

Good Urban Planning and Management: New Aspects and Methodologies

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Abstract—In this paper, in addition to introducing good urban planning and its effects on globalization, some new methodologies in urban management and another urban aspects has been presented. Some new concerns in increasing of urban population, metropolitans and its relations on big problems has been focused in this paper. It is very important matter that future urban planning with based on globalization will be with full of basically changes in its management and perspectives.

Keywords—Urban planning; urban management; good governance; globalization; metropolitan; strategic planning

I. INTRODUCTION

URBAN areas are dynamic systems which require the use of multi-disciplinary approaches for their planning and management. However, the magnitude and dynamics of urban areas are major challenges for those responsible for their planning and management. Developing and implementing effective urban planning and management approaches is a major challenge for both present and future generations. The International Institute for Geo-Information Science and Earth Observation (2006) projects that by the year 2050, six billion people; two-thirds of the world's population will be living in urban areas.

Towns and cities are engines of economic growth and offer socio-economic opportunities. However, they are faced with many problems. The most serious problems confronting cities, towns and their inhabitants as identified in Agenda 21(1996) include the following: Inadequate financial resources, lack of employment opportunities, spreading homelessness and expansion of squatter settlements, increased poverty and a widening gap between the rich and poor, growing insecurity and rising crime rates, inadequate and deteriorating building stock, services and infrastructure. Other problems include lack of health and educational facilities, improper land use, insecure land tenure, rising traffic congestion, increasing pollution, lack of green spaces, inadequate water supply and sanitation, uncoordinated urban development and an increasing vulnerability to disaster. All these have seriously challenged the capacity of government at all levels to realize socio-economic development and environmental protection, which are all components of sustainable development.

The major goal of physical planning is the enhancement of efficient functioning of the urban system through effective coordination of various land uses [1]. Planning carries with it two distinct meanings. One is the logical arrangement of activities in space, and the other is the reasonable ordering of developmental activities over time in pursuit of strategic ends [2].

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The growing concern for the effective planning and management of urban areas so as to achieve the goal of sustainable development has given rise to various strategies and initiatives including the Millennium Development Goals (MDGs) birthed in 2000 by the United Nations General Assembly; New Partnership for African Development (NEPAD) initiated by the African Union in 2002; and National Economic Empowerment Development Strategy (NEEDS) of the Nigerian government to mention a few.

These strategies, while seemingly simple and quite implementable, are not producing results on the scale being expected. Urban problems still persist. Traditional approaches to planning and development are seen, by many, as creating or contributing to these problems, rather than solving them therefore, this paper seeks to examine the major principles underpinning contemporary planning strategies and recommend ways of improving results. The 'More Than' approach to urban management and planning, which is the focus of this study seeks to harmonize urban planning and management by bringing together all stakeholders and ensuring that projects and solutions are location specific, even though they may have all the principles of accepted concepts.

The current concentration of visible poverty and of the worst forms of environmental degradation in cities can easily lead people to believe that urbanization and urban growth are evils in themselves. This view is not only wrong but can lead to counter-productive or damaging policy conclusions. In fact, cities are, at least potentially, superior from an economic, social, environmental and demographic standpoint.

Cities have long been the centers of economic growth in the great majority of the world's countries. They account for a growing share of national economic production because of their advantages in terms of proximity, concentration and scale. In the context of globalized economic competition, these advantages are heightened. The higher intensity of economic activity in cities favours jobs and income, the starting point for improved social welfare. But proximity and concentration also make it easier and cheaper for cities to provide their citizens with basic social services, infrastructure and amenities. As a result, urban poverty rates are systematically lower than those in rural areas.

From an environmental standpoint, cities can help sustainability in the long run by concentrating the world's large population. Finally, urbanization helps lower fertility and population growth rates simply because they provide no incentives and many disincentives for high fertility.

II. ROLE OF URBAN PLANNING IN DEVELOPED WORLD

Developed country cities have successfully overcome several 'traditional' environmental problems, but are now experiencing a variety of emerging environmental challenges.

