Revisiting Urban Planning in South Asia

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AD	Anno Domini
AGR	Annual Growth Rate
BC	Before Christ
BMC	Mumbai (Bombay) Municipal Corporation
CBO	Community Based Organizations
CDP	City Development Plan
CDGK	City District Government of Karachi
CEGIS	Centre for Environmental and Geographic Information Service
CEPT	Centre for Environmental Planning and Technology
CNG	Compressed Natural Gas
DCC	Dhaka City Corporation
DDA	Delhi Development Authority
DMA	Delhi Metropolitan Area
DMP	Disaster Management Plan
DPR	Detailed Project Report
DHUD	Department of Housing and Urban Development
EPZ	Environmental Protection Zone
ESCAP	Economic and Social Commission for Asia and the Pacific
ENVIS	Environmental Information system

EPZ	Environmental Protection Zone
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GIS	Geographic Information System
GNCTD	Government of National Capital Territory of Delhi
GPS	Global Positioning System
GTZ	Technische Zusammenarbeit (German Agency for Technical Cooperation)
HDI	Human Development Index
HIG	High Income Group
HITEC	Hyderabad Information Technology Engineering Consultancy
HPI	Human Poverty Index
HUDCO	Housing and Urban Development Corporation
IAP	Integrated Action Planning
IT	Information Technology
IIT	Indian Institute of Technology
ITES	Information Technology Enabled Services
ITPI	Institute of Town Planners, India
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KMC	Kolkata Municipal Corporation
LIG	Low Income Group
MCD	Municipal Corporation of Delhi
MMC	Mumbai Municipal Corporation
MSIP	Multi Sector Investment Plan
NASSCOM	National Association of Software and Services Companies
NCEPC	National Committee on Environmental Planning and Coordination
NCR	National Capital Region
NGDP	National Gross Domestic Product
NGO	Non-Governmental Organizations
PEDP	Physical and Environmental Development Plan
PIL	Public Interest Litigation
PPC	People's Planning Campaign
PPP	Purchasing Power Parity
RWA	Residents Welfare Association
SAARC	South Asian Association for Regional Cooperation
SEZ	Special Economic Zone
SLGO	Sindh Local Government Ordinance
SPA	School of Planning and Architecture
TCPO	Town and Country Planning Organization

TDR	Transfer of Development Rights
UDA	Urban Development Authority
UDLE	Urban Development through Local Actions
UK	United Kingdom
ULA	Urban Local Authority
ULCAR	Urban Land (Ceiling and Regulation) Act
USA	United States of America
UNCHS	United Nations Centre for Human Settlements
UNDP	United Nations Development Programme
UN	United Nations
WHO	World Health Organization

Introduction

Southern Asia, also referred to as South Asia in common usage, has no universally agreed definition as regards the countries that constitute it. However, as per the definition adopted by the United Nations, it is the region that includes nine countries namely, Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, and Sri Lanka. The discussion here is limited to these nine countries, which together occupy an area of 6.8 million sq km and has a population of 1.6 billion persons at average density of 235 persons per sq km in the year 2005.

Archaeological records suggest that the river valleys of Southern Asia along with those of China, Egypt and Mesopotamia (now Iraq) were the hubs of the earliest urban settlements that date back to as early as the third millennium BC. By examining the excavated ruins of the earliest settlements in the region, archaeologists and historians found urban planning practice in its nascent form. Planning in Southern Asia could thus be as old as the civilization itself[1]. From those early days up to the contemporary era, a period extending over 5,500 years in history, the theatre of urban planning and town building activities has shifted from region to region with the rise and fall of civilizations in each region. In the process, urban planning as practiced in the various regions of the world acquired different connotations in the context of local factors such as physiography, climate, geographical location, natural resources, economic development, demographic characteristics, cultural patterns and political systems.

Today, cities are at the centre stage of the development processes. The global report titled 'Urbanizing World' produced by the United Nations Centre for Human Settlements (Habitat) in 1996 characterized cities of the world as places of opportunity and presented a view of cities as engines of growth[2]. The globalization phenomenon that is unfolding now across the world requires that cities besides being agents of economic progress within the country should also become internationally competitive to take advantages of liberalized global economic environment. However, in the Southern Asia, cities are unable to effectively play these roles because of the problems associated both with urbanization and globalization. The phenomenal urban population growth as highlighted in a subsequent section of this report is not supported by proportionate infrastructure development. Substantial sections of population are deprived of basic services such as potable water supply, sanitation and drainage. Cities are suffering from environmental degradation. Poverty and lack of housing is reflected in growth of informal sector, slums and squatter settlements. Often the poor people living in precarious locations are exposed to disaster risks such as flooding and land slides. Additionally, globalization appears to be exacerbating the problems of marginalization of the poor and promoting segregation as seen in the emergence of exclusive gated communities for the rich and slums for the poor. Apart from class, in the Southern Asian context religion, caste and ethnicity also play vital role in segregation of communities. Ironically, the cities themselves have the potential to deal with these problems but are let down by misplaced priorities of urban planning practices and weak urban governance.

This report thus begins with the study of variations in terms of physical, demographic, social and economic characteristics in the region. Then an attempt has been to understand the factors and forces that have guided the evolution of urban settlements from the days of the Harappan civilization to the cotemporary period in which some cities have acquired mega city status, each accommodating more than 10 million inhabitants. The associated issues in relation to urbanization pattern, growth of mega cities, transportation, globalization, urban poverty, slums, informal sector, peri-urban development, environmental concerns, disasters and urban management are discussed in detail, completing Part I of the report.

Part II mainly deals with the evolution of settlements and planning practices in the countries of the Southern Asia Region. Since the growth and development of cities is very much dependent on the

[1] Mumford , 1961.
[2] UN-Habitat, 1996.

countries' macro economic parameters and the region's economy in relation to the global economic factors, this section examines economic condition of the states of the region in the global economic context. The concepts and practices of urban planning in Southern Asian countries, like in any other part of the world, are symptomatically rooted in the recent economic history. After discussing the state of the economies of the region as a contextual framework, the remaining sections within Part II of the report analyze in detail the evolution of urban settlements, urban planning practices, and needed reforms.

Apart from recent economic history and culture, planning education also has been influenced by global development and planning thought and practices, which in turn has also impacted planning practices in the region. Part III thus is devoted to the examination of planning education in the region by focusing on planning institutions, their academic focus and reach, and students' strength. It is found that there is a need for urgent reforms particularly aimed at promoting undergraduate planning education and also equipping students with new competencies and skills throughout the region. Part IV contains conclusions based on the preceding discussion before pointing out issues that planners would have to deal in future with a view to reshaping planning practices and educational institutions in the region.

1. Key Characteristics of the South Asia Region

1.1. Physical, Demographic, Social and Economic Variations

The region is characterized by physical, demographic, socio-economic, and cultural variations. Amongst the countries in the region, India, Pakistan and Bangladesh have populations in excess of 100 million inhabitants (more than a billion in India alone), while the Maldives and Bhutan, each have less than a million inhabitants. However, Maldives, a very small country in terms of population size, is the second most densely populated in the region with density of 1,001 persons/ km^2 in 2006 being only marginally less than the most densely populated country Bangladesh with a density of 1,083 persons/km^2. On the other hand, Iran, Afghanistan and Bhutan are relatively thinly populated with densities of less than 50 persons/ km^2 (see Table 1).

Annual growth rates (AGR) of population in the region ranged between 1.2 and 2 in 2006 except Sri Lanka and Afghanistan. In Sri Lanka population grew at comparatively slow rate due to continuing ethnic strife whereas Afghanistan recorded a very high growth rate mainly after return of refugees from neighboring countries at the end of the Taliban rule.

Likewise there are vast diversities in physical features. Whereas Afghanistan, Nepal and Bhutan are landlocked mountainous countries; India, Pakistan, Bangladesh and Iran have vast stretches of fertile river valleys, hilly areas and coastal regions. On the other hand, Maldives comprises of islets with maximum elevation of barely 2 meters above mean sea level. Sri Lanka is another island country, large in relation to Maldives, but small in comparison to India, Pakistan and Bangladesh.

Table 1. Key Physical, Demographic and Economic Characteristic of Countries in South Asia, 2006

Country	**Area (Km^2)**	**Population (Millions) 2006**	**Density (Persons/ Km^2)**	**Average AGR (%) Population 2006**	**GDP Per Capita**	
					US $	**International $ (PPP)**
Afghanistan	652,090	26.1	40	4.1	335	1,490
Bangladesh	147,180	156.0	1,083	1.8	451	2,287
Bhutan	47,000	0.6	14	1.8	1,254	4,470
India	3,287,260	1,151.8	350	1.5	797	3,737
Iran	1,648,200	70.3	43	1.2	3,046	8,624
Maldives	300	0.3	1,001	1.7	2,864	8,229
Nepal	147,180	27.6	188	2.0	339	1,873
Pakistan	796,100	160.9	202	1.8	830	2,722
Sri Lanka	65,610	19.2	293	0.5	1,355	5,271

Source: ESCAP, 2008, p. 167 and 183; IMF, 2007

In terms of economic development, however, diversity amongst the countries is not as sharp as for other characteristics described above. Firstly, all the countries in the region are developing countries. While according to gross domestic product (GDP) per capita, Iran, Sri Lanka, Maldives and Bhutan with figures of more than US $1,000 are categorized as Lower Middle Income Countries, the

remaining countries are Low Income Countries3. However, when using the GDP per capita data modified on the basis of purchasing power parity (PPP), India along with Bhutan, Iran, Maldives, and Sri Lanka emerge as relatively better off countries as compared to, Afghanistan, Bangladesh, Nepal and Pakistan (see Table 1).

1.2. Urbanization Patterns and Structural Changes

Urban Population

According to the United Nation's estimates, Southern Asia's urban population is expected to reach the figure of close to one billion by the year 2030 that is about 120 per cent increase in three decades beginning with the year 2000. Four countries namely India, Pakistan, Bangladesh and Iran would accommodate an overwhelming 95.4 per cent of the region's urban population in 2030 as compared to 97.3 per cent in the year 2000. This marginal decline in the share of urban population of larger countries in the region is because of relatively fast increase in the urban population of the smaller countries like Afghanistan, Bhutan, Maldives and Nepal. However, growth rates of urban population are estimated to decline in successive decades in all the countries of the region, except India and Sri Lanka (see Table 2).

Table 2: Urban Population and Rate of Change in South Asia, 2000 - 2030

Country	**Urban Population**						
	Estimates and Projections (000)				**Annual Rate of Change (%)**		
	2000	**2010**	**2020**	**2030**	**2000-2010**	**2010-2020**	**2020-2030**
Afghanistan	5,050	8,838	14,262	22,997	5.60	4.79	4.78
Bangladesh	29,900	42,292	59,525	82,064	3.47	3.42	3.21
Bhutan	186	309	501	774	5.06	4.83	4.35
India	282,480	356,388	457,619	589,957	2.32	2.50	2.54
Iran	42,606	51,625	62,962	71,827	1.92	1.99	1.32
Maldives	80	119	175	247	3.99	3.87	3.44
Nepal	3,281	5,446	8,537	12,679	5.07	4.49	3.96
Pakistan	47,284	64,812	90,440	122,572	3.15	3.33	3.04
Sri Lanka	3,118	3,262	3,870	5,064	0.45	1.71	2.69

Source: UN-Habitat, 2007, pp.348-349

Urbanization Level

Urbanization level is increasing in all the countries of Southern Asia and this trend is expected to be maintained in future as well at least up to the year 2020. More alarmingly, with the exception of Iran and Nepal, the rate of change in the urbanization level is still increasing. The cities in the region will thus have to be prepared to absorb sharp increases in urban population and resulting pressure on basic infrastructure and livelihood opportunities (Table 3).

[3] World Bank, 2007, p. 333.

Table 3: Urbanization in South Asia 1990-2020

Country	Level of Urbanization					
	Estimates and Projections (%)				Rate of Change (%)	
	1990	2000	2010	2020	1990-2010	2010-2020
Afghanistan	18.3	21.3	24.8	29.7	1.52	1.82
Bangladesh	19.8	23.2	27.3	32.9	1.61	1.85
Bhutan	7.2	9.6	12.8	17.0	2.90	2.83
India	25.5	27.7	30.1	34.4	0.82	1.32
Iran	56.3	64.2	69.5	74.0	1.05	0.63
Maldives	25.8	27.5	32.1	38.0	1.08	1.70
Nepal	8.9	13.4	18.2	23.9	3.61	2.72
Pakistan	30.6	33.1	37.0	42.7	0.96	1.44
Sri Lanka	17.2	15.7	15.1	16.9	-0.64	1.11

Source: UN-Habitat, 2007 pp.352-353

Growth of Mega Cities, Settlement Pattern and Primacy Issues

Amongst the countries in the region, there is a trend of population to concentrate in large cities. Number of mega cities (ten million plus population cities) is increasing in the region. In 1995, there were only three mega cities in Southern Asia although Dhaka (8.2 million) and Karachi (8.5 million) were just behind. However, by 2015, the region is projected to have five mega cities and four more cities namely Chennai (8.3 million), Bangalore (7.9 million) and Hyderabad (7.4) in India and Tehran (8.4 million) in Iran following closely. The population of these cities is increasing at a rapid rate except that of Kolkata which is presently stagnating (Table 4)[4].

Table 4: Population Size and Growth Rate of Mega Cities in South Asia, 1985-2015

Mega City	Population (million)					
	Estimates and projections			Annual growth rates		
	1995	2005	2015	1990-1995	2000-2005	2010-2015
Dhaka	8.2	12.4	16.8	4.6	4.0	2.8
Mumbai	14.1	18.2	21.9	2.7	2.5	1.8
Kolkata	11.9	14.3	17.0	1.8	1.8	1.8
Delhi	10.1	15.1	18.6	4.1	3.8	1.8
Karachi	8.5	11.6	15.2	3.4	2.9	2.7

Source: UN-Habitat, 2007, pp.385-389

Moreover, settlement patterns in many countries in Southern Asia show signs of urban primacy. For example, in 1990, as much as 53.6 per cent of urban population was concentrated in the capital city Kabul. In Bangladesh also, 38.9 per cent of the country's urban population was concentrated in its largest city Dhaka and the second largest city Chittagong was less than one third and Khulna the third largest city was less than one seventh the size of the largest city Dhaka in the year 1990. Similar

[4] Also see UN-Habitat, 2007, pp. 385-389.

trends, though milder in nature, are visible in Iran, Nepal and Pakistan This situation is not likely to change much up to the year 2015, though with the exception of Bangladesh, the degree of primacy may decline marginally (Table 5).

On the other hand, Sri Lanka shows no sign of primacy as its largest city Colombo, with a population of 119,000 in 2005 contained merely 3.8 per cent of the total urban population[5]. But, its urban settlement pattern shows a regional imbalance since the South-western quadrant of the country which occupies only about one-third of the country's area, accommodates 75 per cent of the urban population including ten of the country's largest urban settlements, each having population of more than 50,000 persons. The Colombo Metropolitan Region with a population of above 2 million is also located in this zone6.

Table 5: Share of Major Cities in the Urban Population of Respective Countries in South Asia

City	Country	Population (million)		Share in country's urban population	
		1990	2015	1990	2015
Kabul	Afghanistan	1.4	4.7	53.6	41.7
Dhaka	Bangladesh	6.5	16.8	31.7	33.5
Chittagong	Bangladesh	2.0	5.7	9.8	11.4
Khulna	Bangladesh	0.9	2.1	4.4	4.1
Mumbai	India	12.3	21.9	5.7	5.4
Kolkata	India	10.9	17.0	5.0	4.2
Delhi	India	8.2	18.6	3.8	4.6
Kathmandu	Nepal	0.4	1.3	23.5	18.7
Karachi	Pakistan	7.2	15.2	20.9	19.8
Lahore	Pakistan	4.0	8.3	11.6	10.8
Faisalabad	Pakistan	1.5	3.3	4.5	4.3
Tehran	Iran	6.4	8.4	19.9	14.7
Mashhad	Iran	1.7	2.5	5.3	4.4
Esfahan	Iran	1.1	1.8	3.4	3.2

Source: UN-Habitat, 2007, pp. 385-389

The urban settlement pattern appears to be more balanced in India where the largest city Mumbai accommodated only about 5.7 per cent of the country's urban population in 1990 and the figure is expected to go down to 5.4 per cent in 2015 (Table 5). There are a total of 35 million plus cities, which are spatially well spread out in the country[7]. Also, the second largest city Kolkata is almost as big as the largest in terms of population size. However in India too, the trend of concentration of population in cities with population of more than 100,000 is quite disconcerting for urban managers. It is noted that almost 38 per cent of the total urban population of India was concentrated in million plus cities in 2001 and by the year 2051, it is estimated that these cities will accommodate about half of the total urban population. An analysis of 100,000 plus cities suggests still stronger concentration trends since these cities accounted for as much as about 69 per cent of the country's urban population in 2001 and the figure is expected to rise to 82 per cent by the year 2051[8].

Contrary to trends in other parts of the world, the fast pace of urbanization and the increasing concentration of population in large cities in this region is a matter of concern for policy makers since the organizations responsible for planning, development and maintenance of cities are not capable enough to deal with the emerging situation even in steadily growing small and medium towns, not to speak of fast expanding mega cities. According to the UN estimates, the percentage of population in urban agglomerations of 10 million or more population (mega cities) in South-Central Asia (Southern

[5] Computed from the data on population of capital cities on page 393 and urban population data on page 349, interpolated for the year 2005, UN-Habitat, 2007.
[6] Mendis,1982, p.3.
[7] Census of India, 2001a, pp. 32-33.
[8] Ribeiro, 2004.

Asian countries along with Central Asian countries, namely Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) is likely to increase from 3.6 per cent in 1985 to 19 per cent in 2015. On the contrary, the corresponding figures for urban agglomerations of fewer than 50,000 persons are likely to decline from 60.1 per cent to 50.8 per cent[9]. The supply of serviced land is falling way behind the demand. Consequently the population pressure on urban land is intensifying. This problem is bound to get far worse in view of rising levels of urbanization in the region.

1.3. Transportation Issues and Impact on Urban Form

Rapidly increasing urbanization and fast growth in ownership of motor vehicles and their use have exerted heavy pressure on urban transport systems in Southern Asian cities10. As a result, traffic congestion has become one of the most serious problems in many cities, especially large cities. Consequently, average speed of motorized vehicles has reduced considerably. For example, in India, in the mid-1990s average speed for motorized passenger vehicles was reported to range from 10-20 km an hour in many cities11. A large percentage of workers thus spent more than an hour to reach their place of work; only about 5 per cent spent less than 20 minutes on commuting. This situation is likely to get worse since motor vehicle ownership is growing rapidly due to increasing pace of urbanization and growing urban income.

Studies of modal split have shown that walking and use of non motorized vehicles are important transport modes in many cities in the region. Table 6 shows that in a city like Delhi, almost three-fourth of the trips are performed by walking and para-transit modes where as in Dhaka, walking mode caters to as many as 40 per cent of the trips. It should also be noted that a significant proportion of the trips are performed by riding bicycles; in Dhaka and Delhi the figures are 12 and 20 per cent respectively. Despite the fact that vast numbers of urban commuters are dependant on biking and walking, the role of these modes is not duly emphasized in urban transportation development strategies. Rather the recent trend is in favor of building more of urban expressways, flyovers, arterial roads which benefit relatively few commuters, mainly the users of cars and motorcycle. The data in Table 6 indicates that, in Dhaka city, only 8 per cent of the trips are performed by private cars and 4 per cent by motor cycles though in cities like Kolkata and Mumbai, these two modes cater to a somewhat higher proportion (30-40 per cent) of trips. In addition to the capital intensive road infrastructure projects, the public officials and city politicians appear to have taken a fancy to developing rapid transit systems like metro rail, light rail and bus rapid transit. These urban rail and bus transit systems make sense in dense urban areas with mono centric land use pattern and, if introduced at relatively early stage of development of cities, these rail systems have the potential to guide the urban form and pattern of cities in a manner that the city becomes manageable to efficient use of rapid transit system. However, the benefits of these systems to the urban poor are very limited in the short run because the urban poor simply can not afford these unless governments provide transport subsidies.

Table 6: Modal Split of Urban Transport Trips in Selected Asian Cities, Various Years (per cent)

City, Year	Walking	Non-motorized Vehicles	Para transit	Public Transit	Motorcycles, Motorbikes	Private Automobiles
Kolkata, 1989	15	7	40	6	10	20
Delhi, 2004	20	12	53	8	Negligible	7
Dhaka, 2004	40	20	8	20	4	8
Mumbai, 1989	15	3	28	9	20	20

Source: Laquian, 2007, p. 32

[9] UN-Habitat, 2007, p. 339.
[10] Bose, 2007, p. 116.
[11] Centre for Science and Environment, 1996; Rail India Technical and Economic and Operations Research Group, 1994.

Note: “Non-motorized vehicles include cycles. cycle rickshaws, etc. “Para transit” modes include motorized vehicles such as auto-rickshaws, three wheelers and minibuses, etc. “Public Transit” modes include buses, trams, light rail transit, heavy rail metros, dedicated bus ways, and suburban railways. “Motorcycles” include mopeds, scooters and motorbikes.

Bus based public transport system has to date played relatively moderate role in urban transportation in Southern Asian Cities. The table above shows that in cities like Kolkata, Delhi and Mumbai merely 6-9 per cent of the trips are catered by public transport system even though in Mumbai a fairly large percentage of public transport trips are performed by suburban rail system. But Dhaka is an exception where relatively significant proportion (20 per cent) of trips is performed by bus. According to a 1987 study, about 40 per cent of the population uses bus, 16.7 per cent are dependant on mini-buses, 20 per cent use motorcycles and 10.5 per cent use cars for daily commuting. However, private cars occupy 43.3 per cent of the road capacity, against 9 per cent by buses and 6.2 per cent by minibuses[12]. The importance of public transportation by bus may decline in future because short distance riders are likely to shift to bicycles or motorcycles due to ever increasing road congestion and steadily declining average travel speed of buses. A bike will be faster and more feasible than the bus. For long distance riders, however, urban based rail transport system such as Delhi Metro would be a much better option since its use may result in significant time saving for commuters.

A very important policy issue in transportation is the role of private sector. In many Asian cities, buses and para-transit systems are owned and operated by private companies or individuals. However, there are many complaints that privately owned and managed public transport facilities tend to be inefficient and chaotic. Since earning from buses and para-transit systems tend to be low compared with investments and expenditures, the drivers and operators often engage in certain negative and even illegal practices, such as over-speeding, weaving in and out of traffic, picking up and letting off passengers in non-designated spots and not keeping their vehicles in good running condition. These inadequacies on the part of private bus operators often lead to frequent and serious accidents. Clearly, there is a need for comprehensive schemes that can integrate various transport modes so that all segments of population are able to benefit from the urban transport system in the city. Also there is a need to forge public private partnerships so that the advantage can be taken in respect of resources and entrepreneurial abilities of the private sector within a suitable monitoring framework established by the public sector.

1.4. Globalization Driven Structural Changes in Cities

Driven by hard pursuit of the ‘logic of market mechanism, facilitated by the advances in the information and communication technologies and aided by liberalization of policies’[13], globalization appears to have opened windows of opportunities that makes it possible for nations to benefit from increased access to global markets and consequent economic growth. When looking at human settlements around the world today, ‘one can observe gains in wealth, made possible by globalization, in such forms as newly constructed luxury apartments, fashionable shopping malls, gleaming office towers, trendy restaurants, stylish department stores, modern airports and high-tech parks’[14]. The above is very much true for Southern Asian countries, which can boast of representing some of the fastest growing economies of the world and where the GDP growth rate has accelerated except Afghanistan and Iran. But even in these two countries, though GDP growth rates have declined during the last five years, its level still remain comparatively high (Table 7).

[12] Siddiqui and Siddiqui, 2004, p.283.
[13] UNCHS, 2001, p. XXVII.
[14] UNCHS, 2001, p. XXVII.

Table 7: Real GDP Growth and Per Cent Value Added in GDP by Agriculture, Industry and Services Sectors in South Asia, 2007

Country	Real GDP Growth Rate		Contribution to GDP (Per cent)		
	2002	2007	Agriculture	Industry	Services
Afghanistan	28.6	13.0	-	-	-
Bangladesh	4.4	6.5	20	28	52
Bhutan	6.7	17.6	-	-	-
India	4.1	9.0	18	28	54
Iran	8.9	5.8	10	45	45
Maldives	6.1	6.6	-	-	-
Nepal	0.6	2.5	39	22	39
Pakistan	3.2	7.0	20	27	53
Sri Lanka	4.0	6.7	16	26	58

Source: ESCAP, 2008, p. 158; World Bank, 2007, pp. 340-341; http://www.swivel.com/data_sets/show/1004019

The impact of this upsurge in GDP growth is visible in many ways. Firstly, structural changes are taking place in the economies of these countries. For instance, India which according to the World Bank was classified among agriculture based countries in 1965 was included among the group of transforming countries by 1994. Moreover, 98 per cent of the rural population in Southern Asia is now included in transforming courtiers whose agricultural sector contributed only 7 per cent of the GDP growth in 2005[15]. The three largest countries in Southern Asia, namely India, Pakistan and Bangladesh each earned more than 50 per cent of their income in 2007 through non-agricultural sectors such as industry and services (Table 7).

However, while counting the benefits attributed to globalization, the fact remains that the benefits have not 'accrued to everyone alike. Indeed, studies indicate that while the condition of many has improved, others have seen their situation deteriorate … the cost of living has gone up and number of poor households has grown especially in cities'[16]. Thus globalization process has led to certain negative developments to which there have been some strong reactions. Compared to other countries in Southern Asia, the trends are more strongly observed in India which has emerged as a leader in the globalization scenario in the region.

In the first part of this section, an attempt has been made to understand how cities have been positively impacted by the economic gains of globalization. The later part of this section highlights the issues of inequalities, segregation and exclusion that work against the economic up lifting of the poor.

Infrastructure Development and Exclusive Enterprise Zones

In order to remain competitive in a global economy, cities demand quantitative and qualitative improvements in infrastructure. In this context, like many other globalizing Asian countries, the policy makers in India are promoting the concept of `World Class City' – a city with high speed expressways, flyovers, over bridges with escalators, rail-based rapid transit system (metro), bus rapid transit system, modern roads, malls and commercial complexes. Additionally, the politicians and officials promoting Delhi as a world class city in preparation for the Commonwealth Games in 2010 proclaim that the city will be free of garbage dumps; traffic jams and water-logging will be a thing of the past, water supply

[15] World Bank, 2007, pp.4-5.
[16] UNCHS,2001, p. xxxi.

will be improved, new sewerage system will be put in place, tourist complexes and convention centers will come up and there will be a special focus on improvement of slums and city beautification. Going by what other Asian cities have done, a world class city's structure also includes large infrastructure developments, mainly for new airports to increase global connectivity, intra-urban and inter-urban high speed trains and associated terminals and high end real estate development comprising of apartments, condominiums and villas[17]. In many Indian cities such as Delhi, Mumbai, Bangalore, Hyderabad etc., projects for modernization of airport, construction of bus rapid transit system and metro lines have either been completed or are in progress.

India, with its vast numbers of professionals in various fields of engineering and technology, has been able to take advantage of globalization and in the process has developed many exclusive high tech enterprises zones such as software technology parks, bio-technology parks and high tech cities and many are planned for the future. To begin with, software technology parks were set up to cater to business and social needs of information technology (IT) and related enterprises and capture global markets in the IT industry. Bangalore, popularly known as 'garden city', became India's 'Silicon Valley' – a major IT hub of the world.

Buoyed up by the success in IT sector, Government of India crafted a similar formula for another globally inspired sunrise sector i.e. biotechnology. The foreign trade policy of 2004-2009 favored the setting up of biotechnology parks across the country. Similar enterprises are being promoted in other locations in the country in the name of 'Science City and Technology Parks'.

