index (UQI) to measure the level of Urbanisation in various districts of Rajasthan. (2) Urbanisation Quality Index (UQLI) to measure the quality of life of people in urban areas. Urban Quality Index is basically constructed on the idea of Human Development Index but some other criteria are also

Table 1: Indicators used for the computation of UQLI and UQI

Index	Indicators
Urbanisation Quality Index (UQLI)	Education Index: (1) Urban Total Literacy Rate, (2) Urban Female Literacy Rate, (3) % of Children currently attending school (6-14 years age)
	Health Index: (1) % people getting treatment for any Chronic illness, (2) Having symptoms of any chronic illness, (3)% of Institutional Deliveries (4) % of Mother who get full Ante-natal Check up (5) % of mothers who do not get any post natal check-up (6) % of Children who get full immunisation (7) % Children with birth weight below 2.5 kg
	Purchasing Capacity Index: (1) Net Per Capita Income of District, (2) Work Participation Rate (15-64 age) (3) Poverty Ratio
	Housing Facility Index: (1) % of Household (HH) with owned House (2) % HH having Pacca House (3) % HH having improved source of drinking water (4) % HH having access to Toilet (5) % HH using Electricity as main source of light (6) % HH using LPG as fuel (7) % HH having Kitchen
	Other Facility Index : (1) % HH having Telephone/Mobile (2) % HH having Computer (3) % HH having Scooters/Motorcycle/Moped (1) % HH using banking Facilities
	Security Index: % of Crimes in District
Urbanisation Quantity Index (UQI)	I. Degree of Urbanisation (Proportion of Urban to Total Population) II. Proportion of Urban Population of district in state

included such as housing and other facilities which have become necessities in urban areas these days, security and purity of environment. Since the district wise data for environmental factors were not found, this factor does not figure directly in the analysis but indirectly with indicators like-chronic illness (Asthma, Tuberculosis (TB), Arthritis, Hypertension, etc), the use of LPG as fuel and electricity as a source of light. After collection of district-wise data for each indicator, ranks were assigned to the district in ascending or descending order depending upon the indicator's contribution(positively or negatively) to Quality Index .To compute the Composite Index for a district, average of ranks is taken. For measuring regional disparity, coefficient of variation is computed and compared and districts are classified as –High level, Moderate level and Low level with the following formula.

$$\text{Clustering Coefficient} = \frac{\text{Maximum Value} - \text{Actual Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

2. Karl Pearson's Correlation Coefficient

Correlation coefficient was computed to analyse the direction and degree of correlation between quantity and quality of urbanisation so that existence of trade-off can be ascertained.

3. Regression Analysis:

After being assured of significant correlation between UQLI and UQI, the simple linear regression technique is applied taking UQLI as dependent variable and UQI as independent variable to examine the change in quality of urbanisation due to the change in quantity of urbanisation. The regression equation used is as follows:

$UQLIi = \alpha + \beta * UQIi + \mu i$
where i= 1,2.....,31
The assumption of normality is also tested with Jarque- Bera Normality Test

Overview Of Urbanisation In Rajasthan

»Volume and Trend of Urbanisation in India

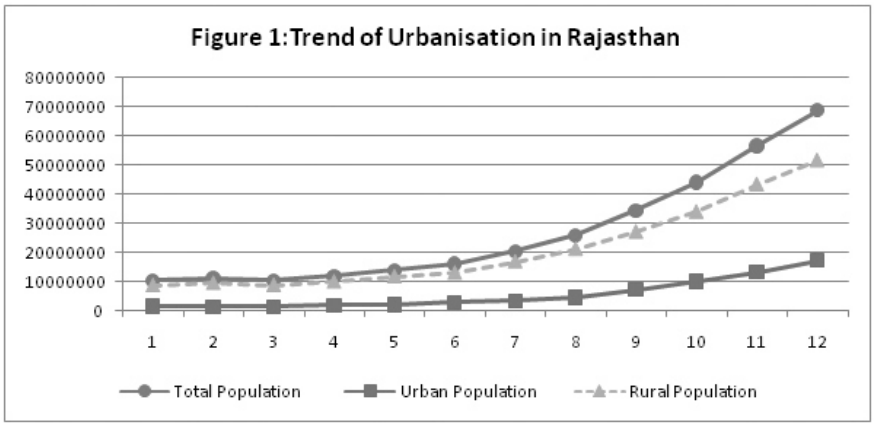
The urban population in the state shows a growth of 999.41 percent over 100 Years. The urban population has grown more than eleven times over the last century (1901-2001). It took six decades to nearly double but after this it took only two decades to double again. (Table 2). The figure 1 also explains the same fact.

There has been addition of 162 towns in the past 100 years. The census towns which are added in 2011 are 87 which makes the number of towns more than double from 135 in 1901 to 297 in 2011 (Table1).

Table 2: Population of Rajasthan by Residence

Census Year	No. of Cities and Towns	Total Population	Urban Population	Rural Population
1901	135	10294090	1550656	8743434
1911	138	10983509	1475829	9507680
1921	147	10292684	1475335	8817349
1931	150	11747974	1729205	10018769
1941	157	13863859	2117101	11746758
1951	227	15970774	2955275	13015499
1961	145	20155602	3281478	16874124
1971	157	25765806	4543761	21222045
1981	201	34261862	7210508	27051354
1991	222	44005990	10067113	33938877
2001	222	56507188	13214375	43292813
2011	297	68621012	17048085	51572927