Their urban areas are less degraded than their counterparts in other parts of the world and in some cases; these cities influence other cities of the developing world through globalization.

On the other hand, technological advancement has facilitated the expansion of urban land uses, consuming land at greater rates than that of population growth. As a result, urban encroachment has consumed peripheral land areas which have either been preserved or reserved for future use thereby creating problems for urban managers and the environment. Sprawl, as some term the process of this uncoordinated growth of cities at their margins, is contributing to a variety of regional and global problems including increased energy consumption and carbon dioxide emissions, a major cause of global warming.

Governments and urban planners in these countries have continually applied different strategies to tackle these urban, yet they continually manifest.

To tackle the problems of urban management and planning in cities, whether first, second or third world, there is a need to apply new techniques. Current concepts and approaches being used must be modified to meet the specific challenges of identified urban centers. While they are not bad in themselves, certain adjustments, improvements and modifications must be introduced in order to achieve good results on a wider scale.

III. MODELS OF URBAN PLANNING

As there are many types of urban models, we should start by describing the various other types, to place GIS models in perspective. The FHWA has recently put up a Web site, called the Toolbox, that outlines a variety of analysis methods useful in transportation planning and in evaluating transportation plans and projects. Their typology of methods for forecasting land development patterns is:

1. *Proximity-Based Forecasting*. These are regression models that project development based on the proximity of past development to transport facilities and other urban infrastructure.
2. *Delphi/Expert Panel*. Several case studies of these methods are given. The Delphi method has also been documented in a TRB report (Land Use Impacts of Transportation 1999).
3. *Accessibility-Based Forecasting*. Accessibility, derived from a travel model, is used to forecast development.
4. *Simple Land Use Models*. These are zone-based models based on a small set of equations defining relationships with accessibility and past development rates. HLFM II+ is a FHWA-supported model for use by small MPOs.
5. *Complex Land Use Models*. These can be a land use model that interfaces with an existing travel model, or an integrated urban model with land development and travel models together. These models generally use land prices, and sometimes floorspace lease values, to represent demand for space. They also use accessibility and other factors to represent site attributes. DRAM/EMPAL has been widely used in the U.S. and does not use land value or floorspace lease value data and so is the easiest to implement. TRANUS and MEPLAN have been applied to many regions all over the world and do rely on land market data. A review of complex land use models can be found at Wegener (1994).

Another way to categorize land use models is to examine those in use in regional transportation planning agencies. The following table is derived from Miller, Kriger, and Hunt (1998) and updated to 2001. It shows the combinations of land use models and travel models in use or in development in the U.S. It is important to note that most MPOs use the judgment method of land use forecasting and then use this single forecast for all transportation investment scenarios. This is an inaccurate method, in that improvements in radial accessibility will generally increase the spread of land development. Significant additions to road capacity, especially on the edges of congested urban regions, will increase land development in those areas, according to the official study in the U.S. (Expanding Metropolitan Highways 1995). If these land use impacts in the outer areas are not assessed, the NEPA documents will be inaccurate in that the studies will likely bias the projections of travel and emissions downward for highway improvement plans and projects. The secondary effects of land development on habitats, water quality, farmlands, and other systems will also be underprojected.

Note that Urban Planning is in the Connected Land Use Models category, in its application in Sacramento with a travel model, which we describe below. Equilibrium Allocation land use models are a type of model in the Complex Land Development Models category in the FHWA typology and are used in several regions in the U.S.

IV. DEVELOPMENT AND STRATEGIC MANAGEMENT OF URBAN PLANNING

Much public attention has been centred on mega-cities (those with 10 million or more people) in recent years. There are about 20 such cities in the world today, and they are undoubtedly important. Nevertheless, they are NOT home to a large proportion of the world's urban population, NOR are they going to absorb a significant proportion of future urban growth. As shown in Figure 1, smaller cities (those with fewer than 500,000 inhabitants) still contain more than half of the world's urban population. Moreover, they will continue to absorb about half of urban growth in the foreseeable future. Mega-cities, by contrast, account for only 9 per cent of the current urban population, and this is not expected to change drastically in the future [3].