High tech (HITEC) city is another innovative development that can be attributed to the phenomenon of globalization. Compared to the traditional city, high tech city has more liberal spatial standards for housing, road widths, parking, retail commercial areas, and public and semi-public uses[18].

In a recent development, Government of Uttar Pradesh (the largest state of India) has approved High-Tech Township Policy, 2007 paving the way for high tech township development. Private developers who can assemble a minimum area of 600 hectare for the purpose are eligible to apply for license to undertake this activity[19].

Besides technology parks and high-tech cities, globalization has induced development of special economic zones (SEZ). With vast area coverage providing for processing zones for export oriented industrial and IT enabled services (ITES) such as call centers, back office processing, and medical transcription; and complimentary non-processing zones marked by real estate development in the form of residential, commercial and institutional areas, these SEZs have a potential to completely transform the form, pattern and structure of cities in several of the Southern Asian countries. These SEZs are being set up in various size ranges in terms of the area they occupy and may be industry specific (created to support the needs of a specific industry) or performance specific (admit only investors who meet certain performance criteria such as level of export). The development of SEZ is most prominent in India where a variety of SEZs are being set up. In few other countries of the Southern Asia region including Bangladesh, Iran, Pakistan and Sri Lanka, SEZs are being set up on a much smaller scale as compared to India (Table 8).

Out of the five countries that are pursuing SEZ policy in Southern Asia, SEZ development in India is taking place at a rapid pace (see Box 1). Here the SEZ Policy was announced in the year 2000. The SEZ Act was enforced in 2005. By March 2008, the Ministry of Commerce, Government of India had given formal approval to 580 SEZs. A large majority of these SEZs are for supporting the needs of specific industries such as IT, ITES, and manufacture of electronic hardware and semiconductors. Once fully developed, the approved SEZs are expected to occupy a total area of 1,820 sq km.

[17] Mahadevia, 2008a, p. 13.
[18] HITEC City, an acronym coined originally for Hyderabad Information Technology Engineering Consultancy City, but now generally being used for technology based cities or enclaves.
[19] www.upgov.nic.in

Table 8: Types of Special Economic Zones (SEZ) in South Asia

Country	Type			
	WA	SA	IS	PS
Bangladesh		X		
India	X	X	X	X
Iran		X		
Pakistan		X		
Sri Lanka	X	X		

Source: Author

Note: WA – Wide Area, i.e. large zones with a residential population or new cities

SA – Small Area, generally smaller than 1000 ha surrounded by a fence

IS – Industry specific such as for manufacture of jewellery, electronics hardware, etc

PS - Performance specific, i.e., zones that admit only investors that meet certain performance criteria such as degree of exports, level of technology, or size of investment

According to one report, by 2010, 6-8 million sq m of IT/ITES specific commercial office space is expected to come up through SEZs alone, In fact, it may so happen that over the next 2-3 years, the new office space supplies in SEZs may outstrip the fresh supply in non-SEZ spaces. Likewise, it is possible that the residential development associated with SEZs may absorb a substantial proportion of the urban population increase during the next 20 years[20].

Box 1: The SEZ Boom in India: benefits for developers

A SEZ is a specifically delineated, duty free enclave set up in the country and is deemed to be foreign territory for the purpose of trade operations, duties and tariffs. In simple terms, the economic laws and revenue regulations of the domestic tariff area are not applicable in a SEZ. It is promoted to provide an internationally competitive and hassle free environment for exports. The zone can be used to set up manufacturing as well as service sector units to export goods and services. The rapid development of SEZs in the country will augment the supply of both residential and commercial real estate. Under SEZ a developer can utilize up to 50 per cent of the area in the zone for residential, retail and other commercial purposes like educational institutions and the remaining 50 per cent will be used in the processing zone. One of the reasons for rapid growth of SEZs is that they provide high quality space with good external connectivity to export units. At the same time they will get tax benefits on export profits such as tax holiday for 100 per cent of export profits for the first five years, and 50 per cent for the next five years. The 50 per cent rebate can be extended for another five years, if the profit is ploughed back in the same company. Besides the tax benefits, SEZs have some additional benefits for the developers—he/she gets complete exemption from paying custom duty, excise duty, sales tax, service tax, stamp duty and registration fee, and many other. Because of these provisions, development of SEZs has become an extremely profitable proposition for developers.

Source: Times of India, 2008, p.1

Increased Demand for New Commercial Spaces

Globalization has created the 'new middle classes' in Asia since the mid-1980s, which have resulted in consumption patterns similar to that of people living in developed countries[21]. In turn this has begun to have impact on the culture of the region taking a turn towards cosmopolitan life styles[22]. The changing consumption patterns and life styles are beginning to affect the physical restructuring of cities in India which has emerged as a major player in the globalizing economy of the region. Mega malls supported by international retailing and local outlets are coming up across major cities of India such as Mumbai,

[20] Times of India , 2008, p. 1.
[21] Mahadevia , 2008a, p. 31 after Robinson and Goodman ,1996.
[22] Mahadevia , 2008a, p. 31 after Clammer ,2000.

Delhi, Bangalore, Hyderabad, etc. and their surrounding regions. To avail the advantage of expanding on large chunks of land, many of them prefer to locate in peri-urban areas where such chunks of land are readily available. At comparatively small scales, the new shopping establishments are appearing with increasing regularity in cities across India[23].

Displacement, Inequality, Segregation and Exclusion Issues arising out of Globalization

While cities compete with each other to attract global investment and try to upgrade their infrastructure to world class status, many contentious issues have come up that need to be resolved, particularly since these affect the living conditions of less privileged sections of population like the urban poor and small farmers. The prime example is the initiative to upgrade Delhi to world class standard and enhance its global status in view of the Commonwealth Games to be held in 2010. This initiative resulted in 'the largest ever displacement from Delhi in the year 2000 … NGOs estimate that over 200,000 people have been evicted. From the Yamuna Pushta area alone, 150,000 people were brutally evicted in order to create parks and fountains'[24]. This has been done in spite of the Urban Development Minister, Government of India having stating 'There will be special focus on improvement of slums'[25].

The SEZ policy has also faced some setbacks due to controversies related to the issue of land acquisition since farmers are resisting take over of their land under the compulsory Land Acquisition Act, 1894, which does not compensate them adequately in comparison to the prevailing market prices. Their additional concern is that an act which is actually meant for assembly of land for public purpose projects is being used for assembling land for private sector commercial enterprises such as SEZs; whereas in accordance with provisions of the international law, no one should be deprived of his or her property without adequate compensation and protection of basic human rights that are violated during compulsory evictions[26].

The other major contentious issue relating to SEZ development is that, in many places, the development of SEZ is taking place on multi-crop agricultural land. Although the Indian Government has pointed out that the total amount of land that will be taken over for SEZ development will amount to only 0.112 per cent of the total agricultural land of the country, there is a need for a policy of conserving agricultural land, particularly since such land is already under pressure due to bio-fuel production. The Indian government has recently come out with a detailed policy[27] to deal with the issues of land acquisitions, compensation, and rehabilitation, which is largely in line with the international laws referred to above[28]. Obviously, there is a need to secure maximum compensation, solacium (additional compensation for forced eviction) and alternative means of livelihood for farmers and landless laborers. In this context, the Government of India has already declared that land assembly for SEZs will be done directly by promoters through direct negotiations with land owners, which will substantially enhance the amount of monetary gains likely to accrue to farmers. But rehabilitation of project affected people remains an important issue.

Yet another issue on which SEZ development is being opposed is that the local people who reside around the SEZ sites believe that these projects do not pass on the benefits of industrialization to them. For example, in Gurgaon (a residential and industrial suburb of Delhi) about 55 SEZs have been planned for development in the next 10-15 years. These will be in addition to cyber parks, software technology parks, and IT Parks. As per the latest National Association of Software and Services Companies (NASSCOM) study (2005), about 250,000 persons work in the IT industry that includes Business Process Outsourcing, call centers, software and hardware development companies in

[23] Mahadevia, 2008a, p. 32.
[24] UN-Habitat, 2007, p. 158.
[25] Mahadevia, 2008a, p. 13 .
[26] UN-Habitat, 2007, p. 127.
[27] Government of India, 2007a.
[28] UN-Habitat, 2007, p. 127.

Gurgaon. Another about one million job opportunities will be added in the next decade or so in established SEZs. But it is observed that local youths have failed to take advantage of these job opportunities. Hence the Haryana Government which is responsible for development of Gurgaon has decided to set up community colleges and professional training institutions to train local youths in the use of English language and professional skills to take advantage of the upsurge in job opportunities coming up in Gurgaon[29].

Another concern about SEZ policy is that the SEZ Act, 2005, in the name of accelerating the pace of development, circumvents planning permissions and regulatory provisions of the town planning acts that may be applicable to the areas where SEZs are being developed. This practice may lead to disjointed rather than integrated development of cities. Therefore, there is a need to amend certain sections of SEZ Act, 2005 as well as the Land Acquisition Act, 1894[30]. Similarly, high tech city policy already enforced in some states of India (for instance Uttar Pradesh) extends official support for development of exclusive enclaves within cities, circumventing the provisions of the state town planning acts.

Due to the onset of globalization and its spatial imprints such as SEZs, inequalities in cities have been increasing whereby the rich have begun to live in isolated, enclosed, protected and insulated neighborhoods, which Friedman calls 'citadels'[31]. Inequalities have become more entrenched because incomes of people involved in SEZs etc. have skyrocketed in comparison to others. Such citadels first emerged in developed world and then in developing countries such as India in the form of gated communities on the city periphery. The SEZs and high tech cities coming up within and around metropolitan cities will also have exclusive zones populated by the middle and high income groups of population living in gated environment whereas poor live in slums or ghettos – the excluded communities. This phenomenon is observed in Bangalore, the IT hub of India, where major software companies are located in a couple of segments of city along with high end residential areas. The poor are forced to crowded living in the nearby village that is now urbanized.

Another instance of globalization causing social tensions is provided by the sporadic and sometimes violent protests by small retail store owners who fear closure of their outlets and consequent loss of employment due to growth of mega malls and international retail chains. Thus, there is a need to be sensitive to the fears and apprehensions of the people whose means of livelihoods may be relocated as a result of globalization spatially manifested in the form of trendy high end commercial enterprises.

1.5. Urban Poverty

In spite of the marching globalization and resultant economic growth, it is ironical that urban poverty remains unquestionably the most demanding of the challenges faced by policy makers in most parts of Southern Asia, more so in countries with large populations such as India, Pakistan and Bangladesh. This region is home to 40 per cent of the world's poor[32]. Another estimate based on figures pertaining to the period 1993-2003 suggests that percentage of population surviving at an income of below 2$ per day constitute an overwhelming majority of 75.1 per cent of the population in South-central Asia and those below 1$ per day poverty level constitute 30.8 per cent[33].

The Southern Asian countries normally define poverty levels on the basis of calorie norms, often using differentiated criteria for urban and rural populations. For example, according to the Planning Commission[34] urban households with average per capita daily intake of less than 2,140 calories are deemed to live below the poverty line. In simple terms, persons who cannot afford to have two square meals a day are considered as poor. Based on such caloric norms, India, Pakistan and Bangladesh have high urban poverty levels (Table 9); proportion of urban population considered as poor being as much

[29] Hindustan Times, 2008a, p. 7.
[30] Hindustan Times, 2008b, p. 15.
[31] Mahadevia, 2008a, p. 27 after Friedman , 1986.
[32] World Bank, 2000
[33] UN-Habitat, 2007, p. 342.
[34] Government of India, 1993.

as 24.7, 24.2 and 36.6 per cent respectively. But these figures pertain only to the absolutely poor defined on the basis of inadequate food intake. In urban areas, besides lack of food and clothing, it is inadequate shelter that is often the most visible indicator of poverty. However, inadequacy of shelter should not be gauged merely in terms of housing. Equally important as indicators of urban poverty are lack of services such as water and sanitation, drainage, solid waste collection and disposal, electricity supply, schools and health clinics, and security in terms of peace and law and order. If all these factors were considered to define urban poverty, the number of poor who can be termed as relatively poor, would be much more in comparison to those who are absolutely poor as defined on the basis of calorie intake.

Data presented in Table 9 reveals that in spite of improvement over the years, as much as 49 per cent of the urban population in Bangladesh and 41 per cent in India did not have access to improved sanitation in 2004. In India, an estimated 12 million (7.9 per cent) urban households do not have access to any latrine and they have to defecate in the open. A substantially higher proportion of urban population has access to improved water source but it should be remembered that level of access declines during harsh summer months - a condition that becomes even worse during drought years. The unequal distribution of water in various localities is sometimes so harsh that, for instance, in Karachi city, there are allegations that whereas in poor areas often there is no water for several days at a stretch, the richer areas experienced overflow[35]. Moreover, 18.5 per cent of urban households do not have any access to drainage networks and their surroundings remain water-logged almost round the year and the condition gets worse during the rainy season. Another 39.8 per cent of urban households are connected to open drains, which need to be covered for improving the sanitation situation[36]. It is thus apparent that housing the poor in reasonably hygienic environment with access to essential basic services is a far more daunting task than what policy makers generally observe by merely looking at urban poverty figures derived from calorie norms. Big efforts are needed to make a dent in this challenging task immediately since any delay will exacerbate `the growing disparity between the living conditions of the very rich and the very poor in cities and towns. Some people fear that this widening gap may pose threats of insecurity, instability, ethnic conflicts and violence'[37].

Many responses to date such as Sites and Services Schemes, Integrated Program for Environmental Improvement of Slums, Urban Community Development Projects, secure tenure acts and similar other efforts have been half hearted in nature, and have covered a negligible proportion of population. These are also floundering at the implementation stage and are characterized by malfunctioning rather than as success stories.

Table 9: Poverty Levels and Lack of Access to Improved Drinking Water Sources and Improved Sanitation in South Asian Countries

Country	**Per cent Urban Population below Poverty Line**	**Urban Population without Improved Drinking Water Sources**		**Urban Population without Improved Sanitation**	
		Per cent			
		1990	**2004**	**1990**	**2004**
Afghanistan	-	90	37	93	51
Bangladesh	37	17	18	45	49
Bhutan	-	-	14	-	35
India	24	11	05	55	41

[35] Siddiqui and Siddiqui, 2004, p. 325.
[36] Mahila Housing SEWA Trust and CEPT University, 2008, pp. 2-5.
[37] Laquian, 2004, p. 1.

Iran	-	01	01	14	00
Maldives	-	00	02	00	00
Nepal	23	05	04	52	38
Pakistan	22	05	04	18	08
Sri Lanka	25	09	02	11	02

Sources: Laquian, 2007, p. 14; ESCAP, 2008, p.185

Table 10: Human Development and Poverty Index Values and Rank of Countries in South Asia

Country	**Human Development Index (HDI) Value**		**HDI Rank 2005**	**Human Poverty Index (HPI)**	
	2000	**2005**		**Value (per cent)**	**Rank**
Afghanistan	-	-	-	-	-
Bangladesh	0.511	0.547	140	40.5	93
Bhutan	-	0.579	133	38.9	86
India	0.578	0.619	128	31.3	62
Iran	0.722	0.759	94	12.9	30
Maldives	-	0.741	100	17.0	42
Nepal	0.502	0.534	142	38.1	84
Pakistan	0.516	0.551	136	36.2	77
Sri Lanka	0.731	0.743	99	17.8	44

Source: UNDP, 2007, pp.235-236 and 238-239

Improving access to facilities is important for improving Human Development Index as well. It is observed from Table 10 that whereas all countries in the region have improved their Human Development Index (HDI) values between 2000 and 2005, the ones that have relatively better HDI rank are also ranked relatively well on Human Poverty Index (HPI). Since HPI is based on indicators such as lack of access to improved water sources, and facilities for education, communication and health, the countries that have a relatively low HPI value are the ones that have been able to reduce the level of deprivation of their population in respect of these key basic services and have succeeded in providing a relatively healthy living environment to them. Such countries also have a higher HDI value since, by achieving a relatively healthy environment, they have also improved their GDP per capita, the indicators on which the HDI value is largely based. In essence, the data clearly indicates the importance of increasing the access of the poor to facilities since this not only helps in human development but is also useful for eradicating poverty which in turn supports human development efforts.

However, in cities of less developed countries, self-help and mutual aid approaches have their own utility and need to be pursued along with the strategies that are designed to reduce the poverty levels by increasing the access of the poor to better facilities and services.

Urban Slum Dwellers

Nature of slums is different in different parts of the region. Generally, there is a clear separation between the slum proper and squatter settlements. The former, also referred to as old city slums in Delhi, '*bustees'* (low income settlements) in Kolkata, *'chawls'* (old tenement housing') in Mumbai, are the ones that exist in the inner city areas where, over a period of time, the areas got over-congested, municipal services got overburdened, buildings (though of permanent nature) got structurally dilapidated, living quarters became devoid of ventilation and lighting and ultimately people have been found to live in environmentally degraded conditions. In Karachi, Pakistan, in addition to inner city slums, the other type of slums known as *Goths* '… consist of villages absorbed in urban sprawl or the informal sub-divisions created on community and agricultural land'[38]. On the other hand, the squatter settlements also referred to as *'katchi basties'* (temporary settlements) in some cities in India (Jaipur, Bhopal etc.), *'Katchi Abadis'* in Karachi, and shanties in Colombo 'are informal settlements created through illegal occupation of normally public and occasionally private lands in the peripheral areas of cities. In Colombo, however, besides slums and shanties, two other types of slums are also recognized. These are: (a) the badly serviced residential areas in the suburban areas of Colombo and other secondary towns where residents have legal titles of land they occupy – a factor that differentiates them from shanties; and (b) labor lines i.e. derelict housing areas belonging to local authorities or government agencies and occupied by temporary or casual laborers[39].

Country wise data suggest that the number of urban slum dwellers in Southern Asia is increasing rapidly. In 30 years between 1990 and 2020, their number is expected to double in spite of decline in the proportion of urban slum dwellers as per cent of urban population during 1990 and 2001 in all countries of the region. The maximum decline was in Bhutan where the percentage of urban slum dwellers decreased from 70.4 in 1990 to 44.1 in 2001. Sri Lanka had the lowest percentage of urban slum dwellers (24.8 per cent of urban population) in the year 1990 and it declined to 13.6 per cent in 2001. In small countries like Afghanistan and Nepal, more than 90 per cent of urban population lived in slums in 2001. Simultaneously, large countries such as India, Pakistan and Bangladesh are also facing serious problems of slums since a majority of urban population in each of these countries lives in slums. India, the largest country among them will have to cope with a massive slum population of about 220 million by 2020 (also see Table 11).

Data on slum population dynamics in cities are scanty but population living in slums can be dramatically highlighted by few examples here. In Karachi, Pakistan, estimates suggest close to 50 per cent increase in slum population (from 3.4 to 5.0 million people) between 1988 and 2000. Estimates further suggest that about half of Karachi lives in *Katchi Abadis*. In the absence of adequate housing programs, homelessness and informal settlements have increased, as have densities in existing *katchi Abadis*. Also, in Colombo, Sri Lanka, close to half of the city's population consisted of communities that have been living in inadequate housing condition for many years[40]. A majority (54.1 per cent) of Mumbai's population within the city's municipal limits lived in slums in the year 2001 as per Indian Census. In Kolkata, roughly 32.5 per cent of the city's population lives in slums. There are other million plus cities in India such as Meerut and Faridabad where respectively 44.12 and 46.50 per cent of the city's population lived in slums in 2001[41]. It is estimated that at least a third of Delhi's 14 million people reside in squatter settlements. These squatter settlements are encroachments on unoccupied lands belonging to the government, arising because of the failure of the state to provide legal low cost housing to its poorest urban residents. For instance, a survey conducted by a non-governmental organization (NGO) namely the Hazards Center and reported by Gopalakrishnan in the Frontline Magazine, found that:

> *… while the planned housing targets set for the rich were achieved more than three times over, only 40 per cent of the low-end Janata [public] flats were occupied by the*

[38] UN-Habitat, 2003, p. 212.
[39] UN-Habitat, 2003, p. 208.
[40] UN-Habitat, 2003, pp.208-13.
[41] Census of India ,2001b, p. 22.

poor, and that 81 per cent of low income group (LIG) housing was owned by the middle-income and rich groups. Despite 23,000 applicants waiting for housing allotment in November 2002, some 22,000 of these for Janata and LIG flats, the Delhi Development Authority (DDA) announced that it would take up schemes only for high income group (HIG) flats and that Janata flats would not be constructed anymore[42].

There is, therefore, no recourse left to the working poor except to buy or rent plots in illegal slums.

Table 11: Urban Slum Dwellers in Countries in South Asia

Country	**Urban Slum Dwellers**					
	Estimates and Projections (000)				**Per cent of Urban Population**	
	1990	2001	2010	2020	1990	2001
Afghanistan	2,458	4,945	8,760	16,536	98.5	98.5
Bangladesh	18,988	30,403	44,687	68,553	87.3	84.7
Bhutan	61	70	78	88	70.0	44.1
India	131,174	158,418	184,868	219,466	60.8	55.5
Iran	17,094	20,406	23,587	27,707	51.9	44.2
Maldives	-	-	-	-	-	-
Nepal	1,574	2,656	4,077	6,562	96.9	92.4
Pakistan	26,416	35,627	45,507	59,730	78.7	73.6
Sri Lanka	899	597	428	295	24.8	13.6
Total	198,664	253,059	311992	398,937	63.7	59.1

Source: UN-Habitat, 2007, pp.352-353

In India, Pakistan and Bangladesh which house the majority of the slum dwellers in the region (see Table 11 above); states pursue slum eviction, in spite of policies that suggest otherwise. For instance Government of India has adopted a National Urban Housing and Habitat Policy 2007 which supports 'slum improvement as well as *in-situ* slum rehabilitation along with provision of security of tenure, and affordable housing with basic services to the urban poor'[43]. The policy further states that where relocation is necessary in the interest of safety and security of slum dwellers or for execution of priority projects of public interest, selective relocation will be undertaken with special efforts to ensure fast and reliable transportation to their work places. The erstwhile policies such as the National Housing Policy 1994, modified later in 1998 as the National Housing and Habitat Policy and the widely publicized draft National Slum Policy that was withdrawn after two years of deliberations; all reiterated the government's resolve to avoid forced evictions and advocated collaborative approach between all stakeholders for *in-situ* slum up gradation. As a follow up of the intentions stated in these policies, the Government of India had adopted the Scheme of Environmental Improvement of Urban Slums. Moreover, in the landmark Olga Telles case in 1985[44], the Supreme Court affirmed that the right to livelihood was inherent in the right to life, and that if the state chooses to evict pavement and slum dwellers, it must do so only in conformity with procedures established by law, including sufficient notice and rehabilitation. But the fact remains that the slum dwellers are often evicted in various cities, particularly in Delhi – India's capital city without due notice and without a proper

[42] Gopalakrishnan ,2003, p. 45.
[43] Ministry of Housing and Urban Poverty Alleviation, 2007, pp. 31-32.
[44] Supreme Court of India, 1985.

resettlement plan. “The bulldozers approach without any backup program for resettlement had resulted in traumatic experiences for the residents of informal settlements”[45]. Similarly in Karachi, successive military governments bulldozed squatter settlements within the city and affected people were shifted to storm water drain lands[46].

Contrary to popular belief, resettlement of families forcibly evicted from slums does not involve distributing free developed plots. In a recent case, the evicted slum dwellers in Delhi had to pay Rs. 7,000 (US$ 200) in advance for a plot of 18 sq m and Rs. 5,000 (US$ 120) for a plot of 12 sq m. No credit is offered. In fact, for the purposes of loans, banks divide big cities into three zones – white, gray and black. They sanction loans to people living in ‘white zones’. In gray zones, they require additional documentation that proves a customer’s creditworthiness before sanctioning the loan. And in ‘Black Zones’, which typically include slums and low income areas, they usually refuse loans[47]. Slum dwellers in Indian cities thus have to fall back on private money lenders resulting in the burden of hefty interest charges.

Though policy analysts regard security of tenure as a key instrument for increasing access of the poor to serviced urban land and improve the living condition of slum dwellers, policies to ensure security of tenure have not been able to make much progress in most countries in the region. In the State of Madhya Pradesh in central India, a unique legislation, Act No. 15, popularly known as the *Patta* (secure tenure) Act, 1985 provided the basis for extending leasehold rights or ‘*pattas*’ to squatters. In all, about 15,000 plots were covered by the *Patta* Act. But over the years, *Pattas* were not extended to cover additional squatter settlements and hence did not make any substantial impact in improving the lives of slum dwellers[48].

In Karachi, the first major slum upgrading and poverty alleviation program was proposed for the 1988 to 1993 period. The program largely failed to meet its targets due to faulty land records, corruption and non-inclusion of grassroots organizations in the implementation of the program. Impact of more recent programs is unclear due to lack of monitoring and feedback[49].

In Colombo, ‘under the impact of strong political will and effective housing improvement, regularization, community development and self-help efforts, the growth of slums and shanties has been brought under control … Very few shanties have been built in Colombo over the past 20 years’[50].

Unemployment and Growth of the Informal Sector

“Unemployment is part of the formal labor market, describing those people who are actively seeking work and are unable to find it”[51]. Ironically, in Southern Asia, Iran with the highest per capita income is among the top two countries with highest unemployment rate. Iran’s high level of unemployment may be related to low employment absorption capacity of its agricultural sector which employs only 25 per cent of the labor force, the lowest after Maldives where employment in agricultural sector is limited to only 14 per cent. Afghanistan is however worst off in term of unemployment where estimates show that unemployment in 2007 was 40 per cent of the labor force (Table 12). “This high level is due to the inability of agriculture and still limited foreign economy to fully absorb the rapidly expanding supply of labor”[52]. Moreover, despite six years after the defeat of the Taliban, security concerns are not showing any sign of abatement[53].

Incidence of unemployment is much higher among women compared to unemployment rate for males in Sri Lanka, Pakistan and Iran. In this respect India and Bangladesh are comparatively better

[45] Tewari, Raghupathi, and Ansari, 2007, p. 54.
[46] UN-Habitat, 2003, p. 212.
[47] www.livemint.com
[48] Ansari, 1998, p. 82-83.
[49] UN-Habitat, 2003, p. 213.
[50] UN-Habitat, 2003, p. 208.
[51] UN-Habitat, 2003, p. 98.
[52] Asian Development Bank, 2008, p. 155.
[53] Asian Development Bank, 2008, p. 156.

off and in Nepal incidence of unemployment among women is actually less than among men. Moreover, it is observed that in the selected countries for which data are available, a large percentage of labor force is employed in the informal sector and if that opportunity would not have existed, the unemployment rate would have been much higher compared to what they are now.

Table 12: Unemployment and Informal Sector Workers in South Asia

Country	**Unemployed People (Thousands) 1996-2005a**	**Unemployment Rate**			**Employment by Economic Activity (%)**		
		Total (% of labor force) 1996-2005[a]	Female (% of male rate) 1996-2005[a]	Total (000) 1996-2005[a]	Agriculture	Industry	Services
Afghanistan	-	40.0	-	-	-	-	-
Bangladesh	2,002	4.3	117	44,322	52	14	35
India	16,634	4.3	100	308,760	67	13	20
Iran	2,556	11.5	170	19,760	25	30	45
Maldives	2	-	-	86	14	19	67
Nepal	178	1.8	85	7,459	79	6	21
Pakistan	3,566	7.7	194	38,882	42	21	37
Sri Lanka	623	7.7	216	6,943	34	23	39

Note:
a. Data relates to the most recent year during the period specified
b. Afghanistan data on unemployment for 2007 from Asian Development Bank (2007)

Source: ADB, 2008, p.155; UNDP, 2007, p.300

Informal sector has generally been understood to consist of very small units producing a variety of goods and services by independent or self-employed entrepreneurs sometimes using family labor or a few hired laborers. The range of services in this segment consists of rag picking, intermediate transport such as cart pulling and peddling, low cost catering services, repair and maintenance services, extending casual labor, hawking and vending. Besides, a major area of informal sector exists in the form of shelter development and illegally operating industrial enterprises over largely low grade urban land or premises within low income settlements. The new migrants unable to absorb themselves in formal employment are attracted toward informal activities since entry is easy and largely unrestricted.