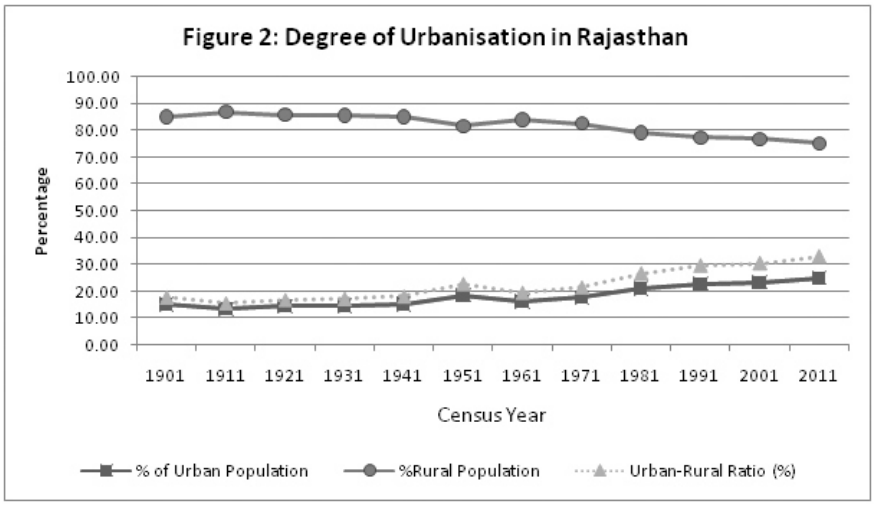
Source: Compiled from various district census report



»Degree of Urbanisation

Percentage of urban population and urban-rural ratio are used to measure degree of urbanisation. The percentage of urbanpopulation has increased from 15.06 per cent in 1901 to 24.84 per cent in 2011. Urban rural ratio also experienced an increasing trend during hundred years in the process of urbanisation in Rajasthan (Figure 2).

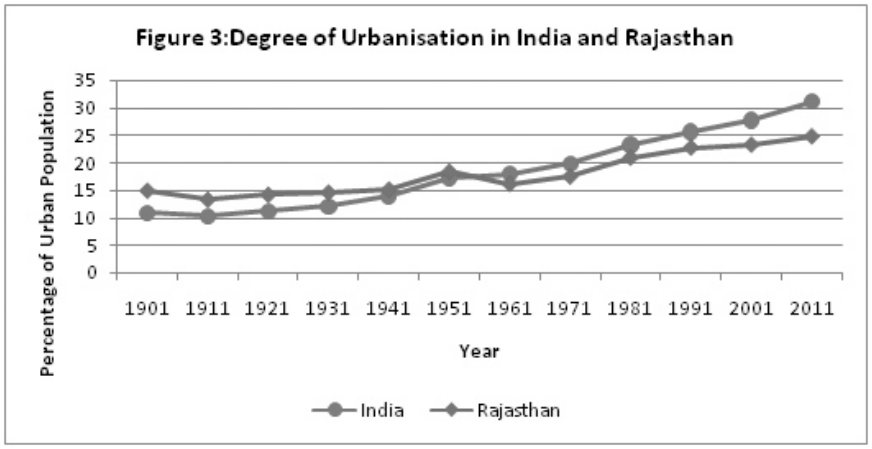
In Rajasthan after 1961, degree of urbanisation picked up regularly but is less than the degree of urbanisation in India at present. Still the degree of



urbanisation in Rajasthan cannot be considered too high individually as well as nationally.

By and large Rajasthan is considered to be predominantly rural in character as also explained by Institute of Development Studies, Jaipur (2011) on the basis of 2001 census data.

Figure 3 explains one more



Source: Population-Facts and Figures, Rajasthan, 1961-2001 and Census of Rajasthan 2011 and Census of India

important fact that in degree of urbanisation in Rajasthan there was a sharp decline in 1961 and there after the figures are continuously less than that of India and the gap widens in 1991. The reason behind it could be that due to the rationalisation of definition of an urban centre in India at the time of 1951 census, 82 towns were declassified in the state. The widening gap between India and Rajasthan could be justified by the fact that urban areas of Rajasthan have not been that much benefitted as of other states of India.

»Pace of Urbanisation

During the process of urbanisation it is natural that rate of growth of urban population remains higher than growth of total population and the rate of growth of rural population remains lower. This fact is supported in case of urbanisation in Rajasthan also since 1911(except 1961 for the same reason given earlier) (Table 3).

Table 3: Tempo of Urbanisation and Decennial Growth Rate of Population, Rajasthan

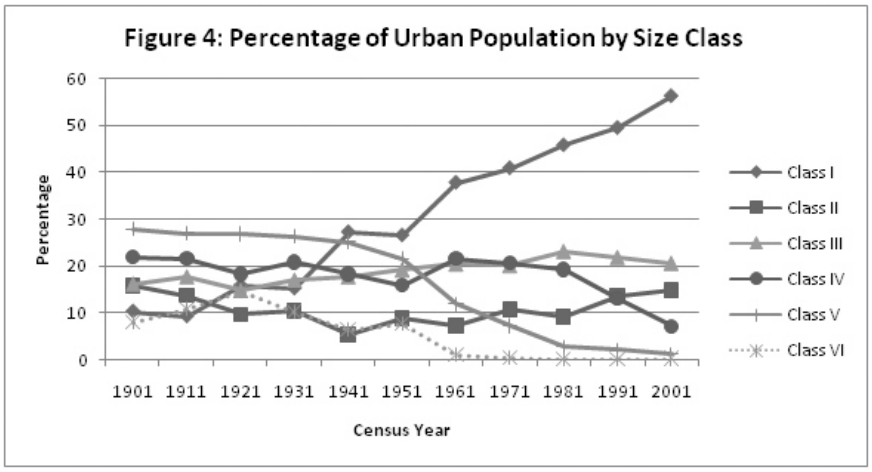
Decade	Decennial growth rate(%) of total population	Decennial growth rate(%) of urban population	Decennialgrowth rate(%) of rural population	Tempo of urbanisation
1911-1921	-6.29	-0.03	-7.26	0.646268
1921-1931	14.14	17.21	13.63	0.265292
1931-1941	18.01	22.43	17.25	0.367814
1941-1951	15.20	39.59	10.80	1.92069
1951-1961	26.20	11.04	29.65	-1.2802
1961-1971	27.83	38.47	25.77	0.798952
1971-1981	32.97	58.69	27.47	1.767997
1981-1991	28.44	39.62	25.46	0.834416
1991-2001	28.41	31.26	27.56	0.219892
2001-2011	21.31	29.01	19.13	0.605017

Source: Computed

The decades 1961-71 and 1971-81 showed a significant improvement in the growth which is due to a significant increase in the number of cities and towns. During this period 16.4% of the total migrants in Rajasthan settled in urban areas. As the growth rate of total population declined in 2001-2011, the growth rate of urban population also declined during thisperiod. Tempo of urbanisation refers to speed of urbanisation and is measured as change registered in the level or degree of urbanisation over the years. From table 3 it is clear that tempo or speed of urbanisation is not uniform over the years.

