Urban Environmental Governance

For Sustainable Development in Asia and the Pacific: A Regional Overview

United Nations
ESCAP

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

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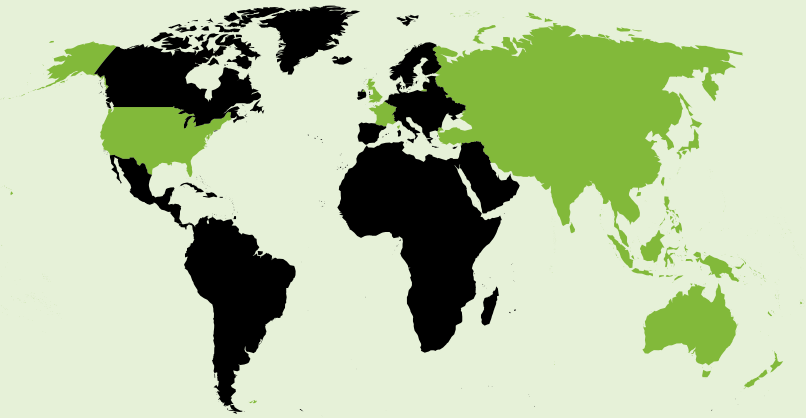

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EXECUTIVE SUMMARY

Introduction: The twenty-first century has been dubbed "The Urban Millennium" by the United Nations Secretary General Kofi Annan in recognition of the fact that the world is becoming increasingly urbanized. By 2007 over 50 per cent of all humanity will be living in urban areas with the number rising to 61 per cent by 2030. Since urbanization offers both promise (as hubs of dynamism, change and opportunity), as well as peril (as centres of exploitation, disease and unemployment), efforts to squarely meet the challenges and maximize the opportunities afforded by urbanization are essential. It is critical that such efforts adopt a holistic view for achieving sustainable urban development.

Status of urbanization in Asia and the Pacific: Since there is no indication that the trend towards urbanization will reverse itself, it is reasonable to project that future population growth will be absorbed by the cities of the developing world. In the ESCAP region, the urban population is expected to reach 2.23 billion by 2020, making it the largest urban population in the world, it is then expected to rise to 2.64 billion by 2030, constituting 55 per cent of the region's total projected population. Across all the subregions of Asia and the Pacific, it is predicted that urban populations will grow steadily from 1990 to 2030 with very few exceptions.

The urban structure: The impetus for increased urbanization came with the advent of the industrial age. As industrialization progressed, economic activity became increasingly concentrated in urban centres and people began to migrate from rural areas to avail themselves of new employment opportunities. Because the land occupied by most cities is not sufficient to provide the resources necessary to feed its economy, or the capacity needed to absorb its waste, the environmental impact of urban centres extends beyond city boundaries. Thus the "urban footprint" of a city includes all the land needed to sustain the city. While urban settings offer hope by concentrating populations and limiting the per capita impact on the environment, this can only be achieved through improved environmental management.

Rural and urban areas and their economies are increasingly interconnected, with two-way movement of people, goods, capital, ideas and information, some of which benefit both and others largely benefit urban areas. Rural-urban linkages and synergies need to be recognized by policymakers, rather than considering them in isolation. This is especially true in light of increasing decentralization of government functions in the region.

Urban governance in Asia and the Pacific: Although many countries in the region are moving towards democratic urban governance by promoting decentralization and local autonomy, central governments still exert considerable influence at the functional, financial and administrative levels. Among the critical issues facing effective urban governance are urban economy and productivity; social issues, particularly urban poverty, lack of secure land tenure, exploitation of women and children; and environment. The various urban environmental issues are addressed in different manners depending on the level of urban development and available revenue. Among the most important of these issues are, land management; housing, urban services, such as water supply, water resources, sanitation, drainage, solid and hazardous waste management, and transport-related impacts; air pollution, including greenhouse gas emissions; accident risk and disaster management involving both disasters of natural and of anthropogenic origins.

Current Asia-Pacific urban governance systems/models: Given the impetus towards urbanization, the future of the Asia-Pacific region will depend largely on how successfully the cities of the region function as systems. Analysis has pointed to the existence of a wide range of central-local relationships, and several models

of decentralization have been practiced in the region. With local government powers, authorities, duties and functions being largely legislated, administrative reforms taking place seek to improve the efficiency and effectiveness of local service delivery through sharing, improving allocation and integrating civil services. As the autonomy of local governments increases, support mechanisms such as privatization and corporatization; civil society and community participation, development of local capacity have emerged.

The diverse models of local governance stem from moves made by national governments towards economic growth through the liberalization of economic policies and market reforms. Despite the drift towards greater decentralization and increasing autonomy, the existing models of urban governance in the region, by and large, still predominantly rely on the central government to address infrastructure needs and basic service provision, such as housing solutions for the urban poor.

Challenges and opportunities: As key generators of economic activity, urban areas contribute materially towards the competitive advantage of countries by acting as engines of national growth and by enabling the achievement of their development goals. However, in striving towards this goal, urban areas face a plethora of social, political and governance problems, many of which have environmental consequences affecting their sustainable growth and economic livelihood.

In response to these challenges, a number of cities in the region, often in association with international programmes and initiatives, have implemented innovative policies, practices and strategies towards achieving sustainable development at the local level. Information on specific local initiatives, and practices, along with opportunities of inter-city cooperation is becoming increasingly available, making it increasingly possible to replicate successful experiences.

Lessons learned and the way forward: As the Asian and Pacific economies and societies undergo rapid transformation, there is an urgent need for radical reform in governance structures to encompass partnerships between local government, civil society, and the private sector in order to meet the challenges of the twenty-first century. Challenges of urban governance in the twenty-first century include (a) multiple stakeholders; (b) interdependence of resources and actions; (c) blurred boundaries between public and private spheres; (d) coordination of goals; (e) negotiation and interactive decision-making processes; and (f) building of consensus and trust. Effective governance is becoming increasingly dependent upon the participation of civil society in the decision-making and implementation process. Formal government processes must interact with informal networks, and the central government needs to delegate responsibility to local governments while ensuring their responsibility, viability and accountability. To assist local governments in promoting their capacity for better urban governance, practical tools and instruments are provided by the United Nations and other international organizations.

Apart from their endogenous efforts, there are also external factors rendering both challenges and opportunities for strengthening the urban environmental governance in Asia and the Pacific. These factors, such as the development of information and communication technologies (ICTs), local government finance and the function of central governments, also deserve special attention.

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CHAPTER I:
INTRODUCTION

In designating the twenty-first century "the urban millennium", United Nations Secretary General Kofi Annan recognized that sustainable urban development was one of the most pressing challenges facing humanity[1]. Over three billion people worldwide live in cities today. By 2007, over 50 per cent of all humanity will be living in urban areas for the first time in human history. This number is expected to rise to 61 per cent by 2030[2]. A significant proportion of this will be in the member countries of the ESCAP region.

The United Nations Centre for Human Settlements (UNCHS), along with other United Nations agencies, continues to recognize that urbanization offers both promise and perils. While the promise of urbanization is highlighted, in statements such as, "as more and more people make cities their home, cities will be the arenas in which some of the biggest social, economic, environmental and political challenges will be addressed, and where solutions will be found", the perils are also described, "if cities are hubs of dynamism, change and opportunity, they are also places of exploitation, disease and unemployment. Crime, drug abuse and pollution have increased in growing numbers of cities. New tensions are emerging between migrants and established residents, adding to already sharp divisions along class, racial and ethnic lines. In many cities, slum dwellers account for 50 per cent of the population or even more, with little or no access to adequate housing and basic services"[3].

Such notions bring into sharp relief the inequalities that exist between rich and poor, where affluent neighbourhoods and prosperous business districts co-exist uneasily with slums and inner city decay. This inequality is ever more evident when examining the North-South divide as the richer countries of the North have less than 16 per cent of all urban households living in poverty, while the developing countries of the South have 36 per cent of all impoverished households (41 per cent of all female-headed households), amounting to approximately a billion people.[4] In addition, it is increasingly recognized that, as globalization proceeds, more cities will find themselves managing problems and opportunities that used to be the exclusive domain of national governments. As more cities acquire populations and economies larger than those of many countries, cities will increasingly become the main players in the global economy.

To squarely meet the challenges and maximize the opportunities afforded by urbanization, efforts to achieve sustainable urban development holistically must be strengthened.

To assist the cities in the Asian and Pacific region in their challenge in achieving sustainable development, ESCAP has been carrying out a wide range of activities. Just to select a few examples, CITYNET, based in Japan, was established in 1987, and has several activities programmed. Through its programme of Technical Cooperation between Cities in Developing Countries (TCDC), local authorities throughout the region have created partnerships to share information and experience in order to promote good practices related to urban development. The aim of this programme is to develop "…environmentally sustainable, economically productive, politically participatory, globally connected, culturally vibrant and socially just" cities[5].

ESCAP, by taking advantage of its regional mandate and being able to organize multi-stakeholder forums, also arranges the Asia-Pacific Urban Forum to discuss needs and concerns related to urban development as well as possible technical cooperation at the regional level. The forum is structured in a way that encourages equal participation of the various stakeholders and develops support mechanisms to assist participants to address

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1 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

2 United Nations Department of Economic and Social Affairs, *World Urbanization Prospects: The 2003 Revision* (United Nations publication, Sales No. E.04.XIII.6, 2003).

3 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

4 United Nations Human Settlements Programme, "Backgrounders, Facts and Figures" (available online at www.unhabitat.org/mediacentre/backgrounders.asp) (Nairobi, UN-HABITAT, 2002).

5 CITYNET, "An Introduction to CITYNET" (available online at www.citynet-ap.org/en/Introduction/Intro2004.htm) (Yokohama, CITYNET).

their development needs. The Fourth Asia-Pacific Forum was held in conjunction with the CITYNET Congress in Hanoi in October 2005. At this forum, the Millennium Development Goals and city development were on the main agenda.[6]

In 2000, the Ministerial Conference on Environment and Development in Asia and Pacific was held in Kitakyushu, Japan with a focus on urban issues. Kitakyushu was selected as the location of MCED 2000 due to the city renowned progress in improving its urban environment. Drawing from the lessons and experiences of the Kitakyushu and other cities in the region, The Kitakyushu Initiative for a Clean Environment was adopted in the hope of achieving tangible improvements in environmental quality and human health in urban areas. The initiative focuses on the dissemination of information and examples of best practices from local actors, especially those dealing with the reduction of air and water pollution as well as local waste management.

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This publication is developed to supplement existing efforts by ESCAP to provide a comprehensive review of the issues related to urban environmental governance in the Asia-Pacific region in the context of achieving sustainable development.

This introduction is followed by chapter 2, an overview of the status of urbanization in the region and the related challenges and opportunities. Chapter 3 provides a more detailed review of the urban structure in the Asia-Pacific region including mega-cities and primate cities, and the concept of urban footprints along with the increasing importance of urban rural linkages. Chapter 4 reviews the current status and trends in Asian and Pacific urban governance. It outlines the critical issues for effective governance, focusing mainly on the environment, but also covering the economy and social issues. The chapter goes on to contrast the severity of environmental problems in cities at different levels of development. Chapter 5 traces the roots of local governance and the trend towards increased decentralization. It relates the significance of the nationally applicable human development and environmental sustainability indices to cities in the region. It then presents the ranks for the cities of the ESCAP region included in the City Development Index. The chapter also explains models and systems of urban governance. Chapter 6 presents the challenges and issues facing urban governments and the opportunities afforded and regional initiatives taken towards achieving sustainable development. The chapter focuses on environmental governance initiatives illustrated by examples of best practices from the region. Finally, chapter 7 discusses how cities in Asian and Pacific countries can improve their urban governance, especially environmental governance. It explores how past regional experiences can contribute to this improvement and addresses the larger issues in urban governance that remain to be addressed for the Asia-Pacific region to move towards achieving sustainable development.

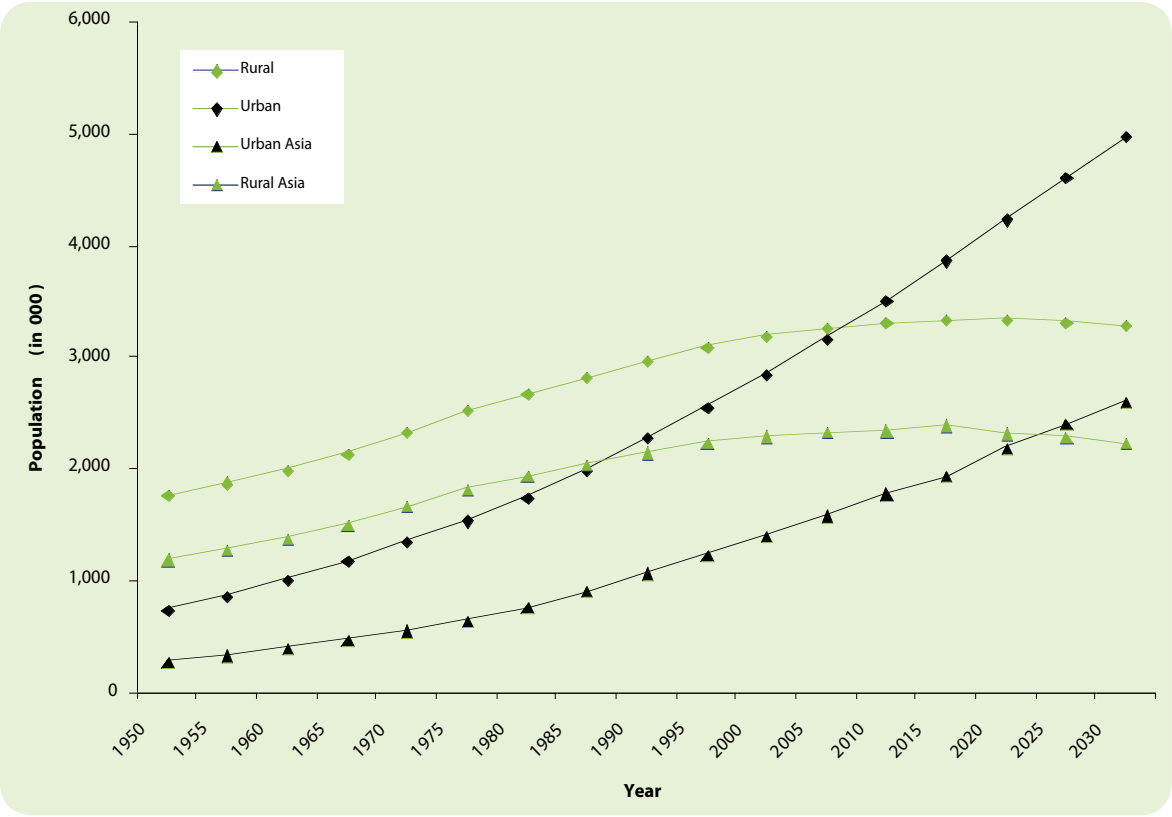
Altogether, it is hoped that this publication will encourage and strengthen efforts in Asia and the Pacific to promote urban environmental governance so that issues concerning urban environmental qualities and related social and economic implications can be better understood and addressed.

6 ESCAP, "Fourth Urban Forum: Making MDGs work for cities" (available online at www.unescap.org/pdd/prs/projectactivities/ongoing/fourthurbanforum/fourthurbanforum.asp) (Bangkok, ESCAP).

CHAPTER II: STATUS OF URBANIZATION IN ASIA AND THE PACIFIC

This chapter aims to give an overview of the current status of urbanization in Asia and the Pacific based on available statistics. It shows how urbanization is developing in the region as compared with global urbanization trends.

Figure 1: Urban-Rural Population: Asia and the World



Source: Population Division, UNDESA-2001 World Urbanization Prospects.

The urban population of the ESCAP region will increase from almost 1.60 billion in 2004, corresponding to 41 per cent of the region's total estimated population of 3.91 billion[7] to 2.23 billion in 2020, which constitutes 49 per cent of its total projected population of 4.56 billion. This will make it the largest urban population in the world[8]. This figure is further expected rise to 2.64 billion by 2030 and reach 55 per cent of the total projected regional population of 4.83 billion[9] (table 1). In the ESCAP region 50 per cent of the population will be urbanized around 2022 (see table 1).