This fact is of considerable importance for shaping policy. Indeed, one has to take a much closer look at the possibilities and difficulties of smaller cities in absorbing this enormous amount of future urban population. The good news is that smaller cities have more flexibility in terms of territorial expansion, ability to attract investments and autonomy of decision-making. The bad news is that smaller cities generally have more unaddressed problems in terms of housing, piped water, sanitation, waste disposal and other services. Moreover, smaller cities tend to have fewer human, financial and technical resources at their disposal. The combination of these characteristics makes them prime candidates for solid and focused technical and financial support. Many people think that migration is the dominant factor in urban growth. Consequently, when policymakers try to 'buy time' for better preparation of urban expansion, they try to prevent rural-urban migration.

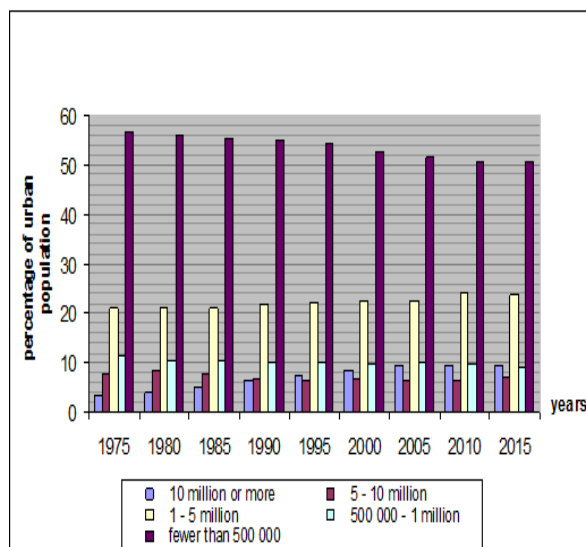


Fig. 1. Percentage of Urban population between 1975-2015

This is misguided, from economic, social and demographic standpoints.

First, migrants do not generally come from the poorest social classes in rural areas. Moreover, they tend to do relatively well in urban habitats – because of their youth, their high aspirations, and other personal characteristics (for instances, people willing to migrate may be bolder or more action-oriented than those stay put). Also, attempts to control migration have had very little success, essentially because they contradict economic rationality: Workers need the opportunities cities offer, and cities need workers. Millions of migrants move to cities because they intuitively perceive the advantages of urban life.

Attempts to prevent rural-urban migration contradict what some have recognized as ‘the right to the city’. Given the rural-urban differentials in access to services and amenities and in many dimensions of quality of life, migrants are making rational choices. Even if working and living conditions present serious difficulties, they are often perceived as preferable to the rural alternatives. This helps to explain why attempts to control migration have such a poor track record. There is no justification for restricting urban advantages to only one segment of the population [3,4].

In demographic terms, the main cause of urban growth, in most countries, is not rural-urban migration but natural increase, that is, the difference between births and deaths. Overall, some 60 percent of urban growth is due to natural increase, with rural-urban migration and reclassification accounting for the remainder. As urbanization advances, the contribution of natural increase inevitably becomes greater – even factoring in the usual decline in fertility that accompanies urbanization. This is because there is a lesser pool of potential migrants in rural areas, and because the population base in the cities that contributes to natural increase is greater. For instance, the current contribution of natural increase to city growth in the Latin America and the Caribbean region is estimated to be 65 percent.

Country experiences vary widely. Some countries that have had exceptional anti-urban policies, such as China and Viet Nam, may have an unusually high proportion of all growth stemming from migration once controls are slackened, over short periods of time. However, over the longer term, natural increase plays an increasing role in urban growth. This has important policy implications. If policymakers are interested in slowing down urban growth and in gaining time to better prepare for the expansion of urban population, they should pay more attention to those factors that lower unwanted fertility: social development, the empowerment of women and better access to health services, including reproductive health services.