In the year 2000, in India about 56 per cent of the employment in the non-agricultural sector was in informal sector. The corresponding figure for Pakistan for 2003-2004 was 70 per cent[54]. According to another source, in 1990, about 65 per cent of employment in Indian cities was in the informal sector[55], while 'In Dhaka, Bangladesh, 63 per cent of all employed people [in 2000-2001] was in the informal sector'[56]. In Karachi, Pakistan, the informal economy has grown ever since 1947 (the year in which Pakistan was created after partition of India). As the capacity of the formal economy to provide employment was limited, the informal sector became a major source of jobs. In 1947, 48 per cent of

[54] UNDP, 2007, p. 300.
[55] Hall and Pfeiffer, 2000, p.75.
[56] UNDP, 2003, p.103.

the total jobs were provided by the informal sector. In 1990, the figure rose to 75 per cent[57]. The data for growth of informal sector in specific cities over a period of time is rather scanty. But based on the data available, it can be inferred that between 1960s and 1990s, informal sector employment as per cent of total employment has risen (Table 13).

Table 13: Trend in the Magnitude of the Informal Sector's Size at the City Level in Selected Cities of South Asia

City	Share of Informal Sector in Total Employment			
	1960s	1970s	1980s	1990s
Dkaka	-	57.0	64.6	-
Kolkata	-	40-50	54.0	-
Mumbai	35.0	49.5	60.0	65.0
Chennai	-	50-70	60.0	-
Delhi	-	53.8	-	-
Karachi	-	69.1	-	-

Source: Amin, 2002:32; Sethuraman, 1992, p.10

In the cities of the developing world the informal sector plays a major role in the urban economy besides being a source of employment for the urban poor. Informal sector produces inputs for both the formal and informal sectors, and provides skills training and shelter for the poor. It also serves as a breeding ground for small entrepreneurs. In many countries informal sector has also gained prominence since formal sector has not performed well in the form of creation of employment opportunities. 'Southern Asian countries reflect an increasing trend in the size of the informal sector'[58].

It is estimated that whereas the number of jobs in the formal sector is shrinking, that in the informal sector has been on the rise. "In 1961, for example, 65 per cent of Mumbai's workforce was employed in the organized sector while 35 per cent in the unorganized/informal sector. Thirty years later, in 1991, the proportion had reversed and only 35 per cent of those employed were in the organized sector and the rest in the informal sector"[59]. Yet, policy makers instead of working toward integrating the informal sector into the overall city planning and development process actually device policies that are harmful to the interest of the informal sector[60].

1.6. Peri-Urban Development

Peri-urban areas also referred to as urban fringes or peripheral areas are, in essence, rapidly urbanizing rural areas at the urban border or beyond the city limit[61]. Their emergence is attributed to the socio-spatial dynamics of cities especially metropolitan cities whose spatial expansion is reflected in the specific process of peri-urbanization: formation of 'mixed spaces', midway between urban centers and rural spaces subject to multiple transformations: physical, morphological, socio-demographic, cultural, economic and functional[62]. Peri-urban areas can also be considered as outgrowths or leap frog developments that take root in the outskirts of metropolitan cities where poor households looking for relatively inexpensive rental accommodation choose to reside even though they have to depend on the main city for employment, education, health and recreation facilities, and a whole range of higher order services that may not be available locally. Sometimes, the urban poor shift from relatively central zones under forced resettlement schemes joins the voluntary settlers in these areas. The lucky

[57] Siddiqui and Siddiqui, 2004, p. 280.
[58] Amin, 2002, p. ix.
[59] http, p.//www.india-seminar.com/2000/491.htm
[60] Ansari, Kumar, Prakash and Alam, 2004a.
[61] Kulshrestha, 2007.
[62] Dupont, 2004a.

ones amongst them may get a plot of land (with or without services) provided by the local authorities for which they have to pay and others just squat on any fallow land where local authorities are less vigilant.

Transformations in the peri-urban areas are structurally both local as well global in nature. It is 16 years since India has been pursuing macro economic reforms. Most significant of these reforms is the relative free movement of global capital, which is now being invested in all economic sectors including the real estate, IT, ITES, high-tech cities, international airports, seaports, etc. While investments in these lucrative economic sectors benefit the global capital, local capital and the high and middle classes by way of profits, and employment for skilled workers; it also displaces and dispossesses small farmers and landless laborers of their land and livelihoods apart from creating unsustainable urban sprawl[63].

Transport facility is critical to the emergence of these per-urban formations, which generally take the shape of linear corridors along major highways radiating from fast growing cities. But, these areas lack mass transportation facility that is so essential for households residing there to commute to work centers, and access facilities located within the inner rings of cities. So they have to make do with the limited and slow regional transport network or para-transit modes and as such spend considerable time to commute to work places and travel to other destinations in the city for shopping or social purposes. The other basic problem of these areas is acute inadequacy of basic urban infrastructure, services and amenities that gets worse with addition of new settlers to the existing population. The demand for rental housing generated by the growing population leads to additions of rooms and floors to the existing houses which results in overcrowding and congestion in the original village clusters and small towns located in these areas. For the low-income households who aspire to own property, unauthorized colonies are constructed without official sanction. These colonies are of substandard nature since basic spatial norms for sunlight, ventilation and width of access roads are violated and no space is provided for basic amenities such as children's play areas, schools, dispensaries, and convenience shopping. The presence of polluting and heavy industries evacuated from relatively interior parts of cities add to environmental stress and degradation. Because of these associated characteristics, some scholars defend the thesis of 'degenerated peripheralisation', i.e. predominance of underprivileged settlers, lack of infrastructure and amenities, presence of polluting and heavy industries evacuated from urban centers, degraded environment, unplanned operations, uncontrolled processes and flouting of regulations[64].

On the other hand, well-off people choose to settle at selected places on the urban border areas for spacious living and clean environment. 'They may buy and develop a plot on an individual basis, buy an informally sub-divided agricultural plot, or a compete house built by a public agency or a private developer. These processes can be observed in many Indian and other Asian cities'[65]. Exclusive colonies or condominiums for the rich are thus seen to co-exist with sub-standard low-income settlements. During the last couple of decades, the peri-urban areas of some cities have begun to experience rapid growth due to location of a variety of non-agricultural activities with the active participation of both the state and the private sectors. This trend has prompted one scholar to comment that 'fringes tend increasingly to become central in metropolitan development'[66]. It is the tremendous increase in private means of transportation in many Asian cities such as Delhi, which has allowed the emergence of residential estates in distant rural fringes suitable only for those who can afford the price of commuting daily by car. Two resulting types of urban form have developed in the rural fringes: 'farmhouses', and large-scale housing schemes[67]. Farmhouses, the luxurious sprawling villas surrounded by large parks and protected by high walls constructed by top income bracket of the society are in fact clever exploitations of loopholes in the building control regulations of Master Plan of Delhi which allows `farmhouses' within the greenbelt around Delhi for the residences of farmers and keeping his equipment and cattle in agricultural land use areas permitted within the green belt.

[63] Kumar, 2008.
[64] Dupont, 2004a after Kundu, Pradhan, Subramaniam, 2002.
[65] Schenk, 2004.
[66] Schenk, 2004.
[67] Dupont, 2004b.

Delhi's land policy since early 1960s of not allowing the private sector to develop housing on land suitable for urbanization has induced some private real estate developers to implement large-scale housing schemes outside the limits of the National Capital Territory of Delhi, often well beyond the perimeter of its urban agglomeration in areas where a neighboring state like Haryana allows private builders to engage in large scale land assembly, development and sale of plots and completed residential units. These residential properties are designed for well to do city dwellers, looking for better quality of life.

Attracted by relatively low land prices, other activities with large land requirement such as wholesale markets, educational and research institutions, specialized hospitals, sports and recreational complexes and other such enterprises are supplementing the development of residential complexes in the fringes of cities. The predominantly rural areas on the periphery thus begin to transform as more and more urban functions are attracted to the periphery. At this stage, a reverse movement of people from the main city towards the periphery begins to take place to avail newly created facilities and job opportunities in the per-urban areas. Simultaneously, the rural activities in peri-urban areas also experience structural changes. Market oriented primary production replaces erstwhile predominant subsistence agricultural production. Farmers begin to cultivate vegetables rather than grains and dairy, poultry, horticulture and floriculture gain momentum in areas that have not converted to urban land uses.

Often, arising out of conflicting interests in the use of peri-urban spaces, the emergence of judiciary as an increasingly important actor in urban governance in India (especially through the public interest litigation procedure) highlights the conflict between environmental considerations in the public's interest and housing requirements of the population in the peri-urban areas. This is especially the case with the poor who, forced into illegal forms of urbanization, are rendered even more vulnerable. The unauthorized colonies do not get access to municipal infrastructure because of their illegal nature and, even worse, environmentalists arguments for protecting green belts puts unauthorized colonies located in designated green belts under threat of relocation[68].

However, as peripheral areas transform from predominantly rural to peri-urban form of development, they experience problems of inadequate provision of roads and potable water, lack of sanitation and poor access to education and healthcare facilities. This happens because the change takes place in a piecemeal manner, is project oriented and uncoordinated. As a result the urban growth spreads in an amorphous manner roughly following the pattern of concentric ring, which invariably gets elongated as corridor development along major highways radiating out of the main city. Lately private developers have begun to assemble large tracts of land along the highways in the peri-urban areas of metropolitan cities with the intention of developing what they advertise as `integrated townships'. These township projects are nothing but large housing projects that are being initiated to take advantage of the evolving market of middle and high-income housing, the demand for which is growing due to rising income level of a segment of population, low interest rates for home loans and tax concession incentives provided by the government. Private developers purchase land directly from farmers, apply for land use change from the government which they easily get eventually demarcating the area on the site and announcing the scheme. But since the land use change is not part of a city development plan, all land fronting highways is getting used by the developers for integrated township schemes rendering the areas behind without direct access from the main road. Also, whereas these townships may provide lower order education and health facilities such as nursery schools and dispensaries, the higher order facilities such as colleges and hospitals are not developed. Mass transportation cannot be planned so the inhabitants have to depend on informal transport or para-transport modes.

Many empirical studies, however, suggest that that the expanding metropolises push their fringes back by absorbing the existing ones within themselves, while new fringe areas grow subsequently on their outer borders. This implies that the fringe is not a static unit and is likely to experience spatial shifts even in the short run[69].

[68] Dupont, 2004.
[69] Schenk, 2004.

1.7. Environmental Concerns

The key environmental concerns of cities in Southern Asia include air quality, surface and ground water contamination, inadequate solid waste and sewage management, and water logging. Most environmental problems are human induced. Rapid urbanization process has directly affected the quality of environment. With the passage of time, all the major environmental assets have been depleting. Thus atmospheric air, rivers, streams, and coastlines are all subject to constant threats. These threats, as they affect the quality of environment, are briefly discussed in respect of selected cities.

Air Pollution

In Southern Asia, air pollution is the most critical environmental issue especially in the large cities. Rapid increase in the number of motorized vehicles which emit toxic pollutants such as carbon monoxide, sulfur dioxide and lead are the major cause of this pollution. Use of unleaded petrol, lack of catalytic converters in petrol driven vehicles, failure to introduce filters in diesel driven vehicles, continued use of three-wheelers with two-stroke engines and unfit old vehicles, and not popularizing the use of Compressed Natural Gas (CNG) are some of the reasons why air pollution has become so acute. According to one source, the lead content in the air over Dhaka is now one of the highest in the world[70]. Likewise, severity of air pollution can be gauged from the prevailing levels of lead in blood samples that are found to be as high as 0.45 mg/l among traffic police personnel and 0.38 mg/l among school children living in central Karachi areas as against allowable limit of 0.2 mg/l as specified by the World Health Organization[71]. About 1.5 million tons of pollutants are produced in Tehran annually, with carbon monoxide from car exhausts making up a large percentage of these pollutants. Most of Tehran's nearly 2 million cars are over 20 years old, with poor fuel efficiency and absence of catalytic converters and the ability to use lead-free gasoline. Heightened by these factors, air pollution levels in Iran reached a crisis stage in December 1999, when high levels of carbon monoxide and other pollutants engulfed the capital for several weeks. With a cloud of smog hovering over Tehran, Iranian authorities shut down elementary schools and closed off the city center to motorists for several days. Iranian state radio urged Tehran's residents to stay indoors, and many who did venture outdoors resorted to wearing face masks and breathing through wads of cloth. The polluted air was blamed for causing several deaths, as well as causing problems for people with asthma, heart, and skin conditions. According to one source, approximately 4,000-5,000 Tehran residents are estimated to die every year from air pollution. Tehran's air pollution is made even worse by the city's geographic position. The city is surrounded by the Alborz Mountains to the north, which causes pollutants to get trapped over the city on days when the wind is not strong enough thereby worsening pollution problem. Tehran's high altitude, ranging between 3,300 and 5,000 feet, also makes fuel combustion inefficient, adding to the pollution problem. Finally, the city's 'lungs' (i.e. its orchards, especially in northern Tehran) have largely been destroyed over the past 10-20 years by rampant development pressures[72]. Almost similar conditions obtain in the city of Kabul in Afghanistan[73].

However, in some cities of India, Bangladesh and Pakistan, efforts have been made to reduce air pollution. Consequently, the situation has improved somewhat after measures were taken to popularize the use of unleaded petrol and CNG, and use of catalytic converters in new cars in many cities in the region such as Dhaka, New Delhi and Karachi.

[70] Siddiqui and Ahmed, 2004, p. 359 after Atomic Energy Commission of Bangladesh, 1999.
[71] Siddiqui and Siddiqui, 2004, p. 285.
[72] http//www.irimet.net/irimo/airpollution/Iran.htm
[73] http//www.irinnews.org/Report.aspx? ReportId=77304

Water Pollution

The principal source of water pollution is the liquid waste from industries. In cities like Dhaka and Karachi, it is mainly from tanneries. They discharge untreated effluent containing toxic chemicals into the river, which find their way into the sea endangering the river and its aquatic life. In Karachi, a total of 330 million gallons of industrial and municipal effluents are discharged into the sea every day. Some of the effluent from the industries is also discharged in the open fields. The accumulated effluent leaches into the ground and contaminates ground water in the area which has been found to contain high quantities of Chromium[74].

Moreover, solid waste management has deteriorated in most cities in the region over the years. In Dhaka City, it is estimated that of the 3,500-4,000 metric tons of solid waste produced every day, only half is collected and disposed off. The remaining half continues to pile up at various places in the city or gets scattered gradually[75]. During the floods in 1998, the stagnant flood water mingled with solid waste and sewage from overflowing sewers and made people's lives quite miserable[76]. Similar conditions exist in Karachi, which generates about 6,600 tons of solid waste every day. Of this the city government collects only 2,200 tons (33 per cent). Of the rest, about 2,200 tons (33 per cent) collects in vacant plots or thrown into storm water drains, 350 tons (5 per cent) is used for land reclamation, 250 tons (4 per cent) is burnt as fuel in the kilns, households retain about 800 tons (12 per cent) and the rag pickers take away the remaining 800 tons (12 per cent). It is the uncollected waste which rots in streets, opens spaces and drains and creates dangerous health concerns. To this is added the problem of hospital waste which contains toxic, radioactive, inflammable and biological wastes. A part of it is incinerated causing air pollution problem and the part that is not disposed off properly is a source of serious health risk. Some of the accumulated waste water percolates into the ground through the heaps of uncollected solid waste and pollutes the ground water[77].

All the countries in the region have established national environmental agencies of one kind or another, for example, Department of Environment in Iran, National Environment and Protection Agency in Afghanistan, and similar other agencies in other courtiers. Many, however, are weak and small institutions, mandated to play coordinating roles and without independent authority. Sound and effective environmental policies have yet to emerge in most countries. Enforcement of environmental law and regulations tends to be a haphazard process heavily dependant on the political power of those who violate the regulations and on the extent to which the government is under pressure to stop pollution. Today the government measures merely relate to controlling and clearing up pollution. But these measures need to be supplemented by efforts to find sustainable ways of using the environment to benefit the world's population harnessing renewable sources of energy like wind and solar energy and rainwater harvesting.

Noise Pollution

Noise pollution in large urban areas is considered a serious environmental problem. Studies have shown that more than 20 per cent of the world's population lives under unacceptable noise levels. The problem is mainly caused by road traffic[78]. In Karachi the main sources of noise pollution are noisy motorcycle rickshaws, old buses and uncontrolled use of loud speakers. As such noise levels are high, particularly in commercial districts where the average noise levels vary between 93-96 decibels[79]. In Dhaka City also, horns and sirens from various kinds of transport plying in and around the city, indiscriminate use of microphones during marriage processions and other public festivities, and for announcements and advertisements are some of the major sources of noise pollution. Noise from increasing traffic at the nearby airport adds to the problem. Even areas around hospitals, educational

[74] Siddiqui and Ahmed, 2004, p. 359.
[75] Bangladesh Center for Advanced Studies, 1997.
[76] Siddiqui and Ahmed, 2004, p. 359.
[77] Siddiqui and Siddiqui 2004, p. 284.
[78] Kurakula, Jantien and Henk, 2007.
[79] Siddiqui and Siddiqui, 2004, p. 285 after Urban Resource Center, 2000.

institutions are not spared. Recent research on noise pollution conducted by the National Center for Hearing and Speech noted that noise levels in the city varied between 68 decibels to 106 decibels – way above the limit (60-65decibels) specified by the World Health Organization[80]. In India, the traffic related noise levels have become such a hazard that traffic police in the city of Mumbai had to observe a no honking day on 7 April 2008 to dissuade people from unnecessary honking.

Global Warming and Climate Change

Global warming and the resulting changes in weather patterns and sea levels impact cities in many ways. In particular, cities located along the world's coastline are likely to face consequences of climate change in the form of frequent and more intense heat waves, rainstorms, tropical cyclones and surges in sea levels and flooding[81]. Global warming impacts may be compounded by harmful ecological practices in countries of the Southern Asia Region. According to a report published by the International Union for Conservation of Nature and the United Nations Environment Program with support from the Kathmandu based International Center for Integrated Mountain Development, the Himalayas are facing increasing threats from construction of roads and settlements, overgrazing and deforestation that could worsen the impact of climate change and threaten water supply in northern India[82].

'Cities are particularly vulnerable to the impacts of climate change, as this is where much of the population growth over the next two decades will take place and where a large and growing proportion of those most at risk from climate change resided'[83]. However, the relationship between climate change and cities is complex. This has been examined by Alam and Rabbani for Dhaka[84]. While Dhaka City, one of Southern Asia's biggest mega cities remains vulnerable to the effects of climate, it is also responsible for generating a significant proportion of Bangladesh's carbon dioxide emissions that cause global warming through energy generation, vehicles, electrical appliances, industry and burning of fossil fuels and biomass by both households and industries. Today, though the total quantity of greenhouse emissions relative to total emissions worldwide is negligible; mere 0.1 per cent of the total carbon dioxide emission of the world[85], the quantity of green house gases produced in the city is likely to increase rapidly with the continued growth of city's population, economy and increased use of electrical appliances. A national greenhouse gas inventory of Bangladesh reveals that the energy sector contributes more than 60 per cent of the total amount of greenhouse gases amounting to 15,178 gigagrams per year[86].

While global climate continues to become warmer due to increased production of green house gases, cities in developing countries like Bangladesh are not able to respond adequately to challenges of climate change due to limited financial resources. Thus the cities which initially cause global warming feel stresses such as higher temperatures, water shortages, increased flooding and rising sea levels, particularly for coastal cities. Additionally, Dhaka may also face `heat island' problem because temperatures in the city are few degrees higher than in the surrounding areas. These stresses are likely to intensify with increasing population of the city which in turn would cause increase in the area of built up surfaces that would absorb more heat. Moreover, with increasing city size, production and consumption processes would tend to accentuate leading to further increase in generation of heat and carbon dioxide emissions.

Signs of impact of climate change on rainfall pattern are already becoming apparent. The analysis of the meteorological data from Bangladesh suggests that more rainfall is occurring outside the usual periods of rainfall that extends from June to August for monsoon rains and December to February for winter rains, and that there are more rainless days than before meaning thereby that the rainfall

[80] Siddiqui and Ahmed, 2004, p. 358 after Morsheed, 2000.
[81] UN-Habitat, 2007, p. 186 after Klein, Nicholls and Thomalla, 2003.
[82] See www.nepalitimes.com
[83] UN-Habitat, 2007, p.186 after Satterthwaite, 2006.
[84] Alam and Rabbani, 2007.
[85] UNDP, 2007, p. 311.
[86] Ministry of Environment and Forest, 2002 after Alam and Rabbani, 2007.

intensity is increasing. Consequently, it is found that water depth in some areas during floods is as high as 40-60 centimeters[87].

Four of the five mega cities with populations of more than 10 million people, namely Dhaka, Kolkata, Mumbai and Karachi are located in the heavily populated coastal regions of India, Pakistan and Bangladesh. If sea level rises just by 1 meter due to global warming, these cities along with the rest of the population in the coastal region will face threat of large scale disruption of human life. In addition, according to a recent Green Peace Report, global warming may spell doom for some of the heritage sites, including Puri's Jagannath Temple and Konarak Sun Temple in the Orissa in eastern India. Similar fate awaits landmarks such as the Gateway of India in Mumbai[88].

The Government of India, pursing the similar goal, is aiming to convert 60 cities into solar townships that run partially on renewable energy sources. Under this scheme, government will identify sixty towns with population ranging from 500,000 – 5 million and provide soft grant to municipalities of the chosen cities to draw up master plans to cut power consumption and shift as much as possible toward more renewable energy sources. In a similar vein, Navi Mumbai Municipal Corporation have agreed to adopt a technology that would capture and convert Methane gas emitted from landfill sites into less harmful gases (See Box 2 for details). Simultaneously, efforts are needed to start preparing for absorbing the impact of global warming. Measures may include working on flood defences for vulnerable towns and sections of the population and adapting to sea level rise in low lying areas.

Box 2: Use of Clean Technology for Landfill Sites in Mumbai

In an interesting development, Navi Mumbai Municipal Corporation and EcoMethane, the British Company, have agreed to set up a landfill gas (methane) capture and convert it into a less harmful carbon dioxide. It will earn EcoMethane about 50,000 carbon credits a year. Carbon credits are certified by the Executive Board of Clean Development Mechanism, an arm of the United Nations for projects in developing countries that ensure reduced greenhouse gas emissions.

The EcoMethane is already in talks with several municipal corporations across India to set up landfill gas capture facilities. Methane, the main gas generated from landfill sites, is one of the six greenhouse gases identified under the United Nations Convention for Climate Change. Methane contributes highly to global warming – reducing 1 ton of methane emissions equals reducing 21 tons of carbon dioxide.

Source: Kuber, 2008, p. 3

Eight Southern Asian nations namely Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka comprising the South Asian Association for Regional Cooperation (SAARC), an economic and political body, after a three day meeting at Bangladesh capital, Dhaka, adopted on 3 July 2008 an environmental action plan to mitigate the impact of climate change in the region. They committed themselves to promoting programs for mass awareness on climate change and behavior change towards a 'low-carbon-society'. They unanimously adopted plan that includes capacity building for the exchange of information on disaster preparedness and extreme events, exchange of meteorological data, clean development mechanism projects, capacity building and exchange on climate impacts, including increases in sea levels, glacial melting and threats to biodiversity, and mutual consultation in information negotiation processes. As a priority follow up measure they decided to start monitoring the climate, including rises in sea levels and natural disaster trends and share the information so collected. But still the SAARC region remains 'most vulnerable to climate change that is seriously affecting agricultural production, crippling vital infrastructures, diminishing natural resources and limiting our development options for the future' as stated in a join declaration at the end of the meeting[89].

[87] Alam and Rabbani, 2007.
[88] Sunday Times of India, 2008, p. 21.
[89] http, p.//www.Irinnews.org/Report.aspx?ReportId=79097

1.8. Disasters

Cities in all parts of the world have lately been subjected to increasing risk of disasters caused by earthquakes, floods, tsunamis, windstorms, landslides, extreme temperatures, droughts and epidemics. The disruptions to human population, built environment and natural ecosystems as a result of these disasters have also been increasing. This is so because population is concentrating in large urban agglomerations and when disaster strikes such areas, the impact is in direct proportion to the population size at the site of disaster[90]. Many of the Southern Asia's largest cities such as Kolkata, Mumbai and Chennai in India; Dhaka in Bangladesh; and Karachi in Pakistan are located in delta region or near the coast. Within the cities, poor people living in the low lying areas are even more vulnerable. For example, in July 2005, Mumbai experienced an unusually heavy rainfall (about 97 centimeters in 24 hours) during which the city experienced one of its worst floods. During this flooding, the poor slum dwellers suffered the maximum damage because majority of them lived in low-lying coastal areas[91].

One of the most recent example is that of the massive Indian Ocean Tsunami that struck coastal areas of India, Sri Lanka and Maldives in 2004. It was perhaps the most devastating of the disasters in recent memory in terms of damage to life and property. The impact of this high magnitude disaster was felt much more in India and Sri Lanka where large populations live in coastal areas. Maldives was found to be highly vulnerable because no part of the country is more than 2 meters above mean sea level[92]. Some of the recent worst disasters that struck countries in Southern Asia are listed in Table 14.

Table 14: Selected Recent Natural Disasters Affecting Human Settlements in South Asia (1972-2005)

Year	**Location/Area**	**Country**	**Hazard**	**Mortality**	**Economic losses (US$ billion)**	**Comment**
2005	Northwest Frontier and Pakistan-controlled Kashmir	Pakistan (also affected Indian state of Jammu and Kashmir and Afghanistan)	Southern Asian earthquake	73,000 (in Pakistan)	5.2	Collapsed schools killed 18,000 children, 2.8 million made homeless
2004	Origin in Banda Aceh in Indonesia	India, Maldives and Sri Lanka	Indian Ocean Tsunami	-	-	Almost complete destruction of coastal settlements
2004	Bam	Iran	Earthquake	31,000	-	World Heritage historic city destroyed
2001	Gujarat	India	Earthquake	20,000	3.5	1.2 million made homeless
1999	Orissa and Coastal Settlements	India	Cyclone	>10,000	1.9	130,000 people evacuated

[90] Olavi, Elina and Luc, 1996.
[91] UN-Habitat, 2007, p. 188.
[92] Sanker, Hajime and Yumi, 2007.

1998	Dhaka	Bangladesh	Flood	1,050	4.3	-
1998	Gujarat and coastal settlements	Bangladesh	Cyclone	Up to 3,000	-	2,938 villages affected
1991	Coastal settlements	Bangladesh	Cyclone	138,000	-	Three times as many women as men were killed

Source: UN-Habitat, 2007, p.171.

Disaster Trends

All Southern Asian countries are prone to disasters such as earthquakes, cyclones, floods, etc. For example, in Afghanistan, earthquakes, floods and landslides cause considerable human causalities. In Bangladesh, floods and windstorms are the most feared disasters (see Table 15). 'Every year extensive river floods occur, sometimes covering up to two thirds of the country. These cause enormous economic dislocation, as do the occasional tidal surges generated by cyclones'[93]. In recent history Dhaka has experienced major floods in 1954, 1955, 1970, 1974,1980,1987,1988, 1998 and 2004 due to the overflowing of surrounding rivers. However, of these, the more recent floods in 1987, 1988, 1998, 2004 are most damaging pointing towards increased intensity of flooding. In 1988, one of the most severe floods in recent history, 85 per cent of the city area was submerged. The inundation depth ranged from 1.3 to more than 4.5 metres and about 40 per cent of the city dwellers were affected. About US$70 million worth of property was damaged[94].

