Emerging global urban order and challenges to harmonious urban development

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Abstract

More than half of the world’s population now lives in urban areas, making urbanization a defining phenomenon of this century. At the centre of this transformation are cities in developing countries and Asia in particular where it is largely characterised by megaurbanization and hyperurbanization. Urbanization today is driven by globalization forces, neo-liberalization tendencies, technology transfer and national policy changes. Push factors that propelled urbanization until the mid-90s are now reversed by pull forces. This paper examines broadly the emerging issues and possible responses and tools to manage contemporay urbanization. Urban sprawl linked with megaurbanization is becoming a global phenomenon and is considered one of the most significant characteristic of contemporary urban landscape. Further the paper examines in what respects current urbanization is environmentally disturbing and socially discriminatory? Is globalization and neo-liberalization going to create/facilitate sustainable and just cities despite the use/transfer of new technologies, capital flows and access to information and communication systems? Towards prescriptions of the prevalent issues we explore new theoretical underpinnings to explain present urban landscape; importance of conservation of urban ecosystems; kind of urban models that need to be developed to address spatial reconfiguration to accommodate the disjointed urban growth, agglomeration economy and informality at different scales and places? Finally we suggest policy responses and planning tools to manage urbanization in the developing countries.

Key words: Global urban transition, Asian mega urbanization, urban form, globalization, urban inequities, urban ecosystems.

1 The Context

Urbanization, both as a social phenomenon and a physical transformation of landscape, is one of the most powerful, irreversible and visible anthropogenic forces on earth. Of course, modern technology has seemingly made cities’ physical location less important, still they remain our “species of greatest invention” (Edward Glaeser 2011), main instruments of economic and social transformation and amelioration of global poverty. Many of the most important and significant changes associated with globalization are taking place in urban...
areas. Conversely, globalization itself is as much an inter-city phenomenon and cities have become major driving force of globalization. In this sense urbanization is a defining phenomenon of this century and the developing countries are at the locus of this transformation.

For the first time in human history, more than half of the world’s 7 billion population lives in urban areas (Table 1). The demographic shift has happened in the last few decades largely due to rapid urban growth in the developing countries. Of course such rapid urban shift is not for the first time as often proclaimed. Rapid urban change did happen in late 19th century when countries like Germany, United Kingdom, Canada and the US were industrializing fast. Now it is the huge urban number of 3.6 billion that alarms us. Urbanization has a new face now, and weakly associated with industrialization as was true in early industrializing Europe and elsewhere. Rather, quaternary and tertiary sectors are currently propelling urbanization and linked economic transformation. New forms of advanced capitalism, neo-liberalization and globalization have unleashed the market forces of consumption and resource use to undermine the development of inclusive, just and environmentally sound cities.

### Table 1: Urban population and annual rate of change by development groups

<table>
<thead>
<tr>
<th>Urban population</th>
<th>Population (billion)</th>
<th>Average annual rate of change (%)</th>
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<tbody>
<tr>
<td></td>
<td>1950</td>
<td>1970</td>
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<tr>
<td>World ...............</td>
<td>0.75</td>
<td>1.35</td>
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<tr>
<td>1950-70</td>
<td>2.98</td>
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<tr>
<td>1970-2011</td>
<td>2.41</td>
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<tr>
<td>2011-30</td>
<td>1.66</td>
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<tr>
<td>2030-50</td>
<td>1.13</td>
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<tr>
<td>More developed regions ....</td>
<td>0.44</td>
<td>0.67</td>
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<tr>
<td>1950-70</td>
<td>2.09</td>
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<tr>
<td>1970-2011</td>
<td>0.89</td>
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<tr>
<td>2011-30</td>
<td>0.52</td>
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<tr>
<td>2030-50</td>
<td>0.29</td>
<td></td>
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<tr>
<td>Less developed regions .....</td>
<td>0.30</td>
<td>0.68</td>
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<tr>
<td>1950-70</td>
<td>4.04</td>
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<tr>
<td>1970-2011</td>
<td>3.33</td>
<td></td>
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<tr>
<td>2011-30</td>
<td>2.02</td>
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<td>2030-50</td>
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Compiled from United Nations, Department of Economic and Social Affairs, Population Division: *World Urbanization Prospects, the 2011 Revision*.