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7 ESCAP, "2004 Population Data Sheet", Data Base www.unescap.org/esid/psis/population/database/data_sheet/index.asp (Bangkok, ESCAP, 2004).

8 United Nations Department of Economic and Social Affairs, *World Urbanization Prospects: The 2001 Revision* (United Nations publication, Sales No. O2.XIII.16) (New York, United Nations, 2001).

9 United Nations Department of Economic and Social Affairs, *"Urban and Rural Areas 2003 (Wall Chart)"* (United Nations publication, Sales No. E.O4.XIII.4) (New York, United Nations 2004).

Table 1: Urban and rural population change between 2003 and 2030

Year and Population (x1000)						
	2003			2030 (estimated)		
	Total (% World Population)	Urban (%)	Rural (%)	Total (% World Population)	Urban (%)	Rural (%)
World	6,301,464	3,043,935	3,257,529	8,130,149	4,944,679	3,185,470
		(48.3)	(51.7)		(60.8)	(39.2)
Asia	3,849,813	1,510,488	2,339,325	4,792,140	2,606,009	2,186,131
	(61.1)	(39.2)	(60.8)	(59.0)	(54.4)	(45.6)
Pacific	32,235	23,573	8,662	41,468	31,063	10,405
	(0.5)	(73.1)	(26.9)	(0.5)	(74.9)	(25.1)
Asia-Pacific (ESCAP region)	3,882,048	1,534,061	2,347,987	4,833,608	2,637,072	2,196,536
	(61.6)	(39.5)	(60.5)	(59.5)	(54.6)	(45.4)

Source: Developed on the basis of Urban and rural area 2003, Population Division/UNDESA New York 2004.

Note: Percentages shown in parentheses under Urban and Rural population figures correspond to the totals of the specific region for the year indicated.

There is no turning back from the inexorable move towards urbanization. It has been recognized that the world tends to move towards what has been called "maximum urbanization," a process largely completed in Europe and North and South America. Future population growth is likely be to absorbed by the cities of the developing world. Three quarters of this will likely take place in cities with populations of between 1 and 5 million or in smaller cities of less than 500,000 people. Many of these cities have little or no planning to accommodate these population increases or provide services[10]. Urban populations, with very few exceptions, began to steadily increase starting from 1990. This is expected to continue across all the subregions of Asia and the Pacific until 2030.

With the sole exception of the Central Asian and Caucasian countries, which have decreasing urban populations, the average annual population growth rate for Asia is 2.5 per cent and above. Pacific countries are, with few exceptions (Papua New Guinea, Solomon Islands, Vanuatu, Samoa, Tonga, Federated States of Micronesia and Niue) generally over 40 per cent urbanized and hence can be considered mostly urbanized. Their overall annual growth rates are generally low with some exceptions. For basic facts on urbanization see box 1.

10 United Nations Human Settlements Programme, *Global Report on Human Settlements 2003: The Challenge of Slums* (United Nations publication, Sales No. 02.III.Q.4) (New York, United Nations 2003).

Box 1: Facts and figures on urbanization

Global

- In 1800, only 2 per cent of the world population was urbanized.
- In 1950, only 30 per cent of the world population was urbanized.
- In 2000, 47 per cent of the world population was urbanized.
- More than half of the world population will be living in urban areas by 2008.
- By 2030, it is expected that 61 per cent of the world population will live in urban areas.
- Almost 180,000 people are added to the urban population each day.
- It is estimated that there are almost a billion poor people in the world; of this over 750 million live in urban areas without adequate shelter or basic services.
- In 1950, New York City was the only city with a population of over 10 million inhabitants.
- By 2015, it is expected that there will be 22 cities with populations over 10 million.
- Of the 22 cities expected to have population of more than 10 million by 2015, 17 will be in developing countries. 13 of these are situated in the Asia-Pacific region.

Regional

- The urban population of developing countries is expected to reach 50 per cent by 2020.
- The population of urban areas in less developed countries will double from 1.9 billion in 2000 to 3.9 billion in 2030. The urban population of developed countries is expected to increase very slowly, from 0.9 billion in 2000 to 1 billion in 2030.
- The urbanization process in developed countries has stabilized with about 75 per cent of the population living in urban areas. By 2030, 84 per cent of the population in developed countries will be living in urban areas.
- In 1999, 36.2 per cent of the Asian population was urbanized with the urban growth rate at approximately 3.77 per cent.
- The urban population of developing countries is expected to reach 50 per cent in 2020. By 2030, Asia will have higher numbers of urban dwellers than any other major area of the world, except Africa.

Sources: www.unhabitat.org/mediacentre/backgrounders.asp. Urban Agglomerations 2003 UNDESA, Population Division 2004 (ST/ESA/SER.A/232) World Urbanization Prospects: The 2003 Revision, UNDESA, Population Division 2004 (and Press release).


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CHAPTER III:
THE URBAN STRUCTURE

The evolution of cities is thought to have originated from small, isolated seats of power from which rural holdings were governed. Until the dawn of the twentieth century, cities accounted for only a small percentage of the global population. The impetus for increased urbanization came with the advent of the industrial age and was fuelled by increased opportunities for employment and advancement; dense living patterns emerged, resulting in an almost total disconnect from the natural world. In 2003, nearly half the population of the world, some 3 billion people, lived in cities. This number is expected to increase to 5 billion (61 per cent) by 2030[11]. While the absolute numbers reported for the ESCAP region differ somewhat depending on the source, the estimated urban population for 2003 is 39.5 per cent of the total population of the region (39.2 per cent Asia and 73.1 per cent Pacific). This is expected to increase by almost a billion people (54.6 per cent of the region's total population) corresponding to approximately half the global increase by 2030. The Pacific subregion is already highly urbanized with 73.1 per cent of the population living in urban settings. This is expected to increase slightly to 74.9 per cent by 2030 (see table 1).

With rising urban populations, the world today is already heavily urbanized. Modern cities represent hubs of art, culture, business and government. The vibrancy of cities naturally makes them engines of development as well as the nexus of environmental and social challenges[12]. Urbanization in the various members and associate members of ESCAP range from a low of 8 per cent (Timor-Leste and Bhutan) to 100 per cent (Hong Kong, China and such city-states as Singapore and Nauru).

Primate cities in Asia and the Pacific: Primate cities is a term created in 1939[13] referring to the largest most dominant city in a given region. Its importance is determined by the degree of primacy and refers to the dominance of the city over the rest of the country. Although there are exceptions, least developed countries (LDCs) generally exhibit high degrees of primacy while more developed countries generally exhibit low degrees of primacy. Primate cities generally follow the rank-size rule, whereby the population size of settlements is proportional to their rank. Primacy is an important feature in the ESCAP region. Bangkok, the capital of Thailand, is one extreme example of a primate city in the Asian part of the ESCAP region which does not follow the rank- size rule[14]. Other examples of primate cities in the ESCAP region are Manila, Jakarta, Kathmandu and Dhaka.

The urban footprint: This stems from the ecological footprint concept, which compares renewable natural resource consumption with nature's biologically productive capacity. It is a function of population size and average consumption per person and the kinds of production systems, or technologies, in use.

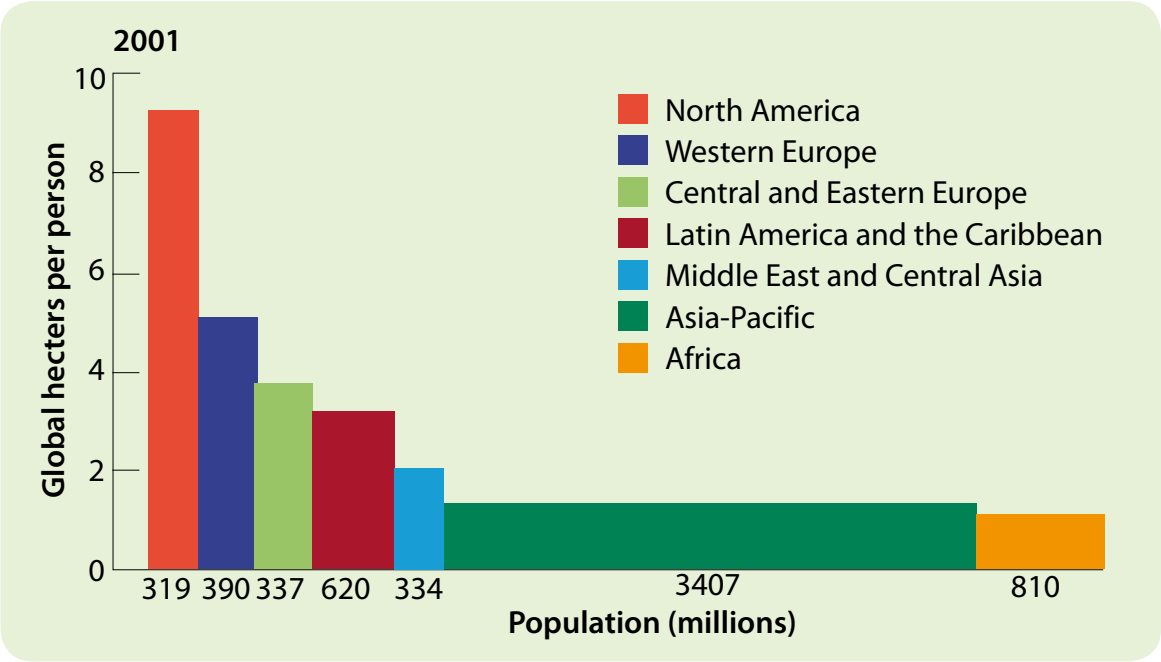
11 United Nations Department of Economic and Social Affairs, "*Urban and Rural Areas 2003 (Wall Chart)*" (United Nations publication, Sales No. O4.XIII.4, 2004).

12 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

13 Mark Jefferson, "the Law of the Primate City", *Geographic Review* 29: 226-232, 1939.

14 www.curriculumpress.co.uk/pdf/newgeo/ No. 53

Figure 2: Regional ecological footprints (2001)



Source: Living Planet Report 2004 - WWF
www.worldwildlife.org/about/lpr2004.pdf

Figure 2 gives the ecological footprints of seven of the world's regions. It also shows that the footprint per person of high-income countries was on average over six times that of low-income countries[15]. As urban areas keep growing, so does the pressure on resources such as water (lakes, rivers), air, land and energy. In many instances the demand cannot be met from within the urban area; therefore, the ecological "footprint" of a city often extends to areas beyond its borders. The Global Development Research Centre defines the footprint of a city as "the area of land needed to provide the necessary resources and absorb the wastes generated by a community[16]" (box 2).

15 World Wide Fund for Nature, *Living Planet Report 2002* (Cambridge, United Kingdom, WWF, 2002).

16 The Global Development Research Centre, "Urban and Ecological Footprints" (available online at www.gdrc.org/uem/footprints/).

Box 2: The concept of the urban footprint

The environmental impact of a city is more than its immediate local impact and depends on its "ecological footprint". The ecological footprint concept was developed in 1992 by Dr. William Rees and M. Wackernagel of the University of British Columbia. It refers to the area of land needed to provide the resources used and absorb the wastes produced by a community. For example, the ecological footprint of the city of London is estimated to be 120 times the city area, while that of Tokyo is estimated to be 1.2 times the whole area of Japan.

The ecological footprint of a city includes adjacent forest or agricultural land converted for urban use; reclaimed wetlands; open pit mines for quarrying sand, gravel and other building materials; forester damaged to meet lumber and fuel demands; waterways, lakes and coastal waters polluted with untreated effluent. Also included are factors like air pollution, which will have effects on residents' health as well as vegetation and soils in the surrounding areas.

Additionally cities are often located on prime agricultural land, putting pressure on food production, while urbanization in coastal areas can destroy sensitive ecosystems, alter the coastal hydrology and negate the protection afforded by mangroves, reefs and beaches. Demand for water may soon outstrip supply while effluents from industry, sewage and urban run-off are contaminating remaining urban water supplies. Furthermore, inadequate waste collection and disposal can result in pollution and health hazards, air and water pollution can cause chronic, infectious respiratory and diarrhoeal diseases. All too often this causes an increase in child mortality and premature death, particularly among the poor. Improved access to health care in cities can offset this somewhat, but the effect is felt mainly among the poor, who do not have the resources to take advantage of such luxuries. Other less quantifiable but nonetheless important aspects incorporated in the ecological footprint include noise pollution, loss of green space, odours and loss of aesthetics.

Urban footprints will vary depending on the community's level of consumption and waste production, thus, a typical North American city with a population of 650,000 would require 30,000 square kilometres of land to meet domestic needs alone without even including the environmental demands of industry. In comparison, an equally sized city in India would require just 2,800 square kilometres.

Source: www.gdrc.org/uem/footprints/index.html

Using such calculations the World Wildlife Fund (WWF) has estimated that since the 1980s humanity has already exceeded the planet's capacity to indefinitely sustain its consumption of renewable resources[17]. Paradoxically, urban settings also offer hope for sustainable development by concentrating populations and limiting their per capita impact on the environment by relieving land pressure and offering economies of scale and proximity of goods and services. Since increased urbanization is inevitable, the challenge is to live with urbanization, and the best hope to avoid negative environmental impacts is by improving urban management[18], in other words through effective urban environmental governance.

17 World Wide Fund for Nature, *Living Planet Report 2002* (Cambridge, United Kingdom, WWF, 2002).

18 United Nations Environment Programme, *"Geo Year Book 2003"* (Nairobi, UNEP, 2004).

Urban-rural linkages: Given the impetus towards urbanization the line between the expanding city and its border (peri-urban) areas, which often include former rural areas, has become blurred. This is made all the more difficult as there is no standard definition of what constitutes an urban area (or for that matter a rural area). An attempt has been made to gather the different definitions of what the term "urban" means in individual ESCAP countries and areas[19]. Predictably, depending on the country it spans a plethora of definitions encompassing governing entities, such as municipalities, town committees, cantonments, and extended metropolitan areas; population size and density, and lack of agricultural activity among other criteria. Similarly, the term "rural" also encompasses a variety of definitions apart from the simplistic definition of "anything not urban". Thus, while the two extremes of urban and rural are easy to characterize, one built up and characterized by dense habitations, the other essentially agricultural and relatively sparsely populated, there is no gradual transition from one to the other and many grey areas lie in between.

Urban populations increase for a variety of reasons. These include natural increase, rural-urban migration, international migration and reclassification of urban boundaries. The major contributing factors in the Asia-Pacific region appear to be migration and urban reclassification, while natural increases appear to be falling[20].

Urban-rural linkages stem from complex interactions between people, commodities, capital and information. At its most simplistic, urban areas attract people and commodities in return for capital and information. Urban-rural linkages contribute both to loss of agricultural lands as a result of urban expansion and decreases in agricultural productivity due to the migration of farmers. But conversely urban areas also increase demand for rural food products and therefore increase rural incomes.

While disparities persist, rural and urban areas and their economies are increasingly interconnected. There is a growing movement of people, goods, capital, ideas and information between urban and rural areas. Some of these movements benefit both urban and rural areas; other movements benefit only one side, usually urban areas. Part of the problem is that policymakers often do not take these rural-urban linkages into account and divide their policies along spatial and sectoral lines. Urban planners concentrate on the development of urban areas without due attention to its impact on rural development, while rural development planners tend to ignore the urban areas, as if rural areas existed in isolation. Moreover, the administrative division in urban and rural areas compounds the general lack of coordination, resulting in work at cross-purposes. Recognition of the rural-urban linkages by policymakers is becoming all the more important in the light of the ongoing decentralization of government functions in many countries of the region.

Urban agriculture: Agriculture is no longer the sole province of the rural sector. Urban agriculture, located within or on the outskirts of towns and cities, especially in developing countries, is complementing rural agricultural produce. In the ESCAP region, recent estimates have shown that 72 per cent of the urban households of the Russian Federation raise food. In China, the 14 largest cities produce 85 per cent or more of their vegetables and urban agriculture contributes to 2 per cent of Shanghai's GDP. A number of factors, ranging from rising urban poverty to structural adjustment and agricultural policies, play a role in the increase of urban agriculture. For the urban poor the advantages are obvious; they save money by consuming what they grow and make money by selling the surplus produce. Whereas high urban land values predicate against a significant amount of urban agriculture, typified by market gardens in industrial economies[21] is a more viable option.