River erosion is another major environmental hazard in Bangladesh. According to the Centre for Environmental and Geographic Information Service (CEGIS) about 155.5 sq. km of land along major rivers of Bangladesh have been eroded between 1973 and 2007. CEGIS forecasts that about 29,000 people living along the banks of these rivers lost their homes during 2001 alone, and many of them migrated to cities and ended up living in slums. Various studies suggest that by the year 2025 around 3,575 sq. km of land in valleys of major rivers and their estuaries will be lost to erosion. Experts also worry that soil erosion has increased in recent years. Studies also suggest that the number of people forced to live in slums of Dhaka city due to river erosion across the country is increasing.95

Heavy flooding is affecting the towns and cities in eastern Nepal too. According to one report, the government officials observed that the recent rain falls and floods are the heaviest during the last 20 years. There is a need for better preparedness to reduce the financial loss and the hardship of the people displaced due to the floods96.

India has also experienced some of the world's worst disasters in the form of floods, earthquakes and windstorms, followed by epidemics and extreme temperatures. Flooding that resulted in particularly heavy human casualties in 2006 made it one of the world's 25 worst disasters. The most devastating disaster in 2005, the South Asian earthquake caused almost US$6 billion in damages in India and severely disrupted everyday life97. After 2004, India has become aware of its vulnerabilities to tsunamis as well.

Iran experienced devastating earthquakes and floods during the last four years. In 2003, an earthquake destroyed almost the entire historical town of Ban. Nepal is another country in Southern

[93] Islam, 1998.
[94] Alam and Rabbani, 2007.
[95] http, p.//www.Irinnews.org/Report.aspx?ReportId=79569
[96] http, p.//www.Irinnews.org/Report.aspx?ReportId=79544
[97] Sanker, Hajime and Yumi, 2007, p. 86.

Asia that is vulnerable to earthquakes. Floods, landslides, and extreme temperatures also pose threats quite often to Nepalese cities.

Table 15: Natural Disaster Patterns in South Asia

Country	Disaster Type					
	Tsunami	Floods	Earthquakes	Windstorms	Landslides	Extreme Temperature
Afghanistan		X	X		X	
Bangladesh		X		X		X
India	X	X	X	X	X	X
Iran		X	X			
Maldives	X	X				
Nepal		X	X		X	X
Pakistan		X	X			X
Sri Lanka	X	X		X	X	

Source: Sanker, Hajime and Yumi, 2007.

Like other countries in the region as mentioned above, Pakistan is also vulnerable to floods, earthquakes, landslides, and extreme temperatures. The year 2005 was particularly bad when a devastating earthquake took more than 73,000 human lives and affected about three million in Pakistan administered Kashmir and the North-West Frontier Province. Balakot, with a population of 30,000 and about 100 km north of Islamabad was one of the worst hit towns. Here, about 80 per cent of the houses were destroyed by the quake and the Pakistani Government subsequently declared it a 'red zone' since the town, located on two extremely active faults, is vulnerable to future quakes. The government decided to relocate the town about 25 km away but the people who have lived in Balakot for generations are reluctant to move. Due to ensuing indecision, people of the town have to manage to this day with interim arrangements in the form of temporary pre-fabricated shelters; two and a half years after the devastating earthquake destroyed their homes[98].

About 150,000 people living along side storm water drainage channel running through Rawalpindi city in Pakistan frequently suffers flood havocs. In July 2001, 75 lives were lost and 3000 houses destroyed after the drainage channel burst its banks. With the help of the Japanese Government the city has installed a flood forecasting and warning system so that rescue teams alarmed by the system can move the people to safer places before floods occur99.

For Sri Lanka, of course, the Tsunami in 2004 was the most devastating event. It caused severe human loss and affected an untold number of people. The economic damage caused by this event was so huge that it affected the country's economic progress. Sri Lanka also experienced a flood in 2006 that affected more than 330,000 people. Unlike the Tsunami, which happened only once, floods of varying magnitude occur regularly in Sri Lanka, cause maximum damage and require large financial allocations for rehabilitation and reconstruction measure (Table 16). Besides floods, the country also frequently experiences windstorms and landslides.

Table 16: Disasters in Sri Lanka - 2007

Type of Disaster	No. of Affected Persons (000)	Deaths	Injured	House Damage		Cost of Relief and Reconstruction (million US$)
				Fully	Partially	
Flood	488.9	20	17	2,568	7,237	159.1
Landslide	15.2	14	11	437	1,371	22.6

[98] http//www.Irinnews.org/Report.aspx?ReportId=79180
[99] http//www.Irinnews.org/Report.aspx?ReportId=79147

Drought	57.4	-	-	-	-	19.9
Strong Wind	4.9	3	51	108	1,523	17.7
Fire	1.2	4	24	282	6	1.4
Sea Erosions	-	-	-	-	-	1.3
Others	#	7	2	-	-	3.0
Total	567.6	48	105	3,395	10,137	225.0

Note: # means a figure of less than 100

Source: http://www.ndmc.gov.lk/

Maldives has prepared elaborate disaster management plans to minimize the impact of calamities such as Tsunami in future (Box 3).Other countries also need to put in well worked out disaster management plans to ensure a measure of safety for the citizen. Some progress is discernible in this direction but the instances of concerted disaster management efforts are very few. The Gujarat State Disaster Management Authority in India has come up with a Composite Risk Atlas to help various departments engaged in disaster mitigation planning[100]. Composite risk atlas is used to help various departments concerned in disaster mitigation planning in the areas most vulnerable to natural and manmade hazards in the state.

Box 3: Post Tsunami Measures in Maldives

Of all the countries in the region, Maldives has the most fearful and destructive experience in the country's history when Tsunami struck in December 2004. Maldives is a small country comprising of 1,192 islets of which only 199 are inhabited. Out of the total number of islets, only 4 were spared the wave's fury: as many as 13 were totally evacuated. A total of 82 persons died, 26 were reported missing, 1,313 were injured, and about 15,000 were displaced and became homeless. On the face of it these losses appear to be small, but considering that the country has a total population of less than 0.3 million, the losses are huge when considered in percentage terms. More over since most of the country's total population is concentrated in one city, i.e., Male, and the entire area is nowhere more than about 2 m above the mean sea level; the country is highly precariously placed against the threat of tsunami.

The policy makers have adopted a development strategy which aims at consolidating population and economic opportunities in few relatively large size islands. In addition, each island will have a disaster management plan. Environmental Protection Zone (EPZ) will be created and no development will be allowed within 40 m of high tide line. The areas within EPZ will be maintained as organized green areas. Sites, with relatively high level topography, will be identified, developed as open spaces, and reserved for emergency evacuation. The major challenges in implementing the reconstruction programs are that being a country of islands, with most of its lands at around the sea level, all its territories are highly vulnerable to tsunami with limited amount of escape and evacuation areas. The country thus faces enormous logistical challenges while dealing with this kind of a disaster.

Source: Zahid, 2005.

Disaster management plans are being prepared for many cities in India. A Disaster Management Authority has been created to give a thrust to disaster management efforts and formulate policies. A National Institute of Disaster Management along with a Center for Disaster Management for SAARC countries has also been created to train disaster management specialists, and sensitize public officials, academics and professionals about the need to adopt disaster management practices and conduct basic research. Sri Lanka has also established the Disaster Management Centre under the National Council for Disaster Management in accordance with the Sri Lanka Disaster Management Act No. 13 of 2005 passed by the Parliament of Sri Lanka in May 2005 with the vision of achieving safer communities and sustainable development in Sri Lanka[101].

[100] http, p.//cities.expressindia.com

[101] http, p.//www.dmc.gov.lk/ about_dmc.htm

Impact of Floods on Urban Areas

It is evident from the above discussion that flooding of urban areas is a major cause of disasters in almost all countries of the region and unlike other kinds of disasters which occur not so frequently, floods especially in Bangladesh and India hit one or other part of the country every year. It is possible to reduce the impact of floods by firm application of development control rules such as zoning by not letting development of low lying areas for high density real estate development. But typically poor and low income families occupy such low lying areas and are vulnerable to flood hazards. Often these poor people are in illegal occupation of land that would otherwise be needed to build and maintain disaster management infrastructure. Thus survival strategies of the poorest population directly affect the city's ability to reduce the impact of floods. By not addressing the chronic housing and infrastructure problem, the entire city is exposed to flood hazard.

Quite often, mismanagement of land use policy, inadequacy of the drainage system, rapid urban expansion and real estate-politician nexus contribute to overall vulnerability of populations to flood risk. This is illustrated by the example of Mumbai where in spite of risk analysis undertaken as a part of the Mumbai's Disaster Management Plan (DMP) prior to July 2005 floods, the city experienced sever damage to life and property because of the reasons stated above102.

The failure of development control in preventing flood disasters in cities is clearly reflected by Sivaramakrishnan:

'The rain-drowned cities of Mumbai, Chennai and Bangalore have revealed that lives were lost and the city's economy ground to a halt not just because the clouds opened. Newspaper reports and postmortem analysis have been numerous but all agree that damage would have been much less if the natural drainage streams had not been interfered with. Chennai saw the spectacle of a large technical university built to educate engineers, being bulldozed because it was built across the bed of a river serving the city's drainage'[103].

1.9. Urban Governance

The Human Development Report (2003) describes governance as 'the exercise of power or authority - political, economic, administrative or otherwise - to manage a country's resources and affairs. It comprises the mechanisms, processes and institutions, through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences'[104]. Its most noteworthy feature is that it encourages decentralized decision making besides promoting responsive and responsible local government[105]. Specifically, in the context of urban governance, the issues relating to multiplicity of agencies, devolution, urban finance and funding, and public-private partnerships (including the roles of non-governmental organizations and households) are of particular interest in Southern Asia.

Institutional Reforms

In both India and Pakistan reforms have been carried out to strengthen representative character of local bodies by encouraging decentralized decision-making. Before the local government reforms were put in place, in both India and Pakistan, municipalities were rarely run by elected representatives. In Pakistan, this was due to frequent dictatorial regimes, but even during the periods of democratic rule, municipalities were dissolved, and government officials were nominated to run them[106]. In India also, though, democratic rule was firmly established, often local governments were superseded and placed under the direct command of government officials. In India, reforms have ensured that democratically

[102] United Nations Human Settlements Program, UN Habitat, 2007, p. 188.
[103] Sivaramakrishnan, 2006, p. 5.
[104] Wagner et al. 2008, p. 46.
[105] Osborne and Gaebler, 1992.
[106] Siddiqui and Siddiqui, 2004, p. 346.

elected local governments are not disturbed by executive order so that democratic process can continue uninterrupted. This has been achieved through the Constitution (Seventy-Fourth Amendment) Act, 1992[107] passed by the national parliament and enforced since 1993 after ratification by all state governments in the country. The various provisions of this Act as detailed out in Box 4 are expected to strengthen the role of planning agencies and urban local bodies in urban governance and also improve the quality of urban governance through increased participation of people in the urban development process. Already, municipal elections have been held in all the states and about 60,000 elected councilors are part of the urban political stream. Municipalities have thus become the principal representative platforms for urban population. Some cities have already begun to constitute ward committees. For example, Bangalore Mahanagar Palika (Municipal Corporation) has been organized by the state government into 28 ward committees each covering 3-4 wards of the 100 wards of the corporation. Each ward committee comprises of elected councilors of the corporation representing the concerned wards, seven nominated members including two nominees of the state government and two members nominated by the government from among the NGOs and community based organizations (CBOs) working with the area represented by the ward committee[108].

In Pakistan, Local Government Plan 2000[109] operating under its respective provincial local government ordinances issued in 2001 has been instrumental in carrying out local government reforms. Local governments under this plan were to be elected on a non-party basis through phased voting between December 2000 and July 2001. District and sub-district governments have since been installed in 101 districts, including four cities. In Karachi, the devolution plan operating under the Sindh Local Government Ordinance (SLGO), 2001[110] replaced the Karachi Municipal Corporation by a three tier local government for Karachi, namely the city district council and the city district government, town councils including town administrations for the eighteen town areas within the city, and union councils and union administrations for the 178 unions (equivalent to former municipal wards). Interestingly, the six cantonments whose total area is more than the entire urban area of Karachi were excluded. Cantonment Boards continue to be independent of the City District Government of Karachi (CDGK) in spite of the fact that they are now fully contained within the city. Most of the population in the cantonment area is civilian yet they have their own building bye-laws and zoning regulations[111]. Besides the three tiers of local government, the devolution plan has provision for a fourth tier in the form of neighborhood committees with a view to involving people in decision making at the grassroots level[112].

Already, the permanent functionaries, namely, the bureaucrats who feel threatened by the devolution efforts, resist municipal reforms because power has shifted in favor of elected representatives. There is also opposition from the members of legislative assemblies and members of national assembly who feel left out of the decision making processes particularly relating to spending of money for local development. Thirdly, the quality of elected representatives is debatable. Moreover, women are not in leadership roles. All `Nazims' (administrators) and `Naib Nazims' (deputy administrators) at all tiers of municipal administrators are rich and upper class males[113].

Box 4: Institutional Reforms to Strengthen Urban Local Government in India

One of the central objectives of this Act is to promote political, administrative and financial empowerment of local bodies. After this enactment, urban local bodies in the country acquired a constitutional status to function truly (along with rural local bodies as per the Constitution Seventy-Third Amendment Act, 1992) as the third tier of government, State and Centre being the other two.

The Act aims at protecting representative character of municipalities by ensuring that elections for urban local bodies are held regularly so that peoples' representative are in place and take part in policy making. If for some reasons a local body is superseded; it can not remain so for more than six months. It is now the constitutional

[107] Government of India, 1992.
[108] Ansari, 2001.
[109] Government of Pakistan, 2000.
[110] Government of Sindh, 2001.
[111] Siddiqui and Siddiqui, 2004, p. 321.
[112] Siddiqui and Siddiqui, 2004, p. 298.
[113] Siddiqui and Siddiqui, 2004, p. 351.

obligation of the state government to see that elections are held within this period and representative character of the municipalities is restored. The new system also ensures increased participation of women and weaker sections of the society in decision making process.

The Act also aims at ensuring a rationalized procedure of devolution of funds from the state to local bodies. In this regard it has made each state legally responsible for setting up a Finance Commission which would recommend criteria for devolution of funds from the state to local bodies based on factors such as population, area within municipal boundaries and the area occupied by slums. The Finance Commission would also suggest new avenues for raising financial resources such as sharing taxes collected by the state and raising finance from the capital market.

Attached with the act is a list of functions (the Twelfth Schedule) that states may consider to assign to the municipalities. List of activities such as urban planning including town planning, regulation of land use, slum improvement and up-gradation and provision of basic services has been included in the list of municipal functions.

The amendment act also provides constitution of ward committees consisting of one or more wards which would act as forums through which the people at neighborhood level can play an effective role in the delivery of services.

Source: Government of India, 1992

From the above discussion and details stated in Box 5, it is clear that an elaborate set of new mechanisms/committees/bodies have been brought into existence in order to maintain checks and balances, strengthen devolution and ensure peoples' participation. But it is yet to be seen how the system will work. There are challenges with regard to sharing of power under the new dispensation and the added responsibility of spatial planning[114].

Box 5: Institutional Reforms to Strengthen Urban Local Government in Pakistan

Under the Local Government Plan 2000 in Pakistan, a three tier local government structure has been established. The three tiers are known as City District Council and the City District Government, Town Councils and Town Administrations and Union Councils and Union Administrations. The Town Council is responsible for master plans, zoning, land use and building control, beautification plans and disaster relief, measures to be taken in respect of the poor, development, and proposals for construction of infrastructure and related projects. Town and Union Councils have within respective jurisdictions functions similar to that of the district councils At the Union Council level, the functions assigned to Town Councils are implemented in a decentralized manner. Each Town Council will set up elected neighborhood committees to carry out specific civic and development functions of local nature and assist the union administration in the discharge of the latter's functions. This in fact will be the fourth tier of the devolution arrangement. A number of other bodies such as Citizen Community Boards, *Zila Mushavirat* (District Consultation) Committees, Ethics Committees, *Mushaliat Anjuman* (Dispute Resolution Committees), Monitoring Committees, and Insaaf (Justice) Committees are also proposed.

Besides the committees, the Sindh Local Government Ordinance, 2001 also provides for the appointment of the District Ombudsman and the District Public Safety Commission. There is also a provision to create district municipal offices at the town level in order to integrate essential municipal services such as water, sanitation, solid waste disposal, electricity, etc. But this has not been done.

Siddiqui and Siddiqui, 2004

In India also, some scholars feel that local governments need to be reformed further by removing the loopholes in the fabric of 74th Amendment[115]. These loopholes arise since:

1. The constitutional amendment did not clearly demarcate the functions of the local bodies. The 12th schedule list of functions is discretionary. Hence states can if they so wish completely disregard it while assigning functions and responsibilities to the municipalities.
2. It did not define the resources that the municipalities could tap.
3. It did not define the parameters of administrative autonomy to be given to urban local bodies.

[114] Siddiqui and Siddiqui, 2004, p. 317.
[115] Jha, 1993.

The issue of defining administrative autonomy of local governments is quite important. Under the present system the legal framework for municipal governance shows considerable differences within India and across the Indian sub-continent as regards the degree of autonomy extended to local bodies in decision-making. Often direct or indirect authority exercised by upper tiers of governments affect the performance of the local governments. While analyzing the local government systems in the Indian subcontinent, it is noted that Kolkata in India follows mayor-in council system which is comparable in spirit and substance to the parliamentary form of government. The system is further characterized by collective responsibility and accountability to the elected council in the first instance, and ultimately to the public. Since the responsibilities as well as executive powers are vested in the mayor, it is reasonable to hold the mayor accountable to the public. Further, there is considerable decentralization through Borough Committees at the level of boroughs (groups of wards) and below it wards committees at the wards level. In comparison the strong commissioner system adopted in Delhi and Mumbai is less participatory in nature. At both these places, the councilors elect the mayor; in the case of Delhi for a term of one year and Mumbai for two and a half years. The mayor in both these cities is a ceremonial head and the Municipal Commissioner who is generally a bureaucrat from the Indian Administrative Services, heads the executive wings of the two corporations. The Standing Committee and the Education Committee which consist of both elected councilors and nominated persons are the two important policy making and recommending bodies, but the actual responsibility of implementation lies with the executive wing of the corporation.

The controlling authority of the Municipal Corporation of Delhi (MCD) is the Union Ministry of Home Affairs, but the latter has delegated some of its powers to the Government of the National Capital Territory of Delhi (GNCTD). Delhi Municipal Act also confers some responsibilities to the GNCTD with respect to the MCD. In addition the Lieutenant Governor of Delhi wields some power to direct the MCD. Such controls from multiple sources obviously lead to complications[116]. For these reasons, 'there is a general consensus at seminars and gatherings of scholars that the Mayor-in-Council System – as a responsive form of city governance should be adopted' in all city corporations[117].This will allow local governments to work in more autonomous and accountable manner.

The system in Dhaka, Bangladesh may be described as 'presidential' type with little devolution. Here, the mayor and ward commissioners (equivalent to councilors elsewhere) are directly elected, the former by the voters in the ward and the later through adult franchise of the city. There is no collective responsibility and the mayor monopolizes power vis-à-vis the ward commissioners. The country's central government retains supervisory and controlling authority over the Dhaka City Corporation (DCC). The Chief Executive Officer though works under the Mayor, as a central government office on deputation to the corporation wields considerable authority. The zonal committees (equivalent to borough committees) consist of only the permanent officials of DCC and there is no involvement of ward commissioners in it. There is no ward committee at the ward level. Compared to the Kolkata Municipal Corporation (KMC), DCC's functional domain is rather limited. For example, DCC, unlike KMC, is not responsible for water and sewerage and primary education[118].

The role, functions and appointment of the Municipal Commissioner in Mumbai (Bombay) Municipal Corporation (BMC) are similar to those in Delhi except that the former is not only responsible for water and sewerage but also like in Karachi for electricity and transportation. In BMC, in addition to the ward committees there are voluntary neighborhood groups at the street level. With the adoption of the Devolution Plan in 2001, the legal framework for Karachi has become different as compared to city corporations in India and Bangladesh. First the nomenclature has changed from Karachi Metropolitan Corporation to City District Government of Karachi (CDGK). Second the scope of functions of the CDGK far exceeds that of any normal municipal government. Thus besides performing basic civic functions, CDGK also looks after law and order, revenue collection and development functions. There is now a three tier city government for Karachi City (See Box 5 for details). Most striking aspect of the structure is that elected representatives head the executive wing at all the levels of the city government though permanent officials of the provincial and the central

[116] Siddiqui, 2004, p. 439.
[117] All India Institute of Local Self Government, 1999, p. 1.
[118] Siddiqui, 2004, p. 438.

governments are appointed for administrative support. Also, a notable feature of the structure of the city government of Karachi is that bodies such as Citizens Community Board, the *Mushavirat* (coordination) Committee, *Musalihat Anjumant* (dispute resolution mechanism), monitoring committees, district ombudsman, public security boards, etc. have been created to act either as checks or complementary mechanisms vis-à-vis the local government structures. On paper the city government in Karachi appears to be more participatory in nature and decentralization theme is clearly reflected in its four-tier structure, but since the system is in its nascent state and lower tiers have not yet been formed, it is difficult to comment on its efficacy in the long run[119].

Participation

Institutional reforms apart, the concept of good urban governance implies a process of development which is participatory and takes into consideration the interest of all stakeholder groups in society, especially of the most excluded and disadvantaged sections. The quality of urban governance will improve once decentralized decision-making models including feedback mechanisms are in place. The first step would be to increase participation of people through their elected representatives at all tiers of government and more so at the grassroots level. The other is through the direct participation of people in the decision making process120. Various methodologies are being adopted to achieve this purpose. One of the prominent steps in this direction is the advocacy role played by the NGOs and CBOs in espousing the causes that concern the life of the people in cities, especially the poor. Some of NGOs/CBOs in Pakistan such as Orangi Pilot Project Group, the Edhi Foundation and Citizen-Police Liaison Committee have made laudable contributions to city life even though they have not yet been able to emerge as a major factor in the city's decision-making process121.

On the other hand, advocacy and lobbying in Delhi are generally characterized by elitism. The same goes for public interest litigation and judicial activism. Indeed, at present, these have very little to do with the interests of the poor. Moreover, these have come to substitute and dominate executive actions, to the extent that some would say that the higher courts have taken over the administration of Delhi. Similarly, neither the community nor the civil society organizations are very active in espousing the cause of the poor and the women. In contrast, civil society organizations in Mumbai seem to proliferate both in number and advocacy efforts for good governance in the city. There is a working relationship between the NGOs and the BMC at the highest levels. On the other hand, though judicial activism and public interest litigation (PIL) as tools for advocacy are no doubt increasing, these are not as yet very pervasive[122]. In Dhaka, the use of PIL and judicial activism is rare. The main form of advocacy pursued by the civil society organizations and some newspapers is through seminars, workshops and round tables, etc. As a result advocacy efforts have not met with much success[123].

With the purpose of promoting interface between local governments and the people, the Ministry of Urban Affairs and Employment in the Government of India has issued guidelines for preparing 'Citizens' Charter for Municipal Services by Municipal Bodies'. The citizens' charter is a useful practice, which once in vogue, would create necessary condition for responsive and effective municipal administration. It would become a medium for interacting regularly with the people. New Delhi Municipal Council and Mumbai Municipal Corporation have already taken a lead in publishing Citizens' Charters. The Municipal Corporations of Delhi (MCD) and several other cities in India have set up Public Grievances Cell on redressing public grievances[124]. Besides, methodologies are being evolved to assess the performance of local government and provide public feedback on aspects of service delivery through user surveys and public hearings. Citizen Report card is one such methodology which has been used in India in Bangalore and several other cities. It is a tool for measuring the performance of public agencies, getting user feedback and initiating reforms. It

[119] Siddiqui, 2004, p. 445.
[120] Ansari, 2001.
[121] Siddiqui and Siddiqui, 2004, p. 346.
[122] Siddiqui, 2004, p. 453.
[123] Siddiqui and Siddiqui, 2004, p. 453.
[124] All India Institute of Local Self Government, 1999, p. 2.

evaluates local government performance as seen by citizens; obtains public feedback on efficacy and efficiency of service delivery mechanism and helps in making substantive systemic improvement.

The city consultation techniques popularized by the Urban Management Program of the United Nations has emerged as a useful tool for eliciting citizens' participation but not yet institutionalized. The first step in the practice of this technique is to engage all stakeholders involved in urban development in a continuing dialogue for formulation of action plans to address the most critical problems of the city.

Finance and Taxation

In the face of increasing urbanization and the need to meet the growing demand of infrastructure and municipal services for population concentrating in urban areas, finding necessary finances for funding urban development projects has become an important aspect of urban governance. In India, Pakistan and Bangladesh, urban development and municipal services are financed through central and state grants supplemented by income generated by the urban local bodies. In Delhi, for instance, twenty-five per cent of the budget requirements of the Government of National Territory of Delhi, which is essentially comprised of the city of Delhi and its outgrowth, are met by the Central Government. The Delhi government supplements the central grant through it own sources of which tax revenues account for 95 per cent of the total revenue. The state government has not been able to increase non-tax revenues for the past two decades. The tax income is difficult to increase due to political considerations. This compels the city-state to keep on looking for central grants and market loans, both of which are associated with uncertainty, the former due to political considerations and the latter for reasons of fiscal sustainability.

At the state level, the sales tax (now converted into value added tax) accounts for more than sixty per cent of the tax receipts. Excise duty (15 to 20 per cent of tax revenue) and stamp duty (5 to 6 per cent) and taxes under miscellaneous heads such as taxes on vehicles, entertainment and luxury (4 to 5 per cent) are the other major contributors to the tax income of the state. Lower share of vehicles tax despite motor vehicles registered in Delhi being more than the combined figure of India's other three largest metropolises and of income from property transactions in spite of boom in land and real estate market in the past decades point toward weak tax administration.

At the local government level, house tax is the most important single source of income. It accounts for more than 70 per cent of the total tax revenue of Delhi Municipal Corporation and about 50 per cent of its total revenues. However, the rate of growth of income from house tax barely reflects the phenomenal growth of property value in the city. Inefficiency in assessment and collection also leads to low revenue generation. According to the MCD sources, there are 800,000 assessed properties in the city, of which only 300,000 are regularly paying taxes. Moreover, the collection rate, though increased over the years remained abysmally low at 21 per cent during 2000-01[125]. Many properties are outside the tax limit because of very low rent values and did not have much scope for upgradation because of the Rent Control Act. The amended Rent Act has not yet been notified. But the MCD Act has been amended to de-link the new properties rental valuation and the new Unit Area Method of taxation is in place. Octroi tax, which used to be other major source of the municipal income, has now been abolished. However, the state compensates the city government on this account by sharing with the latter their value added tax income in proportion to loss of income from octroi. Besides state contributes to city's income in the form of loans and grants as per the norms set by the state's finance commission as per the devolution arrangement established after the implementation of the Constitution (74th Amendment) Act, 1992. Local governments in India have been outside the statutory devolution of funds and are wholly dependent on the state government's support for their activities. The consequent deterioration in the revenue base at the local level made local governments more dependent on the state government's largesse (conspicuous by its absence). Particularly deplorable is the state of the municipalities, which do not get enough funds even to pay the salary of their employees. According to one estimate, municipalities get only 0.6 per cent of the National Gross

[125] Maitra, 2008, p. 350.

Domestic Product (NGDP) in spite of the fact that cities contribute 90 per cent of the government revenue and 60 per cent of the NGDP[126]. However, in general, the cities are increasing private sector participation in the provision of even basic services. Airports are being privatized, toll roads and bridges working on BOT or BOOT have come up and there is increase in the rates of recovery from various public services. The basic fact that the amount that devolves to municipalities is no where near their requirement is obvious from the estimates made by the Eleventh Finance Commission. According to their estimates, a total of Rupees 4,200 crores (US $ 900 million) for the five year period 2000-2005 is needed for the devolution to the urban local bodies. As against this the states have recommended only Rupees 400 crores (US $ 85 million) for the year 2000-2001[127]. Municipalities have very little scope for augmenting these resources through their own initiatives. This is because, in view of the past record of inefficient debt servicing by local governments and in the light of the paucity of public and private saving, the state governments rigidly control the extent of market borrowing to be indulged in by local governments.