2. **Emerging urbanization patterns and demographic changes**

According to 2011 Revision of World Urbanization Prospects there is significant diversity in the urbanization levels reached by different global regions (2012). More developed regions like US and Europe and many countries in Latin America and the Caribbean have reached high levels of urbanization as more than 70% of their total population is urban at present. Asia and Africa are following the same path and will cross 50% mark by 2020 and 2035 respectively. Developing countries with 73% share of global urban population and high urban growth rates are henceforth the
new actors of urbanization. By 2030 urban population pressure here will become two times whereas land demand for urban expansion is expected to go by three times. This is supposedly the greatest challenge to reckon with.

Urban growth is not uniform and megacities, global cities and emerging urban agglomeration dominate towards a rising share and fast urban transitions. Recent trends however indicate that mega or emerging-megacities are slowing down in growth, whereas mid-size cities exhibit greater buoyancy and will absorb most of the future urban population. Voluntary migration that fueled early migration streams is now supplemented and reshaped by recruitment agencies, employment regimes and immigration policies of various countries. Push factors which propelled urbanization until mid 1990s are getting reversed by pull-factors. The demographic structure, exhibits signs of change, with more women migrants and swelling elderly and young population cohorts. Developed countries on the contrary, exhibit a very modest growth of less than 1% (Table 1) or even negative urban growth which follows their declining fertility levels. Another interesting trend is also noticed in some industrialized countries. Immigrants share in urban growth is rising in comparison to native groups. Such countries apprehend dominance of new immigrants in urban politics and socio-economic spheres and a possible reason for future ethnic conflicts. Spatially, there is a visible counter-urbanization trend with more expansion in the rural settings for both working and living environments. Mega urbanization has of course slowed down and urban transitions have matured, except in the transition countries of industrializing Eastern Europe. In Latin America, big countries like Brazil have crossed the fast urban transition and joined the developed countries list with high urban population share.

3 Asia: The major player of 21st century urbanization

It is often stated that 21st century urbanization belongs to Asia. Despite a low urbanization level of 45%, Asian region with 75% of the developing countries urban population and 52% of the global is expected to remain the major contributor to the future urban growth (Fig. 1).

Importance of Asian urbanization is also recognized by the fact that urban areas contribute close to 84% to their national economies, whereas they contain only 42% of the urban population (Fig.2). Situation across various Asian regions is...
not significantly different. China and India having urban population weight of 700 million, which is close to the population of the U.S. and Europe, shall remain the major players. After Africa it is the second fastest growing region with average annual growth rate of 3.2%. Despite the projected declining urban growth rate of almost one-third by 2050, Asia will accommodate around half of the global 6.3 billion urban populations.

The growth of urban population across various size settlements is not uniform in Asia. The region is characterized by mega-urbanization process. Asia contained only one mega-city, that is Tokyo, in 1970, and it’s count rose to five out of ten in 1990; 13 out of 23 in 2011; and is projected to reach 22 out of 37 by 2025. In 2011, thirteen mega cities of Asia contained around 11 % of the total urban population of the region and their share is expected to rise further. Many of the Asian cities, like Singapore, Hong Kong, Kuala Lumpur and Dubai, are placed among the global cities due to their specialized functions and global connectivity. They may not be mega-cities but they are global cities.

Globalization has made the category of “third world city” as obsolete in many Asian cities and they are proud to have their own style urban design, models of urban growth and planning governing principles. Peter Rimmer and Howard Dick (2009) claim that Hong Kong, Dubai, Kuala Lumpur, Shanghai, Singapore, Istanbul, Bangalore and Mumbai are third world cities in a limited way. Due to their transnational connectivity, construction of sophisticated information and communication technology infrastructure, they are no more third-world cities in a conservative sense. We may consider to look at Asia or regions of Asia, as a set of cities, rather than a block of countries. Ananya Roy Aihwa Ong (2011) from their book on „Worlding Cities: Asian Experiments and the Art of Being Global“ conclude that in the globalizing world, Asian cities like Singapore and Dubai are emerging as centers of global finance while New York and London are struggling the aftermath of the great recession of 2008. Likewise, Shanghai and Hong Kong have become share-selling capitals of the world. Asian cities today also map their own path and models of being global cities and not strictly following the master blueprint of the West. Mumbai for example, the financial capital of India, is struggling to catch up Shanghai, as emerging global cities become competitive. So they are now in competition within the region themselves. Today, cities like Bangalore, New York and London exist and known for their ability to innovate. Why did Bangalore out of all Indian cities achieve this status as hub of IT? Skills, and human capital, perhaps not geography, are the source of Bangalore’s strength. Companies like Infosys, and a virtuous circle was born wherein smart firms and smart workers flocked to...
Bangalore to be near each other. Quite a few other non-capital cities such as Shanghai or Mumbai have substantial international presence despite the dysfunction of their home nations.