V. REVIEWING OF METROPOLITAN MANAGEMENT WITH SOME GLOBAL CASE STUDY

Urban growth (due to agglomeration economies and associated labor and population attraction) inevitably leads to the configuration of large urban structures which need coordination in terms of service delivery, public investment, fiscal policies, political representation and accountability. Metropolitan governance is the natural output of this evolution. It is naturally a complex task. According to Jordi Borja (2001) “metropolitan space is a perfect illustration of complexity...a space of variable geometry; we do not know where it starts and where it ends, and even less, how it will be in 10 to 20 years. The territory is an outcome of action, an outcome of a strategy.”

Two concepts of metropolitan governance are often discussed. The first is the *physical arrangement* of the localities around a major urban center, including the planning of infrastructure, especially transport and housing, and the forecast of how and where this region will expand. South America’s large metropolises like São Paulo, Rio de Janeiro, Belo Horizonte, Buenos Aires and Lima all face the problem of major decline in their urban centers while the urban peripheries have not grown sufficiently to generate jobs for the overall increasing urban population. China is the exception. By imposing serious constraints into city migration, China has been able to smooth out the growth of its major metropolises, promoting the development of ring centers that eventually will result in a balanced metropolitan structure.

The second idea is the *strategic planning* developed where the region or space is seen as a dynamic entity shaped by the vision and desires of the different units that form the metropolitan space. The Barcelona, New York, and Recife Metropolitan Regions have showcased important metropolitan strategic plans.

As is the case in many other typologies, this dichotomy between strategic and physical metropolitan planning may not be very useful for policy purposes as both are an integral part of managing today’s metropolis and planning for future ones. A pragmatic approach is suggested by Webster (2005). Metropolitan governance around the globe varies according to key characteristics. For example, metropolitan governance in the USA gives a major role to civil society and civic organizations as core agents in management of metropolitan space. In East Asia, the focus is put on *fiscal* considerations and arrangements (e.g. Tokyo). In Canada, the metropolitan

issues revolve around service delivery and incorporation of the disadvantaged groups into mainstream society. In Europe, the main question is how to integrate urban *physical* structure and transportation systems to achieve energy, environmental and aesthetic objectives and to integrate *metropolitan* systems into European-wide economic and transportation/logistics systems. Economic development is key in many US metropolitan systems (e.g. Chicago and Phoenix) as well as in Britain (London, Glasgow).

There are several metropolitan bodies as well. Tokyo has the model of a single amalgamated city; Bangkok and Toronto are single cities with loose coordination by a senior body (the province). Vancouver and French municipalities use special districts that deliver one or more services to the whole metropolitan region, while retaining autonomous local governments for political and administrative purposes. London, Seoul, and Brazil (prior to 1988) are examples of strong metropolitan governments which co-exist with lower tier governments.

Regional Planning Authorities are probably the agencies which are better equipped to help with the physical and strategic plan of the metropolitan space. The US experiences show a strong participation of local governments and civil society. In Silicon Valley, Chicago and New York, civil society organizations totally drive metropolitan governance. The oldest association – the Regional Planning Association formed between New York, New Jersey and Connecticut in 1926 – illustrates the dynamics of metropolitan governance in the US. The first strategic plan prepared in 1928 focused mainly on the long-term spatial vision for the region in the next ten years. It correctly identified transportation and open space as the main structural elements for the whole Region in the near future (Webster 2005). The second plan was produced in 1968. It focused on the need to rehabilitate the transport system, reinvigorate the urban centers, create highly dense urban centers and invest massively in mass transportation. The third plan in 1996 addressed the extremely severe fiscal problems that were affecting the Region in the 1990s. Since November 11, the Regional Planning Authority (RPA) has been involved in the redevelopment of downtown Manhattan and the strengthening of disadvantaged communities such as East Harlem.

The Chicago Metropolis 2020 is a similar case. The plan was prepared with the representation of business, labor, civic and government organizations. The issues at hand included low-density sprawl, spatial mismatch between jobs affordable housing and transportation. In South America, similar experiences are found in the Strategic Metropolitan Plan prepared for Recife and the ongoing Strategic Metropolitan plan for Belo Horizonte. Both are being conceived with intense contribution from the private sector and business concerns.