A provision has been made for a rational devolution of funds from the state to the local bodies. For the purpose, on the pattern of Central Finance Commission for devolution of funds from the centre to the states, the Constitution (74th Amendment) Act, 1992 has provided for state finance commissions. These commissions have already been set up in all the states. These commissions have recommended specific grants to municipal bodies at the same time raising the per capita level of the grants. In some states, the state finance commissions have suggested the criteria for devolution of funds giving weightages for population, area within the municipal boundaries and the area occupied by slums. The Constitution (74th Amendment) Act has also enhanced the decision-making powers of the municipalities. They have now begun to think about raising finances from the capital market and using these funds for improving infrastructure in the towns. Municipal Corporations of Ahmedabad and Bangalore, two principal industrial cities of India have already succeeded in issuing such bonds. Other cities propose to follow[128].

Municipalities realize a variety of non-land-based taxes which are detailed as part of taxation laws under the municipal acts. These are levied in the form of property taxes, octroi, terminal and toll taxes, and taxes on trades, animals, and vehicles. Out of these, the octroi is being gradually abolished, whereas, there are several problems related to collection of other types of taxes. Only property tax remains as the potent source of municipal revenues but needs to undergo reform for better application and realization of recovery.

Karachi city earns income in the form of matching grants in lieu of octroi routed from the federal government through the provincial government, salary support, income by the Karachi Water Supply Board, own income from taxation, license, fee and interest on investments, and annual development budget grants from the provincial governments. Out of the above, the main source of income is the matching grant in lieu of the octroi (more than 90 per cent of the total receipts). The possibility of local government increasing income from it own sources is high but the arrangements in place need to be tightened through close monitoring and supervision over tax collectors, corruption and inefficiency, manifested in underassessment, non and poor collection of taxes/ rents, non-inclusion of holdings in the tax net lack of supervision over tax collectors, leniency in applying tax laws and rules, lack of penalty for corrupt practices, a haphazard instead of planned approach, etc. are quite endemic. Other problems are of general disinclination to pay taxes among the citizens, lack of computerization of records and existence of discretion in tax laws and rules.

A considerable part of the income comes from revenue transfers from the provincial/ federal government. While such transfers can help the city government to discharge their responsibilities, such an arrangement compromises its accountability. Unfortunately, the city government can not raise new taxes without the clearance of the provincial authorities and in recent times some of its new tax proposals have been shot down such as the port city user's tax and infrastructure improvement tax. Potential revenue from local taxes that can be efficiently levied and collected is rather limited, compared to the expenditure obligations that have been assigned to CDGK. The poor financial

[126] Jagmohan, 2000.
[127] Jagmohan, 2000.
[128] Singh, 2000.

autonomy of the CDGK, despite the devolution, is reflected by the fact that it is not empowered to access capital markets or raise loans on its own.

There is some serious overlap of the fiscal powers of provincial and local government bodies. This could lead to fragmentation of the tax base and contribute to inter-jurisdictional conflicts. For example, whereas Article 163 of the Constitution of Pakistan specifically empowers the provincial government to levy taxes on professions, trade and employment, SLGO 2001 allows Union Councils to impose fee under the same heads[129]. Similarly, some confusion exists over which level of government will eventually have exclusive right to impose entertainment tax and fees on cinema, theatres and other entertainments[130].

Also, there is a problem of release of funds by the provincial governments. This is because the procedure for releasing funds has not been streamlined even after the devolution. The release process gets further delayed if the political party in power at the city government level is in opposition at the provincial level and vice versa. A considerable amount of the receipts from higher governments consists of establishment expenditure, mainly salary (65 per cent of CDGK and 80 per cent of Town Councils). If that is taken out of the grant, little is left for developmental activities. Also, the federal government has recently intervened to stipulate that no local government can impose any new taxes without getting the proposal vetted by the provincial government. While this is important for tax harmonization, coordination, avoidance of incidences of double taxation, and for prohibiting the local governments from thwarting national and provincial policies, it nevertheless undermines the independence or discretion of the city government[131].

The Provincial Finance Commissions have formulated criteria on the basis of population, backwardness, tax effort, etc. for transfer of divisible pool from provincial government to local government bodies for recurring and development/ capital expenditure. Though this has rationalized devolution of funds but the criteria are yet to reflect the development priorities of delivery of basic civic services such as water, sanitation, roads and electricity

Information and Communication Technology

Information and communication technology has emerged as an important tool of governance. There is a need to introduce a single window clearance system for all matters related to land development to accelerate the pace of development. There is some progress in this respect with many land development agencies adopting remote sensing and GIS based systems and engaging in e-governance. For instance, the Mumbai Municipal Corporation (BMC) has stepped up efforts to go in for large scale e-governance. Under the plan, geographic information system (GIS), global positioning system (GPS), and other computer based systems will soon be a part of e-governance[132]. Use of GIS is being promoted in Delhi for achieving better coordination among agencies engaged in urban development and providing civic amenities. DCC is lagging behind all the other mega cities discussed above. In recent years CDGK has invested considerably in information technology applications for urban governance. In Mumbai, Kolkata and Delhi, IT applications have been used for quite some time[133].

In India, outside of Mumbai, Kolkata and Delhi, IT applications are being used in the other part of the country too. In the Southern state of Andhra Pradesh, cities are using information technology in the day to day functioning of the government and re-engineering the manner in which services are provided to common citizens. Under its ‘one stop non stop’ approach, a pilot project called TWINS, i.e. Twin City Integrated Network Services, 18 services of six departments are integrated over one counter. It provides fast and easy access to government services, makes the government appear much simpler, and also cuts down on corruption. The government is able to keep databases of citizens, which helps in better targeting of welfare programs and minimizes misuse of funds. The system is able

[129] Siddiqui and Siddiqui, 2004, p. 307.
[130] Siddiqui and Siddiqui, 2004, p. 306.
[131] Siddiqui and Siddiqui, 2004, p. 308.
[132] www.financialexpress.com
[133] Siddiqui, 2004, p. 453.

to organize virtual town hall meetings of citizens to watch the proceedings of municipal meetings, and also enables them to participate in decision-making. This participation in the form of interactive sessions, panels and discussion groups, planning consultations, chat lines, and electronic online voting is becoming increasingly common[134].

However, much more needs to be done so that more cities adopt e-governance as compared to the few that can be counted on fingertips. This is particularly desirable since, through e-governance, local bodies can share information with the people for increasing transparency within the organization and serve people more efficiently. For example, information on building codes, development plans, new projects and layouts may be made available through websites. A beginning has been made since online sharing of information is being already practiced in some cities in India, Pakistan and Bangladesh. However, to accelerate the pace of this change, concerted efforts are needed for capacity building of local bodies and other public agencies so that these agencies can feel comfortable with e-governance infrastructure for urban governance. Agencies so equipped will be more effective while playing the role of catalysts within the changing regime of public private partnership arrangements for provision of urban infrastructure and public services[135].

[134] Jain, 2007.
[135] Siddiqui and Siddiqui, 2004, p. 309.

2. Urban Planning Practices

2.1. State of the Economy- The Contextual Framework

Direct correlation between the phenomena of economic growth and urbanization is quite clearly established. Opinions may differ as to whether economic growth leads to urbanization or urban areas are instrumental in giving a push to the economic growth process. Perhaps both the processes iteratively feed on each other. But the view that cities are engines of economic growth first put forth by Jane Jacobs prevails today[136]. Today, cities especially 'global cities' articulate their country's economic aspirations in the global economy. Simultaneously, it may also be true that performance of cities in a country has a great bearing on the over all economic success of the country[137]. Thus if the tempo of the economic performance is to be maintained, it is necessary that the urban problems of cities are seriously addressed and necessary urban reforms are affected. This section aims at understanding cities in Southern Asia in relation to their evolution, urban planning practices and needed reforms in the context of on going structural changes. It thus begins by attempting to understand the global economic trends that have provided the region's cities, particularly large cities, opportunities to play an instrumental role in the economic growth process of their respective countries.

The phenomenon of global economic resurgence of Asia that began with Japan in the 1960s, spread to Korea, Taiwan, ASEAN (Association of South East Asian Nations) countries in 1970s, China during 1980s, and South Asia in 1990s when India emerged as a key player in the global economy[138]. This is reflected in the increase in average annul growth rate of GDP in the region from 4.7 per cent during 1980-90 to 6.5 per cent during 2000-2005. During the same period, the average annual GDP per capita growth rate in the region more than doubled from 2.3 per cent to 4.7 per cent (Table 17).

Table 17: GDP and Per Capita GDP Growth Rates in Developing Asia

Region/Country	**Real GDP Growth Rate**			**Real GDP Per Capita Growth Rate**		
	1980 - 1990	**1990 - 2000**	**2000 - 2005**	**1980 - 1990**	**1990 - 2000**	**2000 -2005**
Developing Asia	5.7	6.2	6.3	3.7	4.5	5.0
Eastern	9.1	7.9	7.1	7.6	6.9	6.4
China	10.3	10.6	6.6	8.8	9.5	8.8
Southern	4.7	5.1	6.5	2.3	3.0	4.7
India	5.8	6.0	6.7	3.4	3.9	5.0
South-Eastern	5.3	5.0	5.0	3.1	3.3	3.5
World	3.1	2.6	2.8	1.3	1.3	1.5

Source: Mahadevia, 2008a: 6 after UNCTAD, 2007

A large part of the recent spurt in economic activity in the region can be attributed to manufacturing because of the advantages of the relatively low labor cost and relaxed environmental laws. Lately the services sector has also begun to contribute substantially to economic growth. However, in contrast to the trends in the past when low-end services such as petty trading, hawking and cycle rickshaw pulling proliferated, trends in the recent past indicate that relatively high-end services that require basic graduate level education and working knowledge of English are growing[139].

[136] Jacobs, 1984.
[137] Mahadevia, 2008a, p. 8.
[138] Mahadevia, 2008a, p. 2.
[139] Mahadevia, 2008a, p. 3.

At the same time, a noticeable shift of global trade towards Asia began in 1990s; the total exports from Asia as a proportion of the total world exports increased to 34.1 per cent in 2006 as compared to 25.5 per cent in 1990. Though Southern Asia does not have much presence on the global export scene (1.9 per cent of the total exports in 2006) and India, the leading exporting country in the region accounts for merely 1 per cent of the global exports in the same year, the share of the region in the global exports will increase if the spurt in economic growth as observed in recent years in most countries of the region sustains. Interestingly, in Southern Asia, services comprise 39.2 per cent of the total export and this is because of India emerging as a global back office and information technology (IT) services centre[140].

Like the rest of developing Asia, the export based manufacturing in Southern Asia has increased because of the liberalization and globalization of economies that has led to increased foreign direct investment (FDI) to the region during the two and half decades since 1980. Though this region received just 0.5 per cent of the total FDI in the world in 1980, the region's share has more than doubled to 1.1 per cent in 2005. India, the largest country in the region received 0.7 per cent of world's FDI. However, since the total FDI flows to the region and exports from the region are still small, it can be expected that the employment generated by the globalized enterprises is also small. In Indian cities where a vast majority of workers continue to be employed in either manufacturing or in low wage informal services sector, this has created a great divide between those integrated with the global economy and those which are not. Foe example, in Bangalore City, so called IT hub of India, IT employees have high income. Their high purchasing power has led to retailing boom and increase in employment in high end retail outlets. But simultaneously there is an increase in the proportion of low paid manual jobs in non-IT sectors indicating heightened disparity in quality of jobs and income as a result of globalization[141].

In India's mega cities local entrepreneurs have invested more heavily than global players. For example, between 1995-2004 "in some cities, such as Mumbai, Pune, Bangalore, Delhi and Chennai, FDI has entered several sectors simultaneously. They include, IT, ITES, automobiles, hotels, metals and machinery and pharmaceuticals. However, as a percentage of total investment, FDI becomes a significant contributor to the local economy in very few cities and in only two cities, for example, Chennai and Bangalore it is the dominant type of investment. This seems to strengthen the view that, much of the growth and change in India's largest cities is driven by the internal needs of the cities themselves"[142]. In order to meet the needs of the city population, peripheries of large cities experienced change through development of townships by public and private agencies. Examples are development of NOIDA, Dwarka, and Rohini in and around Delhi by public agencies and Palam Vihar and Sushant Lok and numerous other townships by the private sector[143].

2.2. Evolution or Urban Settlements and Practice of Planning

The evolution of urban settlements and planning in Southern Asia is traced in this part of the study. Urban settlements originated in the region about 5,000 years ago in the Indus Valley of India and before the beginning of the Christian era such settlements existed in Afghanistan Iran, Nepal and Sri Lanka. However, most of the prominent cotemporary cities were established during the medieval period. In the post medieval era, Muslim rule prevailed in Afghanistan and Iran. In Nepal and Bhutan, Hindu and Buddhist influences played a strong role in determining urban form of cities. In India, Pakistan, Bangladesh, Sri Lanka and Maldives, both cities and planning practice carry imprints of the colonial era besides the heritage left behind by the Moghuls and other ruling dynasties whole ruled in this part of Southern Asia before the Europeans formed their colonies.

[140] Mahadevia, 2008a, p. 2-3.
[141] Mahadevia, 2008b, p. 91.
[142] Shaw and Satish, 2007, p. 151.
[143] Kumar, 2008.

Early Urban Civilization

The Southern Asia Region gave rise to the first known urban settlement that existed on the earth's surface as early as 3,500 BC. The ruins of two towns namely, Mohenjo-Daro and Harappa that were discovered in archaeological excavations in the Indus Valley Region (now in Pakistan) reflect on the kind of societal control that existed even at that time and manifested in the planned physical form and pattern of these settlements. Moreover, the features such as the hierarchical and rectangular street plans, separate quarters for residential, commercial and recreational uses, an elaborate network of drainage and good sanitary condition in houses amply demonstrate the principles of land use planning, placement of streets and design of service networks that were established then, and are very much in vogue today, only larger in scale and more complex in design[144]. Later, during 3000 BC – 2000 BC, Mundigak (near Kandahar) and Deh Morassi Ghun, the first urban settlement of what is now Afghanistan were founded giving rise to the belief that the original inhabitants of this area belonged to the Indus Valley Civilization of which Mundigak was perhaps a provincial capital. The modern city of Kabul is also thought to have been established during 2500 - 2000 BC.[145]

In Iran, the first city at Susa, established during 3500-4000 BC belonged to this period[146]. During the 6th Century BC, Aryans (Indo-Europeans) who had infiltrated into the country founded Persipolis - a monumental city with rectangular street pattern and developed it as the ancient capital of Persia; now known as Iran. However, the Persian kings used the place only for residence and ceremonies and the main business of government was conducted at Ecbatana and Susa – perhaps the first example of the capital functions dispersed in more than one urban settlement[147]. Videha and Kapilavastu belonging to the 6th Century BC are examples of two earliest towns of Nepal. Both were established as capital towns of local kingdoms. Videha was a planned town provided with all amenities as per the needs of those times and Kapilavastu, the home town of Gautama Budha was marked by a palace well guarded by walls and moats. Located by the side of a highway, it also flourished as a trading town. In the vicinity of the town, Lumbini Garden was developed a picnic spot (Vaidya et al, 1993: 68). Not much is known about the early urban history of Bhutan and Maldives except that the first human settlements in these areas began to appear around 2000 BC. In Sri Lanka, by 3000 BC Anuradhapura was a well laid out town which was irrigated by sophisticated systems of man-made lakes and canals, this town was a world trade center. The city was divided into several quarters and foreign traders lived in one quarter. At that time Anuradhapura was the capital of Sri Lanka148.

In India, during these ancient times, spiritual considerations began to guide societies in determining the geometrical shape and principles of land use planning and land sub-division. For instance, sites along curvilinear banks or at the confluence of rivers were considered most auspicious for habitation. Directions of moon and the sun mainly guided directions of principal axes of the town. While preparing subdivision plans, prominence was given to location of temples sites. The number and placement of squares (that essentially constituted the basic subdivisions with each square zoned for specific sets of predominant activities) were decided by spiritual considerations. Zones were also demarcated based on political and religious hierarchies. It may be noted that, since the very early days of the evolution of urban civilization, land use allocations and determination of urban form have been the prime concerns of societal and spiritual leaders who initiated planning as an interventionist measure to achieve the goal of planned urban settlements[149].

From these early times up to about 1600 AD, the period was marked by endless strife among the rulers in India and elsewhere in the region, leading to invasions across each others' territories. During this period, urban development was confined mainly to fortified towns used as headquarters by the rulers. Both Afghanistan and Iran (historically the link between the Central Asia, the Middle-East and

[144] Kenoyer, 1998.
[145] http, p.//www.megaessays.com/ viewpaper/103123.html
[146] http, p.//www.art-arena.com/chronol.html
[147] http, p.//www.art-arena.com/persepolis.html
[148] http, p.//www.mysrilanka.com/travel/history/anuradhapu_era.htm
[149] Thooyavan, 2005.

the Indian Sub-Continent) lived through centuries of foreign occupations with intermittent local dynastic rules. Arabs introduced Islam in the two countries during the seventh century A.D. In Afghanistan, Mongolians gained control of the country during thirteenth century AD From sixteen century onwards Moghuls form northern India and Safavids from Iran fought a running battle with each other and alternately controlled one or the other part of the country till 1747. After a brief period of rule by local dynasties, British and Russians began their incursions to extend their foothold in Afghanistan. Though both the imperial powers were ousted ultimately, Britain managed to rule indirectly by installing puppet regimes and keeping control of the country's foreign affairs. Afghanistan's status as a British protectorate ended in 1919 when the local king declared complete independence from Britain[150].

On the contrary, in Iran, in spite of successive invasions by the Aryans, Greeks, Arabs, Mongols, and Turks which molded the nation's culture through rich and diverse philosophical, artistic, scientific, and religious influences, the Islamic rule once established in the seventh century AD has continued uninterrupted till today with the only difference that dynastic rule ended in 1979 when Iran officially became an Islamic Republic[151].

By the beginning of the sixteenth century, most of the region had begun to be occupied by colonial regimes spearheaded by the British, Portuguese, and the Dutch except Bhutan and Iran which were never colonized. In fact Bhutan, despite many wars with Tibet, and some rough encounters with the British always managed to retain its independent status, except that under a treaty in 1910, Bhutan allowed Britain to manage its foreign policy and this role was assumed by independent India after 1947[152]. Likewise, Nepal has always been ruled by local kings but there was a period of British influence during the world wars when Gurkhas were being recruited for British war efforts. In Sri Lanka, Portuguese arrived early in 1505 followed by the Dutch and the British declared Sri Lanka a crow colony in 1818[153]. During all this period of war, conquests and colonization in the region, the medieval and colonial periods stand out as regards development of towns and urban landscape features such as gardens and green open spaces as key recreational resources. History of development of urban settlements hereafter is divided in two subsections, one for countries such Nepal, Bhutan, Afghanistan, and Iran that were never colonized and other for countries such as India, Bangladesh, Pakistan, Maldives and Sri Lanka which were British colonies for long periods.

The Medieval Period Onwards

This sub-section categorizes the countries in the region in two groups. Countries such as Nepal, Bhutan, Afghanistan and Iran are included in the first group. These are those countries, which were never colonized and largely their cultural and religious factors continued to shape the evolution of cities during medieval and contemporary periods. The western influence as seen in urban planning practices is more a result of the contemporary challenges and responses to deal with magnifying urban problems. In second group countries such as India, Pakistan, Bangladesh, Sri Lanka and Maldives are included, which remained under colonial rule for a long period of time and in these countries, cities exhibit definite colonial imprint be they of Portuguese, Dutch, French or British origin.

Nepal, Bhutan, Afghanistan and Iran

Cities in Nepal are characterized by a centrally located fort, and temple, fortification wall, protective motes, a geometric urban form shaped as per religious considerations, irregular street patterns, narrow lanes and good sanitation in the initial stages of development during the medieval period. Examples include Kathmandu also referred to as Kantipur by the native people of Kathmandu Valley and

[150] http//www.afghangovernment.com/briefhistory.htm
[151] http//www.art-arena.com/qajar.html; http, p.//en.wikepedia.org/wiki/Iran
[152] http//wikitravel.org/en/Bhutan
[153] http//www.saarctourism.org/

presently Nepal's capital city. Though, more than 1,500 years old, the city developed mainly in the 17th Century. Centrally located royal palace with the sculpture of Hindu gods decorating the main gate, and a temple dedicated to Hindu goddess – a deity of the king's family located adjacent to the palace dominated the urban form of the town. After 1707, the town was fortified with walls and a moat. Though irregular in shape, the natives believe that the moat is in the form of the sword of a Hindu goddess. Sanitation was initially in good shape but deteriorated badly and so did the living condition of the people. By the end of the 19th century, Kathmandu was characterized by slums, one located in the very heart of the city in contrast to well decorated palaces of the kings. While thousands of acres of land were acquired for constructing places, owners were given little compensation. Later, the kings built palaces on these acquired lands at the cost of the welfare of the common people. After the earthquake in 1934, parts of the city were completely raised to ground. Thus a new town, a new market, a park, wide roads and well plastered houses were built in a planned manner as exhibits to impress the foreigners (especially the British)[154].

Patan, another historical town located in the Kathmandu Valley was designed in an abstract geometrical shape of the wheel of Buddha – circular form. Many monasteries were built in the town as the town was inhabited by a large number of Buddhists. City was divided into localities demarcating influential areas of monasteries. It is a city of palaces, monasteries and *Chaityas*. Though town square is still well maintained, town's sanitation like that of Kathmandu deteriorated over time and buildings became dilapidated.

Lalitpur, the third important historical town of Nepal was also well developed during 1661-1684. Its main physical features were well paved roads and the whole town was surrounded by huge walls and moats. Beautification of towns was emphasized through archways, gateways and sculptures, temples were constructed, stone water conduits were made to supply drinking water, and drains were also well maintained.

Bhaktapur, an important historical city of Kathmandu Valley and an erstwhile capital city of Nepal, like Kathmandu and Lalitpur was fortified during later stages of the development of the town. This town developed on the same pattern as the other two major towns in the valley, though it managed to maintain it sanitary environment and streets and buildings in relatively good shape[155].

The urban form of Bhutanese cities is dominated by dzongs (Bhutanese fortresses) and monasteries but unlike Nepalese cities, these were never fortified with protective walls or moats. For example, Thimpu - the capital city has developed around the sites of a dzong which existed since 1216 and a monastery that was constructed in the 15th century. Another dzong was built in the 18th century to house government officials. Later it was enlarged to accommodate both the monastic and civil bodies. Much of the historic building dates from the rebuilding in 1902. The city's development process picked up after the king declared it as the new capital of Bhutan in 1961. To accommodate the national government and the central monastic body, this dzong was totally refurbished and enlarged in 1962. Currently, the town is undergoing extensive development with central focus on contemporary features such as a park cum open air theatre around the dzong reflecting the cultural lifestyle in the kingdom, government buildings, and commercial establishments such as shopping complexes, restaurants and hotels. Recreational amenities such as wild life sanctuary, botanical garden and parks already exist[156]. The history of Jakar, the other important town of Bhutan, dates back to 14th century castle that exists here. A monastery was built in 1501 and a dzong in 1667. It is the most picturesque town of Bhutan and the cluster of villages which are collectively known as Jakar Town are located around the dzong which is situated on a hill top. It is considered as the birth place of Buddhism in Bhutan. Today, it is headquarter of the northern district in Bhutan. Many monasteries and sacred sites are located here. A palace built in 1857 is the other landmark[157]. Paro is a historical town with many sacred sites and historical buildings. Dzong was constructed here in 1646 and the first monastery was not constructed until 1694[158]. Punakha was the capital of Bhutan until 1960 with palace and dzong as

[154] Vaidya, Manandhara and Joshi, 1993, p. 83-85.
[155] Vaidya, Manandhara andJoshi, 1993, p. 7.
[156] http//wikitravel.org/en/Thimphu
[157] http//wikitravel.org/en/Jakar
[158] http//wikitravel.org/en/Paro

the main attractions. Along with Paro and Jakar, Punakha completes the triangle of most popular tourist destinations[159].

While Nepal and Bhutan reflect Hindu and Buddhist influences, cities in Afghanistan have developed in Islamic mould. The capital city Kabul, Herat, Mazare Sharif and Kandahar which prospered during the medieval times are marked by grand mosques, shrines and mausoleums, tombs, palaces, fort, traditional houses and bazaars, baths, pebbled streets, gardens and recreational places. The towns now have two distinct sections. One, the old section, the traditional part which now is often inhabited by the poorest people with highly congested streets filled with sewage and filth, and dilapidated buildings that lack basic services. The other part that may loosely be described as the modern extension to the old town is where administrative and commercial buildings and shopping establishments have been developed. Except Ghazni, these towns did not have protective walls. Moreover, compared to cities in other parts of Asia, towns in Afghanistan have till recently managed to retain their heritage character, though lately in cities like Kabul and Herat, taking advantage of the property boom after the fall of the Taliban in 2001, developers are demolishing sections of the traditional city to construct concrete shopping malls and Western villas[160].

In the traditional Iranian cities, the principal foci were the central mosque along with shrines, the fortress and the bazaar – the main commercial center where trading activities co-existed with household industries that were engaged primarily in the manufacturing of carpets. The protective walls, caravanserais and insular urban structure created by basic residential units comprising dwellings built over several stories around a common courtyard with clusters of such dwellings occupied by members of the same extended family were the distinctive features of these cities. The bazaar itself, as a center of the social and religious life contained a large proportion of the city's mosques and shrines and many '*hammams'* (bath houses) and 'zorkhanes' ('House of Strength' – a club for traditional Iranian athletes, often drawing a large part of its membership from traders in the bazaar)[161]. These cities were generally marked by separate quarters for people of specific ethnic and religious backgrounds. As such minority groups were segregated from Muslims; for example, Zoroastrians of Kerman were forced to live outside the city walls[162] and in Esfahan City the large Armenian community forcibly transplanted from Azerbaijan in the sixteenth century was settled across the river[163]. The traditional Iranian cities experienced very little physical planning, except in the few cases where the monarchs implemented grandiose projects such as tree lined boulevards for ornamental purposes.

The traditional character of Iranian cities began to change due to rapid increase in urban population during the twentieth century. Iran's urban population increased at the average annual growth rate of 4.4 per cent between 1926 and 1956 and the growth rate accelerated to 5.3 per cent during 1956-1966[164]. 'The most important factor affecting this growth has been the government's changed role confined almost exclusively in the past to the collector of taxes, conscriptor and keeper of an often precarious peace, to that of major investor in health and welfare services, educational facilities, infrastructure, industrial and agricultural development'[165]. Mixed private and public investments helped the growth of cities such as Abadan based on oil refining and Karaj with its booming textile and engineering industries. The rural-urban migration resulted in 'overdeveloped tertiary sector in several cities with unemployment and under-employment a common feature'[166]. The pressure of population and demand for better standards of housing pushed much new building outside the walls of old urban areas. In the absence of planning controls, speculators dictated the location and extent of building activity. However, urban development as a whole was facilitated by the opening of many towns and cities with new roads at the time of Reza Shah (1925-41). Much social and economic disruption took place when houses were torn down for the roads and inhabitants resettled in suburban

[159] http//wikitravel.org/en/Punakha
[160] http//jeremiahandrews.wordpress.com/2007/03/10/turquoise-mountainfoundation
[161] Clark and Costello, 1973, p. 101.
[162] English, 1966.
[163] Clark and Costello, 1973, p. 100.
[164] Bharier ,1968 after Clark and Costello, 1973, p.105.
[165] Clark and Costello, 1973, p. 105.
[166] Clark and Costello, 1973, p.105.

areas. Many of the Iran's bazaars were dissected by the new boulevards and often government and religious authorities were engaged in bitter conflicts when schools, hospitals and roads were constructed over graveyards and around shrines[167].