As in case with modern nation cities, cities in the new industrial economies, China, India, Indonesia, Brazil for example, embody national ambitions of wealth, power, and recognition. Many Asian cities have recently become centers of enormous political investment (Beijing, New Delhi), economic growth (viz., Hongkong, Seoul), tourist destination (viz. Dubai, Singapore) and cultural vitality (Istanbul, Kuala Lumpur) and have thus become sites for global significance. Referring to a McKinsey Global Institute study on *Urban World: cities and rise of the consuming class* (2012), emerging 440 cities, including large number of Asian cities, are expected to share close to half of global GDP growth. Likewise such cities will contribute to growth in urban demand for essential services and economic infrastructure. China is noted to lead in such demand globally. For example China’s share will contribute to nearly 40% of floor space and 25% of municipal water demand in global share during 2010 and 2025 period. Chicago Council of Global Affairs on Global Cities Index (2012) featured fifteen Asian cities among the top fifty, demonstrating the stability of Asias’ relevance on the world stage. According to Saskia Sassen: networks of 20 global cities (many in Asia) will determine world’s geopolitical future and not G2 of US and China (2002). The above study also quotes Peter Taylor’s relational city thinking analogy that the world today is more about interrelationship of cities than countries. Nations are no longer driving globalization rather cities perform that role now. City like Seoul is more connected with Singapore and Hong Kong than other South Korean cities. Absence or weak interaction with wider network of national/regional cities, of course is a worrisome trend within this globalization led mega-urbanization process in Asia.

Urbanization in Asia is not a uniform process and influenced by national or sub-regional characteristics. It started with slow growth rate and picked rapid speed and turned into hyper mode after 1980’s. Demographically, Asian urbanization process encouraged megaurbanization and developed a new kind of economic and demographic primacy, wherein global capital and export oriented economy played decisive roles in promoting and strengthening capital/megage/global cities. At the same time major Asian global cities (Beijing and Delhi for example) are not doing well on environment and liveability aspects, despite their good economic performance. Lower tier cities and distant hinterlands have not grown as well under the shadow of megaurbanization and seabeard corridor urban development. Asian style urbanization is largely characterized by heavy global capitalism (extension of dependency model), huge land portfolios, encroachment on scarce agricultural land and damages to environmental and ecosystems. The current urbanization process has generated sharp regional, economic and social inequalities. Accelerated rural-urban migration, particularly of the skilled
workers, has produced exclusionary tendencies leading to racial and ethnic conflicts (Kundu, 2009). Population policies should address such issues with a more humane and inclusive urban growth approach. In Asia, urbanization per se need not to be discouraged as the economic gains and employability/livelihood concerns outweigh over the manageable environmental and social costs.

4 Why contemporary urbanization is disturbing and discriminatory?

4.1: Environmental and ecological threats

Urbanization as a major cause for colossal fossil energy use, urban sprawl, land use/cover changes exhibits local, regional and extra regional environmental impacts. Such impacts are visible in most cities of the developing countries through inefficient water services, deteriorating water quality, groundwater depletion, air and land pollution. Even though availability and coverage of municipal drinking water supply has significantly improved (90%-95%) during the last decade in the cities of poor countries, waste water disposal and treatment has not shown commensurate improvement (close to 50%) and is a big health risk to the vulnerable communities and health of the water ecosystems. Cities consume more than two-thirds of total global energy against 50% share in population, however its health impacts are conspicuous in many large Asian and African cities. Beijing’s toxic air pollution has broken records recently and both Beijing and Delhi are infamous for toxic smog related health risks and deaths.