The Urban Morphology

The pattern of urbanisation in India is characterized by continuous concentration of population and activities in large cities (Kundu, 1983). The same trend can be seen in urbanisation of Rajasthan. More than 50 per cent urban population is residing in class I cities. Indeed the basic reason for the increasing dominance of class I cities could be given as graduation of lower order towns into class I categories.



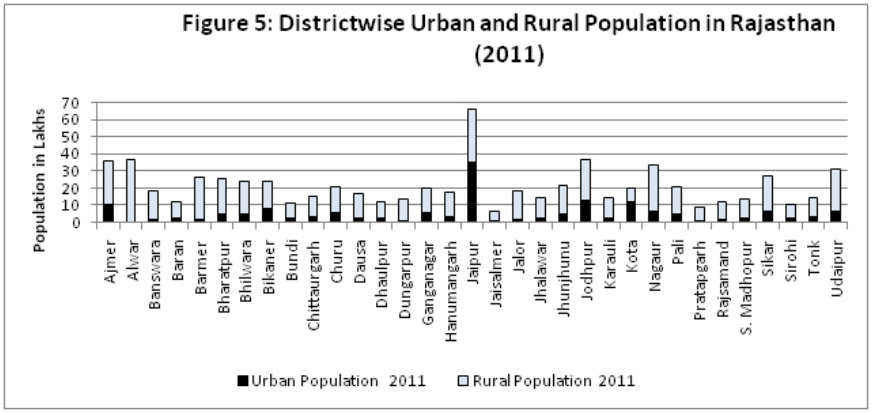
Source: State Levl Background Paper on Rajasthan, IDS, Jaipur

Figure 5 presents the district-wise urban-rural proportion of population. The urban population in almost all districts is less than the rural population except Kota. Only five districts have the urban population greater than 30 per cent and thirteen districts have greater than 20 percent.

Thus the above discussion concludes that in Rajasthan the level of urbanisation is not very high and is below the national average but the degree is regularly increasing and pace has also increased in the current decade. There is also a disparity regarding proportion of urban population in Class I and other Class Cities and various districts of Rajasthan.

Analysis of the Existence of Quantity-Quality Trade-Off in Rajasthan

This section of the paper throws light on the results of the analysis of quantity-quality trade-off of urbanisation in Rajasthan. The first step of analysis was to construct the required indices for all the districts of Rajasthan.



Source: Census of Rajasthan, 2011

The table 4 represents the value of Indices and ranks of the districts accordingly. The higher the value of UQLI, higher will be the quality of urban life in districts and high value of UQI show high level of urbanisation. The highest value for both indices is 100 and lowest value is 0.

Table 4 reveals the fact that very few districts have high index values of above 60 for UQLI and UQI. The first five ranked districts according to UQLI have more than 50 value of UQI except Jaisalmer. Among the lowest valued districts by UQLI three have the value of UQI less than 30 and two have the value of UQI more than 45. So the relationship between quantity of urbanisation and its quality cannot be stated very clearly.

The Coefficient of Variation is high for UQI and UQLI which means there is high regional disparity regarding both phenomenain Rajasthan in the year 2011.This value is far more for UQI as compared to UQLI, approximately double, which indicates that disparity regarding Urbanisation has not impacted much on the disparity in quality of urban life in Rajasthan.

The Radar Diagram (figure 6) shows the gap of individual district's performance from best performer district at the periphery. The distance of radar drawn for UQI shows that only a few districts are near the periphery, near to Jaipur and some are very far from it. This higher fluctuation in radar regarding UQI means larger disparity among the districts in Quantity of Urbanisation.

However radar regarding UQLI is not fluctuating much and is maintaining a moderate distance from periphery and centre as well, showing lower level of disparity with respect to quality of urbanisation. The clustering of districts of Rajasthan according to UQLI and UQI also reveals the same fact (Table 5).

Table 4: Urbanisation Quantityand Quality Index in Rajasthan for the Year 2011

Sr. No.	District	Urbanisation Quality Index	Rank According to UQLI	Urbanisation Quantity Index	Rank According to UQI
1	Ajmer	57.82	9	91.94	4
2	Alwar	61.91	4	56.45	15
3	Baran	42.06	22	50.00	16
4	Barmer	56.33	11	9.68	28
5	Bharatpur	36.10	28	50.00	16
6	Bhilwara	53.60	15	64.52	10
7	Bikaner	58.56	7	87.10	5
8	Bundi	46.53	17	40.32	21
9	Chittaurgarh	54.59	14	38.71	22
10	Churu	37.59	26	77.42	6
11	Dausa	42.31	21	16.13	27
12	Dhaulpur	29.90	30	46.77	18
13	Dungarpur	56.95	10	3.23	31
14	Ganganagar	64.02	3	74.19	8
15	Hanumangarh	38.09	25	46.77	18
16	Jaipur	71.71	2	98.39	1
17	Jaisalmer	60.55	5	9.68	28
18	Jalor	35.24	29	9.68	28
19	Jhalawar	37.22	27	29.03	24
20	Jhunjhunu	48.01	16	66.13	9
21	Jodhpur	58.44	8	93.55	3
22	Karauli	29.65	31	22.58	25
23	Kota	55.33	12	96.77	2
24	Nagaur	43.42	19	58.06	13
25	Pali	39.33	24	62.90	11
26	Rajsamand	59.93	6	19.35	26
27	S. Madhopur	45.04	18	45.16	20
28	Sikar	55.33	12	77.42	6
29	Sirohi	42.93	20	38.71	22
30	Tonk	40.20	23	58.06	13
31	Udaipur	72.58	1	59.68	12
Coefficient of Variation		**23.54**		**53.95**	