19 ESCAP, *State of Urbanization in Asia and the Pacific 1993* (ST/ESCAP/1300, 1993).

20 Ibid.

21 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

CHAPTER IV: URBAN GOVERNANCE IN ASIA AND THE PACIFIC

Current status/trends: While to some extent all urban areas share common governance challenges such as managing growth or decline, reacting to spatial re-structuring, managing transport infrastructure, ensuring adequate housing and providing social services, the less developed countries of the world have less access to capital and human resources to effectively respond to these challenges. With respect to the Asia-Pacific region, as previously stated, the Pacific is mostly urbanized but Asia presents distinctive challenges for governance. A large proportion of the world's population (62 per cent - almost 4 billion persons) resides in the Asia-Pacific region. By 2030, over half of the nearly two billion people who will be added to the world population will reside in the Asia-Pacific region. According to UN-HABITAT, urban governance constitutes the process by which individuals, both public and private, plan and manage their common affairs, encompassing formal institutions, informal arrangements and the social capital of citizens. It includes the three principal groups of actors (government, private sector and civil society) and the ongoing and complex process of harmonizing their competing priorities[22].

Many countries of the Asia-Pacific region are beginning to show progress in promoting democratic urban governance with decentralization and local autonomy gaining momentum together with moves towards building capacity in local government. Still, in many Asian countries which have ostensibly adopted decentralization policies, the central government still exerts excessive control at the functional, financial and administrative levels of local government. This has led to disparity between the functional powers of local authorities and the financial resources available to them[23]. While many national governments still retain direct control of their cities, increasingly the trend is for authority and resource allocation, especially for service provision, to be delegated to the level of authority closest to the public, in keeping with the principle of subsidiarity. This pas paved the way to decentralization, local democracy and maximum inclusion of civil society in urban governance[24]. The principal of susidiarity requires empowering local government, creating new linkages between local government and community groups and capacity-building to strengthen local governmental infrastructure and train officials hitherto not exposed to or unfamiliar with the new responsibilities devolving upon them.

Critical issues: Issues critical to effective urban governance naturally relates to the "three pillars" of sustainable development, earlier namely economy, society and environment.

Urban economy and productivity: Cities, by providing economies of scale and agglomeration, allow many goods and services to be produced and traded more efficiently making them engines of national economic growth, contributing a large share of national output of many countries in the Asia-Pacific region. Large cities typically produce a significant share of their country's GDP. Bangkok contributes 38 per cent of Thailand's GDP, Manila accounts for 25 per cent of the GDP of the Philippines, Karachi provides 18 per cent of Pakistan's GDP and Shanghai supplies 12 per cent of China's GDP[25].

The relationship between the degree of urbanization and economic development is a well-established fact and the Asia-Pacific region has seen its economy grow dynamically along with the trend towards increased urbanization. The increasing importance of the high technology sector in the Republic of Korea, China, India and Singapore has, to some extent, replaced the capital-intensive industries that characterized the former ASEAN and South Asian economies. In addition, many centrally planned economies are moving towards liberalization and market economies. A comparison of economic development and urbanization published by

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22 United Nations Human Settlements Programme, "Global campaign on urban Governance" (available online at www.unchs.org/campaigns/governance/principles.asp) (Nairobi, UNCHS, 2002).

23 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

24 United Nations Human Settlements Programme, "Global Campaign on Urban Governance" (available online at www.unchs.org/campaigns/governance/principles.asp) (Nairobi, UNCHS, 2002).

25 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

ESCAP still holds true with the region's countries (with few exceptions) falling roughly into three groups[26]. The developed economies of Asia and the Pacific (such as Australia, New Zealand, and Japan are over 70 per cent urbanized, the ASEAN 4 (Indonesia, Malaysia, the Philippines and Thailand) plus China, Fiji, India and Pakistan are over 30 per cent urbanized and the South Asian economies in general have urbanization levels below 30 per cent.

Rural investment programmes, even though they boost rural productivity, have been largely unsuccessful in stemming rural-urban migration. Also, previous concerns regarding the disadvantages and inequities of urbanization have turned out to be oversimplifications and largely inaccurate. Traditionally opponents of urbanization in Asia argued that excessive urbanization damages efficient resource utilization. This has not happened, suggesting that urban labour markets are more efficient at allocating resources than previously thought. Migration into cities has increased the net productivity of the economy by directing labour to locations where higher wages and greater contribution to economic productivity is possible[27].

If anything, the one feature of urbanization that has been neither overly condemned nor fully ascertained is the environmental aspects. Environmental degradation is almost inevitable, especially when urban growth is unplanned. In addition to problems like pollution and traffic congestion, the dominance of urban centres in economic development can encourage inflation, crime and corruption, which negatively affect the national economic performance[28].

Cities in developing countries generate significant employment in both the formal and informal sectors. The informal sector creates more jobs due to the special dynamism of small businesses. Within Asia, much attention has been paid to discouraging large metropolitan agglomerations, since beyond a certain point economic gains associated with agglomeration are offset by congestion costs. Congestion has been alleviated by the decentralization of major urban centres. This has been achieved either through public regulation, as in the Republic of Korea, where industries have been relocated to satellite cities around Seoul, or through market forces supported by public investment in infrastructure, as in the case of Bangkok and Metro-Manila[29]. The lack of suitable infrastructure, appropriate regulatory policies (especially for urban land and housing markets), strong municipal institutions, and adequate financial services for urban development, are major constraints to urban productivity and reduce economic performance. Improving productivity will depend on the trend towards government decentralization and their growing role as enablers and facilitators of private sector economic activity rather than direct providers of urban services and infrastructure[30]. This is being achieved largely by supporting resource mobility, creating or simulating market choices where private markets do not exist and pursuing national and local planning policies that embrace the market[31].

A clear urban trend in developing countries (especially East and South-East Asia) is the increasing numbers of women working in the formal sector. It is important to note that their wages still lag behind those of men in comparable jobs. Growth has also taken place in the informal sector, with some upper income people entering the informal sector to augment their declining incomes or to increase profit margins. Some countries are encouraging the development of the informal sector by increasing access to credit, appropriate technology, training programmes for technical and managerial skills and markets. These efforts have met with varying degrees of success[32].

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26 ESCAP, *State of Urbanization in Asia and the Pacific 1993* (ST/ESCAP/1300) (Bangkok, ESCAP, 1993).

27 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

28 Ibid.

29 Ibid.

30 Ibid.

31 ESCAP, *State of Urbanization in Asia and the Pacific 1993* (ST/ESCAP/1300) (Bangkok, ESCAP, 1993).

32 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

Driven by concentrations of industry and services, cities are a major source of local government revenue collected through taxes, rents and fees. With globalization, competition between cities has intensified as they increasingly attempt to attract international investment. Consequently, the development of policies that encourage enabling frameworks and infrastructure capacity is seen as a way to increase economic output as well as attract international investment. These include establishment of export processing or free trade zones (EPZs or FTZs). These zones frequently feature superior infrastructure, designed to increase the global competitiveness of selected cities and enhance export led industrialization. A good example of this type of development is the Export and Technical Development Zone in Shanghai[33].

Social aspects - urban poverty: Poverty, once the unique domain of rural areas is increasingly becoming urbanized, especially in developing countries. Most countries have their own way of defining poverty (locally defined poverty), commonly based on income. Depending on the country and city, urban poverty levels are estimated to vary between 40 and 80 per cent. People living in poverty have little access to shelter, basic urban services or social amenities. Conservative predictions indicate that the current 30 per cent level of urban poverty worldwide is expected to rise to 45-50 per cent by the year 2020 with a growth in absolute numbers of over 300 per cent[34]. UN-HABITAT estimates that a quarter to a third of all urban households worldwide live in absolute poverty, making them especially vulnerable to a number of hazards. Typically living in slums, the urban poor are exposed to higher incidence of disease, harassments (such as arbitrary arrests and forced evictions), and precarious employment in the formal or informal sector. Identifying and addressing local poverty is increasingly being viewed as a local authority responsibility with support of higher-level institutions. However, because they lack resources and political power, the urban poor are frequently neglected by formal institutions and are exposed to violence, organized crime, corruption, drugs and gender discrimination[35].

Poverty also remains a persistent feature of the ESCAP region, especially in Asia, and is characterized by two significant factors, magnitude and diversity. Close to 900 million people or some two thirds of the world's poor live in this region and nearly one in three Asians is poor. About half the world's slum dwellers live in Asia and the Pacific, with India and China alone accounting for 65 per cent of the Asian urban slum population in 2001[36].

Until the recent economic crisis reversed some of the earlier gains in the region, North-East Asia was making significant strides to reduce poverty. Indeed some Asian and Pacific countries have achieved what one author described as the "largest decrease in poverty in human history". During this period, China (from 33 per cent to 10 per cent); Indonesia (from 60 per cent to 15 per cent); Malaysia (from 18 per cent to 6 per cent); Pakistan (from 54 per cent to 26 per cent); Republic of Korea (from 23 per cent to 8 per cent); and Thailand (from 26 per cent to 18 per cent)[37]. South Asia was also making progress in addressing poverty but with more than half a billion people in poverty, the depths of poverty reach magnitudes similar to those of sub-Saharan Africa, albeit on a much larger scale. The transition economies of Central Asia are also facing the threat of poverty[38].

While urban poverty has been increasing, the urban poor are usually able to help themselves more than their rural counterparts by availing themselves of the economic opportunities afforded by the growing urban informal sector. The most vulnerable among the poor are women, particularly widows; children; unemployed youths; disabled people; female-headed households and certain ethnic and religious groups. Urban poverty is

33 United Nations Centre for Human Settlements,2001 The State of the World's Cities 2001 (Nairobi, UNCHS).

34 United Nations Human Settlements Programme, *Slums of the World: The Face of Urban Poverty in the New Millennium* (Nairobi, UNCHS, 2003).

35 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

36 United Nations Centre for Human Settlements, *The State of the World's Cities 2004/2005* (Nairobi, UNCHS, 2004).

37 Patrick Keuleers, "Governance in the Least Developed Countries in Asia and the Pacific", draft discussion paper (Bangkok, UNDP, 2004).

38 Slums of the World: The Face of Urban Poverty in the New Millennium, (2003) UNCHS.

generally defined in terms of household income. This however does not capture the multidimensional nature of poverty which includes low income, low human capital, stemming from little education and poor health; low social capital, including shortage of networks, weak labour markets, labelling, exclusion; low financial capital; lack of productive assets that could be used to generate income; lack of opportunity and chronic poverty. Half the current world population lives on less than $2 a day and those living in extreme poverty (less than $1 a day) actually decreased from 29 per cent in 1990 to 23 per cent in 1999[39].

Poverty reduction is now the primary objective of current developmental policy and the emerging paradigm is to address poverty and treat growth as incidental rather than vice-versa. Poverty reduction programmes are very dependent upon targeted delivery and are vulnerable to corruption.

Globalization, while it has given cities opportunities to act autonomously and enabled entrepreneurs to conduct worldwide business, has also created insecurities. Thus far the benefits accruing to the poor have been elusive and, if anything, globalization has increased inequalities. This is especially evident in the transition economies of Central Asia where in 1999 more than half the populations of Armenia, Azerbaijan, Georgia, Kyrgyzstan, Tajikistan and Uzbekistan lived in poverty[40].

Land Tenure: One of the pernicious factors affecting the urban poor is that lacking secure land tenure, they are bereft of sustainable shelter and often subject to discrimination and mass evictions. Tenure security recognizes the right of previously marginalised people to a sense of permanence and stability. Tenure is an essential component of a successful shelter strategy. Land can be secured through many types of tenure including ownership, leasehold and common, communal or customary land tenure. By 1998 over 80 per cent of the countries in the Asia-Pacific region had legislature that promoted housing rights and protected against forced evictions. Lack of secure tenure, especially in informal settlements, deprives people and businesses of essential public services. This problem is particularly difficult to address as local government receives no tax income to pay for the provision of services and the properties are not eligible to be used as collateral towards loans for further investment. Only by bringing these properties into the formal sector through registration and taxation can their potential wealth be realized[41].

Vulnerable sectors and gender equity: In Asian cities a major trend is the increasing number of women working for wages. For the most part, pursuit of export-oriented jobs has promoted rapid growth in feminization of low-wage semi-skilled jobs (men are better paid than women for the same job). Many poor women have to supplement their household income by working as maids, vendors, day labourers and artisans. Others are forced to work as casual labourers, such as rag pickers, often working in environments that are detrimental to their health and well being[42]. Worldwide there has been an increase in women headed households a well as impoverishment of women. In addition the feminization of poverty is trans-generational and women have to constantly face risks to their personal security. This has led to the increasing tendency for women to seek unionization, in an effort to achieve empowerment and recognition of their role as contributors to the workforce and economy[43].

Another aspect of poverty in Asia is the prevalence of child labour, which accounts for 60 per cent of Asian children between the ages of 5 and 15 years old. Child labourers provide a significant portion of labour for scavenging; vending; textile and garment production; and increasingly in prostitution. The greatest proportion of child labour is in low-income countries of Asia, such as India, where a quarter of the national labour force

39 The Challenge of Slums - Global Report on Human Settlements (2003) UNCHS/Earthscan.

40 Ibid.

41 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

42 State of Urbanization in Asia and the Pacific 1993, (1993) ESCAP, United Nations New York.

43 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

is below 14 years old[44]. Among the hazards children face, especially females, are indoor air pollution; toxic chemicals; heavy metals; radiation and poisons discharged into the air, water and soil. Exposure to these toxic substances can cause chronic health problems and unquantified numbers of deaths among children through cancer, birth defects, still-births, lead poisoning (predicating recent moves by countries towards increasing unleaded gasoline usage)[45]. Similar disadvantages face the disabled poor in urban areas.

Urban environment issues: Urban living poses environmental hazards through immediate local impacts on health and safety as well as environmental degradation with longer term consequences.[46] Daunting challenges facing effective urban governance are the result of the large scale and rapid urbanization taking place in the developing world. This has pitted development needs against a narrow environmental resource base that is providing itself unable to accommodate the unplanned urban growth. The resulting conflict is exacerbated by poverty, which aggravates the demands put on the urban environment through deteriorating tenements; open sewers; air pollution; illegal dumping of liquid wastes; poor drainage causing sewage spills and contamination; solid waste being dumped into waterways; and poorly managed garbage collection and sewerage systems. Improvements being made in industrialized and transition countries carry a significant price tag – a luxury developing countries can ill afford. The conflict between balancing a shrinking resource base against development needs has caused considerable damage to both the environment and the economy, which in turn stifles development and the urban growth. It also has a negative effect on the health and well-being of the population. The two-way relationship between environment and development brings into sharp focus the inextricable link between environmental governance and sustainable development. It also clearly points to the need for a paradigm shift away from merely protecting the environment to managing the environment sustainably in keeping with the natural resource base. Towards this end a number of new tools have emerged alongside existing ones, such as environmental impact assessment (EIA). Among these new tools are environmentally sound technologies (EST), environmental technology assessments (EnTA), environmental risk assessments (EnRA), environmental management systems (EMS) for local authorities and eco-industrial parks (EIP). These new tools are aided by monitoring measures such as accounting and auditing, designed to account for flow of materials and energy over time (the life cycle approach), leading to greater eco-efficiency[47].

Environmental problems vary from city to city depending in large part on their levels of development. Variations in the severity of environmental problems across cities at different levels of development clearly suggests that action should be prioritized based on the level of city development[48]. Following the methodology applied by the World Bank, the level of city development could be classified into 4 categories based on the city income (primarily, annual city product per capita, or GDP per capita for capitals, according to data availability). An exemplar classification for selected Asia-Pacific cities is given in table 2 below[49].