Extra regional/global impacts of mega urbanization like loss to ecosystems, climate change, natural and hybrid disasters, and biodiversity loss are getting stronger and drawing greater global attention. Urbanization is inherently not bad for ecosystems as urban areas account for only 2.8% of land area. Many developing countries are already running into ecological deficits, more so in the urban areas. The eco health of many water bodies is seriously threatened and these are unable to provide free ecological services of bathing, performing rituals, livelihood generation etc., especially for the poor. Millennium Ecosystem Assessment Report (World Resources Institute 2005) clearly establishes mega urbanization responsible for the biodiversity loss and health of the urban ecosystems. Cities also concentrate vulnerability to natural disasters and to long-term changes in climate. According to World Urbanization Prospects (UN, 2012) urban agglomerations of various size already experience potential risks of cyclones and floods, particularly on the Pacific rim and the Eastern US coastal zone. Due to enormous concentration of human life, global lifelines of communication, and valued goods and economic infrastructure, the potential effect of disasters on mega-cities is enormous. Kraas (2003) addresses mega-cities as global risk areas, which are exposed on the one hand to environmental hazards and on the other hand to man-made hazards.

Mega urbanization threaten human and environmental security. The impacts, of-course are not equal on all social and
economic groups as these are influenced by human sensivities, vulnerabilities and thresholds (Aggarwal and Butsch, 2011). Factors like governance, policies, institutional roles and citizens involvement also produce differential impacts on the communities. Nevertheless, the vulnerable and marginalized groups suffer most from such environmental impacts as their sensitivities are high and preparedness low.

4.2 : Urban inequities and conflicts
In the process of mega-urban development we notice that not only the urban environment is damaged but also it has affected the social and economic fabric and produced landscapes of poverty, informality, inequality and marginality, largely in the developing countries. Urban divides with several forms—digital, income, social, urban services, spatial (core vs periphery)—are becoming more pronounced and sharp. According to Saskia Sassen, (2001) the ascendance of information industries and the growth of global economy, both inextricably linked and located in mega cities, have contributed to a new geography of centrality and marginality. This centralized urban economy has given unparallel power to the already advantaged to produce distinct division of labour and space in urban systems. This is resulting into economic and social conflicts and spatial fragmentation. Contestation on competing social and economic spaces have produced conflicts and disturbed the social harmony of the urban society. On the new trajectory of current urbanization and globalization, phenomenon of ‘local losers’ and ‘global winners’ is becoming evident. As urbanization forces accompanied with neoliberalization are advancing, inequality and poverty manifests now within societies, particularly key cities and the hinterlands, rather than across them (between rich and poor nations).

These inequalities and inequities find manifestation in access to housing, municipal services, quality education and healthcare. WHO Commission on social determinants of health(2008) identified urbanization as the biggest social determinant of health globally. The Report asserts that much of disease burden and health inequity in the urban settings (places of growing, living and working) is avoidable and can be improved with action on social determinants like sex, age, income, ethnicity and location.

A clear manifestation of the urban divide is the presence of slums and prevalence of poverty. Slum dwellers are either clustered in space as in sub-Saharan Africa and scattered within the urban fabric, like in India, and can also be found in the decaying urban centres, and at the periphery of the city. The social and spatial divide created by slums is not only the result of income inequalities, but also a byproduct of inefficient land and housing markets, bad or non-existent policies and poor governance mechanisms that force many non poor/low income families to reside in slum areas for lack of better alternatives. The urban divide is not only about fragmented space and socio-economic differences, it is also about inequalities in opportunity, between social groups, age groups and men and women in access to knowledge, use of technology and employment, among others. UN-Habitat
and ESCAP (2010/11) report found varying degree of inequalities across many leading cities of Asia.