Source: Computed

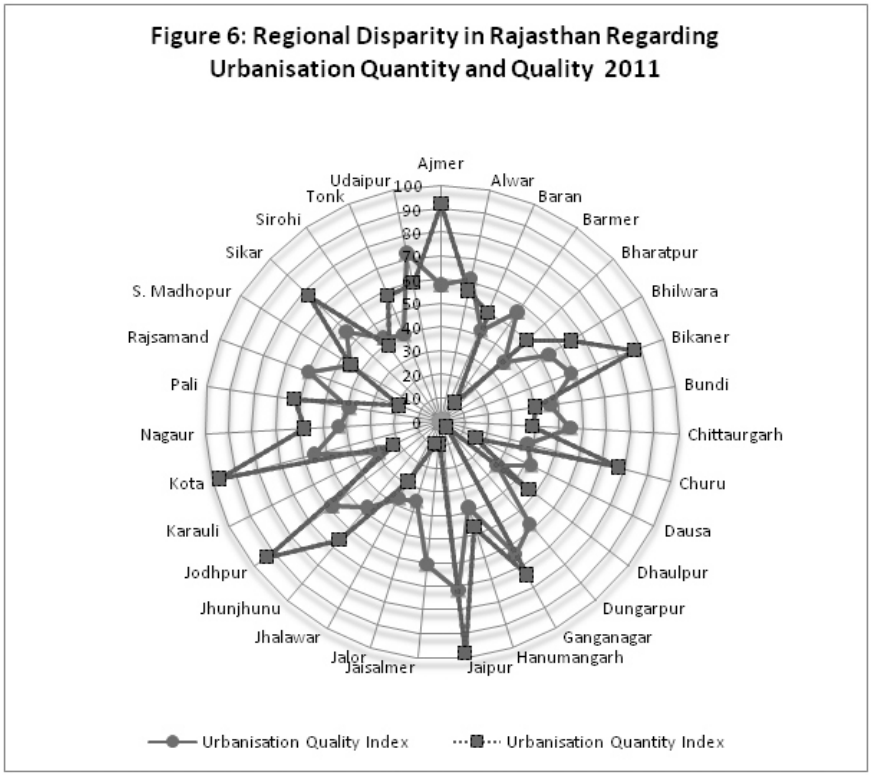


Table 5: Classification of districts according to UQLI and UQI

Classification Basis	High	Moderate	Low
Urbanisation Quantity Index	Jaipur, Kota Ajmer, Bikaner Jodhpur, Sikar Churu, Ganganagar	Udaipur, Alwar Baran, Bharatpur Bhilwara,Pali, Bundi, Chittaurgarh, Dhaulpur Hanumangarh,Sirohi Jhunjhunu, Nagaur S. Madhopur, Tonk	Barmer, Dausa Dungarpur Jaisalmer, Jalor Jhalawar Karauli Rajsamand
Urbanisation Quality Index	Udaipur, Alwar, Jaipur Bikaner, Ganganagar Jodhpur Rajsamand Jaisalmer	Ajmer Barmer, Bhilwara Bundi, Chittaurgarh Dungarpur Jhunjhunu, Kota Sikar, S. Madhopur	Tonk, Sirohi, Pali Hanumangarh, Karauli Jhalawar, Jalor Dhaulpur, Churu Bharatpur, Baran Nagaur, Dausa

Table 5 shows only one district Churu which is in high level quantity of urbanisation and is in low level of Quality cluster. So urbanisation does not show negative impact on quality of life. To have a clear picture of urbanisation quantity-quality relationship correlation is calculated among UQLI, UQI and the Component Indices of UQLI.

Table 6: Correlation of Urbanisation Quantity and Quality Indices

Index/ Component Index	Urban Quality Index	Urban Quantity Index	Education Index	Health Index	Purchasing Capacity Index	Housing Index	Other Facililities Index	Security Index
Urban Quality Index	1	.319*	.740***	.835***	.513***	.998***	.838***	-.294
P-values		.080	.000	.000	.000	.003	.000	.108
Urban Quantity Index	.319*	1	.063	.494**	.446**	.279**	.209	-.620***
P-Values	.080		.736	.005	.128	.012	.259	.000

***. Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.10 level (2-tailed).
**. Correlation is significant at the 0.05 level (2-tailed).

The table 6 explains that there is not so high positive but significant correlation between Urbanisation Quantity and Quality Indices. Since correlation coefficient of UQLI and UQI are not showing negative sign it means there is no trade-off of quality and quality of urbanisation in Rajasthan, both the objectives can be achieved simultaneously.

Urban Quantity Index has significant positive correlation with Health Index, Housing Index but negative correlation with security index. It means that as urbanisation increases, it increases the housing conditions and health facilities but security decreases as crimes like theft, dacoity and murders increase.

UQI is not showing significant relation with education, purchasing power and other facilities indices. To find out the reason we have to analyse the correlation of each variable of these component indices with UQI.

Tables 7and table 8 give an insight into why Urban Quality Index is not showing any significant correlation with Purchasing Capacity, Education and other facility Indices.

As the two indicators of Purchasing Capacity Index- Income per

capita and Poverty Ratio are showing opposite high correlation with UQI (table 7), their effect is nullified in this component index. The other variable, viz. work participation rate is not showing significant correlation with UQI since the data (table 8) show very low coefficient of variation (7.81 per cent) of this variable which means urbanisation has no influence on work participation in Rajasthan.