44 State of Urbanization in Asia and the Pacific 1993, (1993) ESCAP, United Nations New York.

45 Ibid.

46 World Development Report 2003 – Sustainable Development in a Dynamic World, The World Bank/OUP

47 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

48 World Development Report 2003 – Sustainable Development in a Dynamic World, The World Bank/OUP.

49 UNCHS (HABITAT) Global Urban Indicators (1998 data) www.unhabitat.org/programmes/guo/guo_indicators.asp

Table 2: Level of City Development

Subregion	Level of City Development - City (Country)			
	Low	Lower Middle	Upper Middle	High
South and South-West Asia	Dhaka (Bangladesh) Bangalore, Chennai (India)	Colombo (Sri Lanka)		
South-East Asia	Phnom Penh (Cambodia) Semarang (Indonesia)	Jakarta, Surabaya (Indonesia) Chiang Mai (Thailand) Cebu (the Philippines) Ho Chi Minh (Viet Nam)	Penang (Malaysia) Bangkok (Thailand)	Singapore (Singapore)
East and North-East Asia	Ulaanbaatar (Mongolia)		Hanam, Busan, Seoul (Republic of Korea)	Tokyo (Japan)
North and Central Asia	Yerevan (Armenia) Tbilisi (Georgia) Bishkek (Kyrgyzstan)	Astrakhan, Belograd, Kostroma, Nizhny-Novgorod, Novomoscowsk, Omsk, Surgut, Veliky-Novgorod (Russian Federation)	Astana (Kazakhstan) Moscow (Russian Federation)	
Pacific		Apia (Samoa)		

Source: www.unchs.org/programmes/guo/guo_indicators.asp

Land management: Land is essential for urban expansion but it is a finite resource. Many factors constrain land supply in developing countries. Among the most important are the lack of affordable land markets with supply concentrated in the hands of governments or speculators, lengthy procedures and inappropriate institutional structures, land use regulations and legal frameworks, inadequate valuation and taxation systems as well as out of date cadastral systems. Land registration and administration reforms designed to make land more accessible and affordable and do not unduly favour the middle and upper class or exclude the poor are perquisites for security of tenure and property rights. Towards this end public policy plays a crucial role in the supply and demand of land. Effective governance includes planning that not only involves opening up new land through transport and infrastructure development, but also regularizes and upgrades the settlement process. Furthermore, the procedures should lower transactions costs through streamlining approval procedures and lowering taxes. Land prices could be reduced, speculative investments minimized, capital optimized through promoting diverse investment options[50]. While urbanization can reduce human pressure on agricultural lands, the high volumes of toxic, non-biodegradable waste generated by cities is a major source of land degradation. Waste generation and disposal often accelerate land degradation, especially in arid and semi-arid areas found in parts of the Asia-Pacific region. Unmanaged and unsanitary landfills, often found in the poorer countries of the region, generate greenhouse gases; malodorous emissions and can pollute scarce underground fresh water resources[51].

50 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

51 Ibid.

Table 3: Urban environmental issues by level of city development

Sector or problem area	Low	Lower-middle	Upper-middle	High
Water supply service	Low, coverage, high bacteria contamination, inadequate quantity to meet hygiene needs (high risk of food contamination and infectious diseases)	Low access by poor residents and informal neighbourhoods.	Generally reliable, but rising demand causing shortages in resource supply.	Good supply but high total consumption, some concern with trace pollutants.
Sanitation	Very low coverage, open defecation in some neighbourhoods and low ration of public toilets to residents; high risk of diarrhoeal diseases.	Better coverage of latrines and public toilets, but poorly maintained, low sewerage coverage.	More access to improved sanitation, but still large numbers of residents in large cities not covered especially in informal settlements; most wastewater discharge untreated.	Full coverage; most wastewater treated.
Drainage	Storm drains very inadequate, poorly maintained; frequent flooding, creating high risk of water-related disease vectors (mosquitoes).	Somewhat better than low income.	Better drainage; occasional flooding.	Good drainage; very limited flooding.
Water resources	Mixed sewerage and storm water runoff to water bodies causing bacterial pollution and silting.	Risk of groundwater contamination from poorly maintained latrines and untreated sewage.	Private wells drawing down groundwater; severe pollution from industrial and municipal discharge.	High levels of effluent controls and treatment to reduce pollution.
Solid waste management	Little organized collection; recycling by informal sector, open dumping or burning of mixed wastes; high exposure to disease vectors (rats, flies).	Moderate coverage of collection service, little separation of hazardous waste; mostly uncontrolled landfills.	Better-organized collection; severe problems but growing capacity for hazardous waste management; semi-controlled landfills.	Increased emphasis on total waste reduction, resource recovery and preventing hazardous waste; controlled landfills or incineration.

Sector or problem area	Low	Lower-middle	Upper-middle	High
Air Pollution	Indoor and ambient air pollution from low-quality fuels for household uses and power generation.	Growing ambient air pollution from industrial and vehicular emissions (high-per-vehicle due to inefficient fuels and vehicles.	Ambient air pollution still serious (but greater capacity to control especially industrial sources).	Ambient air pollution mainly from vehicles (due to high volumes of traffic).
Greenhouse gas emissions	Very low per capita.	Low but growing per capita.	Rapidly increasing, mainly due to motorization.	Very high per capita.
Land management	Uncontrolled land development, intense pressure from squatter settlements on open sites.	Ineffective or inappropriate land use controls, pushing new settlements toward urban periphery; continued high population growth.	Some environmental zoning.	Regular use of environmental zoning, little population growth, but rising incomes press for more land consumption for existing residents.
Accident risk	In-home and workplace accidents due to crowding, fires.	Increased risks of industrial workplace and traffic accidents (pedestrian and non-motorized vehicles).	Transport accidents increasing, but some mitigation and emergency response.	Rate of industrial and transport accidents reduced despite increasing travel (vehicle kilometres)
Accident risk	In-home and workplace accidents due to crowding, fires.	Increased risks of industrial workplace and traffic accidents (pedestrian and non-motorized vehicles).	Transport accidents increasing, but some mitigation and emergency response.	Rate of industrial and transport accidents reduced despite increasing travel (vehicle kilometres)
Disaster management	Natural disasters produce massive loss of life and property especially in settlements in disaster prone areas, little capacity for mitigation or emergency response.	Somewhat better than in low-income, although with increasing risk of industrial disasters.	Increasing awareness and capacity for disaster mitigation and emergency response.	Good capacity for mitigation and response.

Source: World Bank 2003, World Development Report 2003, p. 112.

Housing: It has been estimated that over one billion urban residents worldwide live in inadequate housing, mostly in slums and squatter settlements (shanties) bereft of shelter, basic urban services and social amenities. The overwhelming majority of the settlements are in developing countries. Over half of these are found in the Asia-Pacific region. Regarded as one of the most visible expressions of human poverty UNCHS (HABITAT) considers inadequate housing one of the most pressing problems of the 21st Century[52]. In Asia, where more than two-thirds of the world's poor live, rural-urban migration has put pressure on urban housing and other services, leading to the development of slums.

In the Pacific with the exception of New Zealand and Australia who have very low slum incidences (1.0 per cent and 1.6 per cent respectively in 2001), the developing countries of the Pacific Islands with low levels of urbanization the slum population accounted for almost a quarter of the urban population. Four Pacific Islands in particular have high levels of slum dwellers (Fiji-67.8 per cent, Kiribati–55.7 per cent, Vanuatu-37.0 per cent and Papua New Guinea–19.0 per cent in 2001)[53]. Housing in developing countries often serve as workplaces, generating income and influencing productivity. Housing can therefore be see as both a goal and tool of development policy. Improvements to housing stock can be viewed as strategic economic and social investments. The challenge to governance is to explore innovative ways to attract the additional financial resources needed to meet the needs of the lowest income groups[54].

Urban services: The increasing trend worldwide has been the transition of state and national governments from direct providers of essential urban services to managers in charge of setting up appropriate mechanisms and facilitating service delivery. Increasing this is gone through a wide variety of actors including local authorities, the private sector and communities acting within an enabling framework. In short, the trend is toward decentralization. Providing basic urban services presents a challenge to urban governance. However, it is a challenge that must be met as it is an essential component of social-wellbeing, economic development and environmental sustainability. Limited access and poor quality of infrastructure services constrains business and social well-being in many Asian cities. While 1998 data for cities in the Asia-Pacific region indicate per household access to water (66 per cent), sewerage (58 per cent), telephone connections (60 per cent) and electricity (94 per cent) many of the poorest households have only limited access to water, sewer or solid waste disposal systems and often cannot afford telephone or electricity connections. This not only reduces quality of life, but makes communities in informal settlements particularly vulnerable to disease[55].

Water supply: With urbanization and population growth the demand for potable water has increased. While around 70 per cent of the urban population of the Asia-Pacific region have access to water supply a commensurate increase in access to sanitation has not occurred.

As a consequence of inadequate water to maintain personal and household cleanliness, water hygiene diseases including enteric diseases such as diarrhoea and dysentery - one of the major causes of Asian infant mortality – as well as eye, skin and vector borne diseases have become problematic.

The Asia-Pacific region is characterized by low water reliability with poor quality and high leakage rates. Overexploitation of ground water has lead to ground subsidence and flooding along with surface and groundwater pollution. Piped water supplies are often unreliable with aging water pipes, inadequate financial resources for maintenance. This problem is compounded by a lack of trained personnel and equipment to monitor, detect and repair broken and leaking connections. This has lead to large losses (up to 60 per cent of total water supply) and inevitable contamination of the water supply.

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52 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

53 Slums of the World: The Face of Urban Poverty in the New Millennium, (2003) UNCHS (HABITAT).

54 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

55 Ibid.

Sanitation: Sanitation has lagged behind water supply in the Asia-Pacific region with only 60 per cent of the urban population having access to sanitation services. The dominant urban sanitation systems in the Asia-Pacific region are septic tanks, pit privies and buckets. With the exception of Singapore less than 20 per cent of urban households are connected to a central sewer system. In some countries like Thailand and Indonesia even primate cities like Bangkok or Jakarta have limited sewerage systems. Overflows from septic tanks and pit latrines threaten ground water supplies and in low lying cities subject to flooding, pose health risks through exacerbating water borne microbial diseases[56].

Solid and hazardous waste management: Increases in the volume of urban wastes are a reflection of increasingly affluent lifestyles rather than urban growth. Annual waste production ranges from 300-800 kg per person in more developed countries to less than 200 kg per person in the least developed countries. Increasing costs are due to inefficient collection, transport and reduced availability of safe, suitable, accessible disposal sites around urban centres. These factors have constrained greater participation by private waste management companies and has spurred the development for more efficient, environmentally friendly options such as locally developed collection and disposal equipment, recycling and adoption of less polluting incineration technologies where feasible[57]. For local authorities solid waste management is a basic service that can barely recover operating costs. Urban solid waste management, especially in the developing countries of the Asia-Pacific region, must involve a judicious combination of public, private and community involvement - in particular the informal sector – with special emphasis on waste minimization and income generation for the urban poor through small-scale waste recycling initiatives. Special consideration is necessary for the collection and final disposal of hazardous wastes from households, industries and hospitals[58].

Transport: With many cities in developing countries experiencing the social and environmental drawbacks due to increasing rates of motorization, management of transport systems has become an urgent priority for urban policymakers. Transport accounts for 70 to 80 per cent of the total emissions in cities of developing countries, a figure that is increasing. Despite stringent vehicle and fuel regulations, health costs due to traffic pollution in developed countries is 1.7 per cent of GDP. In the developing world, with less stringent regulations, the problem is much worse. More cities are creating public transport systems and in some instances, such as Tokyo, the encouragement of non-motorized transport like bicycles. While commute times in the Asia-Pacific region appear to be longer than in other regions, this could be a function of the high use of non-motorized transport modes, as some 23 per cent of work trips in 1998 were made by foot and bicycle. Transport infrastructure is costly, often splitting and isolating neighbourhoods. It is also a leading cause of urban eviction and relocation both directly, due to construction and indirectly due to land speculation. Urban transport systems have negative social, environmental and economic impacts and often discriminate against women. This is especially true for poor women forced to live in peri-urban areas, as transport systems cater to the largely male dominated work force. Among the challenges faced by urban governance is the integration of shelter, land use, transport through land use controls and spatial planning and investment in more effective transport infrastructure[59].

Air pollution: The growth of cities devoid of environmental safeguards, in spite of increasing environmental awareness, is a major factor in the fact that air pollution levels are still high in many parts of the world. As mentioned before 70-80 per cent of local air pollution in cities of developing countries is caused by emissions from the transport sector. In the industrialized cities of the Asia-Pacific region, like China's major cities, as well as in cities like Ulaanbaatar, which are dependent upon coal as a major source of energy, industry and power

56 State of Urbanization in Asia and the Pacific 1993, (1993) ESCAP, United Nations New York.

57 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

58 Ibid.

59 ibid.

plants are major sources of air pollution. Air pollution has trans-border effects such as acid rain due to sulphur dioxide and nitrogen dioxide. Similarly greenhouse gas emissions such as carbon dioxide contribute to global warming.

The twin challenges with regard to urban air pollution are to make cities healthy and liveable places and to control transboundary effects that would lead to global environmental degradation. Air pollutant levels exceeding WHO standards are found in many Asia-Pacific cities and are responsible for a plethora of adverse health effects ranging from cardiovascular and respiratory disorders (due to particulate matter and sulphur dioxide), cancers (due to several pollutions, most notably poly-cyclic aromatic hydrocarbons) to reduced IQ of children (due to heavy metal particles, especially lead). Women in the region also suffer most from indoor air pollution due to extensive dependence on biomass cooking[60].

Disasters: These can be both natural and anthropogenic in nature. In recent years, anthropogenic disasters especially conflicts and terrorism have been of particular concern. Of the two billion people affected by disasters during the last decade 80 per cent lived in Asia. Extreme weather events like El Niño and La Niña have intensified in the past two decades due to global warming. Small islands (like Singapore and Maldives), the small island states of the Pacific as well as coastal cities like Tokyo, Shanghai, Sydney, Bangkok and Hong Kong, China are especially at risk. Other natural disasters like floods and landslides expose unplanned settlements to grave danger. Because these settlements are often built on vulnerable lands, they place inhabitants, especially the poor at considerable risk. Lacking vulnerability assessments, preparedness, mitigation, prevention and response capacities, many Asia-Pacific cities must face the brunt of natural disasters such as the earthquakes seen recently in Pakistan, India, the Islamic Republic of Iran and Turkey; hurricanes and tsunamis resulting in catastrophic loss of life and property. Once disaster has struck and after the initial influx of national and international assistance many local governments and communities do not have the necessary capacity or resources to rehabilitate and re-house the survivors[61].

60 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

61 Ibid.

CHAPTER V: CURRENT ASIA-PACIFIC URBAN GOVERNANCE MODELS/SYSTEMS

Governance in the Asia-Pacific region: Asia is poised to become the world's dominant economic powerhouse during the twenty-first century. With over 50 per cent of its population predicted to be urbanized by the year 2025 (the Pacific is already over 70 per cent urbanized) the future of Asia, and indeed the region, will be largely dependent on how well cities function as systems. The functioning of these systems is evermore important given that most value added economic activities will be located in urban areas. In spite of the rapid transformations taking place in the economies and societies of Asia and the Pacific, government structures and systems in most countries of the region have been slow to change and confront the new challenges of the twenty-first century. Historically, the region has had strong governments, which have favoured the top down approach of centralized bureaucracies (Indonesia, Malaysia, Singapore, Republic of Korea and China)[62]. However, addressing the challenges of the twenty-first century require new paradigms involving decentralization of power and partnerships between local governments, civil society and the private sector. This requires no less than a fundamental re-evaluation of the form and nature of local governance in Asia and the Pacific. Realizing that most countries of the region are in the process of undertaking reforms aimed at decentralizing and devolving government functions to the local level ESCAP, in partnership with other organizations initiated a study of local government systems in 15 countries of the region[63]. The study was designed to assist policymakers and researchers in undertaking this task[64]. The salient features of these fifteen countries[65],[66] are summarized in annex 2, with focus on environmental aspects.

The analysis that follows draws from annex 2 and the sources used in its construction.