Regional Districts are similar to regional planning authorities. The best example is the Greater Vancouver Regional District (GVRD). GVRD started as special district in charge of sewage management in the greater Vancouver area and gradually expanded to include visioning, infrastructure financing, marketing for the city, and raising

new revenues. In 1990, the strategic plan -- Creating our Future: Steps to a more livable City – was released, leading Vancouver to be classified as the most livable city in the world. GVRD comprises four major utility districts, including university, water and sanitation, housing and a special transport utility district. Its success is explained by the autonomy enjoyed by local entities and the intermediation function that GVRD performs between municipalities and the provincial government.

Special districts are flexible forms of metropolitan governance, focused on service delivery. They have been adopted by many countries given their flexibility and easy co-existence with local governments. Water and transport in metropolitan areas are often managed by these structures. The East Bay Municipal Utility District in San Francisco which started to coordinate delivery of solid waste and sewerage and absorbed other services over time is a good example of special districts. There are 35,000 special districts in the United States (compared with less than 15,000 twenty years ago). In Brazil, after 20 years without Metropolitan authorities, the government has approved the “Law of Consorcios” which establishes the conditions for municipal associations. This will be the basis for the constitution of special districts in Brazil.

European systems emphasize the physical aspect of the metropolitan space and stress the role of the national government and national agencies. Civil society has a lesser role (except for advocacy groups). The exception is London, with the Great London Authority (GLA), focused on strategic planning and economic development rather than transport or physical shape. GLA is responsible for all the analytical work. In the USA, civil society takes care of this function.

According to Roura and Guell (2006) the main problem faced by the developing metropolitan regions of the world is the difficulty to remain competitive in a globalized world. To this end, there is a need to: finance infrastructure and equipment; pay attention to the metropolitan economic basis; improve the supply of metropolitan services (land, technology, infrastructure); attract demand for the metropolitan space; develop a marketing plan; improve the management of the whole region; involve civic partners. In terms of particular strategic planning, there are some lessons. First, due to the complex and dynamic nature of metropolitan management needs to be both visionary and flexible to respond to new circumstances and preferences. The territorial plans produced by Curitiba and Bogotá correspond to visionary solutions for a rapidly growing area. They provide the backbone for organized growth of the metropolitan tissue while maintaining enough flexibility to accommodate new factors. Second, there is no need to amalgamate local jurisdictions, for this will encounter natural resistances for a small return in efficiency. Toronto’s last amalgamation is still being discussed in terms of costs and benefits. The Strategy for the Recife Metropolitan region was the product of a genuine exercise in which the different localities planned their own strategy while bearing in mind the whole metropolitan region. Third, use services that are naturally prone to benefit from economies of scale to promote

the concept of special districts. Use the leverage of central government finance to push for improved metropolitan governance -- e.g. in Atlanta metropolitan region, the fastest metropolitan region in the world, benefited from the pressure of the central government to prepare and agree on a transport plan to integrate and serve the whole area. Fourth, ensure direct involvement of civil society in metropolitan government and give more emphasis to partnerships, both between public and private sector and across jurisdictions.

VI. FUTURE OF URBAN PLANNING IN THIRD WORLD CITIES AND COUNTRIES

The secret for successful, competitive cities will be that key cities position themselves as hubs of technological excellence that can serve the domestic or regional market. The recent report on East Asia produced by the World Bank¹ is quite clear in outlining the need to address the two principal forces affecting urbanization, i.e. development of secondary cities and connectivity. It seems that the "secret of successful cities" is a good fiscal base, vision, and good management. In developed countries, the more cities invest in amenities and basic infrastructure the more they attract investment and private activities, which in turn feed accelerated city growth. In the Third World the situation is more complex as rapid urbanization faces lack of resources, insufficient infrastructure, and often brutal changes in social and political structures. Cities and their mayors have to "juggle" the desperate needs for basic infrastructure to attract private investment, and the basic services needed for the growing numbers of urban poor [5].