Table 7: Correlation of Variable of Component Index with UQI

Component Index	Indicator	UQI	P-Value
Purchasing capacity Index	Work Participation Rate	-0.277	0.132
	Income per capita	.411**	0.022
	Poverty Ratio	-.662***	0.000
Education Index	Total Literacy Rate	0.156	0.402
	Female Literacy Rate	0.159	0.393
	% Children attending school	-0.203	0.273
Other Facility Index	Having Computer	0.027	0.884
	Having Telephone	.405**	0.024
	Having Scooter/Motorcycle/Moped	0.189	0.308
	Accessing Banking Facilities	-0.003	0.989

****. Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.10 level (2-tailed).*
***. Correlation is significant at the 0.05 level (2-tailed).*

Table 8:Descriptive Statistics of Components of Indices

Component Index	Variables	Minimum	Maximum	Mean	Std. Deviation	Coefficient of Variation
Purchasing capacity Index	Work Participation Rate	37.60	50.20	43.63	3.41	7.81
	Income per capita	14268	41933	23078.65	6174.06	26.75
	Poverty Ratio	6.80	24.80	15.33	4.11	26.79
Education Index	Total Literacy Rate	74.80	90.30	82.85	4.29	5.18
	Female_Literacy Rate	61.80	85.10	73.84	5.85	7.93
	% Children attending school	81.60	96.50	89.30	3.76	4.21
Other Facility Index	Having Computer	3.10	31.00	13.53	6.32	46.67
	Having Telephone	73.10	96.90	87.22	6.04	6.93
	Having Scooter/Motorcycle/Moped	17.68	66.23	39.03	11.30	28.96
	Accessing Banking Facilities	51.25	79.34	65.57	6.94	10.59

All the variables of Education Index show insignificant correlation with UQI (Table 7) since literacy rates and percentage of children attending school have very low coefficient of variation means they do not vary in urban areas with level of urbanisation These facts justify theinsignificant correlation of Education Index with UQI.

Among the variables of Other Facility Index only one variable, viz. possession of telephone is showing significant positive relation with UQI. Use of banking facility has very low coefficient of variation so it can be stated that it is almost the same at all levels of urbanisation in Rajasthan. Other variables like possession of computer and scooter / motorcycle / moped inspite of having high coefficient of variation are not showing significant correlation with UQI. Thus UQI is not significantly correlated with Purchasing Capacity Index. After analysing the correlation of UQI with UQLI and its Component indices it can be concluded that quality of urbanisation does not have any trade-off with quantity of urbanisation and that it could be improved with increasing level of urbanisation. Now the question arises as to how much? The regression analysis may provide the answer for it.

Table 9: Results of Regression Analysis

Predictor	Unstandardised Coefficients		t	Sig.	F-Value	Sig	R^2
	B	Std. Error					
Urban Quantity Index	.133***	.074	1.812	.080	3.283	0.08	.102
(Constant)	42.522*	4.295	9.900	.000			
Test of Normality							
Jerqua- Bera	1.477						
Probability	0.477						

Source: Computed

In Jarque-Bera test the p-value is greater than 0.05 the assumption of normality is accepted. So the regression results are reliable. The low value of R2 explains that variation in UQLI cannot be fully explained by UQI alone there are other factors also which affect UQLI. The regression results show that β coefficient of UQI is significant and positive. Its value is equal to 0.133 which means if level of urbanisation is increased by 1 point then quality of urbanisation will improve by .133 points.

So it can be concluded that there is no trade-off between quantity and quality of urbanisation in Rajasthan and

there is a scope for improving the quality of urbanisation with increase in its quantity.

Reasons Identified for No Quantity-Quality Trade-off in Rajasthan at Present

- As the empirical studies suggest, urbanisation negatively affect quality of life in urban areas only when it is very high in degree. In Rajasthan the degree of urbanisation is only 24.8 per cent which is also below the national average. This could be the one reason that no trade-off between quantity and quality of urbanisation is found.

- One reason which is generally given for quantity-quality trade-off of urbanisation is increase in slum population but it is not much applicable in the case of Rajasthan as its slum population is 3.16 percent of total slum population in India and 12.13 percent of its urban population in 2011 (Primary Census Abstract for Slum, 2011). It however does not mean that slum population must not be controlled or slum areas should not be given consideration in urban planning in Rajasthan for better quality of life there.

- The term 'Urbanisation of Poverty' is also used these days to indicate the deteriorating quality of life in urban areas which states that many rural poor persons migrate to urban areas and if urban areas are unable to provide livelihoods, urban poverty increases. In Rajasthan, 69.2 percent migration in 2001 was from rural to rural and being the developing state its net in-migration from other states was negative (in-migrants 735512, out-migrants 997,196, net in-migrants -261,684) (Census of India,2001) so there is less possibility of this phenomenon to work in Rajasthan and this fact can also be supported by the significant negative correlation coefficient of poverty and Urbanisation Quantity Index in 2011computed in the present study (Table 7).

Conclusion and Suggestions:

The analysis of trends and patterns of urbanisation in Rajasthan suggests that the level of urbanisation in Rajasthan is not high and unequal among districts as well as in Cities, but the pace of urbanisation in last decade has been increased. At present the quality-quantity trade-off is not apparent, but regularly increasing urban population proportion in total population, urban-rural population proportion and urban population proportion in Class I cities from last five decades and increase in slum

population indicate that if proper Urban Planning is not undertaken, the quality of urbanisation can become a big challenge in the near future. Some suggestions in this regard:

- There is a need to ensure a balanced regional growth along with suitable supply of land, shelter and employment opportunities. The overall focus is to divert the flow of migrants across various urban centers so that no one city has to bear the burden of this migration.
- Districts and cities, having a higher rate of urbanization also need to develop and deliver a faster growing supply of housing and other infrastructural facilities in the form of vertical construction instead of expansion so that strategic densification of these areas can enable them reap benefits of larger scale with minimum environmental and other costs and enable them as the growth engines of the state.
- The growth of slums is a sign of people's inability to afford land and shelter through the normal market mechanism and the failure of the public sector to ensure equitable access of the same to the poor. So rental housing with adequate social and commercial infrastructure is to be encouraged even for low income households.
- Solid waste disposal management, sewerage and drainage system, pollution control policies should all be effectively applied. It can improve the quality of life manifold by reducing the total social cost and increasing the total social gains.
- NGOs, Researchers and Government authorities individually and cooperatively should assess the quality of urban life regularly, so that efficient mechanism for the growth of Quantity and Quality of Urbanisation can be ensured.