At a more radical level, Harvey (2013) argues that urban conflicts will probably be decisive in the wake of Western deindustrialization. He replaces the traditional concept of class struggle with the struggle of all those who produce and reproduce urban life. With surplus global/national capital and sharp division of labour, urban development projects like Commonwealth games (India), Olympics (China), musical concerts, convention canters, soccer world cup, ICT parks and designed residential and commercial complexes are making cities competitive, exclusionary, and giving birth to rising social conflicts and movements for “city rights” such as Occupy Wall Street in New York. Such movements are justified since public pays for the rising prices (a kind of city rent) to live in this uniquely built iconic city. Symbolic projects led urbanization can solve economic crises, like in China and India during 2008 recession period, with diversion of labour and surplus capital, but more than anything, it is a way to get out of crises and not a sustainable solution for growing exclusionary tendencies. World Urban Forum 5 (2010) also echoed “Right to the City” concept as a new paradigm for the transformation of cities, although not in radical/legal right form. It has been interpreted as a theoretical, political and conceptual framework that refers to aspects such as enforcement, empowerment, participation, self-realization and determination, and protection of human rights at the city level. David Harvey also appreciates this approach of protest by peaceful movements like “Occupy Wall Street” in New York. The approach of course gives visibility and voice to the citizens’ concerns for producing an inclusive city.

4.3 Urban sprawl and/urban expansion

One of the most significant characteristic of contemporary urban landscape is the phenomenon of urban sprawl or urban expansion. Different population growth rates and level of development generate different demands for urban space leading to urban expansion. On the contrary, urban sprawl has to be seen as an uneconomical and non-linear form of land consumption which creates needless interaction costs, unjustified resource consumption and social conflicts. Largely driven by profit making interest groups- builders, developers, urban design professionals, architechts, institutional finance - for low density living, and high profile business, urban sprawl has become the most challenging land, social conflict and environmental issue of this century. The auto-centric urban sprawl has attained the most unsustainable urban form and production of urban space in both industrialized and emerging economies.

Globally, urban areas are expanding two times faster than urban population. Global forecasts of urban expansion (Seto et al.,2012 and World Bank 2005), urban built up area will increase by1.2 million km$^2$ by 2030, nearly tripling the global urban land area circa 2000. Within the developing countries, during the same period, urban population is expected to double from 2 billion to
4 billion, whereas land demand will rise three times. For the industrialized countries the situation is even worse as population is expected to increase by 20% and land area by 2.5 times. Fifty percent increase in urban expansion is shared by Asia (55% of Asia by India and China alone). Every new resident, on average, converts some 160 square meters of non-urban to urban land. Globally, cities may possibly consume as much as 5–7% of total arable land, which is currently 2% per annum. Urban expansion projections which includes urban sprawl establish that the process is real

Developed countries, in particular land abundant US, increasingly display a counter-urbanization (rururbanization) trend after experiencing the phases of suburbanization, edge city development for both working and living environments. On the contrary European cities are still relatively dense and peripheral development is an emerging and growing phenomenon as rental and land values rise in the central city. At the same time peripheral development in most metropolitan cities of the poor economies is relatively new trend and is largely illegal, unplanned, and disjointed. The disjointed landscape includes supermarkets, malls, office space, urban villages, high-rise residential/commercial complexes, and illegal squatter settlements. The process is threatening the productive agricultural land on the fringe and also damaging natural. Urban sprawl has thus attained infamous metaphor of “City Cancer” when it weakens communities at the core and destroys natural resources and ecosystems at the edge.

5. What needs to be done to produce and create harmonious urbanization and sustainable cities?

By harmonious urban development we mean a symbiosis between man and nature and across individuals and society towards achieving quality of life in the urban settings. Considering the numerous challenges and concerns of present urbanization trends, we present below selected perspectives to create harmonious urban development.

5.1 Shift in theoretical underpinnings of contemporary urban landscape

New forces of urbanization have transformed the role, economic base, social relations function, form, range of demands, iconic meaning and regional relationships of the cities across the world. At present cities get their meaning by actors such as architects, developers, urban designers, material experts, planners and proprietors. These producers of social and economic space are situated within class and cultural context. People, cultures, ways of life, city icons normally provide identity to a city. Unfortunately it seems that ‘branding a city‘ to a new building or set of buildings is a kind of new identity for a city. New forms of urbanity (life styles of global milieu) are emerging within the living territories of cities. Cities are becoming sites through which ideologies are projected, cultural values are expressed and power is exercised. They are also becoming places of conflict resulting from division of labour and space. Subsequently, space and time have changed their meaning and context as these become constricted and extraordinary dynamic for the post-modern
city. Urban expansion and urban sprawl, a product of divergent forces, is making urban form almost shapeless. Apparently, both convergence and divergence forces are operating simultaneously to produce segregated and highly differentiated and fragmented urban landscapes.