In the developing world, cities are growing much more rapidly than in developed countries. Basic challenges of urban growth involve the expansion and management of services, the collection and allocation of sufficient revenues to create infrastructure and to operate services in an adequate fashion, and the creation of a coherent planning framework for the city so that increasingly diverse populations can live together civilly and productively. In addition, especially needed is the establishment of an institutional structure that both represents the constitutive parts of the growing city while at the same time generating adequate authority to govern effectively. These are not easy tasks even for developed countries; but they are much more challenging for cities in developing countries where the majority of the population is very poor, and public resources are, as a result, extremely limited.

The Third World will continue to see increasing rates of urbanization, and cities will continue to experience the stress of facing increased demands to provide infrastructure and create jobs without much of the needed resources and/or capacity. The main challenges include (a) the need to keep urban planning and management flexible and ready to adapt to new developments in the economic or social front; (b) getting the best possible technical analysis; (c) pushing the agenda of excellence; (d) thinking big and long-term; (e) looking at the big picture -- overall competitiveness, labor market, environmental quality, and standing as regards capital and human capital; (f) engaging the private sector; (g) understanding and discussion with community leaders of how

much limited-resource local governments can offer; (h) establishing contracts vertically with the central government and horizontally with other municipalities.

The near future of globalization and urbanization will bring enormous challenges as well as opportunities to both developed and developing countries. According to Douglass (2005) development is likely to be polarized in a limited number of urban regions. That is, while convergence of production and income may happen across countries, divergence is likely to occur within each country as globalization will bring a concentration of activity to a few sites. Furthermore, we will see the emergence of mega-urban regions with the development of world cities and links among them. Additionally, we will see the formation of transborder regions, the development of international corridors, and significance of international networking.

To prepare for these challenges, local governments need to follow some basic principles [6]:

- Promote arrangements to improve delivery of services, e.g. incentives for multi-jurisdictional agreements with low-cost solutions and adequately priced services;
- Decentralize legal authority to the local level;
- Devise policies to deal with rural land conversion and losses of farmland -- urban expansion and densification is probably the most important and urgent issue facing the urban planner. At the height of urbanization, green belts and usual concepts of urban limits will not work. Pro-active allocation of sites for "densified" occupation would be the best solution to avoid those disastrous urbanization patterns which would never be able to achieve adequate infrastructure, access to jobs, or environmental sustainability;
- Take advantage of the private sector. Developing countries tend to have a very active and mobile private sector. Developers and slum occupants belong to the same class of private dealers. The notion that the public sector is best equipped to deal with increased urbanization is not altogether accurate;
- Minimize the accompanying environmental deterioration;
- Increase the income of the local governments -- many developing countries neglect the capacity of local governments to raise revenues and administer fiscal resources. Striking the right balance is difficult but necessary;
- Introduce flexible spatial plans -- spatial design should take an important role in local development and management. Developing cities should be concerned about their spatial structure. Congestion imposes high economic costs while sprawl leads to energy inefficiency. Attractive environments and amenities are conducive to inward migration of talent, investment, and so forth. Affordable, accessible land is essential to absorbing migrants. Slums and squatter areas should be

¹ An East Asia Renaissance -- Ideas for Growth, World Bank, 2006

assessed as integral components of a city's spatial structure, and all land uses should be dynamically linked. All forms of land use should be assessed in a dynamic fashion. In this regard, service delivery monitoring systems such as those adopted by Johannesburg (based on GIS) could be used to monitor the existence and development of slums and to map out the improvements needed in service delivery;

- Address the absolute need to improve mobility and connectivity! Failures in urban transport policy seriously compromise the movements of individuals and goods. In many developing countries, the poor are often simply priced out of public transport which might cost up to a third of their income for regular use.

VII. CONCLUSION

Although the population in urban planning has an important role in management of cities, it is more important that we should consider on future aspects in urban planning with based on globalization. In some countries such as third world countries, unpredicted increasing of population will be an important factor of concerns in the future directions. In this paper, some methodologies and infrastructures in urban management, especially in metropolitans and medium cities has been focused. Some reviews and aspects in this paper will be some factors in future planning with based on past events.

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