With time, as the pressure for higher order central area functions increased, older residential and commercial areas in city centers became blighted zones where poor quality high density housing is found. These areas now act as reception centers for the migrants. Big houses, broad tree-lined avenues, `*maidans'* (open spaces) and modern retailing facilities in relatively low density new parts of Iranian cities contrast with the dense jumble of houses, pathways and cramped bazaars of the old. The end result of this kind of development in larger cities has been 'to create cities which have dual personality and form with what might be called as Western and non-Western parts, broadly similar to the pattern in India'[168] and some other parts of Asia, Middle Eastern countries and Africa. Land values also show this bi-polarity, with two maxima, one around the shrine area in the centre of the old parts of city and other in the new town center.

Iranian city, when understood from the perspective of orientalists, stands out, like other cities in the Middle East as an Islamic city – a settlement `… in which (a Muslim's) religious duties and his social ideals could be completely fulfilled'[169]. According to von Grunebaulm, an Islamic city included two central institutions – the Friday mosque and the market – with a hierarchy of trades outward from the mosque, the division of residential space into numerous wards or quarters, a maze of twisting streets, and a series of other and less clearly defined features. Iranian cities are also seen fitting to this organic and irregular pattern. Until Reza Shah assumed throne in 1925, in almost all Iranian towns, no main street ran straight, even for a short distance. It was during Reza Shah's regime that rectangular grid pattern of streets were superimposed on cities without any consideration for even the largest complexes of buildings[170].

A Russian scholar, who lived in the city of Yazd in central Iran during 1898-1899, observed that in the city "as a general rule, streets are oriented in two general directions, to the north-east and to the north-west, crossing at right angles[171]. Wide avenues built through the city during the twentieth century follow the same pattern as the older linear streets. Thus the grid network of Yazd and other Iranian cities may not be in the mould of classic grid pattern as adopted in Indus Valley towns of Ancient India, yet there is a distinctly geometric configuration to these Iranian cities. Several reasons are given as to why the streets in Iranian cities "are not the labyrinth of twisting passageway postulated for Islamic city"[172]. One of the reasoning derives from the Muslim religious practice of facing Mecca while "praying and so `*mihrab'* or niche of a mosque must face in the direction (the `*qibla'*) of that Holy City". Mosques are generally rectangular in shape and in Iran; the qibla wall must be to the South-west, in the direction of Mecca. Streets often parallel the mosque and the grid system might have developed from the extension of streets around the central mosque – oriented perpendicular to and toward the South-west[173]. Ansari and Shaheer reached similar conclusions in respect of Shahjahanabad – the old city of Delhi which was built by the Moghuls during the mid-seventeenth century and was predominantly resided by Muslims[174].

India (including the present Pakistan and Bangladesh) and Sri Lanka

In India (including Pakistan and Bangladesh as these two countries were part of India before 1947), the period from 16th century AD to 19th century AD coincided with what is known as Moghul Period. During this period, the scope of urban development was extended from building capital cities as well as fortified strongholds to defense outposts, trading establishments near ports, and military

[167] Clark and Costello, 1973, p. 106.
[168] Clark and Costello, 1973, p. 108.
[169] von Grunebaulm,1955 after Bonine, 1979, p. 208.
[170] de Planhol ,1959, p. 32 after Benine 1979, p. 210.
[171] Benine, 1979, p. 210 after Shetalov, 1907, p. 60.
[172] Benine, 1979, p. 211.
[173] Benine, 1979, p. 213.
[174] Ansari and Shaheer, 1980.

cantonments. This was the period when Moghul Gardens in their typical geometrical style and terraced forms for careful husbanding of water resources and productive use of land embodied in the cultural landscape of ancient Persia were incorporated as part of the existing cities such as Lahore, Delhi, Srinagar. Also during this period major foreign influences, specifically of French and Italian Renaissance origin could be seen in planning and design of buildings, palace complexes, and gardens. Shahjahanabad in Delhi built by the Moghul Emperor Shahjahan in 1648 and Fatehpur Sikri built a few decades earlier, which housed Akbar's residential quarters, are two of the finest examples of urban design of this period. These are now great treasures of heritage and conservation.

Jaipur city established during the Moghul rein by a Hindu Maharaja in 1728, now popularly known as the Pink City (after the color of the stones used for constructing buildings) is another good example of a planned city. Although planned and built during the medieval era, the city's layout with emphasis on cardinal directions and the main deity located at the geographical center of the city was detailed in consonance with the principles put forth in the Hindu scriptures of ancient India. This trend continued as emperors and maharajas dictated planning of towns and cities during this period with accompanying emphasis on land use planning and geometric shapes.

In India, the influence of Moghuls was replaced by the westerns colonizers, mainly the British. Though the Portuguese built 'port enclaves in India dating back to the sixteenth century, followed later by Britain and France, and trading companies were active from the mid-eighteenth century, the main colonial period began with the British Government's direct rule of India from the mid-nineteenth century to 1947'[175]. The colonial powers, chiefly the British, influenced the planning and development of human settlements in a major way in not only the Indian sub-continent but also the countries like Sri Lanka and Maldives to which the empire extended.

In India particularly, the British colonial rule left many imprints on Indian cities and towns. Firstly, to suit their own trading interests and provide a habitable living environment for their civil and military officials, the British developed cantonments, hill towns and administrative centers. Except for building New Delhi as a new town, the British concentrated on existing urban settlements when choosing provincial capitals. Many of the cities such as Chennai (Madras), Mumbai (Bombay) and Kolkata (Calcutta), which were actually port cities and Delhi, the capital city, were essentially administrative and commercial centers, which also attracted industries later on. All these mega cities are now hosting more than 10 million persons each[176].

In each of the cities that the British nurtured, they introduced new forms of segregation (as opposed to indigenous caste based segregation) that imparted dualistic character to cities. Here the cities had one distinct feature that the residential areas for the colonial masters were separated from those for the native population. For instance, Karachi became divided into the native city, consisting of the old pre-British town and its suburbs, and the European city comprising the cantonment, civil lines and 'Sadar Bazar' [the main commercial district)]. The areas used by the British population were markedly better in regard to the layout, amenities, entertainment, and commercial activities. In the hill stations, natives lived at lower levels whereas the strategic and scenically picturesque locations with accompanying amenities were reserved for the white population. These cities also developed with two city level shopping centers, one originally developed for the British population with up market amenities and the other for indigenous people. Invariably, these cities also have what is popularly known as the 'civil lines' – essentially low density residential areas with bungalow type houses, which the British had built for themselves. Such residential pockets are quite in contrast to the rest of the city where relatively high density row housing is generally the norm[177].

Besides building cities and developing infrastructure, the British contributed greatly to the evolution of planning thought and instituted the necessary legal and institutional framework. They imported many planning practices from England and focused on instituting a kind of urban governance system that suited their own imperial objectives[178].

[175] Jenkins, Smith and Wang, 2007, p. 104.
[176] Jenkins, Smith and Wang, 2007, p. 105-06; Thooyavan, 2005, p. 14.
[177] Thooyavan, 2005, p. 14-15; Jenkins, Smith and Wang, 2007, pp. 125-27; Siddiqui and Siddiqui, 2004, p. 276.
[178] Ansari, 1977, p. 9.

They created municipalities in many towns and cities in the middle of the nineteenth century. Initially, persons nominated by the empire governed these municipalities. Later, in response to the intensifying independence movement and the fierce demand of Indian politicians, the British decided as a conciliatory gesture to convert municipalities into representative bodies to be governed by the elected representatives of the people. But before doing so they decided to create improvement trusts and the first such trust, namely the Bombay Improvement Trust was established in 1898 under the Bombay Improvement Act of the same year. Under the Act, the trust, which had only nominated persons on its governing board, was empowered to draft and implement town planning schemes in the area under its jurisdiction. The reason for creating a special authority, separate from the municipality, for planning and execution of capital projects had a political intent as pointed out by Rosser:

> *Improvement trusts (were) set up by the British in the belief that capital development works could not be entrusted to the local self-government corporations and councils, which they had handed over to the Indian politicians*[179].

The trust acquired land under the Land Acquisition Act, 1894, subdivided the land and sold the plots for private ownership and developed land in accordance with prescribed rules. Such trusts were later established in many cities. However, development of two parallel bodies for planning and development at local level led to frictions due to overlapping functions and the blurring of division of responsibilities and this initiated the process of multiplicity of authorities that became a major issue of governance after independence.

Next, the British influenced new thinking in the practice of planning. Sir Patrick Geddes visited India during 1915 – 1920 and advocated an integrated approach to planning based on comprehensive surveys as compared to piecemeal planning that was in vogue. He also advocated the idea of comprehensive planning; essentially meaning that planning should not be interpreted in a narrow physical sense but as a multidisciplinary activity also covering the social and economic aspects of cities. Influenced by the Geddesian philosophy, planning in this part of the world discarded the piecemeal approach and moved toward a more rational three step survey-analysis-plan methodology which was already an established planning practice in the UK[180].

The garden city concept is the other major importation of the British planning thought that was applied first in the planning of New Delhi, the colonial empire's new capital city, built during 1911-1931 and later replicated in many other cities. Especially, the green belt concept that Howard proposed around major urban centers as a means to limit their growth and maintain some rural character near cities was extensively applied in the planning of cities during the post colonial era[181].

Besides the import of planning ideologies, the British impact is also strongly visible on the planning legislation. The first town planning acts legislated in India during 1915-1920 which were a consequence of the planning efforts to improve living conditions of a large mass of people residing in sub-standard housing in slums in oppressive conditions could be cited as a parallel to similar efforts being made in Britain to deal with the poor conditions of living in tenement housing for industrial labor in British towns in late 19th and early 20th centuries that led to the first British Town Planning Act of 1909[182].

Although planning of new towns and development of the existing urban settlements continued to display the influence of western planning thought, ethnic considerations began to play a major role in organizing the city structures. The postcolonial era in the Indian subcontinent saw the birth of two new nations: Pakistan in 1947 when India was partitioned on the eve of independence and Bangladesh in 1971 when what was erstwhile East Pakistan ceded from the parent state. Sri Lanka also got independence from the British in 1948. Post colonial cities thus exhibited strengthened tendency of ethnic and religious segregation. Since India was divided on the basis of religion, Urdu, Punjabi and

[179] Rosser, 1971, p. 80.
[180] Ansari, 1977, p. 10 after Tyrwhitt, 1947; Jenkins, Smith and Wang, 2007, p. 109.
[181] Ansari,1977, p. 11.
[182] Ansari, 1977, p. 11.

Bengali speaking Muslims from India who migrated to Pakistan (eastern part of which is now Bangladesh) settled in exclusive areas dominated by refugees. Likewise in India refugee colonies and refugee settlements were established for mainly Sindhi and Bengali speaking Hindu migrants from the newly created Pakistan. Later, the ethnic considerations were reinforced by economic factors. In Karachi, middle and lower middle classes among the Urdu speaking population are concentrated in the northern parts of the city. The older squatter settlements, which developed in the northern parts, are inhabited mainly by Urdu speaking poor population. The Punjabis, Sindhis, the Baluchis, the Bengalese and the Pathans occupy different segments of the city[183]. However, after independence the colonial legacies inherited in the form of planning concepts and practices, legislative framework and institutions not only continued to operate but were supplemented with the help of cultural, political and economic links that encouraged fresh imports of new planning mechanisms and models from the West, essentially the UK. For instance, in India, like the first set of acts that were framed during the colonial era on the basis of the British Town Planning Act of 1909, the new generation town planning acts in the 1950s were fashioned as per England's Town and Country Planning Act, 1947. These new set of acts, like the English acts, required municipalities to prepare master plans - a coordinated set of proposals for physical development of the whole town rather than parts of it, taking into account not only the present needs of the people but also the future requirements. These acts also provided legitimacy to professional planners to control urban development of all types. But there was a serious shortage of professionals for conducting comprehensive surveys, analyzing data, developing in depth understanding of urban problems and issues and then preparing detailed development plans for towns and cities[184].

The shortage of plan making skills within the country led to planning experts being invited from the West to assist planners in the home country to execute major urban planning assignments. Moreover, from 1950s onwards growing international networks and new international organizations served as a means for diffusion of planning knowledge to this part of the world. Furthermore, in the absence of planning schools in the entire Southern Asia Region, it was the planners with foreign degrees from institutions in the West who, by and large, occupied high positions in planning offices. 'Through these channels, Western 'expertise', with its assumptions, values and mechanisms were brought along with techniques and goals of planning. In this approach, there was an implicit environmental determinism, which pursued 'physicalist' solutions to social, economic and political problems, transferring standards and norms from the West where economic and cultural experiences were radically different[185].

2.3. Contemporary Planning Issues and Practices in the Indian Sub-Continent

Led by the western value systems and ideologies, planning approaches and practices that were developed in this part of the world were often found to be deficient in many respects since these failed to address the key indigenous issues of massive urbanization and poverty. One of the key planning instruments, the master plan projected as the official blueprint for the planned development of a town or city is heavily criticized by politicians, scholars, a section of academia and practicing planners for shortcomings that arise largely from Western inspired elitist approaches that were used in preparing the so called 'comprehensive' plans[186]. Conceived within the 'command and control' framework, the master plan is expected to be the most potent form of government intervention designed to correct real estate market distortions and amicably resolve land use conflicts through the application of zoning and subdivision regulations. But these interventions are invariably not effective in achieving their objectives[187]. One of the reasons is lack of planning and assessment of needed financial resources relating to infrastructure development at implementation stage.

[183] Siddiqui and Siddiqui, 2004, p. 280.
[184] Kumar, 1992; Ansari, 1977.
[185] Jenkins, Smith and Wang, 2007, p. 113 after King, 1990, p. 55-56.
[186] Farvaque Mc Auslan, 1991.
[187] Jenkins, Smith and Wang, 2007.

Master planning, generally undertaken, for instance in a large country like India, by the directorates of town and country planning in various states or by the government at the centre itself in a relatively small country like Bangladesh, directs planning and provision of infrastructure in new and existing areas. However, the development authorities which have the responsibility of implementation of these plans often do not have the necessary managerial and financial resources to construct necessary infrastructure facilities. In old and existing areas, infrastructure is provided by the municipalities in conformity to the broad proposals contained in the master plans. But they too have paucity of funds even to maintain the existing infrastructure. There are instances where completed projects by development authorities have not been made operational because municipalities have refused to take over the maintenance liabilities.

The process of preparing the plans is long drawn and time consuming. The plans, though painstakingly prepared, are grandiose in nature and incorporate such unrealistic norms and standards, largely copied from the western examples, that they are hardly ever implemented. For instance, the Delhi Master Plan as enforced in 1962 had provided for a minimum plot size of 100 sq. yd (80 sq. m approximately), which was clearly unaffordable by the large majority of inhabitants. Likewise in the central India's Uttar Pradesh State, '… specified minimum plot size and infrastructure, at the levels established under the Regulation of Building Operations Act of 1958, were affordable only by households at or above the 95th percentile of the urban income distribution'[188]. The people who could not afford these standards, however, settled themselves in cities anyway by establishing unauthorized colonies and squatter settlements. In view of these observations, critics point out that a major failure of the master plan process is not only that it has failed to address the problems of the poor residing in slums and squatter settlements, but in fact, master plans have aided and abetted the formation of illegal low income settlements.

Box 6: Two Major Master Planning Efforts in Southern Asia

Two Projects, one for preparation of Master Plans for New Delhi, India's capital city and the other for creation of Chandigarh, the new capital city of the northwestern state of Punjab are examples of significant urban planning and town development efforts initiated in the region immediately after the end of the colonial area. Both projects went to foreign consultants from the West, left a lasting impression on the minds of Indian planners, and set the agenda for master planning in the future years. Begun in 1950 and designed by the French architect Le Corbusier, the master plan for the new city Chandigarh was conceived in the form of residential, commercial and industrial sectors with rectangular grid pattern and green arteries crisscrossing the city from one end to the other, both laterally and longitudinally and a green belt around it. This model of structuring cities was later emulated in cities after cities as part of master plans including the one for Delhi. Begun in 1957, the Master Plan for Delhi was conceived in the form of planning divisions that were proposed to be self-contained in terms of residential areas, work places, shopping and other requirements. The planning divisions were further structured in the form of a hierarchy of residential units ranging from a housing cluster (built around a nursery school and a tot lot) at the lower end of the hierarchy and a district around a district center comprising of commercial establishments, community facilities, and cultural and entertainment complexes at the upper end. The Delhi plan, while replicating the Chandigarh plan's concept of green arteries running through the length and breadth of the city and a green belt around, introduced two new concepts of: a) land use zoning; and b) planning the city in the context of its region. Unlike the existing British colonial legacies abundantly evidenced in the city and elsewhere in the country, these new ideas were of American origin and were incorporated in the city's plan by the group of American planners who headed the master planning team for the city and were appointed as consultants with the help of the aid package contributed by the Ford Foundation. As such, whereas zoning and sub-division regurgitations were included in the master plan as part of implementation mechanism, two policy zones around the city, namely, the Delhi Metropolitan Area (DMA) and the much larger National Capital Region (NCR) were proposed with the twin objectives of a) integrating the development of the city with its region; and b) limiting the population size of Delhi by introducing measure that would make areas beyond the boundaries of Delhi more attractive to potential migrants. However, to this day there is no evidence that this objective is achievable in the near future. Rather the city has maintained a robust rate of growth of population of around 55 per cent per decade during the last four decades (1951-2001). Besides, Green belts around both Chandigarh and Delhi were hugely violated as village settlements in the two belts expanded in uncontrolled manner and large number of sub-standard unauthorized colonies were built. In addition, developers constructed big residential complexes for the super rich on plots meant for 'farmhouses' that were provided for in the green belts to

[188] United Nations, 1993, p. 2-40 after World Bank, 1983.

maintain their rural character. Some of the farmhouses are also used for commercial purposes adding extra burden on existing infrastructure.

Source: Ansari 1977; Government of India, 1962; E.F.N. Ribeiro Associates, 2000.

While emphasizing physical planning and civic design aspects, these plans touched upon the social and economic dimensions of the proposals only peripherally. Little attention is paid to the importance of setting development priorities in the light of the fiscal and administrative constraints of governments that are ultimately responsible for implementing the plans. Critics also suggest that master plans, if truly comprehensive, should be able to show what integration and forethought can achieve in terms of resolving urgent needs of the urban community, while economizing on scarce municipal funds and mobilizing resources through partnerships[189]. What emerges instead is largely a bundle of half-baked ideas incorporated into proposed land use plans that planners insist should be implemented in its entirety at all costs.

The framers of master plans aspire to prepare 'perfect' plans: once-for-all statements about the future shape of cities 20 or 30 years hence (Box 6). Quite often, one of the objectives of this plan is to try to restrict the population size of the city based on the notion that beyond a certain size cities become unattractive due to the negative impact of congestion, pollution and social fear of conflicts arising out of the concentration of the poor. But in a rapidly urbanizing world, the projections on which long-term plans are based generally go haywire. The need for change arises almost as soon as the implementation process begins. The population size projections are revised upwards as plans never succeed in keeping the city size within the stipulated limits.

Furthermore, the conventional master plans are prepared through a top down approach, with limited participation of stakeholders and hardly any consultation with the private sector. Even if well prepared with all the available inputs for satisfying the demands of logic and reason, a plan that aims at addressing development needs in an integrated manner needs to be backed by well-oiled administrative machinery, which simply does not exist. Instead, for instance in India, a plethora of organizations has emerged in the form of development authorities, housing boards, infrastructure development corporations, slum clearance boards, line departments of the central, state and municipal governments, and parastatal agencies such as water supply and sewerage disposal undertakings and electricity boards. Simultaneously, legislations providing statutory backing to the organizations have multiplied (Table 18). Multiplicity of organizations is a problem in Bangladesh also. For instance, directly or indirectly about 42 agencies are involved in land development activities in Dhaka Metropolitan Area, of which four are national level agencies, 28 are sectoral, five are special agencies and five others which operate at local level[190]. In Sri Lanka, the development of urban lands is carried out by a variety of public development agencies. The central government's Urban Development Authority (UDA) steers economic, social and physical development of urban areas. There are four other national level sectoral agencies looking after the development of railway land, land for port related activities, and housing. Urban local authorities engage in the development of their land and also intervene in land development by other agencies, by enforcing the planning and building regulations specified by law[191]. These organizations are often found to be working at cross-purposes and add to the problems related to implementation of the plan. Multiplicities of legislation with overlapping provisions add to the overall confusion thereby hindering the enforcement process[192] (Table 18).

[189] Farvaque and McAuslan, 1991.
[190] Islam, 1998, p. 30.
[191] Mendis, 1998, p. 210.
[192] Ansari, 2004b.

Table 18: Scope of Planning, Related Institutions and Legislations in Bangladesh, India, Pakistan and Sri Lanka

Country	Scope	Institutions	Legislations
Bangladesh	• Land use Master Plans for secondary and small towns • Master Plans for Metropolitan Cities • Development Plans including Master/Structure Plans, Zonal Plans, detail area plans etc. Development of land • Loans for construction of Houses • Record of Registration and Transactions of Land • National Housing Policy 1993	• Ministry of Housing and Public Works • Urban Development Directorate (UDD) • Development Authorities in Metropolitan cities under the Ministry of Housing and Public Works • City Corporation of the Ministry of Local Government • Municipalities • Housing and Settlement Directorate • Public Works Department • Water and Sewerage Authorities • Government Department such as power development board, Gas Authority, Telephone and Tele-communication Department etc. • House Building Finance Corporation • Directorate of Land Records of the Ministry of Land	• Land Acquisition Act of 1824 and amendments in 1870, 1894, 1947 and 1982 • Town Improvement Act of 1953 • East Bengal Building Construction Act of 1952 • Municipal Administration Act of 1960 • Municipality Ordinance of 1977 • The Environmental Pollution Control Ordinance of 1977 • Emergency Acquisition of Property Act of 1948 • The Acquisition and Requisition of Immovable Property Ordinance of 1982 • Registration Act of 1908
India	• Beautification and Road Widening Projects • Town Planning Schemes	• Municipalities	• Municipal Acts • Land Acquisition Act
	• Master Plans	• Town Planning Departments in states • Urban Development Authorities • Improvement Trusts • Parastatal Agencies such as Housing Boards, Slum Clearance/Improvement Boards, Infrastructure Development Corporation Acts	• State Town Planning Acts • State Town and Regional Planning Acts •Urban Development Authorities Act • City Improvement Acts • Improvement Trust Acts • Housing Board Act • Slum Areas (Improvement and Clearance) Act • Infrastructure Development Acts
	Controls	• Delhi Urban Arts Commission • Designated Government Offices in the center and states • Designated Government Offices in the center and the states Environmental Information	• The Delhi Urban Arts Commission Act • Urban Land (Ceiling and Regulation) Act • Rent Control Acts

		System (ENVIS) • Pollution Control Boards	• National Environmental Act • Pollution Control Acts
	New Town Development	• City and Industrial Development Corporation • City Industrial Development Authority	• Industrial Development Acts
	Metropolitan Regional Plans	• Metropolitan Regional Development Authorities • National Capital Region Planning Board	• Metropolitan Regional Development Authority Act • National Capital Region Planning Act
	Disaster Management	• National Disaster Management Authority • National Institute of Disaster Management • SAARC Center for Disaster Management	• National Disaster Management Act • Disaster Management Acts in the states
	• National Housing Policy • National Policy on Slums	• Housing and Urban Development Corporation (HUDCO) • Human Settlements Management Institute (HSMI) • Town and Country Planning Organization (TCPO) • National Institute of Urban Affairs • National Committee on Environmental Planning and Coordination (NCEPC)	
		• Institute of Town Planners, India (ITPI) • Educational Institutions	
Pakistan	• Master Plans	• Karachi Development Authority • Karachi Building Control Authority • Sindh Katchi Abadi Authority • Karachi Water and Sewerage Board • Karachi Electricity Supply Authority • City District Council and City District Government • Town Councils and Town Administrations • Union Councils and Union Administrations • Citizen Community Boards • Cantonment Boards	• Sindh Building Control Ordinance, 1979 • Sindh Local Government Ordinance, 2001 • Sindh Katchi Abadi Act, 1987
Sri Lanka		• Urban Development Authority	• Sri Lanka Rent Act

		of Central Government • Sri Lanka Reclamation and Development Corporation • National Housing Development Authority • Sri Lanka Ports Authority • Urban Local Authorities • Coast Conservation Authority • Central Environment Authority	• Ceiling on House Property Law • Land Acquisition Act, 1950 • Town and Country Planning Ordinance of 1946 • Urban Development Authority Law • Act No. 57 of 1981 • Act No. 47 of 1980 • Urban Development Projects (special Provisions) Law No. 2 of 1980 • State Lands (Recovery of possession) Act No. 7 of 1979 • UDA Law No. 47 of 1978 • National Housing Act • Act No. 4 of 1978 • Urban Development Authority (Amendment) Act of 1982 • Urban Development Authority (Amendment) Act No. 49 of 1987 • Land Reforms Law No. 1 of 1973 • Ceiling on House Property Law No. 1 of 1973 • Amendment to Apartment ownership law No. 11 of 1973
	• Land supply for infrastructure • Supply of land for housing • Provide incentives private capital for urban development • Ceiling on the ownership of agriculture land • Ceiling on housing units own by a household	• Board of Investment	

Source: Developed from Ansari, 1998; Islam, 1998; Mendis, 1998 and Siddiqui and Siddiqui, 2004

The confusions arising out of the multiplicity of otherwise elaborate organizational and statutory support and intrinsic weaknesses of the master plan result in obvious failures in the implementation of the plans. Yet the irony is that despite the implementation problems, the main concern of town planning departments is to prepare more such plans. Alarmed by the rising criticism of the master plan in India, the Ministry of Urban Development organized a national conference a few years ago on the theme, 'Alternatives to the Master Plan'. After extensive discussions and debates extending over three days, the meeting concluded that the only alternative to the master plan is a 'better' master plan! Would that mean a more meticulously prepared master plan, a structure plan, a strategic plan, an innovative combination of all these, or a new concept altogether?

2.4. Reforms and New Planning Practices

There is a need to think afresh about the broader urban land management and governance frameworks, including institutional structure and capacities, coordination mechanisms, implementation procedures and resource mobilization. There is also a need for carefully thought through, forward looking land legislation and development policies. The rigid and time consuming master planning approach needs to be replaced by a workable alternative that would address the key urban challenges in a positive manner rather than by applying excessive controls. Above all, changes should be brought about in the nature of planning education in a manner that it would help in producing planners, who would think innovatively, be instrumental in introducing much-needed changes in the practice of planning and the associated legislative, institutional and financial frameworks, and ensure better implementation of plans.

Limited supply of serviced land is presently the bane of many urban problems and any effort to deal with the issue requires a thorough understanding of the factors that cause it. Presently, time consuming, unduly cumbersome, and costly procedures related to the maintenance of records, registration of land titles, transfer of ownership, infrastructure development, building permission and completion certificates are major hindrances in the supply of serviced land. Besides, ineffective land policies of development authorities and unrealistic regulatory measures for assembly, subdivision and use of land have quite often been responsible for large chunks of land being kept away from the formal market, and used inefficiently and inequitably. These lands are ultimately exploited for speculative purposes and developments violating planning and development control norms leading to many urban problems whose nature and intensity are such that they call for wide-ranging reforms and innovative improvements in the various aspects of urban land management. These issues are common in most Southern Asian countries particularly India, Bangladesh, Pakistan, Sri Lanka and Nepal. The suggested reforms relating to each aspect have been described briefly in the succeeding sections.