References

- Bardhan, Ronita, H.Kurisu, Kiyo & Hanaki, Keisuke. 2011. Linking Urban Form and Quality of Life in Kolkata, India , 47th ISOCARP Congress 2011
- Costanza, R., Fisher, B., Ali, S., Beer, C., Bond, L., Boumans, R., et al. 2007. Quality of life: an approach integrating opportunities, human needs, and subjective well-being. Ecological Economics, 61, 267–276.
- Davis, K. and H.H. Golden. 1954. Urbanization and the development of Pre-Industrial

areas, Economic Development and Cultural Change, 3(1).

- DES (2010). Estimates of Distric Domestic Product in Rajasthan (2004-05 to 2009-10), Directorate of Economics and Statistics, Jaipur.
- Duranton, G. and D. Puga. (2001). Micro-foundations of urban agglomeration economies, in JF. Thisse and JV. Henderson, Handbook of Urban and Regional Economics, Volume 4.
- Fujita, M. and Hu, D. (2001). Regional disparity in China 1985-1994: the effects of globalization and economic liberalization, Annals of Regional Science, 35:3-37.
- Government of India. (2011). Annual Health Survey of Rajasthan Fact Sheet 2011-12 , Census of India 2001
- Government of India. (2001). Migration Tables (D1, D1 (Appendix), D2 and D3 Tables), Census of India 2001.
- Government of India. (2011). Primary Census Abstract for Slum, Census of India 2011.
- Government of India. (2001 and 2011).Population Tables (D1, D1 (Appendix), D2 and D3 Tables), Census of India 2001, 2011.
- IDS (2011). State Level Background Paper On Rajasthan, Institute Of Development Study, Jaipur.
- Government of Rajasthan. (2001 & 2011). Population Tables, Census of Rajasthan 2001 & 2011.
- Kundu, A (1983): "Theories of City Size Distribution and Indian Urban Structure – A Reappraisal", Economic and Political weekly, 18(3).
- Kuznets, S. (1955). Economic growth and income inequality, American Economic Review, 45 (1):1-28
- Lewis, W. A. (1954). Economic development with, unlimited supplies of labor, the Manchester School of Economics and Social Studies, 22:139-191.
- United Nations Centre for Human Settlements (Habitat). (1994). Population, Urbanization and Quality of Life, UNCHS (Habitat),Contribution To The International Conference On Population And Development, United Nations Centre for Human Settlements (Habitat) Nairobi, HS/321/94E 92-1-131232-9
- United Nations. (2014): The World Urbanisation Prospects, Department of Economic and Social Affairs, New York.

Book Review

Symbolic Urban Landscape: Science City, Kolkata.
Discussion Paper No. 1/2014(38)
Aditi Chatterji,
Centre for Urban Economic Studies,
Department of Economics,
University of Calcutta.
Pages 37.

Urbanisation is an increasing trend the world over. There are various projections of the rising trend in urbanization in the world. Urbanization is now taking place rapidly and the horizons of urbanization are expanding by the day. Urbanization involves migration of people from rural areas to cities, which is happening for decades. A hard fact is that city administrations have been unprepared, rather unequipped and incapable of handling this fast paced migration, in providing shelter and basic amenities to the incoming people. These problems have resulted in a large number of societal studies. Urbanization is now a distinct discipline of academic studies and research and a vast corpus of literature is being generated from various quarters including institutions of social sciences, policy research institutions and universities. The subject has many branches of study and research in social sciences encompassing sociology, economics and many other disciplines. Universities are in the forefront in this field, with their departments of Economics and Sociology, having Centres of Urban Economics or Urban Sociology, producing research papers and theses on various aspects of urbanization. We have for review one of such Discussion Paper brought out by the Centre for Urban Economic Studies of the Department of Economics of the University of Calcutta (it remains the University of Calcutta, and not Kolkata). The main theme of the Paper revolves around the development of a grand Science City by the Kolkata Municipal Corporation on reclaimed marshy land and how it has become a spatial expression of the power of knowledge and its dominating imprint on the urban landscape of Kolkata. The Paper is different from routine papers on urbanization, as it focuses on the Science City of Kolkata, how it has become a global geo-symbol and how global media and technological impact has fostered creation of the dynamic urban spatial construct, a unique urban landscape. In developing her theme she takes the reader through the concepts of landscape, space, power, culture and knowledge and their impact on the landscape.

The word 'landscape' generally involves photographical depiction of a place or city including its buildings, roads, parks, transportation, social and cultural hubs, landmark and heritage

structures and the people. The Introduction of the Paper notes that it "traces the evolution of the symbolic urban landscape of the megacity of Kolkata in the era of globalization and liberalization of the Indian economy post-1991, and focuses on the landscape of spectacle and theme parks as seen in Science City, Kolkata, as a symbol of power and cultural domination over urban space. An overview of relevant concepts and definitions is followed by some examples of the impact of scientific media on urban landscapes, a brief section of spatial setting of post-colonial Kolkata and detailed analysis of Science City." From the Introduction - tracing the evolution of the symbolic landscape of a theme park as a symbol of power and cultural domination over an urban space - one would get the impression that the theme is somewhat complex and too seminal. However, in the pages that follow the author goes on demystifying each of the concepts, and the core theme of the Paper lucidly emerges.