Past and contemporary urban theories/models of Chicago school, structuralist theories based on city power relations and more recently of the Los Angeles school provide partial explanation of the present city form and wider relationships. Chicago School theories largely explained internal land use dynamics and the agglomeration type industrial economy and its social relations expressed in urban space. Centralized Chicago school models are being challenged now by Los Angeles decentralized city form models (dis-assembling the urban) promoted by Saskia Sassen and others. These polycentric models capture primarily the sprawling landscape as found in cities of the North. European scholars did not promote any specific school of urban theory rooted in land use approach, rather did more theoretical work on understanding the evolution of city morphology (morphogenesis) by utilizing iconographic and descriptive approaches. Understanding the impact of history and culture remained major concern in following the evolving urban form. The compact European city structure is losing ground to sprawling and fragmented cities under the influence of globalization, new technologies of information and communication and the new urban actors.

Urban theory/models for the cities in the South that explained the exclusive indigenous and imposed colonial forms are found lacking. Rather, modified Western models and factorial ecology approach to understand the urban form and underlying social and economic structures are often applied with inadequate explanatory power. Combined with neoliberalization and globalization influence, the indigenous characteristics such as informality, socio-economic polarization, poverty, encroachments, fortified urban landscapes are making the urban landscape even more complex and variegated. Informality, typical and ubiquitous characteristic of the city in the South deserves acceptable consideration and realism within urban theory.

The challenge for urban geographers is to debate and refine the existing theories to reflect the cosmopolitanism of contemporary global urban diversity, new type of migrants and immigrants, cultural pluralism, social conflicts, informalities and competing land demands by new actors and stakeholders. They need to integrate the prevailing and future trajectories of urbanization. It is evidently clear that “one size shoe” models and explanations are not tenable and we need to consider innovative urban theories/models for the unique features of the city in the North and the city in the South. Probably a meta theory within the context of social theory will be more realistic considering the vast diversity of urban settlements, overwhelming social and environmental issues and the distinct process of urbanization. The only uniformity or global convergence appears for megaurbanization, which allows for a considerate thinking for megaurbanization theory or models.
5.2 Conservation of urban ecosystems

Cities are basically ecological spaces. With the kind of urban sprawl/expansion and inner city development happening across the world, ecosystems damages (coupled with biodiversity loss) have become equally or even more important than the environmental concerns. Ecosystems conservation helps in producing natural capital by saving on municipal costs (sewage, water, clean air...), securing livelihoods, boosting local economy (business, tourism, and delays the tipping point of environmental degradation. Foremost, it provides almost free ecosystem services and livelihood opportunities to the urban poor. Considering the cost component of capital intensive infrastructure, conservation of urban ecosystems like forests, water bodies and river beds is a formidable alternative to alleviate urban poverty, waste water treatment and protection from natural hazards.

Economists are seriously working on assessing economic value of ESS towards poverty reduction, and reducing disease burden within the cities and beyond. Likewise, urban geographers can take a lead among spatial scientists to bridge this research gap by trans-disciplinary and inter-disciplinary collaboration towards “applied urban ecology“. Henceforth, urban focus should be more on the urban ecology and urban ecosystem approaches to comprehend the processes and linkages with urban poverty, preserving ecosystems health and its manifestations for climate change. We require re-orienting our thinking of environmental issues with urban ecosystems approach for producing harmonious urban development.

5.3 Containing the urban sprawl

Among several alternatives (viz. green belt, revitalization of inner city, new urbanism, neo-urbanism) to contain urban sprawl, smart growth/smart city is the one most talked about and a pragmatic solution. It favours collaboration over regulation between state and local authorities. Smart Growth Strategy (based on 3Es - Ecology, Economy and Equity) focuses on creating urban growth boundary that limits outward expansion, and encourages new development in infill-locations in already urbanized areas to accommodate more intense and mixed land use development. The approach preserves open spaces, farm land, critical environmental areas against further urban development and to use space more effectively by using a single comprehensive plan that captures the vision and means for transformation. Primarily, it implies to increase housing density in areas that already have roads, water systems, and transit access — in other words, to build upon the built. To achieve these objectives, smart city encourages the use of digital technology (real time governance and control), data base management, surveillance system, strict land use controls, efficient public transit in inner city and pedestrianization of roads and markets. The approach has great relevance for development of all size urban settlements in the developing countries due to its emphasis on energy efficient land uses. For the rich countries, it will strengthen revitalizing the inner cities and encourage
the use of public transport. The only caveat is to avoid vertical growth in the name of high density land uses and iconic image of the city under liberal urban design paradigm.