Land Records and Information Systems

In the countries of the region, planners face major limitation that base maps of cities, particularly rapidly growing metropolitan cities, are often hopelessly outdated. Large areas of cities that have been built upon in the recent past are not shown on the map. The process of updating these maps through field surveys is highly cumbersome and time consuming which delays urban analysis and plan preparation. Remote sensing and satellite imaging techniques and geographical information system (GIS) are efficient tools for producing and updating maps. It is encouraging to note that now some cities are making use of these techniques for digital base mapping and quick updating, but the applications are too few in number. For instance, for the Master Plan 2020 for Karachi City and many other Pakistani cities, the base maps and land use maps have been prepared using satellite technology[193]. The utility mapping project in Delhi covering an area of about 1,500 sq km on a scale of 1:1000 has recorded information in GIS format on various factors such as population density, land use, transportation corridors, mass-transit patterns, sewer lines, water lines, and other utility lines. This will surely enable a more accurate analysis of ground conditions accelerating the preparation of master plans. Municipal corporations are also utilizing services of experts in satellite mapping of cities, which will also be used for identifying illegal and unauthorized structures. This system will also complement the GIS method for assessing property taxes and its collection[194]. There is a need to accelerate this process of change.

Land Registration and Transfer Process

Countries in the region do not keep proper records of land titles and registration deeds. Often the records are kept in such a fragmented manner that if land has to be pooled for development purposes, it becomes difficult to do so. In Sri Lanka, the British attempted to introduce the system of registration of titles but the practice was abandoned after its commencement in some areas of Colombo City and adjacent areas, though the registration of deeds has continued to date. But it is not mandatory to attach a survey plan of the property being transacted. The property is identified through description of boundaries of the adjoining properties. The transactions are attested by a notary and once the parties have signed, the deeds are registered with the registrar of lands. Further, the attesting notary is not required to verify the title of the property. Legal and administrative impediments on the issues of intestate succession and ownership of undivided shares have led to uncontrolled fragmentation of privately owned land in urban areas. The problem is compounded by the lack of systematic cadastral maps covering the entire country. A title can also be obtained by the “Deed of Gift” or by leaving a “Will” attested by a notary and registered with the registrar of lands or the registrar of documents as

[193] www.thepeninsulaqatar.com; www.goleaddog.com
[194] www.expressindia.com

the case may be. Thus the system of keeping ownership records is quite fragmented[195]. Likewise, proper records of land transfers are not kept. The governments impose too many restrictions on land transfers and registration of sale deeds. In India, a multiplicity of levies and taxes in the form of stamp duty, capital gains tax, transfer tax, unearned income tax and many others have driven the people away from official transactions and registration processes. People generally transact properties through a 'power of attorney' agreement for which no consolidated record is kept[196]. This has vitiated even the disjointed land records that existed in the land registrar's office. There is thus a need to streamline land transactions and titling processes.

Few instances of reforms have begun to take place. For example, the Government of Afghanistan has simplified the procedure of transferring property by reducing the number of steps involved in doing so and began digitizing title deeds. Bhutan also speeded up property registration by adding more number of judges to handle property transfer. In India the time required for completing registration of properties varies from city to city and extends from 35 days in Hyderabad to 155 days in Kolkata. Thus considerable improvement is possible even if the registration procedure is speeded up to the level of the better performing cities such as Hyderabad (http://go.worldbank.org/32CASHIH70). The Government of Maharashtra in western India has computerized its property registration system, speeding up the registration process and making it easier and reliable for the public. SARITA, i.e. Stamps and Registration Department IT Applications is the stamp and registration software used by the registration department of the state for the registration of 67 types of documents, property registration as well as those of other deeds mandated by the government. Similar systems are being used in few other states as well, but there is a need to accelerate this process of change.

Land Use Planning

In Sri Lanka, Land Use Planning and Development Regulations framed under Urban Development Authority (UDA) Law or under the Town and Country Planning Ordinance wherever applicable provided for the control of land uses by zoning and for the regulation of developments on the land. These laws also provide for regulating the sub-division of land and its minimum extent for development purposes. However, the task of monitoring of change in boundaries of land and its impact on land management is impeded because of the absence of Geographic Management Information System (GMIS). The UDA whose primary responsibility is to formulate and implement urban development plans has been able to prepare and enforce development plan only in the Municipality of Colombo. In other urban areas, UDA has pursued the formulation and implementation of 4 year Town Development Programs comprising Capital Investment Projects. In these areas, development control is exercised through broad zoning schemes and unitary set of development regulations applicable in all urban areas of the country. Planning Audit Teams of UDA have found that in many urban areas, local authorities have been unable to effectively enforce the regulations. Many buildings in strictly residential zones are converted into offices or occupied for commercial uses without land use change permission. Consequently, in practice, many areas are in fact functioning as mixed development areas with aggravated problems of traffic, parking and infrastructure. Local authorities do not have the capacity for timely detection of violations and prosecuting the offenders. As a result, the violations keep on getting compounded and over time become unmanageable[197].

Moreover, since the practice has been to zone land on the basis of suitability for various uses and no attempt is made to relate the amount of land zoned for specific uses in relation to population, as is normally done while preparing urban development plans, often the areas zoned for residential uses are found to be critically short of demand. This has led to steep rise in land prices in areas zoned for residential use, squatting on state lands and endless sub-division of dwelling units for rental purposes. In the absence of urban development plans, there is no attempt to integrate supply of land for infrastructure with land development for various urban uses and no conscious attempt to plan ahead

[195] Mendis, 1998, pp. 212-13
[196] Ansari and Einsiedel, 1998, p. 65.
[197] Mendis, 1998, pp. 214-15.

for the supply of land needed for the public infrastructure networks. There is a need to pursue the long term goal to integrate development planning with infrastructure including land supply for the same[198].

The primary objective concerning land use in urban areas is that the land should be used optimally, and should be equitably distributed among the various sections of the population for fulfilling their requirements for shelter and other uses. Free market operations often fail in both these respects. Whereas, in some situations they have led to conflicting and inefficient land uses, in other instances they have resulted in the denial of access of the poor to serviced land. Governments intervene to correct these imbalances. In India and other countries in the region, government interventions are practiced within the legal framework of 'comprehensive' development plans (master plans) and are enforced through the application of zoning and sub-division regulations and building bye-laws. However, in many instances, interventions result in the worsening of the original situation. For instance in India, a glaring example of how government interventions often go haywire is the Urban Land (Ceiling and Regulation) Act 1976, popularly referred to as the ULCAR Act. The act was enforced for exercising social control over the scarce urban land resources, with a view to ensuring its equitable distribution amongst the various sections of society and avoiding speculative transactions related to land in urban agglomerations. But as a result of the hurdles faced during implementation, the spirit and purpose of the act was lost and it proved to be the principal obstacle in the operation of the land market. Large chunks of urban land were entangled in legal battles and could neither be acquired nor brought into the market. The resultant restrictions in supply pushed up the land prices and further reduced access of the poor to serviced urban land. Thus, an act that was meant to help the poor was actually hurting their interests. Various state governments are now in the process of repealing this act.

Thus, there is a need for realistic planning approaches and plan proposals should effectively address socio-economic issues pertaining to all sections of the population especially the poor and should be based on a well thought out measures. There is particularly a need to relax the existing zoning ordinances to make them amenable to mixed use of land. This provision is expected to have a positive impact on the lifestyle of the poor as it opens a gateway for them to operate income earning enterprises from their residential premises and improve their affordability for land and shelter.

Land Assembly Process

In India, large scale assembly of land for urban development purposes has for a long time been the prerogative of public agencies. The instrument of the Land Acquisition Act 1894 is used to compulsorily acquire land. But piqued by low compensation rates, landowners often drag public agencies to courts and protracted litigations often prolong the development process. Pakistan and Bangladesh which were part of undivided India during the colonial rule also use the Land Acquisition Act for assembling land for public purposes. In Sri Lanka, Land Acquisition Act of 1950 is used for acquisition of land for public purposes. This specifically includes land required for Town Planning Schemes prepared under the Town and Country Planning Ordinance of 1946, or for urban development plans prepared under the UDA Law. To avoid delay in situations where any particular land or lands in any development area are urgently required for the purposes of carrying out an urban development project for meeting the just requirements of the people, the Urban Development Projects (Special Provisions) Law No. 2 of 1980 was enacted. For land taken under this law, the owner of land is not entitled to any remedy, relief, or redresses in any court other than by way of compensating or damages. Moreover, the owner is not eligible to obtain a permanent or temporary injunction, an enjoining or stay order or any order having the effect of staying, restraining, or impeding the acquisition of such land or lands[199].

Land pooling and plot readjustment techniques have been in use in some parts of India as well as in Nepal but these techniques are also quite time consuming and cumbersome to practice and hence are not widely accepted. There is a need to promote such techniques that will speed up the land assembly process. Negotiated land purchase as pursued by private colonizers is the technique that

[198] Mendis, 1998, pp. 226-27.
[199] Mendis, 1998, p. 214.

succeeds in completing land assembly relatively easily. Since the negotiated prices are invariably substantially higher than the government rates, owners are much happier in selling their land to private colonizers. The technique is popular in the state of Haryana in India which is the only state to have enforced an act, namely, Haryana Development and Regulation of Urban Areas Act, 1975 that allowed large scale assembly of land by private developers. These developers are particularly active in Gurgaon city in Haryana. The developers there are capitalizing on Delhi's land market since Gurgaon is part of the conurbation that extends from Delhi, and also the fact that private developers are still not permitted to operate in Delhi. From the example of Gurgaon, it can be inferred that this approach has the potential of giving a huge push to the land assembly process and needs to be popularized all over the country.

Another technique that is becoming popular is the transfer of development rights (TDR). The procedure allows public agencies to assemble land for public works by compensating the owners in terms of TDR certificates. The owner has the flexibility of using the TDR either for purchasing equivalent floor space in the original area or selling it to a developer who would then use it to build equal floor area over and above the limit permitted by the ruling floor space index. To facilitate the application of this technique, the local body designates zones within which TDRs can be traded. This approach also needs to be examined for area wide application.

Land Development

The fast pace of urbanization in many Southern Asian countries has led to sharp increases in demand for developed urban land. Sri Lanka is an exception since rural to urban migration is not very significant and the urban population is expected to grow annually by mere 0.45 per cent during 2000 and 2010(Table 2). But even there, highly fragmented nature of land tenure and preference for higher standard of living has led to the problem of land availability. The demand for urban land is partly met by unplanned suburban sprawl caused by the sub-division of agricultural land into urban uses. This trend has been promoted mostly by real estate companies who merely subdivide their land for the sale of built neighborhoods or providing serviced or un-serviced plots. Hence in the current environment, the demand for serviced urban land is being met by a process which results in serious inadequacies in infrastructure. The conversion of marginalized agricultural land as a mode of urban land supply is supplemented by largely haphazard filling of low-lying areas. There are stringent directives from UDA to Urban Local Authorities (ULAs) for ensuring that high agricultural productivity land should remain in agricultural use and costs implications of extending infrastructure to the proposed site are taken care of. It is also a requirement that before giving development permission ULAs should ascertain whether the developer is willing to contribute towards the cost of providing infrastructure. But these directives have had a mixed degree of response in the absence of town development plans[200].

Meanwhile, the landless low income families and individuals have encroached upon open areas reserved for public open spaces, canal banks, and road/rail reservations. Thus, in 1994, the city of Colombo reported a squatter settlement population of 117,648 persons (18.2 per cent of its total population) with the corresponding figure for the city of Kandy being 1,500 persons (1.2 per cent of the total population). Local governments pleaded their helplessness in dealing with this problem though various planning and building regulation easements in the past helped in releasing land for housing development. These measures were in the form of reduction in minimum size of plots for residential use in 1970, ceiling on agricultural land in 1973 that helped in increasing urban land supply in the suburbs, also in 1973 the enactment for ceiling on house property that led to free of charge allotment of excess tenements to the tenants who were mostly poor, a provision in 1983 for subdivisions of buildings comprised in condominiums, and finally the temporary relaxation of the Floor Area Ratio[201].

In contrast, in Bangladesh, unprecedented growth of urban population has exerted considerable pressure on urban land. The legal, institutional, economic and technical capabilities for tackling this

[200] Mendis, 1998, pp. 218-21.
[201] Mendis, 1998, p. 219.

situation have not yet developed. Planning standards and building codes are maintained in selected developments which are confined mainly in Dhaka City. In residential suburbs around Dhaka and other cities, urban growth is taking place in an unplanned and haphazard manner. Moreover, there is hardly any constitutional measure to control market forces. Measures so commonly used in other parts of Asia such as land sub-division controls through sub-division regulations, density zoning and specifying floor area ratios for urban development projects have not yet been used in Bangladesh. To deal with these land development issues, there is a need for an appropriate land policy for the country as a whole and also for cities according to their needs and priorities[202]. For the past couple of decades, public officials, policy makers and planners have realized that it is necessary to encourage the private sector in large scale assembly, development and disposal of land parcels to supplement the effort of public agencies in these tasks. In this direction, Sri Lanka introduced a liberalized economic package in the late 1970s. A notable feature of this liberalized regime was the shift of emphasis from "control" of development to its promotion. This implied increased flow of private capital in the real estate sector. The Urban Development Authority (Amendment) Act of 1982 empowered UDA to enter into a partnership arrangement or initiate joint venture enterprise with the private sector to carry out any development project or scheme as approved by the government. To encourage entry of private capital for urban development, another enactment was introduced in 1987 to provide various tax and duty concessions. The UDA Law also permitted UDA to alienate land held by it to a private developer by way of sale, lease, rent or rent purchase. The UDA has the additional leverage to actively promote joint venture owing to its empowerment to issue debentures. In practice different types of collaborative projects have emerged. In some housing development projects, the UDA has had a barter arrangement in which the developer provides the UDA a predetermined number of completed housing units for the authority's share of land. In other cases, the UDA would initially recover 25 per cent of the value of land and barter the balance for the housing units. Thus, there is a need to have a close look at various alternative models of public private partnership arrangements for provision of infrastructure and services. Certain changes have already taken place in this regard in some parts of the country where reputed private developers are engaged in large scale land development. But to attract wider participation of the private sector in the supply of serviced urban land, existing land policies should take a new direction. There should be a new division of public private responsibilities in land development under which official agencies would concentrate on watchdog functions and provision of bulk services. They would lay down parameters for land development in the form of norms and simple rules and regulations and formulate mechanisms, which would allow private developers of repute to engage in large scale acquisition, development and disposal of land.

Participation of the private sector in the urban development activities is on the rise in Bangladesh too though it still works mainly for the development of the housing sector, and that too for the high income people. Government policies also do not facilitate private investment in low income housing.

In India also, public private partnership in land development is being encouraged as an official policy. Some changes have already taken place in this regard in some parts of the country in some parts of the country where reputed private developers are being engaged in large scale land development. Haryana, adjacent to Delhi, is one state in India, which has aggressively promoted this idea. The state allows private developers to engage in large-scale urban development projects under the provisions of the Haryana Development and Regulation of Urban Areas Act, 1975 (and Rules 1976). According to the Act, the developer is required to provide the on-site infrastructure, while Haryana Urban Development Authority a public sector agency, provides off-site infrastructure in association with other development agencies in the government sector. This has given a sharp impetus to urban development activities in Gurgaon City located in the suburbs of Delhi in Haryana State. Recently, the Master Plan for Delhi, perspective 2021[203] has provided for public-private partnership in large scale assembly, development and disposal of land reversing earlier policy of not letting private developers to operate in Delhi.

[202] Islam, 1998, p. 55.
[203] Government of India, 2007b.

However, wide ranging reforms would also be needed in the institutional mechanisms, legislative frameworks and financial and fiscal measures to speed up the process of land assembly, development and disposal.

Institutional Framework

A host of public agencies including quasi-governmental and parastatal organizations are involved in land development. However, the division of responsibilities among the agencies is not clearly defined. The resulting multiplicity of authorities, with over-lapping areas of interest, leads to considerable wastage of resources and delay in implementation of projects. For example for electricity supply and distribution in Bangladesh, there are five different agencies such as Water and Power Development Board, Power Development Board, Dhaka Electricity Supply Authority, Dhaka Electricity Distribution Authority, and Water and Power Development Authority. Involvement of more than one agency for the same service often leads to haphazard development, lack of clear line of responsibility, and wasteful expenditure[204].Within the existing institutional framework in Bangladesh, there is some developmental effort in terms of housing and new road networks in metropolitan cities. But in other urban areas, local government activities have remained limited to maintenance of services only. Local governments are constrained by shortage of funds, manpower, technical skills, and equipments and, therefore, depend on national government and donor agencies[205].

Legal Framework

Like the multiplicity of authorities, many legislative measures have proliferated as instruments for providing statutory backing to various agencies involved in urban development. This has led to the problem of multiplicity of legislations. For example, in Bangladesh, as many as seven legal and regulatory tools (three acts, two ordinances, an order and a set of rules) govern electricity distribution, 9 apply to water supply, 11 to fire service, 4 to telegraph and telephone and two for postal services[206]. As it happens in the case of the multiplicity of authorities, confusion arises due to the multiplicity of legislations and consequently enforcement is delayed or problems remain unattended. For example, if an encroachment takes place in an area, action is often delayed because authorities are unable to decide whether action to undo the encroachment has to be initiated under the development authority's act or the municipal act.

Rules and regulations framed under various acts are invariably quite old (may be were framed about 60 years ago) and thus unable to deal with the contemporary urban problems. In countries like India, Pakistan and Bangladesh, many regulations persist as colonial legacies. For instance, Electricity Act 1910; Post Office Act 1898 and Telegraphy Act 1885 are still in vogue in Bangladesh[207]. In India, and this may be true in Pakistan and Bangladesh since they were part of the same colonial regime) that municipal laws and building bylaws, which were originally adopted from British cities or influenced by other foreign occupants of territories in various parts of the Indian subcontinent, are quite often out of tune with the existing socio-economic realities but yet remain unchanged. This may best be exemplified by the directive contained in Delhi Development Act, 1957 that once a draft master plan is prepared the announcement to the public inviting objections and suggestions should be made through drum beats mounted on a horse buggy[208]. Likewise, the municipal act of Silvasa, the capital city of the union territory of Dadra and Nagar Haveli, formerly under Portuguese rule and which merged with the union of India in 1961, mentions 'providing music to the people of the city' as one of the responsibilities of the municipality. Now, however laudable this provision may be, it certainly appears out of place in today's environment when a large proportion of people do not have access to

[204] Ahmed, 2002.
[205] Islam, 1998, p. 55.
[206] Ahmed, 2002.
[207] Ahmed, 2002.
[208] Government of India, 1957.

basic facilities such as improved water supply and sanitation. It is apparent that many of the acts and accompanying rules and regulations need to be thoroughly amended. Some regulations have been amended but the amendments are not comprehensive enough to make them conform to dynamic situations existing in large and fast growing cities of today. On the other hand, in few instances where planning, development and municipal agencies are changing statutes in response to their respective concerns, many overlaps, contradictions and often gaps have become common. This slows down the pace of development.

There are many other legislative issues, which have hampered the supply of urban land. Foremost amongst these is the excessive dependence on compulsory land acquisition laws for land assembly. Not only is the law more than 100 years old and in need of amendment in the light of the new socio-economic realities, new legislation should be introduced in every state to facilitate alternative procedures for land assembly such as negotiated land purchases involving private developers, using transfer of development rights incentives, and promoting land pooling and readjustment through town planning schemes.

Rent control acts, which were enforced in various cities in India to prevent exploitation of the poor, have actually proved to be big obstacles in the operation of the housing market. These acts have taken away the incentive for investment in housing and are primarily responsible for restricting supply of rental housing. These acts should be reformed and the new acts should provide for periodic revision of rents and restoration of rented premises to the owners under specific circumstances. Recently, through a landmark judgment on 17 April 2008 in respect of the Section 14(1)(e) of the 1958 Act which allowed a landlord to make an application for recovery of possession of residential premises on the ground that the premises let out for residential purposes were required by landlord for occupation as a residence for himself or any other member of his family dependent on him and that the landlord had no other reasonably suitable residential accommodation, the Supreme Court of India amended the section thereby making it possible for landlords to get back possessions of commercial premises as well on the ground of personal need. This judgment clearly reflects the spirit that should guide the

Box 7: The Jawaharlal Nehru National Urban Renewal Mission (JNNURM): A New Initiative

On the basis of the experience gained and lessons learned from earlier programs and considering that the present state of cities is incompatible with India's socioeconomic objectives, the Ministry of Urban Development and the Ministry of Housing and Poverty Alleviation have designed a new program for the integrated development of infrastructure services and universal access of urban services to the poor. This urban infrastructure development program, linked to state-level and city-level policy and structural reforms and named the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), was launched in November 2005 with a time frame of seven years.

The main goals of the JNNURM are (1) improving and augmenting the economic and social infrastructure of cities; (2) ensuring access to basic services for the urban poor, including security of tenure at affordable prices; (3) initiating wide-ranging urban sector reforms; and (4) strengthening municipal governments and their functioning. The JNNURM will initially cover about sixty-three cities and provide them with grant access for specified activities grouped under two sub-missions- the Sub-Mission for Urban Infrastructure and Governance, and the Sub-Mission for Basic Services to the Urban Poor.

The cities eligible for central government assistance under the JNNURM include seven cities with populations of more than 4 million as per the 2001 Census of India, twenty-eight cities with 1 to 4 million population, and twenty-eight cities that are state capitals or cities with religious, historic and tourist importance.

JNNURM's objectives will be met through a strategy that includes preparing city development plans (CDPs), writing detailed project reports, releasing and leveraging of funds from central and state governments, and incorporating private sector efficiencies through public-private partnership arrangements

A JNNURM toolkit has been issued to assist city governments and other participating organizations in formulating CDPs that are designed to facilitate the identification of projects that can be funded. The toolkit also prescribes guidelines for project preparation and appraisal and a timeline for implementing the associated urban reform agenda.

Source: Tewari, Raghupati and Ansari, 2007, pp. 71-72; Government of India, 2005.

reforms process so as to make laws to conform to the contemporary demands of the society at large. This is particularly significant in the context of the 1995 Delhi Rent Control Act, which had a similar provision in favor of landlords but could not be notified till now despite receiving presidential assent as the powerful traders lobby pressurized the government against its notification.

Jawaharlal Nehru National Urban Renewal Mission (JNNURM), a new Initiative in India

In an effort to encourage the states to carry out urban sector reforms and get ahead with the task of infrastructure development in cities including the large cities, the Government of India has devised this unique incentive package whereby funds will be made available to cities which formulate projects for infrastructure development in agreement with priorities suggested by the mission document and carry out necessary urban reforms. To become eligible for the grants, the mission cities are required to prepare City Development Plans (CDPs) and get those approved from Government of India. According to the brochure prepared by the Ministry of Urban Development, 'A CDP provides both a perspective and a vision for the development of a city'[209]. CDPs of various cities such as Jaipur, Indore, etc. define CDP as a comprehensive document that looks at the existing situation, identifies the issues, lays down sector-visions, formulates strategies, and provides details of the financial requirements. The preparation of a CDP is the result of an effective participatory process involving several stakeholders. The CDPS are elaborated in the form of Detailed Project Reports focusing on identified areas under JNNURM such as physical infrastructure (water supply, sewerage and sanitation, solid waste management and drainage), urban transport, inner cities' renewal and redevelopment, development of heritage areas, preservation of water bodies, integrated development of slums (housing and infrastructure), and provision of basic services to the urban poor.

The CDPs are expected to formulate detailed project reports (DPRs) based on the policies of master plans. However, in practice the DPRs do not provide link between spatial planning and infrastructure planning. Under the mission's frame of activities, the CDPs, though in spirit are expected to detail out master plans in terms of financially viable projects, has in reality become a vehicle for dumping the master plans since CDPs are being prepared without looking at the existing master plans. In the process the infrastructure development under the DPRs is getting divorced from spatial planning objectives of the master plans. Moreover, the official JNNURM toolkit does not provide details about land use management. Experience to date does not provide examples of integrated development of slums and inner city renewal and redevelopment, which could require preparation of sub-division plans. This may become clear once some of DPRs related to renewal and redevelopment get formulated.

All Mission cities have finalized their CDPs on the basis of which they have also received grants for identified infrastructure development projects after preparing DPRs. However, it is yet to be seen whether the targeted cities will be able to bring about any significant change in the infrastructure shortfall with the help of funds released under the JNNURUM (see Box 7 for further details).

Planning Process

One glaring lacuna in the existing urban planning process in India is the almost total absence of any participatory mechanisms, which has been primarily responsible for the wide gap between what planners do and what people expect from planning. Various steps need to be taken to increase participation in planning and plan implementation processes. In this context the first step would be to increase participation of people through their elected representatives in the local and upper tiers of government. The ward committees and municipal bodies would surely provide avenues for people to participate in the decision making process through their elected representatives. The other and more potent possibility is the direct participation of people in decision making processes either through

[209] Government of India, 2005, p. 12.

people's organizations such as Residents' Welfare Associations (RWAs), NGOs and CBOs or by engaging people in consultations at various stages of planning and development processes and launching vigorous media campaigns to inform people about development alternatives. The seeds of peoples' participation in planning appear to have been sown in the form of discussions between government agencies responsible for planning, plan implementation and maintenance of urban areas and RWAs (Box 8). As a result of these discussions, for instance, residents of many localities in cities have begun to play a major role in planning. Many projects have been modified to meet peoples' needs and in many cases projects have been abandoned and replaced by new ones in consultation with the people[210]. Participatory approaches such as action planning need to be popularized to evolve interventions that have the backing of the people. A careful assessment of these possibilities should be carried out and a suitable framework should be evolved to involve all the potential peoples' organizations and participatory practices to achieve the goal of sustainable urban development.

Supportive measures for strengthening municipalities by ensuring devolution of political power, financial resources and functions would also go a long way in institutionalizing an efficient urban management system through the medium of grassroots governance. Once fully implemented, the new measures would lessen bureaucratic dominance of central and state governments over local government affairs, and local bodies would become more vibrant units for ensuring welfare of the people. The existing top down approach would be supplemented by a feedback mechanism with the strengthening of grassroots organizations and a truly multi-level planning methodology could evolve.

Box 8: Bhagidari – Citizen Government Partnership

The Delhi State Government, in January 2000, launched the concept of 'Bhagidari', which sought to institutionalize citizen-government partnerships and increase the efficacy of existing representational forms of participation. It aimed at an active, effective and target oriented citizen- government partnership.

The main concept of the Bhagidari is 'the citizen partnership in governance'. It aims at:

- Facilitating citywide changes
- Utilizing the processes and principles of collaboration between multi- stakeholders such as citizen groups including residents welfare associations (RWAs) and trader's associations, NGOs, and the government represented by the municipal bodies, electricity boards, water boards, the police, and the departments of environment and forests
- Developing 'joint ownership' by the citizens and government of the change process
- Facilitating people's participation in governance

The Bhagidari program has become successful as a collaborative effort between RWAs and the government in sensitizing people about water conservation and rainwater harvesting, maintenance of community parks, management of community halls, location of community bins, supervision of door-to-door collection of garbage, generation of public awareness about sanitation and a host of other such efforts. Implementation of the Bhagidari program begins with workshops where representatives of citizen groups discuss the selected issues with officials of the public departments. After the workshop, the agreed list of suggested actions is sent to the concerned departments. Area officers ensure fortnightly meetings with the area RWAs. The Heads of Departments and the Deputy Commissioners take monthly reviews and the Steering Committee headed by the Chief Minister and Chief Secretary takes quarterly reviews.

Bhagidari is proving to be an innovative instrument for achieving good governance through increased people's participation in decision-making and implementation. The implementation of Bhagidari has made the government popular. However, its progress and replication to cover all parts of the State – the National Capital Territory of Delhi needs to be evaluated for better results in the future.