Local governance: Historically, most countries in the region have had some form of indigenous local governance involving public participation. Several models of decentralization have been practiced and local government reforms have been driven by public sector efficiency, democratization and changing political-economic regimes ranging from mixed to market economies. Central control over local government is still largely through financial control. As local governance is also ultimately about control, its effectiveness is determined by the ability to reach decisions locally, outside the control of a higher level of government[67]. It is important to consider this in the context of environmental issues, as their consideration also forms an essential aspect of sustainable local governance.

Finance: In reality, most cities rather are dependent to some extent or another on the central government for revenue to ensure their very survival[68]. While decentralization of urban services to local governments enhances the influence of citizens and mobilizes collective action, it requires that local service authorities be accountable and able to address problems[69]. Of the countries in the region (covered in annex 2), New Zealand's local government has the greatest control over its finances, of which 90 per cent is locally sourced. In Bangladesh, Fiji and Malaysia, the local governments simply lack their own resources. Even in New Zealand, the central government retains a measure of control through external audits of management and environmental activities.

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62 P. Keuleers (2004) Governance in the Least Developed Countries in Asia and Pacific, UNDP, Bangkok SURF.

63 S&SW Asia: Bangladesh, India, Pakistan, Sri Lanka; SE Asia: Indonesia; Malaysia, Philippines, Thailand; E&NE Asia: China, Japan, Republic of Korea, N&C Asia: Kyrgyzstan; and Pacific: Australia, New Zealand, Fiji.

64 Local Government in Asia and the Pacific (1998) ESCAP www.unescap.org/huset/lgstudy/index.htm

65 Bhutan, Singapore, Hong Kong, China and the Russian Federation.

66 Area Handbook Series US Federal Research Division Library of Congress (1998) http://countrystudies.us/

67 Local Government in Asia and the Pacific (1998) ESCAP www.unescap.org/huset/lgstudy/index.htm

68 State of Urbanization in Asia and the Pacific 1993, (1993) ESCAP, United Nations New York.

69 World Bank 2003, *World Development Report 2003 – Sustainable Development in a Dynamic World*, The World Bank/ OUP.

Administration: Administrative reforms in local authorities are hampered by the sheer number of institutions with conflicting and overlapping mandates. However, numerous opportunities to improve the efficiency and effectiveness of service delivery through sharing, administrative responsibility, improving allocation of functions and integrating civil services still exist.

Legislation: The powers, authorities, duties and functions of local governments stem from a legislative base, which is either constitutionally recognized by the national government or through State-Provincial statutes.

Central-local relations: Local governments ultimately derive their power from a higher level of government, which exerts various degrees of control. By and large, the higher levels of government dominate this relationship to differing degrees, depending upon the country. Central-local relationships range from extreme efforts to increase centralization, to cautious decentralization through cooperation between various levels of government. The latter approach culminates in a synergy between local and central governments. The ultimate goal of achieving full local autonomy is to increase accountability to the local community.

Other considerations: Increased autonomy of local governance fosters the emergence of support mechanisms, which are essential to effective and sustainable governance. These include privatization; corporatization; participation by civil society and the community, especially disadvantaged groups; and development of local capacity, including human resource development.

Privatization-corporatization: This is an increasing trend accompanying local government autonomy. While both processes refer to transfer of local government functions and powers, in corporatization the transfer is to semi-governmental bodies (or parastatals) operating based on private sector corporate principles. In privatization, the transfer is entirely to the private sector. This is best exemplified by New Zealand, and to a lesser extent by Australia, whose policies largely adhere to the principle that the state should deliver goods and services only where market failure exists. In Malaysia the government is pursuing privatization by contracting out building, cleaning and maintenance of parks. Local governments in Pakistan have contracted out tax collection, and in Sri Lanka some local authority functions such as water and electricity provision have been handed over to government owned boards, corporations and statutory authorities in an effort to directly serve the community, an arrangement the public seems to prefer. In Fiji private contractors serve residents overlooked by municipal councils, by providing services like garbage collection. However, while both corporatization and privatization provide for local decision-making it does not necessarily improve local governance or democracy, as often technical experts or special interest groups are delegated to make the decisions.

Civil society and community participation: In some instances as in Bangladesh, the inability of local governments to develop innovative approaches to problems has encouraged civil society groups to take action or stimulate local government into action. In Japan public participation is legally supported and actively courted. Local authorities have realized that they in fact must take the initiative to look for new ways to engage their communities. However, not all efforts have proved successful, as exemplified in Sri Lanka with the failure of Community Development Councils in Colombo to encourage a closer level of citizen participation. In India due to its large land area and population, small group participation is probably the only effective mechanism to engage citizens, consequently, a number of techniques to engage them have been utilized. The use of polls, petitions, social consultation, dialogue, committees, advisory boards, and commissions are seen in a number of countries (New Zealand, Australia, Republic of Korea, China and Thailand). The use of less direct methods such as poster books and letters to newspapers have also been used (India and Australia). Malaysian local governments capitalize on a variety of public interest groups (including environmental protection societies) by supporting community driven programmes, often by loaning equipment. Slum improvement programmes in Bangladesh have benefited from public participation, with women especially benefiting.

Inclusion of disadvantaged groups: Gender balance and social inclusion, which should bolster the democratic process and increase participation, are two areas where progress has been wanting in most countries in the Asia-Pacific region. A number of countries have specific provisions for the election of women (India, Pakistan and to a lesser degree Bangladesh). Poor people are excluded from seeking elected office in local government due to excessive costs of electioneering (Sri Lanka) and inclusion of indigenous people in government is an issue in Australia, Fiji and New Zealand.

Local capacity/human resource development: Notwithstanding the existence of relevant, and in some cases even idealistic, laws many local authorities simply lack the capacity to provide even basic financial accounts (Malaysia), much less create a sustainable and habitable environment in the urban/city areas (Sri Lanka, Pakistan and Bangladesh). Often the failures are due to weak administrative capacity, inadequate finances, poor public participation and limited human resources.

All countries in the region acknowledge a critical need for human resource development. Obstacles to this goal include inability to recruit and retain competent staff, and the need to train and equip staff to meet the demands of the new paradigm embodied in decentralization. The retention of staff in rapidly deregulating labour markets makes this task ever more difficult.

Environmental issues: As one of the three pillars of sustainable development, local authorities must mount an effective response to environmental issues. Nowhere is this more important than in the cities of ESCAP region. The countries in the Asia-Pacific region address environmental aspects in a variety of ways. In Australia and in New Zealand, local councils carry out a number of environmental functions, with Australian councils having discretionary authority over environmental planning and management and New Zealand councils carrying out resource management policy and planning. In Bangladesh urban local governments undertake solid waste management, water supply and slum improvements. At the other end of the scale in Bhutan, which has a small urban population, water and sanitation is provided by the central government. At the same time the government actively discourages mass tourism and only encourages environmentally conscientious visitors. In China provincial governments have no direct environmental mandate although city and county governments have environmental protection offices and bureaus. In Fiji municipal councils are emphasizing their role in environmental management by privatizing public utility services, drainage, waste management and solid waste disposal services. In Hong Kong, China the Environmental Protection Department provides a number of environmental services and functions including enforcement and monitoring of environmental laws; waste disposal; advisory services; as well as environmental education. In India a plethora of authorities control environmental pollution at national, state and local levels. The Ministry of Environment oversees the Department of Environment at the state level, which besides overseeing pollution from traffic and industrial also controls local authorities. The local authorities have their own functions. In Indonesia local government functions include solid waste collection, water supply, forest conservation, and sanitation. In Japan, prefectures and municipalities cover public services and environmental protection as well as pollution prevention regulations. In Kyrgyzstan while no direct environmental functions are assigned to local authorities, they nevertheless oversee rational utilization of natural resources, while ensuring compliance with environmental acts and sanitation norms. While the Lao People's Democratic Republic does not have any targeted environmental programme; solid waste management, water supply development and drainage are being carried out with external assistance in Vientiane and other towns. In Malaysia and Pakistan local authorities focus on environmental maintenance and improvement through ensuring solid waste disposal, drainage, and sewage. In the Philippines, local government environmental management functions are specifically legislated and include ensuring the environment is protected through the imposition of penalties for activities that endanger the environment. In the Republic of Korea, central government grants require local authorities to protect the environment including construction and management of environmental facilities. In the Russian Federation environmental agencies represent the central government at the subnational level. The Ministry of Environment provides all required environmental services in Singapore. The main functions of municipal and

urban councils in Sri Lanka could be classified as environmental in nature. However, some services are being privatized, for example garbage collection and street sweeping in the capital city Colombo. Similarly, most urban local governments in Thailand also provide public utilities, sanitary services, and maintenance of public and recreational spaces[70].

Human Development and Environmental Sustainability Indices (HDI & ESI): Where available, the value and world rank in both the Human Development Index (HDI) and Environmental Sustainability Index (ESI) have been indicated in annex 2. A brief description of the main features of these two indices is given box 3.

Annex 3 gives the numerical value and rank (where available) of HDI and ESI for the countries of the Asia-Pacific region. The concept of sustainability is fundamentally centred on future trends and, as such, the ESI goes beyond simple measures of current performance. Countries high on the ESI list can generally be expected to maintain favourable environmental conditions into the future. However, it is important to remember that ignorance about critical resource thresholds and the dynamic nature of environmental conditions precludes the ability to draw definitive conclusions about the long term environmental sustainability of particular countries.

70 The preceding discussion and analysis is based on the sources used in the construction of annex 2.

Box 3: Human Development Index (HDI) and Environmental Sustainability Index (ESI)

The human development index (HDI) is a summary measure of human development and combines measures of life expectancy, school enrolment, literacy and income to allow a broader view of a country's development than does income alone. It is a composite index measuring average achievements in a country in three basic dimensions of human development, namely:

- A long and healthy life, as measured by life expectancy at birth
- Knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary and tertiary gross enrolment ratio (with one-third weight)
- A decent standard of living, as measured by GDP per capita (PPP US$).

The index ranks 177 countries worldwide, 42 of them from the Asia-Pacific region, and groups them into three categories based on their HDI values: High Human Development (0.800-0.956), Medium Human Development (0.501-0.796), and Low Human Development (0.273-0.497).

Source: UNDP (2004) Human Development Report: Cultural Liberty in Today's Diverse World, (United Nations Publication Sales No. 04. III. B1).

The Environmental Sustainability Index (ESI) measures overall country progress toward environmental sustainability, which is measured through 20 environmental "indicators" and their 68 associated variables. The ESI tracks relative success for each country in five core components:

- Environmental Systems (e.g. air, soils, ecosystems and water)
- Reducing Environmental Stresses (e.g. pollution and exploitation levels)
- Reducing Human Vulnerability (e.g. loss of food resources or exposure to environmental diseases)
- Social and Institutional Capacity (e.g. to deal with environmental challenges)
- Global Stewardship (e.g. collectively cooperating to conserve environmental resources like the atmosphere)

The index ranks 142 countries worldwide (32 Asia-Pacific countries) whose ESI values range from 23.9–73.9. Although the ESI is broadly correlated with per-capita income, the level of development does not alone determine environmental circumstances. Environmental sustainability is therefore not a phenomenon that will emerge on its own from the economic development process, but rather requires focused attention on the part of governments, the private sector, communities and individual citizens.

Source: ESI Main Report (2002) – Yale Center for Environmental Policy and Law, Yale University, USA.

A cursory examination of the values and ranking of countries in the Asia-Pacific region for each index (see annex 3) indicates the absence of a demonstrable trend between the two indices. A high HDI value/rank does not automatically guarantee a high value/rank for ESI and vice versa.

A cluster analysis performed to facilitate comparisons between countries with similar profiles resulted in clustering of the 142 countries considered into five groups that showed distinctive patterns across the 20 indicators used. For the 32 Asia-Pacific region countries included in the ESI the results are given below:

- **High human vulnerability, moderate systems and stresses** – Bhutan, Cambodia, Lao People's Democratic Republic, Myanmar, Nepal, Pakistan and Papua New Guinea
- **Low human vulnerability, moderate systems and stresses** – Australia and New Zealand
- **Low human vulnerability, poor systems and high stresses** – Japan and Republic of Korea
- **Moderate human vulnerability, systems and stresses with low capacity** – Azerbaijan, Democratic People's Republic of Korea, Kazakhstan, Russian Federation, Turkmenistan and Uzbekistan
- **Moderate human vulnerability, systems and stresses with average capacity** – Armenia, Bangladesh, China, India, Indonesia, Islamic Republic of Iran, Kyrgyzstan, Malaysia, Mongolia, Philippines, Sri Lanka, Tajikistan, Thailand, Turkey and Viet Nam

City Development Index (CDI)[71,72]: Although somewhat dated this exclusively urban index (originally developed in 1997 by UNCHS, and updated using 1998 data) ranks 162 cities worldwide according to their level of development and can be taken as a measure of well-being and access to urban facilities by individuals. While the CDI is similar to the Human Development Index (HDI), it provides a better measure of urban conditions. The CDI is based on five sub-indices namely: city product, infrastructure, waste, health and education. Values for each sub-index range from 0 to 100. Of the 162 cities included in the list worldwide, CDI values range from a high of 98.0 (Hull, Canada) to a low of 21.7 (Niamey, Niger). Generally, cities in developed countries have CDI values over 90 while CDI values below 30 were seen exclusively in African cities. Of the 162 cities worldwide for which CDI values have been calculated, 46 lie in the ESCAP region. These are presented and ranked in annex 4.

Values for cities in the ESCAP region range from a high of 95.8 (Seoul, Republic of Korea) to a low of 35.3 (Tangail, Bangladesh). The CDI has been cited as a good index of urban poverty and urban governance as its health, education and infrastructure components reflect poverty levels while its infrastructure, waste and city product reflect effectiveness of city governance. CDI values appear to be correlated to city product and, other factors being similar, a high-income city will have a higher CDI. The methodology used to calculate CDI and comparison of the CDI components by region is detailed in a UNCHS publication[73].

Models/Systems of urban governance: The Asia-Pacific region is made up of very diverse societies and economies and any attempt at drawing common patterns of urban governance is likely to reflect only partial realities. Therefore, any trends are likely to be true for only a few cities. However, there are some discernable trends in the way governance structures have evolved in the region, that display distinct features referred to earlier. Typically, the many diverse forms of local governance stem largely from national policies designed to spur economic growth through increasingly liberalized economic policies and market reforms. This has resulted in wide spread decentralization by shifting planning and decision-making to local governments. The

71 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

72 Global Urban Indicators Database (Ver 2 -2001) GUO UNCHS (HABITAT) www.unchs.org/publication/Analysis-Final.pdf

73 Ibid.

variations seen here revolve around the degree of control exerted by the centre and the local government's capacity to handle the increasing autonomy that is devolving upon them. Local government manage the challenges and pressures brought to bear by numerous stakeholders, keen to influence urban policies; the forging of constructive partnerships with the private sector and civil society and increasing transparency and accountability in a wide variety of ways. It has also resulted in declining state involvement in the urban economy and the increasing role of the private sector in service provision, infrastructure development and urban housing. Land management and housing provision have emerged as critical local governance issues[74].

Decentralization: Asia's central governments generally appear to have the power to close local governments. The inability of central governments to close local governments is seen among the more developed countries like Japan, the Republic of Korea and Singapore as well as the Central Asian countries and also notably in Indonesia, Malaysia, Myanmar, the Russian Federation, Turkey and Samoa.

The ability of local governments to borrow money varies as well, with cities like Tokyo, Yangon, Surabaya, Bandung, Cebu, Yerevan, Tbilisi, Astana, Hanoi, Ho Chi Minh, as well as all Russian Federation and Republic of Korea cities being able to borrow all necessary funds. Cities like Colombo, Ankara, Phom Penh, Jakarta and Vientiane are able to borrow limited amounts, but cities listed for Bangladesh, Pakistan and Thailand as well as cities like Alwar, Delhi, Semarang and Penang are unable to borrow any external funds.