Space: The author quotes various authorities to state that there are two particular conceptions of space. The absolute space, which is a distinct, physical and eminently real or empirical entity in itself, and relative space, which is a relation between events or an aspect of events and bound to time and process. She says that space which is transformed or mediated by technology and practice, is the dominated space which has deep roots in history, for its origins coincide with those of political power. Military architecture, fortifications, ramparts, dams and irrigations are examples of dominated space. Technology keeps on dominating spaces. She further quotes an authority to aver that power, knowledge and geography have completely changed contemporary conceptions of space. She says that every region and political or cultural system is based on a dynamic cultural space and that space is a region, an organized system, a structure, a model, a subjective experience which varies according to social class type of employment or cultural identity. She cites the ancient wisdom of Vaastu Shastra and says that it is based on the premise that the earth is a living organism from which other living creatures and organisms emerge. Man inhabits aakasham (space), linked by shakti (his energy and cosmic energy) and is a part of a movement, a cycle of life and death called kaala (time). Eight directions given in the mandala, the heavens above and the earth below are significant influences on the nature of growth and prosperity. Each direction has a presiding deva, its symbol, colour and element. The directions that a building may face, the energies that enter and enrich the inner spaces and the connection between the building and its environment are part of cosmology. It must be admitted that the author has

given a convincing explanation of this ancient science.

Landscape: Like the concept of space, the author provides impressive quotes on the concept of landscape. Landscapes, according to the author, are pictorial images and their history is bound up with the inscription of environmental images by varied media on varied surfaces. She cites an authority to state that landscape not only denotes the usual geographical meaning of 'physical surroundings' but also 'ensemble' of material and social practices and their social representations; the landscape of the powerful-cathedrals, factories and skyscrapers and that of the subordinate-village chapels, shanty towns and tenements. A painful part of history is that many things and structures were destroyed by invading rulers of the time in various parts of the world. Even today the urban heritage is giving way to rapid urbanization. Using the term palimpsest the author avers that the earlier inscriptions were never fully erased, so that over time the result was a composite, a palimpsest representing the sum of all erasures and over-writing. She says that it forms a palimpsest, a composite landscape made up of different built forms superimposed upon each other with the passage of time. In some cases, the earliest layers are of truly ancient origin, rooted in early civilizations whose imprints can be discerned beneath the current urban fabric. She says that the term landscape is inextricably linked to the exercise of power in various forms. Citing from an authority, she says that landscapes are symbolic, as expressions of cultural values, social behaviour, and individual actions worked upon particular localities over a span of time. For some examples of landscapes linked to exercise of power she cites Taj Mahal, the Rashtrapati Bhavan, and Victoria Memorial (Kolkata).

Power, culture and knowledge: the impact of landscape:

In order to build her paper, she takes up the concepts of power, culture and knowledge and how they have an impact on landscape. Power is a concept around which political theory revolves. The author has succinctly put it here when she says that power is the ability to achieve desired ends through a variety of means: through force, physical violence or non-violence, through manipulation, persuasion, consensus and authority. It may be 'legitimized' by virtue of tradition, charisma or institutionalization at high levels. As a social relation, power operates at all levels, from households to the international economy. Citing many authorities, she has pointedly mentioned how power has been used to rule, to control, to discipline societies, and concludes that from the nineteenth century till the present day power has been used through legislation and a 'grid

of disciplinary coercions' to ensure the cohesion of the social body. She says that the consequences of power are seen in hierarchical structures, control, surveillance, decision-making processes and varied consumption and that power relations are always present in space.

Coming to culture, again the author relies on many authorities. Culture according to her, is used in two senses. Firstly, it signifies practices such as the 'arts of description, communication and representation' that are relatively free of the economic, political and social realms and constituted into aesthetic forms, a major aim of which is pleasure. Secondly, culture as a concept has a refining aspect constituting the best known and thought by each society. She says that culture is conceived as a way of life that includes 'ideas, attitudes, languages, institutions, and structures of power' and cultural practices such as 'artistic forms, texts, cannons, architecture, mass-produced commodities'. She equates culture with the human environment, everything that, beyond the fulfillment of biological functions, gives shapes, meaning and contents to human life and activity. She has good insight of the term, when she says that culture as a term includes material civilization as well as the civilization of the mind. It is transmitted.

Knowledge is a concept which can lead to views and discourses which can go to any length. According to the author, knowledge has been the means of creating and sustaining innovation and information-generation over centuries but the importance of knowledge in the information age of telecommunications, the Internet and multi-media has never been as vital as in the late twentieth and the present century.

The author is still on the background of her paper when she takes up the topics of globalization, media and the urban landscape. She quotes an authority to say that globalization has increasingly replaced other more politically loaded terms like imperialism, colonialism, and neo-colonialism as the way to organize thoughts and chart political possibilities. According to her, two central dimensions of the multi-faceted processes of globalization are technology and social change, as globalization is seen as the multiplicity of linkages and interconnections between the states and societies which make up the modern world system. Coming close to her main ideas, she has dwelt on mass-media, computer-mediated communications and the realm of electronic communication into the whole domain of life from home to work, from schools to hospitals, from entertainment to travel. According to her, television networks, music companies and movie studios were cranking up their production to feed an

entire world supposedly hungry for info-entertainment and audio-visual experiences.

The hypothesis and objectives of the Paper:

After this detailed background, the author comes to the main part of her paper, which she sets out as under:

a) Set against the background of the above theoretical basis, the paper proceeds to analyse Science City, Kolkata as a symbolic landscape of power, whether economic, spatial or socio-cultural; and

b) Would a) evaluate its role as a source of scientific knowledge and media-based global geo-symbol for the dissemination of scientific education among Kolkata residents and national and international visitors.

She proceeds to describe how a marshy piece of land on the eastern fringe of Kolkata City which was also a dumping ground to deposit city garbage, has today been transformed into a vibrant urban landscape housing the unique Science City. The wetlands on the eastern fringe of Kolkata, known as Salt Lakes were reclaimed for urban settlements. A number of symbolic landscapes of spectacle of power have emerged on this reclaimed marshy land and dumping ground, most famous of which is the Science City.