Source: http://delhigovt.nic.in/bhagi.asp

Nepal is also experimenting with participatory mechanisms in the form of integrated action planning (IAP) under the GTZ's Urban Development through Local Efforts (UDLE) Program. This program aims at resolving the limitations of the master plan led development process. The IAP focuses on investment led project planning with the help of public participation and consultation (see Box 9).

[210] Hindustan Times, 2008c, p. 1.

However, the experience so far has not been very rewarding and perhaps requires reexamination for better integration and implementation.

Box 9: Integrated Action Planning (IAP) in Nepal

IAP is a simplified form of urban planning which uses a participatory approach to ascertain people's aspirations, create their stake in plan making and facilitate more effective implementation of plans. Compared to master planning which requires elaborate data gathering, action planning aims at rapid appraisal techniques to identify key issues and suggest immediate actions that may be needed to bring about perceptible improvements in the quality of life of people. At the same time, action programs are formulated keeping in view the resource constraints of the implementing agencies.

Nepal began to execute IAP in 1992 as the result of an initiative by GTZ (German Agency for Technical Cooperation) within UDLE (Urban Development through Local Efforts) Program at a time when a conscious attempt was being made to decentralize responsibilities and strengthen the capacities of municipalities in view of expected increases in funding for urban infrastructure projects that local governments were expected to execute to overcome deficits and respond to rapid urbanization (Mattingly and Winarso, 1999: 1 after MHPP, 1992).

The key components of IAP as practiced in Nepal are as follows (Mattingly and Winarso, 1999: 1 after UDLE, 1997:11):

- The Physical and Environmental Development Plan (PEDP) states policies for the expansion of the built up area and for land use zoning of the present and future built up areas, (plus draft bylaws for the implementation of the policies);
- A list of investment projects to be carried out during the planning period, combining those chosen for the people of local communities (wards) and those chosen for the municipality as a whole.
- A Multi-Sector Investment Plan (MSIP) that prioritizes the projects according to funds expected to be available and preferences of the people of wards and their elected municipal leaders.

One important dimension of IAP is that it is performed primarily by municipal technical staff with guidance from the Department of Housing and Urban Development (DHUD) and UDLE advisor. Three parts of the IAP process are particularly important: community participation, creation of the MSIP and preparation of the PEDP. It was hoped that with community participation infrastructure investments would better correspond to the needs of the communities than if government alone chooses them.

However, a review of the practice of IAP reveals that the municipalities fail to integrate the IAP process with their regular activities. None of the municipality had a rolling program of investments to be revised every year. Instead, municipalities have been treating MSIP as a fixed program that guides them over five year period.

Source: Mattingly and Winsaro, 1999, p.1

IAP runs parallel to regular master planning system undertaken by DHUD of Nepal. This programme, therefore, is not institutionally embedded.

In contrast to the Nepalese example of lack of institutional embeddedness, Kerala's experiment of participatory planning has made constitutional provisions of local government empowerment into a reality through Peoples' Planning Campaign of 1994. Building on the amendments made to the Constitution of India in 1994 to ensure decentralization of governance, the state of Kerala launched an innovative programme known as the Peoples' Planning Campaign (PPC). 'The PPC is a bottom up planning process and aims to identify local needs and establish local development options and priorities through a process of consultation and participation of local people. The launch of the Campaign specifies various stages through which the planning process would move'[211].

- Mobilization of citizens for identification of felt needs
- Systematic appraisal of felt needs by holding 'development seminars'
- Conversion of recommendations of the development seminars into projects
- Prioritization of the projects by elected local self government institutions
- Adoption of a plan for implementation

[211] Chettiparamb, 2007, p. 269 after Isaac and Franke, 2000.

- Plan appraisal by Technical Advisory Committee created at district, block and urban local bodies level

The Campaign sustains itself through allocation of about 40 per cent of the state budget and handing over of considerable number of state government employees to local self government[212].

The strength of this approach lies in the fact that it is institutionally embedded because it has become integral part of local government by way of recognition of local self government structures by the Constitution of India and also through sustained financial and administrative support provided by the Kerala state government. This approach is potentially very useful for planning in a substantive sense since it accommodates diversity and helps to steer the society in a direction that it might not otherwise adopt if left to itself[213].

3. Planning Education and Reforms

The history of modern town planning education in Southern Asia is barely fifty years old since the first educational institution of planning was established in the region. At present there are 26 planning school in Southern Asia (see Table 19 for details), a majority of which are located in India.

The first planning school, the School of Planning and Architecture (SPA) New Delhi, was established in India in 1955. Today, there are a total of 15 schools in India offering town planning education in the country at graduate level of which five also offer undergraduate programs and all offer doctoral programs. Yet, considering the size of India, the 300 planners that qualify from existing planning schools are too few in number. The other countries in the region, however, are worse off in terms of the number of planning schools since Bangladesh has only three, Pakistan has two, Iran has three, and Sri Lanka and Nepal have one each. It is significant to note that there are no planning schools in Afghanistan, Bhutan and Maldives.

In almost all planning schools in the region, the orientation and contents of their programs have been shaped by the planning ideologies that were essentially western in origin, mainly UK. In India, for instance, the British influence had taken roots during the early twentieth century. Be it the thought processes of diagnostic surveys, conservative surgery and integrated planning propounded by the renowned Scottish biologist Sir Patrick Geddes who visited India during 1915-1920 or garden city principles enunciated by Sir Ebenezer Howard, another renowned British thinker, and applied extensively by Sir Edward Lutyens in the planning and development of New Delhi - the seat of colonial government, the British influence was clearly visible in planning practice and city design. Even the recently established planning schools continue to show the British modernist influence since these schools largely follow the curricula adopted by the earlier planning schools.

These ideological influences must have weighed heavily on the minds of the professionals who were instrumental in pioneering town planning education in the 1950s. Moreover, Dr. Koenisberger and Sir Walter George, two highly acclaimed British town planners who set up planning practice in India during the colonial period but stayed on even after independence, and the early group of Indian town planners (most of whom studied town planning in Britain) were no less instrumental in establishing both teaching and practice of town planning based on models that were very much British in origin. The Institute of Town Planners, India (ITPI) formed in the year 1959 on the pattern of Royal Town Planning Institute of the United Kingdom committed itself to the promotion of physical and civic design aspects of planning to achieve '… artistic development of towns, cities and rural areas'[214].

[212] http, p.//www.countercurrents.org/eco-thomas180305.htm
[213] Chettiparamb, 2007.
[214] Institute of Town Planners India, 1959.

Table 19: Planning Schools in Southern Asia, 2008

Country	Name of the School	Year of Establishment	Subjects Offered	Academic Level	Location of School
India	School of Planning and Architecture	1955	UP, RP, TP, HSG, EP, LA, AC, UD, P	PhD., MP, BP	New Delhi
	Department of Architecture and Regional Planning, Indian Institute of Technology	1956	CP, RP	PhD, MP, BP	Kharagpur
	School of Architecture and Planning, Anna University	1964	TCP	PhD, MP, BP	Chennai
	Department of Architecture and Town Planning, Bengal Engineering and Science University	1949	TRP	PhD, MP, BP	Howrah
	Faculty of Architecture and Planning, Guru Nanak Dev University	1972	CRP	PhD, MP, BP	Amritsar
	Centre for Environmental Planning and Technology University (CEPT University)	1972	URP, EP, HSG	PhD, MP, BP	Ahmedabad
	Town Planning Department, Government College of Engineering	Early 1990s	TCO	PhD, MP, BP	Pune
	Department of Architecture and Planning, University of Roorkee	1973	URUP	PhD, MP, BP	Roorkee
	Centre for Town and Regional Planning, Regional Engineering College (REC)	1987	TRP	PhD, MP, BP	Surat
	Department of Civil Engineering, Regional Engineering College (REC)	1989	UP	PhD, MP, BP	Nagpur
	School of Planning and Architecture, Jawaharlal Nehru Technical University (JNTU)	1990	URP	PhD, MP, BP	Hyderabad
	Institute of Town Planners, India (ITPI)	1955	AITP	MP	New Delhi
	Department of Architecture, Maulana Azad National Institute of Technology	1992	TUP, UD	PhD, MP, BP	Bhopal
	School of Planning and Architecture, Vijaywada	2008	UP, RP, TP, HSG, EP, LA, AC, UD, P	PhD., MP, BP	Vijaywada
	School of Planning and Architecture, Bhopal	2008	UP, RP, TP, HSG, EP, LA, AC, UD, P	PhD., MP, BP	Bhopal
Bangladesh	Department of Urban and Regional Planning, Khulna University	1991	TUP, RP	PhD, MP, BP	Khulna
	Department of Urban and Regional Planning,	1968	URP, HS, RP	PhD, MP, BP	Dhaka

	Bangladesh University of Engineering and Technology				
Sri Lanka	Town and Country Planning University of Moratuwa	1982	UD, HD	PhD, MP, BP	Moratuwa
Nepal	Institute of Engineering (IOE) Tribhuvan University	1959	TUP	MP, BP	Kathmandu
Iran	Department of Urban Planning, Yazd University	NA	TUP, UD	MP, BP	Yazd
	Department of Urban and Regional Planning, University of Tehran	1949	TUP, ES	PhD, MP	Tehran
	School of Arts and Architecture, Shiraz University	1955	TUP	MP, BP	Shiraz
	Department of Urban Design and Planning, Shahid Beheshti University	1961	TUP	PhD, MP	Tehran
	Department of Architecture and Urban Design, Iran University of Science and Technology	1968	AS, TUP, UD, US	PhD, MP, BP	Tehran
Pakistan	University of Engineering and Technology	1961	P	PhD, MP, BP	Lahore
	Department of Urban Design, Dawood College of Engineering and Technology	1964	TUP, UD	MP, BP	Karachi

Note: UP – Urban Planning, HSG – Housing, EP – Environmental Planning, UD – Urban Design, URP – Urban and Regional Planning, CRP- City and Regional Planning, P – Planning, RP- Regional Planning, TP – Transport Planning, LA – Landscape Architecture, AC – Architectural Conservation, CP – City Planning, URUP – Urban and Regional Planning, TRP – Town and Regional Planning, UD-Urban Development, HD – Housing Development, TUP – Town/Urban Planning, US- - Urban Studies, MP- - Master of Planning, BP- Bachelor of Planning, NA – Not Available

Source: Ansari, 1994, p.6; Government College of Engineering, Pune - http://www.coep.org.in; http://archnet.org/library/academic-directory/one-category.jsp?category_id=24

During formative years, the curricula of planning schools were heavily loaded with architecture and civic design oriented subjects. This is true of all other schools in the region where planning is heavily integrated with the teaching of art, architecture and urban design. It is surprising that the demand for professionally qualified planners has not picked up sufficiently in spite of the quantum jump in urban development activities in the wake of improving economic status of the countries in the region and the growth of its middle classes. There is a need to ponder over this state of the planning profession and education in the region. It appears that a mismatch has developed between the kind of graduates planning schools are producing and the nature of demand generated by the fast changing socio-economic environment. The heavy orientation toward physical aspects in planning curricula as well as in practice and the kind of models adopted from the West during the 1950s are no longer relevant to the region.

Increasing diversity and complexity of issues, escalating demand for high quality infrastructure raised by a prospering middle class, and the pressing need to provide basic facilities to the teeming poor with limited financial resources despite healthy GDP growth rates are some of the factors that aptly describe the rapidly changing socio-economic environment in the region. It is expected that planning practice should respond to these circumstances by instituting reforms to move away from the tradition dominated by architecture and civic design towards a multi-disciplinary approach.

In the absence of such reforms, the planning curricula in Southern Asia continue to lay emphasis on physical design solutions without much consideration to the financial, fiscal, and administrative dimensions of urban planning in the region. Having been molded through such a limited module, planning graduates face the stigma of being ill equipped in skills that are needed to comprehend and

resolve problems rooted in the socio-economic and cultural milieu of the region. This leads to the isolation of the physical planners from mainstream planning and development processes. For example, planning in India at the national and sub-national levels is geared to sectoral economic planning where physical planners have very little to contribute. At the settlement level, the concerned sectoral departments and development authorities or special purpose agencies mostly implement development works. These agencies generally prefer to involve architects and engineers rather than city planners since the former are more useful for the kinds of work they carry out. The planners' main contribution is thus limited to preparing master plans for towns and cities. But almost all the few hundred master plans they have prepared remain largely unimplemented which further diminishes the creditability of physical planners in the eyes of the decision-makers and the people.

Thus, it is most important that planning education should seek to undo the isolation of planners from the mainstream of institutions and organizations engaged in the formulation and implementation of policies, programs and projects for urban development. Today, town planners not only need to be educated about development plan making, public policy framing and implementation, and enforcement of planning and development control norms, but they should also acquire skills of effective communication, coordination among different individuals, groups and organizations, and diverse perspectives of stakeholders and political leaderships. In this regard, planners must acquire skills of negotiation, mediation, deliberation, conflict resolution, public reasoning and governance. Planners are also required to have deep understanding and appreciation of processes behind the production and transformations of built environment brought about by changing technological and socio-economic environment, and its implications on society, stakeholder groups and individuals. Implications of policy interventions require good comprehension by the planner of issues of inequality, spatial justice and planning rights, inclusion, sustainability and vulnerability[215]. Moreover, they should develop an understanding of the elements of built environment that are amenable to interventions through public or private initiatives, to help society move towards 'agreed' societal goals.

The other impetus for changes in planning education is likely to emanate from reforms in the planning and development management setup. These changes would lead to the empowerment of local bodies, increased participation of people in decision making process and partnerships between public and private sectors including non-governmental organizations, and the community. These changes will in turn bring about changes in the manner and quality of urban governance. The planning schools will therefore be required to reorient their education programmes to address the new challenges and issues that will arise with the new orientations toward urban development management and governance.

While undergraduate planning programs provide comprehensive basic education in broad terms, postgraduate programs offer specialized education in substantive areas of planning such as transport planning, environment planning, housing, etc. The students joining graduate planning programs from the disciplines such as architecture, engineering, geography, economics, etc. find it hard to acquire the necessary planning skills expected of a specialist planner. This is due to short duration of planning programs (two years or less) and little prior exposure of students to planning education. Therefore, students who join the graduate planning program with an undergraduate planning degree are better equipped to deal with a variety of urban planning and development issues ranging from policy formulation to area planning related to respective specializations. Therefore, planning education in Southern Asia should be reoriented to opening of new undergraduate planning programs. Simultaneously graduate curricula should be redesigned to provide specialized education.

[215] Kumar, 1996.

4. Future Directions

As evidenced by archaeological records, it may be inferred that the practice of urban planning in Southern Asia could be as old as civilization itself. During early periods, it appears that planning of cities was largely dictated by the chieftains or the kings though religious and spiritual considerations were also an influencing factor. The practice of segregating communities on the basis of caste, occupation and class determined social structure of urban settlements since earliest days. Archaeological excavations also suggest that the people who planned and built these settlements were not entirely unaware of the principles of land use zoning, placement of streets, services networks and sanitation. Life up to and during the medieval period was marked by strife and wars and thus forts, fortresses, protective walls, military establishments, and ports where feasible were the principal physical features of towns built in those days. During the medieval period, however, the hierarchy of settlements had begun to take shape in the form of headquarter or capital cities and provincial towns. Religious influences could be seen in the form of temples, monasteries, stupas, mosques, mausoleums and tombs. Growth of towns and cities accelerated during this period and some of those urban settlements of that era are now counted among the most prominent cities of this age. With time, occupation, class and caste based segregations were supported by ethnic, religious and linguistic considerations. Arabs introduced Islam in Afghanistan and Iran during the 7th century and these two countries, except for a brief period of indirect rule by the British in Afghanistan, have been predominantly resided by Muslims and ruled by Muslim dynasties. As such the traditional Iranian and Afghan cities are characterized as Islamic cities with grand mosques, shrines and mausoleums as their principal landmark features. These cities were patterned and structured to facilitate Muslim religious practices and their traditional lifestyle.

With the increase in urban population, the traditional pattern of cities (be it in Nepal, Bhutan, Iran, Afghanistan, Sri Lank, India or elsewhere in the region) began to change. The towns began to have two distinct sections – the old section, the traditional part inhabited by the poorest people with highly congested streets filled with sewage and filth, dilapidated buildings and lack of services. The other part that can be loosely described as modern extensions is where the administrative, commercial and entertainment districts have been developed. In India (including present Pakistan and Bangladesh) the traditional influence of the Moghuls was later replaced by the British. The British colonial rule left many imprints, the two sections of cities could be more appropriately described as one for the 'natives' and the other for the colonial masters. However, the British also contributed greatly to the evolution of the planning thought and instituted the necessary legislative and legal framework.

Led by the western value systems and ideologies, planning approaches and practices that were developed in the post colonial era were often found to be deficient in many respects since these failed to address the key indigenous issues of massive urbanization and poverty. The key planning instrument, the master plan – the official document for planned development of cities failed to achieve its purpose. The conventional master plans prepared through a top down approach, with limited participation of stake holders and the private sector remained largely unimplemented. Moreover, the official machinery and the institutional set up needed to implement the plans has never been in place. Instead, for instance in India, Bangladesh, Pakistan and Sri Lank, a plethora of organizations has led to the problem of multiplicity of authorities leading to organizations working at cross-purposes and delaying rather than helping in the process of plan implementation. Additionally, there is the problem of multiplicity of legislations with overlapping provisions that add to the overall confusion that hinders the enforcement process.

Moreover, public sector agencies are faced with a lack of public finance to support urban development programs and projects to arrest the continuing decline in the quality of life of urban dwellers. In this situation, governments in the region have no alternative but to seek increased private sector participation for urban development. Governments are also realizing that their role in urban development is more of an enabler and catalyst rather than getting directly involved as producers or providers of infrastructure, housing and services. To promote their facilitative role, governments need to carry out citywide urban sector reforms which are long overdue and need to be pushed through to

increase the efficiency of urban land and housing markets. A beginning can be made in this direction by initiating reforms in crucial areas such as urban land policy, planning legislation, rent control, land transaction and taxation, land revenue codes, master plans and other regulatory tools[216]. These measures once fully affected could go a long way in attracting wider public sector participation and accelerating the process of urban development.

Furthermore, if public sector agencies wish to play an enabler's role, they should promote an environment that is conducive for the private sector to operate efficiently. Building up a suitable land information system would be one of the most necessary steps by the public sector to promote private sector investment in land and housing[217]. This will ensure better transparency in land market operations. A good information base also helps to generate buoyancy in land and housing markets by attracting more investors and making it possible for the intermediaries to perform in a more professional manner. On the other hand, to boost the confidence of consumers and improve the performance of land markets, it is also necessary that builders, real estate developers and agents are registered and listed according to their performance ratings.

Under the new division of public private responsibilities in urban development, the official agencies should concentrate on monitoring private sector operations and provision of bulk services. They should lay down broad parameters and regulations for land development and formulate mechanisms, which will allow private developers of repute to engage in large scale acquisition, development and disposal of land and construction of houses[218]. The approach can be further promoted by floating joint sector schemes and permitting private developers to assemble properties for urban renewal of highly congested pockets of towns and cities.

One basic challenge which remains intractable is that of access of the poor to serviced urban land and housing. Cross-subsidizing the poor at the cost of the rich is one obvious alternative, but there is a limit to which this can be stretched. Security of tenure is the other alternative but this policy has not made much headway. 'In less developed country cities, self help, mutual aid, capacity building and enabling and empowerment strategies designed to unlock the capabilities of the urban poor are often required'[219]. As discussed earlier in the report, in Colombo, strong political will and effective housing improvement, regularization, community development and self-help efforts, the growth of slums and shanties has been brought under control. While thinking about the strategies for improving the lot of the poor, the role of the informal sector needs to be clearly understood. It is noted that in the cities of the developing world, the informal sector plays a major role in the urban economy besides being source of employment for the urban poor. Yet policy makers instead of working toward integrating the informal sector into the overall city planning and development process actually device policies that are harmful to the interest of the informal sector.

Like most parts of the world, a key trend which the planners and policy makers have to contend with in Southern Asia, is the IT revolution. As a result, radical changes are being observed in the way we live, work and communicate. With newer and faster modes of communication and opening up of the floodgates of information, the nature of commercial transactions and industrial productions is fast changing. In future cities IT and ITES rather than industry may act as the primary generator of economic momentum.

As far as industry sector itself is concerned, it is getting sensitized to using clean technologies. This reduces the need of regulatory measures such as zoning to set the industries apart from other land use areas. Special Economic Zones (SEZs), which the private sector is promoting with incentives provided by the public sector, are proposed to be developed on mixed land use pattern. These mixed use enclaves are likely to act as models for future development of cities. As the globalization momentum intensifies, the impact will be visible not only in terms of many more SEZs, IT parks and high-tech cities but also in many other forms. However, concerns that globalization increases inequality and strengthens forces of segregation with the rich living in insulated communities and poor

[216] Ansari, 2000.
[217] Mehta, 1993.
[218] Ansari, 1990.
[219] Laquian, 2004, p. 7.

forced to live in slums needs to be addressed. There is also a need to be sensitive to the related issues such as conserving multi-crop lands, rehabilitation of farmers whose land is taken away for enterprise zones and the fear and apprehensions of the people such as small retail owners whose means of livelihood may be relocated as a result of globalization.

With wider use of long distance communication technologies based on internet, video-conferencing and other modes, the need for face to face meetings may have reduced relevance and as such the existing comparative advantages of central locations for efficient business operations may gradually diminish. As observed by Harris [220], proximity and concentration are no more pre-requisite for instant interaction and information. This phenomenon may soon begin to set in, and large urban agglomerations such as mega cities may not remain the most attractive destinations for enterprises and institutions. Planners thus need to remain receptive to the unfolding of some of the most vigorous and at the same time exciting scenarios as regards the future shape and spatial patterns of cities. This is the time when planners need to think about the consequential and desirable changes in the city planning process and seize the opportunity to make cities more prosperous, livable, efficient, participatory, healthy and intelligent. IT applications are already available and can help in achieving these goals. For example, governance and urban management issues can be resolved efficiently through the use of IT. Participatory modes of local planning can be practiced through virtual town hall meetings, videoconferences and interactive websites. Capacity building and empowerment of the civil society can be greatly facilitated by use of Information Technology Enabled Services[221].

But there are looming dangers too. For one, the large scale destruction of lives and properties as a result of natural disasters in the recent past has forced planners and policy makers to recognize the vulnerabilities of cities to natural disasters. Data on disaster occurrence and impact clearly reveal that not only is the frequency and intensity of disasters increasing but also the damage caused from these events is getting more severe with time[222]. Some efforts in the form of warning systems, institutional framework for disaster management and training programs have been in progress in the countries of Southern Asia but not enough is seen on ground in terms of preparedness to cope with the disaster situations. As such disasters continue to cause avoidable loss of life and damages to properties. There is a need to scale up disaster management activities in the countries of Southern Asia.

Like natural disasters, global warming is another phenomenon that has serious consequences for cities if not seriously dealt with. As pointed out above, large coastal areas of India, Pakistan and Bangladesh and of course the entire Maldives Islands are in danger of getting submerged underwater by the end of this century if global warming trends are not reversed in time. There are some positive developments in the form of industrial entrepreneurs getting sensitized about the need for green technologies. But obviously much more has to be done. Energy conservation must be given priority when formulating city management strategies. This could be done by use of renewable energy sources including solar and wind energy, gases from sludge digesters, etc. This should be supplemented by rainwater harvesting and waste water and solid waste recycling. For sustainable urban development we must encourage less paved areas, work on urban landscape, restore wetlands, revitalize urban watersheds and restore brown field sites and abandoned waterfronts.

Pollution in cities should be closely monitored and pollution information made available for monitoring and control of environmental conditions. Eco-technology, eco-cities and bio-architecture concept need to be implemented more earnestly. Use of non-conventional energy, efficient use of energy and energy audits should become commonplace. There is a need to balance environmental values, quality of life and economic opportunities for making progress.

To reduce urban sprawl, the development of compact cities should be encouraged and dependence on cars as a mode of transportation reduced. Despite the fact that vast numbers of urban commuters are dependent on biking and walking, the role of these modes is not duly emphasized in urban transportation strategies. As discussed earlier in this report, the recent trend is in favor of building transportation infrastructure that benefits relatively few commuters. Bus based public

[220] Harris, 1998, p. 9.
[221] Jain, 2007.
[222] Sanker, Hajime and Yumi, 2007, p. 1.

transport system which is less financially demanding and has potential to serve much larger number of commuters has to date played relatively moderate role in urban transportation in Southern Asian cities. Clearly there is a need for comprehensive schemes that can integrate various transport modes so that all segments of population are able to benefit.

Improving the quality of urban governance is, however, the key to dealing with the issues highlighted above. Some progress has been made in this direction in the recent past. In both India and Pakistan reforms have been carried out to strengthen representative character of local bodies by encouraging decentralized decision making. Advocacy role played by NGOs and CBOs is increasing. Simultaneously, NGOs are taking the route of judicial activism in the form of public interest litigations, though the instances are very few. Citizen consultation groups and citizens' charter for municipal services are possible methodologies for increasing participation of people. These are beginning to happen in few cities in the region. Bhagidari, i.e. citizen-government partnership program of the GNCTD seeks to institutionalize representational form of participation. This program has met with some success in achieving good governance but is presently confined to one city only. Nepal's integrated action planning to achieve community participation has failed to institutionalize the program within the government framework. In contrast to the Nepalese example, Kerala's experiment of participatory planning has made use of constitutional provisions of local government empowerment to ensure decentralization of governance. The strength of this program lies in the fact that it is constitutionally embedded. This program is potentially very useful and needs to be replicated in other states.

The bigger challenge, however, is related to municipal finance and taxation. Municipalities are in general in a bad shape financially and have weak tax administration. In India, under the Constitution (74th Amendment) Act, 1992, mechanism has been established for rational devolution of funds to municipalities from the state governments. But the municipalities need to find ways of raising resources from the capital market and tighten tax administration. But for this to happen, capacity building of municipalities is essential.

In view of the failure of master planning approach in improving the quality of urban development, Government of India has made a new initiative, namely, the Jawaharlal Nehru National Urban Renewal Mission (JNUURUM) to encourage the states to carry out urban sector reforms and get ahead with the task of infrastructure development. The idea is to formulate projects and prioritize them in relation to the CDPs prepared for each city covered under the mission. The CDPs are prepared through a participatory process involving several stakeholders. However, it is yet to be seen that whether the targeted cities will be able to bring about any significant change in the infrastructure shortfall. The larger issue of a suitable alternative to master plan and wide ranging urban sector reforms still remain to be addressed. Perhaps a planning approach that is flexible, not demanding in terms of institutional support and which relies heavily on participatory mechanism may be more useful. This may be supported by wide ranging reforms as suggested below:

- Adopt a comprehensive urban land policy to guide policies at provincial and city levels to guide integrated and sustainable development of cities

- Create a land information system in order to facilitate the generation and exchange of information between users and providers

- Create GIS in urban areas

- Develop a system of cadastral mapping in all countries of the Southern Asia Region

- Simplify and rationalize the complex web of laws, institutions and procedures governing tenure rights, transaction and registration procedures, regulatory mechanisms, and development of land for urban uses

- Work for better coordination between the agencies responsible for steering urban growth, physical planning and provision of infrastructure

- Initiatives for monitoring, evaluation and research on urban development and management

- Capacity building of local government institutions to adequately deal with planning, implementation and enforcement measures
- Carefully reform age old laws, bye-law, acts and ordinances so as to make them compatible with contemporary and future urban development needs

- Adopt new sub-division procedures such as land pooling and adjustment transfer of development rights etc., to increase supply of developed land are needed

- Innovative system of financing urban development needs to be evolved

- A land bank for the poor can be considered

- The system of taxation of land and property should be reformed. Value of land not its rent should the basis of land and property tax. Vacant land should be heavily taxed. Unearned income should be recovered.

- Reorient planning education to equip planning graduates with skills that are needed to comprehend and resolve problems rooted in the socio-economic and cultural milieu of the region.

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