The ability of local governments to choose contractors for projects varies from having complete freedom of choice (all cities listed for Bangladesh, the Russian Federation and Nepal, as well as the cities of Colombo, Ankara, Phnom Penh, Chennai, Mysore, Yangon, Cebu, Surabaya, Chiang Mai, Tokyo, Tbilisi, Astana and Bishkek) to having some freedom of choice (all cities listed for Pakistan, Viet Nam, and the Republic of Korea as well as the cities of Bandung, Jakarta, Penang, Bangkok and Vientiane) to a few with no freedom of choice whatsoever (Alwar, Bangalore, Delhi and Semarang). Interestingly, it appears that even within cities of a single country, for example India there are differences in the degrees of decentralization enjoyed by local governments.

Citizen involvement: Over 60 per cent of the cities listed have civil society involvement in major public projects (exceptions are all cities in Bangladesh and Pakistan as well as the cities of Phnom Penh, Alwar, Bangalore, Delhi, Chiang Mai, Ankara, Tbilisi and Astana)

Local Environmental Plans: Over 70 per cent of the cities listed have environmental plans (exceptions are Alwar, Delhi, Mysore, Karachi, Lahore, Chiang Mai, Ankara, Yerevan, Tbilisi, Astana and Apia). The institutionalization of environmental plans has taken place in more than 60 per cent of the cities (except all cities in India, Indonesia, Pakistan, and the cities of Pokhara, Yerevan, Astana and Astrakhan). The implementation of local environmental plans has taken place in over 65 per cent of the cities listed (except all Pakistani cities and the cities of Tangail, Alwar, Delhi, Mysore, Bandung, Butwal, Chiang Mai, Ankara, Yerevan, Tbilisi, Astana Omsk and Apia).

Housing rights: The constitution or national law in each country promotes the right to adequate housing in 90 per cent of the cities (except for the cities in Pakistan, Myanmar and Armenia). Over 70 per cent of the cities listed have constitutional protection against eviction (except those in Cambodia, Myanmar, Nepal, Pakistan, Singapore, Thailand, Armenia and Kazakhstan). Cities in most countries have no impediments to women owning land or inheriting land and housing, or for that matter taking mortgages in their own name. However, some impediments to land ownership have been observed in the Republic of Korea, as well as the cities of Phnom Penh, Colombo and Chiang Mai, and to a considerable extent in Delhi, Karachi and Lahore.

74 Karaos, A.A. (1997) Existing and Alternative Models of Urban Governance, UMP-Asia Occasional Paper #34.

Public-private partnerships: Over 60 per cent of the cities in the region have had public-private partnerships set up within the last decade. The exceptions are Chittagong, Sylhet, Alwar, Chennai, Delhi, Mysore, Karachi, Lahore, Chiang Mai, Astana, Bishkek, Hanam, Pusan, Seoul and Apia.

International affiliations and cooperation: Nearly 60 per cent of the cities are affiliated in some way to associations of local authorities, while over 60 per cent are involved in some form of city-to-city cooperation.

The UNCHS-HABITAT's Global Urban Observatory has also documented global urban conditions and trends in their City Profiles. These profiles cover environmental management and governance issues in the countries. Interested parties can find these profiles by following the links given below.

- UN-HABITAT Global Urban Observatory- City Profiles (2001) www.unhabitat.org/programmes/guo/guo_cityprofiles.asp
- *Challenge of Urbanization: World's Largest Cities* UN (1996) www.un.org/cyberschoolbus/habitat/profiles/index.asp)

Largely due to the inexorable march of globalization and the need to restructure their economies to become more globally competitive even formerly centralized economies and Governments (like China, the Russian Federation and Viet Nam) are adopting economic liberalization, including market directed policies, which have had a significant impact on urban economy and governance. Decentralization of urban management has been the driving force of urban governance models with differences evident in the extent to which higher levels of government have allowed their authority to devolve.

A cross section of the main types of organizational structures employed for urban management in the Asia-Pacific region is listed in table 4. [75]

Clearly, there are a plethora of organizational arrangements that span the gamut from central control to independent functioning of local government. The trend is towards increasing decentralization and greater autonomy. However, the proliferation of multiple forms of organizational arrangements has often led to a lack of coordination and consistency of action by concerned government agencies. Therefore, intra-agency coordination has become a serious problem in cities like Karachi[76].

Civil society in many of the region's developed cities, such as those in Australia, have a larger influence on public policy and promote "quality of life" over "growth at all costs". In the less developed cities, government policies tend to favour economic growth as a foundation for a higher quality of life. The governance of many cities is closely linked to city planning processes. Urban planning issues affect many actors including supranational aid organizations, intergovernmental institutions, specialized authorities, local governments, the private sector and political parties. The interests of the actors do not necessarily converge, complicating the planning process. The result is a continuing tug-of-war dividing an ever-dwindling pie in which no one is a clear winner.

Economic performance does not necessarily translate into fiscal strength. Osaka has to give up two-thirds of its revenue to the central government in Tokyo. In China a similar situation was faced by Shanghai and Dalian but the elevation of these two cities to the provincial level gave the cities more autonomy over their development. In Australia, state governments often act as powerful regional governments and have jurisdiction over their capital cities as evidenced in Melbourne (Victoria) and Sydney (New South Wales)[77].

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75 Dveloped on basis of State of Urbanization in Asia and the Pacific 1993, (1993) ESCAP, United Nations New York, Annex 2 and www.unhabitat.org/programmes/guo/guo_cityprofiles.asp

76 State of Urbanization in Asia and the Pacific 1993, (1993) ESCAP, United Nations New York.

77 John Friedmann, Cities Unbound (1998), www.unesco.org/most/friedman.htm

Table 4: Urban governance in Asia-Pacific cities

Governance Model	City (Country)	Type of urban governance
Centrally Controlled	Shanghai, Beijing (China) Moscow, Omsk (Russian Federation) Thimpu (Bhutan) Hong Kong, China Chiang Mai (Thailand) Phnom Penh (Cambodia) Penang (Malaysia)	Central government exerts strong direct control over local governments. This is especially true of financing. Increasingly, more decision-making powers are being devolved, with the exception of the Russian Federation).
Special Province	Bangkok (Thailand) Jakarta (Indonesia)	The metropolitan area is designated as a special province in which local government and provincial governments are merged into one.
Two-tier System	Manila (the Philippines) Tokyo (Japan) Vientiane (Lao People's Democratic Republic)	Some key functions of local governments have been transferred to a metropolitan organization empowered to control and supervise local governments. (In Japan, central and local governments are independent but complement and depend on each other. Lao People's Democratic Republic has an Urban Development and Management Committee to oversee the Vientiane municipalities. In the Philippines, national government has no control over local governments apart from general supervision).
Development Authority (parastatals)	Delhi, Bombay (India) Karachi, Lahore (Pakistan) Colombo (Sri Lanka) Dhaka, Chittagong (Bangladesh) Seoul (Republic of Korea) Astana (Kazakhstan)	Development authorities, or City Corporations with metropolitan wide jurisdiction, have been created by statute. These organizations undertake regional planning, and coordinate multi-sectoral programmes. Higher-level governments exert strong control but moves have been made towards increasing local government autonomy.

Governance Model	City (Country)	Type of urban governance
Single-tier city/ metropolitan government	Kuala Lumpur (Malaysia) Surabaya (Indonesia) Suva (Fiji) Bishkek (Kyrgyzstan) Singapore (Singapore) Hanoi (Viet Nam) Ulaanbaatar (Mongolia) Yangon (Myanmar)	A number of central government functions have been decentralized, or are being decentralized (except Singapore). A city government/ municipal council/city development committee manages the metropolitan area. (State government still influences local government finances in Malaysia).
Inter-municipality	Kolkata (India) Cebu, Davao (the Philippines)	Municipalities cooperate with each other in providing some services.
Increased autonomy - some higher level control (finance and parastatals)	Sydney, Melbourne (Australia)	Central governments have devolved considerable power to local councils, who provide many local government functions. Many of these functions are administered by a growing number of parastals or quangos which are overseen by local government.
Maximal Autonomy	Aukland, Christchurch (New Zealand)	Local government is increasingly independent and autonomous of central government control, with local authority having primary responsibility to its electors.

In the Pacific Islands there is concern about whether urban development models from other parts of the world are appropriate to the islands' unique circumstances. Current models view urbanization as an engine of growth but this has doubtful applicability in the Pacific as most countries' populations are predominantly rural. For instance in Papua New Guinea only 15 per cent of the population live in the capital city Port Moresby but it absorbs 90 per cent of the national budget. Lack of secondary urban centres or rural development has resulted in an increase in informal settlements across the region. For instance, Fiji has a squatter population of 182 settlements in a country with a total population of 82,000. Given these conditions the Pacific urban agenda rightly calls for greater community participation in the decision-making process of local governments[78].

The existing models of urban governance have predominantly relied on central government structures and resources to address infrastructure needs and basic service provision. As a result, in some countries, despite their progress towards decentralization, local governments have largely continued to depend on national governments to implement housing solutions for the urban poor. A good example of this can be seen in the Philippines. Inability to generate sufficient revenues from local sources as well as weak and inefficient financial management of municipalities, which rely on a very narrow tax base, have compromised the capacity of local governments to provide essential services to their citizens[79]. India and Nepal are good example of the countries with this problem.

78 K.Seneviratne (2003) Asia-Pacific Network, www.asiapac.org.fj/cafepacific/resources/aspac/091203pacurban.html

79 Karaos, A.A. (1997) Existing and Alternative Models of Urban Governance, UMP-Asia Occasional Paper #34.

CHAPTER VI: CHALLENGES AND OPPORTUNITIES

Urban centres concentrate services, infrastructure, labour, knowledge, entrepreneurship and markets, making cities key generators of economic activity. For this reason, urban economies are critically important engines of national economic growth and the achievement of development goals. Consequently, well functioning cities contribute materially towards countries national competitive advantage.[80] However, in striving towards this goal, urban areas face a plethora of governance issues and their associated challenges, many of which have environmental consequences.

Migration: The irrevocable population shift from rural to urban areas is taking place at unprecedented rates throughout much of the developing world, especially in the Asian subcontinent. Attempting to provide goods and services to new residents places enormous pressure on the environmental and financial sustainability of region's cities, and consequently has a significant bearing on urban environmental governance.

Transnational migration exacerbates the already dangerous conditions generated by rural-urban migration. According to the United Nations, in 2000 there were 175 million international migrants worldwide of whom almost 50 per cent were women and 6 per cent were refugees. There are many reasons for this movement, among them employment, improved standards of living, political instability and conflict. In 2000 although the majority of migrants were found in developed countries, some 70 million immigrants, or approximately 40 per cent, ended up settling within developing countries. Though it is an undeniable fact that host societies benefit economically through immigration. Despite the fact that this is resulting in the creation of some of the most culturally and ethnically diverse cities the world has ever known, receiving societies are straining to overcome problems related to the socio-cultural integration of immigrants[81].

Globalization: The sustainability and liveability of cities is profoundly impacted by globalization. Without the impetus provided by globalization local governments may never be able to generate the energy, initiative and creativity needed to mobilize resources to meet local needs, but it has a down side as well. One negative aspects of globalization is the effect it has had on urban land markets. The entry of globalized capital into many Asian cities has caused rapidly rising land values, denying any possibility of secure land tenure to vulnerable social groups, especially the urban poor[82]. Relocation of manufacturing to cities in developing countries increases demand for large tracts of land and high quality infrastructure necessary to support industrial production, which unless carefully managed will compromise environmental sustainability.[83]

Poverty: Urban poverty is another challenge facing city governments. Though cities provide opportunities to enhance living conditions through agglomerations of social services; the provision of increased access to public goods and services such as education, health and welfare is not always a straightforward proposition. Exacerbating this is the exclusion of the urban poor from social services through spatial fragmentation of cities into wealthy and poor neighbourhoods. Not only does this compromise the equitable distribution of goods and services, but also ferments social tensions and can even lead to violence[84].

Decentralization: The transfer and devolution of authority to local governments affects urban policy, as local governments are obligated to assume greater responsibility and accountability for the quality of life in cities.[85] In many countries, which were once under more centralized systems (like China and Viet Nam), the

80 South African Cities Network, *People and Places: An Overview of Urban Renewal*, (Johannesburg, SACN, 2004).

81 United Nations Population Fund, *State of the World Population: The Cairo Consensus at Ten: Population, Reproductive Health and the Global Effort to End Poverty* (New York, UNFPA, 2004).

82 Anne Marie A. Karaos, *"Existing and alternative models of urban governance",* (Kuala Lumpur, United Nations Urban Management Programme, 1997).

83 South African Cities Network, *People and Places: An Overview of Urban Renewal* (Johannesburg, SACN, 2004).

84 Ibid.

85 Ibid.

move towards decentralization has resulted in a drastic reduction of financial resources once available to city governments. This constrains both urban development and poverty alleviation efforts[86]. This forces local governments to overcome resource constraints while developing necessary capacity, infrastructure and human resources.

As a result of decentralization, it is increasingly evident that city governments are playing a lesser role in local decision-making or even in providing social services. The current trend has been to open up government structures to private sector, community and NGO participation. This is, in part, a result of the growing importance and power of the private sector to which outsourcing of traditional local government services have increasingly taken place. It is also due to the development of partnerships between state and non-governmental organizations[87]. Unfortunately, this participation has been limited and has not been institutionalized into the overall system of governance[88]. Therefore, local governments face the challenge of merging their traditional role with one based increasingly on facilitation and encouraging entrepreneurship.[89] What has emerged is that urban governance, especially environmental governance, involves a dynamic interaction between the government, markets and other stakeholders with each influencing the actions and decisions of the others through both formal and informal means.[90]

In order to promote cities that are productive, inclusive, sustainable and well governed, the South African Cities Network (SACN) has adopted a City Development Strategy (CDS) as its core-integrating programme[91]. Pursuant to this goal, SACN identified a combination of four hypothetical city types. A sustainable city would have low impact on the natural resources that sustains the settlement and makes the city liveable. A productive city is one where the local economy could provide the majority of residents with means to earn a reasonable living. An inclusive city would afford its residents the opportunity and capacity to share equitably in the social benefits of city life. The well governed city is one where the political and institutional context is stable, open and dynamic and gives a sense of security that varied interests can be accommodated.[92] Given the great diversity of cities there is no one universally applicable or implementable city development strategy. Therefore, each city needs to identify and recognize its own opportunities and problems which depend on many factors among them location and level of economic, social and institutional development[93]. The clustered issues relating to the areas of sustainable, well governed, productive and inclusive cities are presented below.

86 Anne Marie A. Karaos, *"Existing and alternative models of urban governance",* (Kuala Lumpur, United Nations Urban Management Programme, 1997).

87 South African Cities Network, *People and Places: An Overview of Urban Renewal* (Johannesburg, SACN, 2004).

88 Anne Marie A. Karaos, *"Existing and alternative models of urban governance",* (Kuala Lumpur, United Nations Urban Management Programme, 1997).