One of the themes of the Paper is the interaction and interrelation between media and urban landscapes and for this purpose the Science City has been taken as the chief object of the theme. The author has given a very detailed description of the Science City, which is the main attraction for the citizens, students, tourists and for anyone eager to know the earth and its millions of years of history. She has special praise for the Evolution Theme Park, spread over 1300 sq. meters, which is a journey back into the early age of evolution of life on the earth. The recreated almost real ambience radiates knowledge about the evolutionary phases of life and glimpses of the gigantic extinct animals of the past, including the dinosaurs. She cites the Director of the Science City to mention that unlike a museum which has inanimate artefacts, the Science City employs state-of-the-art digital technologies of simulation and 3D that create a life like impression. Another feature of the Science City that has enthralled the author is the Earth Exploration Hall, where visitors can learn more about our planet from various aspects; creation and evolution, location of the earth in the solar system, geology, geography, ecology, demography, biodiversity, etc. Ten pages of the Paper contain appealing photographs including four of dinosaurs as sculpted in the Science City.

She links the Science Park with the globalization, multi-media television networks, satellite broadcasting operators, software companies, etc. that have generated a vast corpus of information to feed the world hungry for info-entertainment. She specially mentions Steven Spielberg, whose magnum opus on Jurassic life was a magnificent presentation of an extinct life form of huge dimensions.

She concludes that the Science City aligns with the concept of heterotopias i.e. a "real and imagined place". She avers that the Science City is a global geo-symbol and is a classical example of the impact of global media and the technology that is unleashed by it, that has fostered the creation of this dynamic urban spatial construct; a true symbolic landscape of power and spectacle, designed to impress, educate and entertain. Her paper stands out as having charted a new theme of study in the vast corpus of the seminal papers. She must be credited with such a pithy paper with a pointed message in just 37 pages, which shows her ingenuity.

There are many takeaways for the reader. One is that one must be aligned with the vast information and info-entertainment that the world media and the technology has brought at our doorstep, rather in our homes on television and smart-phones. Secondly, it should inspire science education societies to replicate the project or municipal bodies to have some foray into scientific knowledge centres. The bigger ones can think of projects like the Science City, which may look expensive but pay off in the long term. (Science city is now self-financed). What is important is that such centres work for enlarging horizons of citizens to know the planet, life on the planet, evolution and myriad enthralling features of the earth and a host of scientific information in entertainment form-a treat for the young minds of students. (The Paper does not mention of the role of the Corporation except that the Municipal Corporation reclaimed the land. The Corporation must have provided the reservation of the land for the purpose and civic amenities and played a role).

F.B. Khan

❐ ❐ ❐

Our Contributors

- **Arpan De Sarkar**

  Urban Policy Analyst/ Economist, Policy & Programme Support Unit, Support to National Policies for Urban Poverty Reduction (SNPUPR), Ministry of Housing & Urban Poverty Alleviation (MoHUPA), Government of India.

- **Ramanath Jha**

  Dr. Ramanath Jha is former Academic Head and Chief Executive, International Academy of Urban Dynamics, All India Institute of Local Self-Government, Mumbai.

- **Mukesh Kanaskar**

  Prof. Dr. Mukesh Kanaskar is Professor and Academic Head (Research, Publications and Documentation), All India Institute of Local Self-Government.

- **Sunita M. Bhole**

  Dr. Sunita M. Bhole is Director, Tilak Maharashtra Vidyapeeth Department of Management, Pune.

Contd...

- **V. V. Kulkarni**

  Dr. V. V. Kulkarni is Associate Professor, Social Science Center, Bharati Vidyapeeth Deemed University, Pune.

- **Nitin R. Vaidya**

  Mr. Nitin R. Vaidya is President, OSS Educational Society, Pune.

- **Sakshi Sahni**

  Ms. Sakshi Sahni is Assistant Professor, Guru Nanak Dev University, Amritsar.

- **Hardeep Singh Sekhon**

  Mr. Hardeep Singh Sekhon is Assistant Professor, Guru Nanak Dev University, Amritsar.

- **Aditi Hastak et al**

  Ms. Aditi Hastak, Mr. Avinash Krishnamurthy, Ms. Shubha Ramachandran, Mr. Vishwanath S. and Mr. Rajiv Hemanth work for Biome Environmental Trust, Bangalore.

- **Neha Paliwal**

  Dr. Neha Paliwal is Assistant Professor, Department of Economics, Mohanlal Sukhadia University, Udaipur.

- **F. B. Khan**

  Mr. F. B. Khan is Advisor (Legal and Urban Services and Publications), All India Institute of Local Self-Government, Mumbai.

❐ ❐ ❐

OBJECTIVES

The main emphasis of the Institute's work is to see that the local bodies can contribute more effectively to the development process and provide the citizens with better living conditions by meeting their aspirations in terms of required amenities, infrastructure and better environmental conditions, thus contributing to social and economic development of the society as a whole by better management of the human settlements. While these are the long-term objectives, the immediate ones are:

- To advance knowledge of the principles and practices of Local Government by conducting research and by organising training courses and programmes at various centres in India for officials and elected representatives in the local bodies.
- To strengthen and improve Local Government Institutions by improving their performance through education, orientation and bringing them together for common endeavor by organising specialised conferences, conventions and seminars.
- To make available a platform for members of local bodies and officials for exchange of views and ideas related to urban development and administration.
- To represent the views of local authorities supported by research work to the concerned higher authorities from time to time.
- To publish bibliographies, articles, books and other literature on matters of interest to local bodies.
- To publish journals, bulletins and other literature on different aspects of Local Government and on the working of Local bodies in different states.
- To undertake research studies in public administration, problems of local bodies and also in related topics of urban and environmental factors and arrange for their publication etc.
- To establish and maintain an information-cum-documentation service for local bodies.
- To undertake consultancy assignments in various areas of urban development and problems of local bodies with a view to improve and develop organisational, managerial and operational efficiency.

In view of the above, the Institute has been collaborating with the relevant government departments, Central and State, Universities, Organisations and Research Institutions. The work of the Institute covers several aspects involving a multi-disciplinary teamwork.

All India Institute of Local Self-Government
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
TPS Road No.12, Bandra (E), Mumbai – 400051.
Tel : +91-22-26571713 / 4 / 5 Fax : +91-22-26572115
E-mail : aiilsgquarterlyjournal@gmail.com Website : www.aiilsg.org