Many cities across the world are now taking advantage of ICT infrastructure to develop smart transport, home-based business, smart card services. Still the approach has not taken off with wider practice, and needs promotion in the developing countries where the need is equally significant as the cities there are growing very fast and urban sprawl is a critical issue.

### 1.5 Policy Responses and Tools to Manage Urbanization in the Developing countries

Urban policies need to address clearly the emerging issues of megaurbanization, urban sprawl, ecosystem damages, and inefficient resource consumption. Rural-urban migration policies need to be re-examined to promote more democratic and inclusive process of migration that makes it an instrument of growth rather than a deterrent. Sound urban land policy is equally crucial as it influences urban sprawl, environmental degradation and settlement of the poor. Strong and fair land regulations are required that facilitate the inclusive growth and reduces informality. On the moral and ethical grounds, right to city approach deserves attention and may be debated at national and sub-national level for securing social justice and inclusiveness considering fundamental rights of the ordinary citizen.

The master plan approach, embedded primarily in land use planning, has not addressed adequately the new challenges of environment degradation and inequity issues. Likewise growth of urban sprawl, damages to the urban ecosystems, informality and slums are among many externalities produced by the archaic urban and regional planning approaches. Lack of effective leadership, governance and participatory planning has further aggravated chaotic urban growth. To correct and ameliorate such planning deficits, the planning profession, as individuals and professional groups, remained unassertive to impress upon the primary decision makers for effective changes in land use based urban planning.

To improve the prevailing dismal state of cities, good governance and management practices should become integral part of innovative urban planning process. Urban planners, architects and urban designers need to focus upon holistic solutions with growing relevance for trans disciplinary and interdisciplinary approaches. Smart growth model will be an ideal tool towards harmonious urban development. The developed countries are promoting the main tenets of the concept to suit their need and city planners in the developing countries may also adopt this approach as it is absolutely cost effective, inclusive, environmental friendly and participatory.

### 6 Concluding remarks

The current urban demographic shift has gone in favour of less developed countries and in particular the Asian region. Within transition economies, including Asia,
mega-urbanization dominates the urban transition at present and is projected to shift towards second and third tier cities of less than 5 millions. Further, a new class of influential builders, political establishment and architecture and planning professionals have facilitated to produce a disjointed urban sprawl and alien urban form. Globalization and neo-liberalization processes have also contributed towards mega urbanization and growing inequities, insecurities and conflicts at least in the mega cities of the developing countries. Equity concerns now predominate over inequality issues in access to land and other social and economic infrastructure. However, the moot question remains whether such forces are going to create/facilitate sustainable and just cities in Asia or elsewhere despite the use/transfer of new technologies, capital flows and access to information and communication systems?

Considering the complex nature of economic base, urban form, functions and social relations under the new operating forces, the existing urban theories and models of Chicago and even of Los Angeles school are found untenable both within the developing and the developed countries. In the absence of any substantive urban theory, the current perspectives on the dynamics of urban space needs to reflect transnational, postcolonial and moral philosophical underpinnings within a metatheory framework. To address the environmental concerns, conservation of urban ecosystems approach needs preferred attention largely due to urban sprawl issues. Likewise to contain urban sprawl, intensive energy use and better land management Smart Cities approach need to be promoted for a viable and sustainable alternative for cities of the future.

Certain relevant questions need to be pondered over or answered for future research. In the Asian context, the big questions remain that how to regulate and manage Asian type mega-urbanization and make choice between competitive or cooperative city models? From the developing countries perspective, how can we internalize/legitimize informality towards inclusive urban growth? What are new thresholds that maintain sustainability and stability of the urban systems? How can we regulate the uncontrolled process of fragmented urbanization to save land and ecosystems in the rural-urban interface regions?

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