89 South African Cities Network, *People and Places: An Overview of Urban Renewal* (Johannesburg, SACN, 2004).

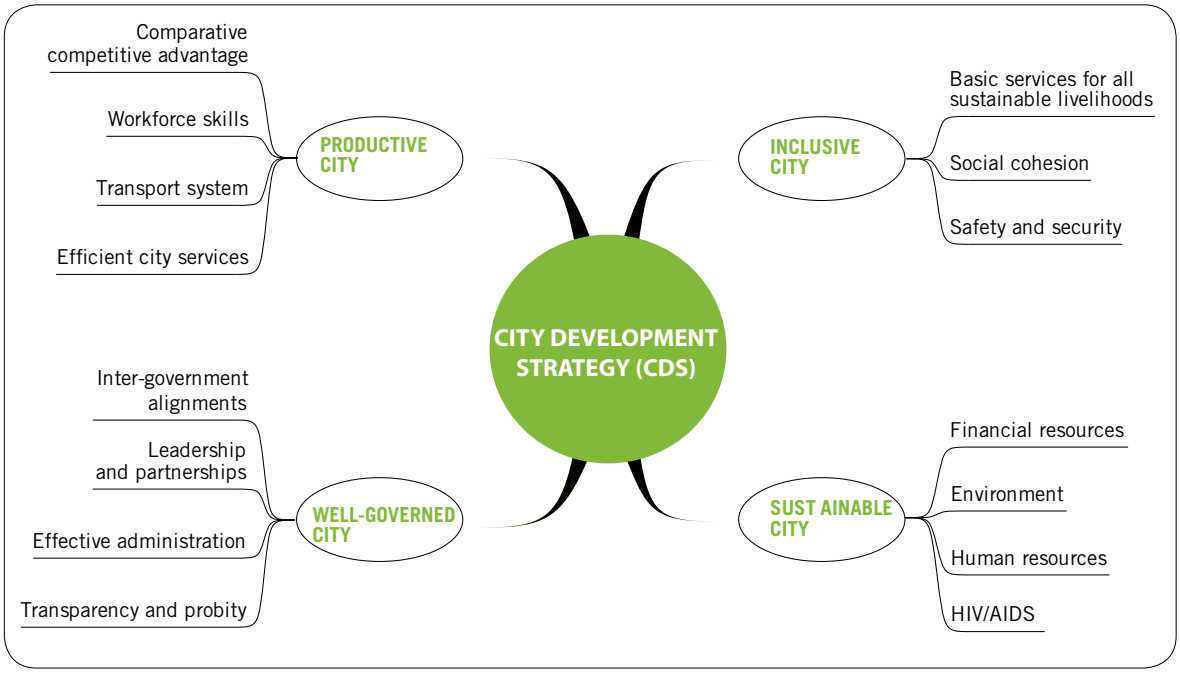
90 Anne Marie A. Karaos, *"Existing and alternative models of urban governance",* (Kuala Lumpur, United Nations Urban Management Programme, 1997).

91 Cities Alliance, 2004 *Annual Report,* (Washington D.C., Cities Alliance, 2004).

92 South African Cities Network, *State of the Cities Report 2004* (Johannesburg, SACN, 2004).

93 South African Cities Network, *State of the Cities Report 2003* (Johannesburg, SACN, 2003).

Figure 3: City development strategy



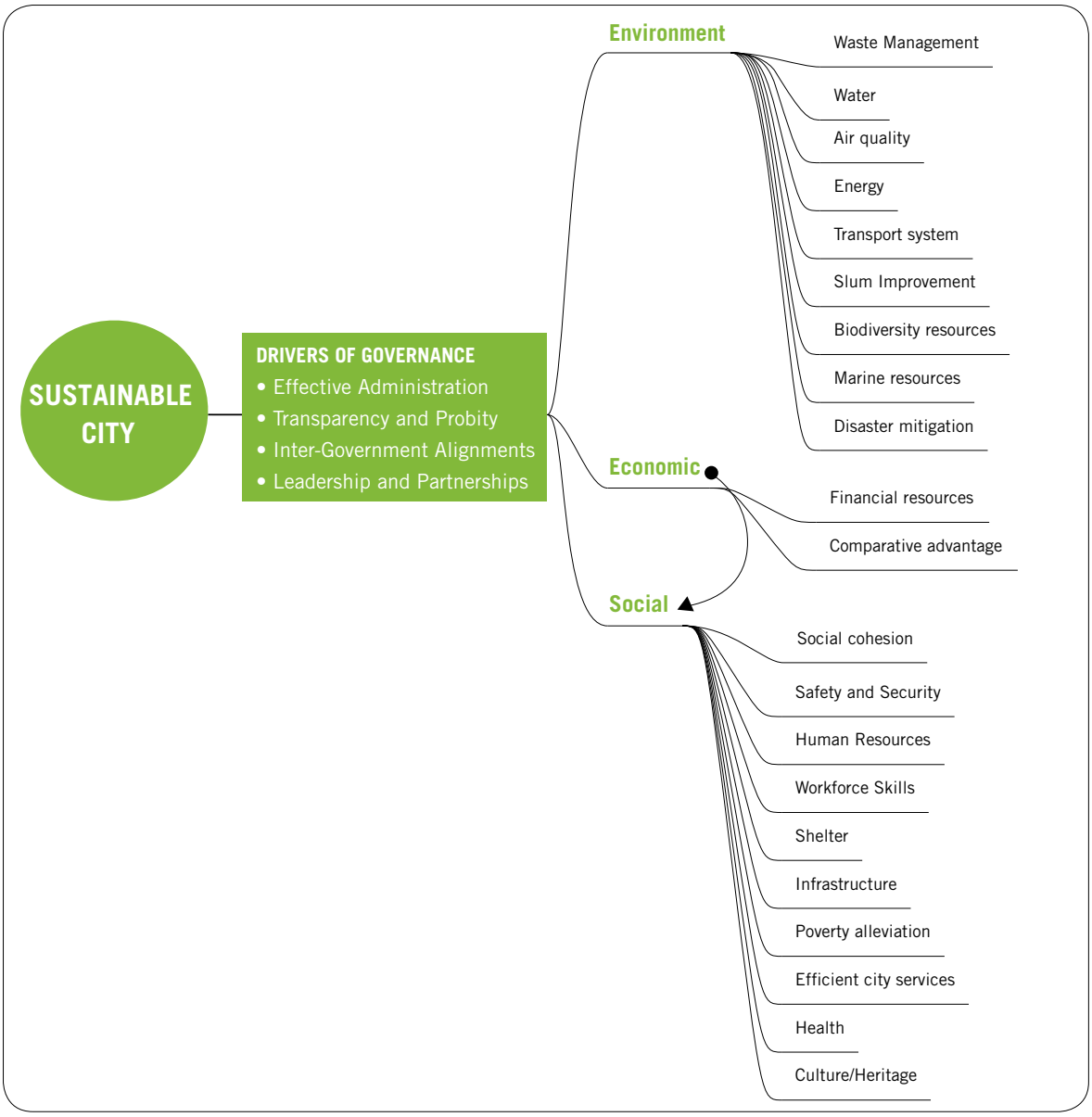
Source: Andrew Boraine, Advisor to Minister for Provincial and Local Government, South Africa; And Chairman, SACN Board of Directors. Presentation at World Bank 8 March ,2003.

Cities need to ensure that their residents have the opportunity and capacity to equitably enjoy the social benefits of city life. Cities also need to ensure that they have access to or can generate the financial resources necessary to bring about the environmental and social improvements necessary for sustainable development. This is especially so in the context of decentralization where the effectiveness and efficiency of local government on its own, and in partnership with other actors, is becoming increasingly important[94].

The urban environment includes both built and natural environments. Spatial organization of city populations, their economic activities and the social goods and services they use constitute the built environment. Built environment impacts on the natural environment or the envelope of natural resources that sustains any settlement (urban or otherwise), and affects the quality of life that makes it liveable. Impacts include water and air pollution that affect human habitability and public health as well as infrastructure such as housing, energy usage, transport networks and sewage systems. The city where the built environment overburdens the natural environment cannot hope to be sustainable. It is for this reason that urban environmental governance is of paramount importance. However, urban environmental governance for sustainable development needs to be viewed holistically as it not only includes maintenance and improvement of the environment, but essentially incorporates important elements of the other two "pillars" of sustainable development. In this context and using the SACN City Development Strategy (CDS) as a convenient departure point, a generalised framework towards achieving sustainable development through urban governance in the Asia-Pacific region is presented in figure 4.

94 South African Cities Network, *State of the Cities Report 2004* (Johannesburg, SACN, 2004).

Figure 4: Sustainable city



Opportunities in the emergence of regional urban initiatives: A number of cities in the Asia-Pacific region, often in association with international organizations and networks have implemented innovative local strategies and techniques aimed at achieving sustainable development. UNCHS emphasized that the one area in which international networks of cities and urban professions can play an invaluable role is in disseminating successful practices, experiences and engage in debates about these issues. Knowing that there are multiple solutions to a problem can be very helpful to an isolated community[95]. Encouraging the spread of successful practices

95 United Nations Human Settlements Programme, *State of the World's Cities: Globalization and Urban Culture* (United Nations publication, Sales No. 04.III.Q.2) (New York, United Nations, 2004).

enhances city governance, and if suitably disseminated, could promote city-to-city partnerships for sustainable development[96].

City associations: Local government associations (LGAs) have existed since the early years of the twentieth century and are now found at provincial/state and national levels throughout the world. Their prime objective is to support and strengthen the capacity of their member governments to meet the needs and expectations of their communities. Associations of local authorities have proved their effectiveness in this capacity.

The International Union of Local Authorities has initiated a capacity-building programme. Association Capacity-Building (ACB) has been initiated by the International Union of Local Authorities (IULA) headquartered in the Netherlands (the Asia-Pacific regional office is located in Jakarta).[97] Under the ACB programmes capacity-building has been initiated in two local government associations of the Philippines (the League of Cities and League of Municipalities of the Philippines - LCP and LMP). Capacity-building is regarded by IULA as a cost effective way to provide sustainable demand-driven support for the development of local government and the decentralization process of a country. Under the auspices of IULA and with support from UNDP, the two Philippine LGAs mentioned above are among the IULA members that have outlined their activities in monographs collecting examples of good urban governance. League of Cities of Philippines activities include promoting exchange of experiences between cities,[98] and League of Municipalities of the Philippines activities focus on the development of a multi-sectoral programme to protect and promote children, including their participation in local governance and nation building[99].

City networks: Local government networks stretch across national boundaries and deal with local problems and those that spill over jurisdictional lines. In 1987, CITYNET pioneered bringing cities together, under the auspices of ESCAP, and continued to take bold strides in bridging the gap between local governments, their national counterparts, non-governmental and international organizations (see box 4). Other city networks from the international community included the Sustainable Cities Programme (SCP)[100] of UN-HABITAT/UNEP with a global focus, and the Urban Governance Initiative (TUGI)[101] of UNDP, which is a significant regional especially focused on the Asia-Pacific region.

96 ESCAP, *Cities and Sustainable Development: Lessons and Experiences from Asia and the Pacific* (ST/ESCAP/2290) (Bangkok, ESCAP, 2003).

97 International Union of Local Authorities, "Association capacity-building" (available online at www.iula-acb.org/iula-acb) (Barcelona, IULA).

98 International Union of Local Authorities, *Local Government Associations: Service Providers* (Barcelona, IULA, 1999) p. 8.

99 Ibid.

100 United Nations Human Settlements Programme, *"Sustainable Cities"*, website www.unchs.org/programmes/sustainablecities/) (Nairobi, UNCHS).

101 No activity reported since 2003.

Box 4: CITYNET

The Regional Network of Local Authorities for the Management of Human Settlements, or CITYNET was established by ESCAP in 1987 and has its operational base in Yokohama, Japan. It aims to promote sustainable urban development by linking cities in the region and providing a forum for exchange of information and experience on best practices as well as for developing joint activities.

The network programme is based on the needs and requirements of its members, who have identified the following main focus areas: Urban Environment and Health, Urban Poverty Alleviation, Urban Infrastructure and Services, Urban Governance, Municipal Finance and Urban Social Infrastructure.

In order to address these issues, the cities have been divided into four main clusters depending on their current stage of development. The main clusters are: the Poverty Cluster; the Enviro Cluster; the Infra Cluster and the Governance Cluster. Each of these clusters has been divided into sub-categories.

In addition to functioning as a clearing house on urban development, CITYNET also organizes workshops and seminars and facilitates the interaction between local network members and international urban experts. This provides an opportunity for the local members to become familiarized with the latest trends in urban development matters.

Source: CITYNET website www.citynet-ap.org/en

ICLEI was founded in 1990, and maintains a distinct focus on local environmental protection and sustainable development. ICLEI is a global network of local, national and regional governments that works primarily through international performance-based, results-oriented campaigns and programs. In Asia and the Pacific, ICLEI's subregional and country chapters, South-East Asia, South Asia, Indonesia, Japan, Republic of Korea, Australia and New Zealand, are actively delivering assistance to its members in the form of technical consulting, training, and information services to assist with knowledge sharing and to build capacity.[102]

These initiatives generally focus more on local sustainable development and the local environment and seek to replicate successful approaches through city-to-city cooperation. Pursuant to these goals, the Ministerial Conference on Environment and Development in Asia and the Pacific, 2000 (MCED 2000) adopted the Kitakyushu Initiative for Clean Environment. This land mark initiative is designed to institutionalize a number of innovative approaches to strengthening local governments' capacity to manage urban environmental quality. After five years, a comprehensive review of the Initiative's achievement was conducted during the preparatory process for the fifth Ministerial Conference on Environment and Development in Asia and the Pacific (MCED 2005). Based on the review Ministers at MCED2005, held in Seoul in March 2005, commended the practical and focused activities and measures that have been undertaken for the implementation of the Kitakyushu Initiative for a Clean Environment. Furthermore, the Ministers endorsed the Action Plan for Future Activities designed to guide its activities between 2005 and 2010. See boxes 5 and 6 for a more detailed description of the Kitakyushu Initiative.

102 ICLEI: Local Governments for Sustainability (www.iclei.org).

Box 5: Kitakyushu Initiative for a Clean Environment

The Kitakyushu Initiative for a Clean Environment was adopted at the Ministerial Conference on Environment and Development in Asia and the Pacific, 2000 (MCED 2000), held in the City of Kitakyushu, Japan from 31 August to 5 September 2000. The Initiative is the priority implementation mechanism of the Regional Action Programme for Environmentally Sound and Sustainable Development in Asia and the Pacific (RAP) 2001-2005, and has a specific focus on environmental quality and human health in urban areas. Its primary mandate was to achieve a tangible improvement in the urban environment in Asia and the Pacific, mainly through local initiatives aiming at control of air and water pollution and waste minimization.

To facilitate effective action by local governments, the Kitakyushu Initiative primarily supports ground-level activities that address specific environmental problems, encourages benchmarking progresses using quantitative indicators and targets, enhances multi-stakeholder partnership and participation, and promotes the transfer of successful practices and experiences through intercity cooperation and an action-based Network.

In the First Meeting of the Kitakyushu Initiative Network, held in November 2001, the Kitakyushu Office of the Institute for Global Environmental Strategies (IGES) was designated as the secretariat for the Kitakyushu Initiative Network. The secretariat has continued to function as a hub for the implementation of the Kitakyushu Initiative. The secretariat formulates and conducts pilot activities, organizes thematic seminars and national training workshops aimed at transfer of successful practices, and maintains a network website for information dissemination.

Source: Kitakyushu Initiative Network website, www.iges.or.jp/kitakyushu

Local initiatives and successful practices: It has been commonly recognized throughout the formulation and implementation of the Kitakyushu Initiative that the most common challenges faced by the cities of the Asia-Pacific region are lack of resources and limited capacity of staff members. Both of these constraints limit the management potential of city authorities. The dissemination and promotion of successful practices would allow cities facing similar problems to learn and devise solutions.

Involvement of the informal sector and urban poor in implementation of such initiatives bolsters poverty alleviation efforts. However, it is to remember that while a practice may work well in a particular city it is unlikely that it will transfer in toto elsewhere. This is particularly true in places that lack an enabling milieu; political will, stakeholder commitment; capacity and capability of officials and staff; stakeholder commitment and financial resources.[103]. At best, what can be hoped for is that some elements can be transferred. In fact the goal should be to select the elements of a successful practice that are amenable to transfer and adapt them to the situation in the recipient city. If done in innovative and creative ways, it may improve the transferred practice, or widen its potential applicability to other situations.

Within the framework of the Kitakyushu Initiative for a Clean Environment, the Institute for Global Environment Strategies (IGES) Japan, in cooperation with ESCAP organized a series of thematic seminars on different

103 ESCAP, *Cities and Sustainable Development: Lessons and Experiences from Asia and the Pacific* (ST/ESCAP/2290) (Bangkok, ESCAP, 2003).

aspects of urban environmental management. In these thematic seminars, a number of city case studies were presented with a focus on successful practices. The case studies followed a standardized format, facilitating the comparative analysis the environmental issues and challenges faced. The format also facilitated making useful comparison between implementation strategies, lessons learned and the prospects of replicating successful practices in other cities.

Some of the case studies are already captured in "Cities and Sustainable Development: Lessons and Experiences from Asia and the Pacific" published by ESCAP in 2003 (see box 6). The following are the selected analyses related to the major environmental management aspects of common concern to the cities in Asia and the Pacific.

Solid waste management: The ever-increasing amounts of urban solid waste need to be managed in a sustainable manner. Experience has shown that strengthening local environmental management capabilities through community participation and informal sector involvement are key components of achieving this goal. The role of the informal sector is particularly important for solid waste management. Activities designed to reduce the waste stream, such as composting, waste minimization, recycling and reuse all require active participation by sweepers, scavengers and waste pickers. It is also important to recognize the need to share information on successful strategies between cities.

Air quality management: Urban air pollution is one of the biggest environmental and social problems in the Asia and Pacific region. In most cities motor vehicles are the major source of air pollution, while in coal-dependent countries like China, industrial emissions are a key factor. A number of cities have developed air quality standards and institutionalized air quality management systems, including the establishment of monitoring networks. Aiming to simultaneously address air pollution and traffic congestion, many cities in the region, including Bangkok (elevated rail and subways) and Jakarta (bus rapid transit), have invested considerable capital in developing mass transit systems. Others have encouraged practical, less expensive, low-tech solutions such as encouraging the use of bicycle transport in lieu of unaffordable financial outlays.

Industrial relocation: Environmental damage results from pollution and waste generation from small and medium enterprises (SMEs), and informal industries. Urban growth frequently envelopes polluting industries, formerly situated on urban fringes. Cities often respond by relocating these industries outside city limits, usually in newly constructed industrial zones. Not only does this arrangement put distance between population centres and heavily polluting industries, but by geographically concentrating industrial activities, firms are able to take advantage of economies of scale. This helps to improve economic efficiency by allowing firms to share facilities. These efficiency gains have important environmental implications because end-of-pipe environmental controls are more affordable when financed by multiple firms. Relocation of industries has been blamed for a reduction of revenue streams collected by local governments and localized job losses. Stakeholder dialogue, consensus building and cooperation are important to minimize negative impacts and maximize benefits.[104]

Public Participation for Urban Environmental Management: It is increasing recognized that public participation is an essential ingredient for overcoming urban environmental management challenges. A wide array of stakeholders are involved in urban environmental problems, encompassing city dwellers, businesses, national and international organization. These stakeholders include group affected by pollution, transboundary environmental issues, globalization, and the urban development goals of national government

104 M.A. Memon, "Presentation on Brownfield Management" given at the Kitakyushu Initiative Thematic Seminar 2003 (Kitakyushu, Japan, 2003).

and international agencies. However, between local governments are directly accountable to their citizens, they should be the focus of stakeholder participation. A number of these efforts have already been highlighted inter alia in the areas of solid waste management and water supply and wastewater treatment.

Disasters: The relationship between urbanization and disaster risk is complex and context-specific. Governance is a critical area for innovation and reform in achieving disaster risk reduction. Large cities pose a real challenge for planning and introduce new intensities of disaster risk and risk causing factors. The majority of urban populations live in small and medium sized towns. In 2000 more than half the world's population lived in towns of less than 500,000 people. Smaller cities show high levels of risk, and often high levels of growth co-exist with limited technical and financial capacity to plan for urban expansion, much less disaster risk management.[105]

Box 6: Successful practices highlighted in the IGES/ESCAP Thematic Seminars conducted within the framework of the Kitakyushu Initiative for a Clean Environment

- **Dhaka (Bangladesh)** - Community-based Waste Separation and Recycling; Composting Municipal Solid Waste
- **Surabaya (Indonesia)** - Solid Waste Management; Empowering Communities; User Fees
- **Kathmandu (Nepal)** - Solid Waste Management (SWM); Private Sector Participation
- **Nonthaburi (Thailand)** - Solid Waste Reduction; Income from Recyclables
- **Fukuoka (Japan)** - Successful Transfer of the "Fukuoka Method" Technology for Municipal Solid Waste Management
- **Ho Chi Minh (Viet Nam)** - Implementation of an Air Quality Management Strategy
- **Dalian (China)** - Implementation of an Air Quality Management Strategy
- **Weihai (China)** - Awareness Raising and Changing Public Perceptions; Cooking, Heating, and Transport
- **Hong Kong, China** - Successful Urban Air Quality Management with Regional Impacts
- **Kitakyushu (Japan)** - Spreading Innovation, Cleaner Production, and Successful Practices
- **Ho Chi Minh, Dalian and Yokohama (Japan)** - Industrial Relocation Success Stories
- **Kitakyushu (Japan)** - Community Participation in Biodiversity Conservation
- **Karachi (Pakistan)** - Orangi Pilot Project; "Self-help" Sanitation and Slum Improvement

105 United Nations Development Programme, *A Global Report: Reducing Disaster Risk: A Challenge for Development,* (New York, UNDP, 2004).

Box 7: Some additional examples of successful cases

Apia's Tafaigata Rubbish Dump(Samoa): Samoa was the first country in the Pacific to test this type of semi-aerobic landfill. The rubbish dump was developed in association with the South Pacific Regional Environment Programme (SPREP) and Japan International Cooperation Agency (JICA) as an alternative to problems associated with open dumping. These problems include health hazards to scavengers, toxic gases emissions from open burning, vermin and insect infestations, contamination and pollution of soil, and groundwater. New technology uses in the dump has had positive social impacts by reducing air pollution, reducing noxious odours and discouraging scavenging by periodically covering incoming wastes with topsoil. The site has the potential to be converted into a recreational park, garden or agricultural land once landfill operations are completed.

Source: Pacific Regional Environment Program (SPREP) (2003) Sustainable Development – Successful Case Studies from the Pacific.<www.sprep.org.ws/att/publication/000187_ComSec_brochure.pdf>.

Jakarta (Indonesia) – Urban Bus Rapid Transit – reducing congestion and air pollution: In an attempt to ameliorate the city's congestion and air pollution problems Jakarta has recently opened Asia's fully closed Bus Rapid Transit (BRT) corridor similar to that found in Bogotá, Colombia. It consists of a 12.9 km exclusive bus-way running along one of the most congested thoroughfares. The new system features 56 high platform air-conditioned buses with 83 passenger capacity, which use Euro II standard diesel fuel, as well as 21 new stations, which have ramps for disabled passenger access, with pre-paid fare boarding at turnstiles. LED displays and voice recordings alert passengers to upcoming stops. 17 feeder routes were also put in place. The city has also been receptive to suggestions for improvements including installing rest-room facilities in main bus stations, discounting transfers from feeder bus routes and lowering morning peak fares. The city hopes to expand this to a 15 corridor Trans-Jakarta BRT system.

Source: The Bulletin of the Institute for Transportation & Development Policy (ITDP)(2004) Sustainable Transport e-Update (2004) <www.itdp.org/STe/ste12/index.html#transjakarta>.

Gwanju (Republic of Korea) - community acceptance of clean alternative solar energy: The Gwanju "Solar Powered City" Plan was developed in an effort to use local initiatives and resources to develope renewable energy sources. With citizen support Gwanju is aiming to meet government targets of replacing at least 2 per cent of its total energy supply with alternative energy by increasing solar use, promoting solar related industries and providing suitable infrastructure for a solar-powered green city. For energy use in household, commercial and public sectors the goal is to replace a total of 1 per cent by solar power (0.2 per cent was achieved by December 2003). Already 24 solar related industries have received 2 billion won (US$ 1.74 million) in funding. In a project to be completed in 2004 the 'Green Village' concept of Gwanju is being promoted with 5.3 billon won (US$ 4.62 million) invested by both city council and private sector to build 111 houses each of which will be provided with solar power generators and a 15,000 litre solar hot water system. Public awareness is being raised and solar powered streetlights have been installed. With more solar related projects in the pipeline the city is on its way to becoming internationally known as a solar powered city.

Source: 20 per cent Club for Sustainable Cities, Workshop for Creating a Social System for Promotion of Local Measures. Against Global Warming (2004) <www.shonan-inet.or.jp/~gef20/E/20frontefr.htm>.

Suva (Fiji) - Community participation in biodiversity conservation : The coastal district of Verata, outside Suva, is one of the major suppliers of fish and other marine species to the greater Suva area. Over harvesting has led to the depletion of marine species within the district fishing grounds. In 1997, with the support of the district chief, local community awareness was raised through workshops and community training on ways to best protect their fishing grounds for future generations. These included a total ban on commercial fishing operations, destructive fishing methods, harvesting of the shellfish Anadara sp., coral harvesting and mangrove extraction and a selective ban on fishing in some sections of the fishing grounds. After 3 years a 35 per cent increase in household incomes and tripled catches were reported. This has raised living standards, increased awareness and conservation of marine species for future use. In addition, it opened up communication channels between different stakeholders.

Source: Sustainable Development – Successful Case Studies from the Pacific. SPREP (2003) <www.sprep.org.ws/att/publication/000187_ComSec_brochure.pdf>.

Tongi and Gaibandha (Bangladesh) – Mitigating flood based urban disruption: Floods cause severe economic and social disruption to countless households living in flood prone urban and rural areas in Bangladesh. Under the Bangladesh Urban Disaster Mitigation Project (BUDMP) methods to reduce the vulnerability of two regularly flooded secondary cities, Tongi and Gaibandha, were explored. Activities included disaster mapping, vulnerability identification, mitigation strategy development, design and implementation of pilot mitigation activities, and volunteer and community participation. Technical mapping was de-emphasized. Working with NGOs, Municipal Disaster Mitigation Committees (MDMCs) were set up and the project undertook risk mapping using a Participatory Risk Assessment approach followed by implementation of a monitoring system. The communities developed the PRA community maps, which helped them to generate public awareness, effective training and structural mitigation initiatives. The structural mitigation activities revolved around raising the level of structures and construction of culverts and drainage systems which were largely successful and demonstrated that modest funding could be used effectively. More importantly municipality officers were responsive and supportive of the assessment process. The success of these two pilot projects has led to plans to replicate these activities in five more flood prone municipalities.

Source: Asian Urban Disaster Mitigation Program (AUDMP) - Project Completion Report, ADPC (2004) <www.adpc.net/AUDMP/library/Files/AUDMP.pdf>.

CHAPTER VII: LESSONS LEARNED AND THE WAY FORWARD

While the Asian and Pacific economies and societies are undergoing rapid transformation, government structures and systems in many countries of the region have been slow to change and respond to the new challenges. To meet the challenges of the twenty-first century new partnerships between local governments, civil society, and the private sector, are required. Revaluation of the form and nature of local governance in Asia and the Pacific, in keeping with the principles of subsidiarity and proximity, need to be the guiding light in reforming governance structures to meet the new challenges.

The primary challenges facing urban areas include (1) multiple stakeholders; (2) interdependence of resources and actions; (3) blurred boundaries between public and private spheres; (4) coordination of goals; (5) negotiation and interactive decision-making processes; and (6) building of consensus and trust[106]. Effective governance is becoming increasingly dependent upon the participation of civil society in the decision-making and implementation process. Governments at all levels are beginning to recognize the value of communication, consultation, and participatory negotiations. This is essential to the formation and implementation of public policy. In short, this process should lead to increase decentralization. Good urban governance builds on the interdependence and mutual reinforcement of nine principles, namely (a) sustainability in all dimensions of urban development; (b) subsidiarity of authority and resources to the closest appropriate level; (c) equity of access to decision-making processes and the basic necessities of urban life; (d) efficiency in delivering public services and in promoting local economic development; (e) transparency and accountability of decision-makers and all stakeholders; (f) civic engagement and citizenship especially women and the poor; and (g) security of individuals and their living environment[107]. At its core, good urban governance is where civil society complements government by participating in policy decisions and where governments provide leadership, enabling environments and public institutions responsible for laying down the values and priorities that guide the process. Formal government processes must interact with informal networks, and the central government must devolve power local governments while ensuring their responsibility, viability and accountability. Increasing evidence points to the critical role good urban governance plays in reducing poverty. This in turn leads to a reduction of marginalization and social fragmentation[108]. Good governance may perhaps be identified as the single most important factor in eradicating poverty and promoting sustainable development.

Local authorities, as the front line response to all social, economic and environmental crises, urgently need to explore different and more effective ways in which to ensure that their citizens, especially the urban poor, have some protection against global market fluctuations. The Asian financial crisis in 1997-98 brought into sharp focus the vulnerability of urban communities, especially the poor, to failures in the global economic system. The resulting job losses disproportionately affected the most vulnerable members of society, including women, the youth and unskilled workers, causing increases in family stress levels, domestic violence, street crimes and suicides. Among the positive ways that society reacted to this crisis was by expressing a renewal of interest in the fundamentals of good urban governance. Perhaps the most important policy areas to undergo review were fiscal discipline, fair and transparent resource allocation, effective and predictable regulatory systems, fiduciary responsibility, strategic planning, independent and just mechanisms for conflict resolution, participatory decision-making, safety and security, open information flows and ethical behaviour[109].

Urban governance carries with it a heavy burden of responsibility. Governance requires a broader view and must necessarily balance competitiveness and liveability by working with a broad range of stakeholders, only then can sustainable development be achieved. Only local governments can mobilize the political, economic,

106 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

107 www.unchs.org/campaigns/governance/principles.asp

108 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

109 Ibid.

cultural and other resources necessary to enhance their respective competitive advantages while protecting environmental resources. The core of good governance lies in civil society and government complementing one another and thus linking formal government processes with informal networks for mutual gain[110].

Practical tools and instruments are provided by the United Nations and other international organizations to assist the local governments in evaluating their policies and identifying possible directions for improving it. Among such efforts, the United Nations is attempting to develop an internationally agreed upon, adaptable framework for the practice of local democracy, intended to be a vital contribution to the improvement of people's living conditions across all continents and regions. The proposed the World Charter of Local Self-Government is based on principles of autonomy, subsidiarity and proximity[111]. The Urban Governance Index (UGI), developed and tested by UNCHS to measure the quality of Urban Governance, and its constituent indicators focuses on local processes, institutions and relationships and is to be launched in mid 2004[112]. Local Agenda 21 was conceptualized and launched by the International Council for Local Environmental Initiatives (ICLEI) in 1991 as a framework for local governments worldwide to engage in sustainable development planning in their communities. Through a wide array of programmes conducted at international, national and local levels, it continues to provide practical advice on how local governments can implement the United Nations Agenda 21 action plan for sustainable development and for achieving the goals of the related UN-HABITAT Agenda.

It has been suggested that to meet the needs of the Asian and Pacific region's cities, guidelines need to be prepared for transferring or replicating best local practices that have been compiled throughout the region. It is also critical to facilitate effective use of best practices in solving urban environmental problems and provide practical advice to those engaged in peer to peer exchanges. This could conceivably develop into a reference manual, which could be disseminated widely as both hard copy and in the internet.

As an interim measure, an expert exchange system could be developed so that officials involved with successful practices can participate in providing other cities with expertise. Ultimately, the availability of expert services would foster city-to-city partnerships and collaboration, create greater collective self-reliance and improve local capacity. A practical and useful output for the longer term, could be to set up a regional training centre, which would enhance capacity-building for local governments on environmental issues and allow cities to explore and share their experiences in environmentally sustainable development[113].

In paving the way forward to strengthen the urban environmental governance in Asia and the Pacific, there are also external factors which deserve special attentions. These factors, rendering both challenges and opportunities, include the followings:

Information: The recent expansion of information and communication technologies (ICTs) has revolutionized the way countries and cities do business, transfer information and improve the life of residents. Information pertaining to clean technologies or best practices is readily available on the Internet. Unfortunately the digital divide separates the ICTs' haves from the have-nots and although it is slowly changing, as the technology gets cheaper and more available, developing countries are still at a disadvantage and lack a level playing field. The Internet gives people and governments the power to access information, and information is power. Not only can ICT be used to improve the living condition through networking, exchange and transfer of ideas, cities can also use the technology to access and disseminate information, which will enable other cities in a similar situation to benefit from the efforts and innovations.

110 United Nations Centre for Human Settlements, 2001, *The State of the World's Cities 2001* (Nairobi, UNCHS).

111 Local Government in Asia and the Pacific (1998) ESCAP - www.unescap.org/huset/lgstudy/comparison1.htm

112 The Global Campaign on Local Governance UNCHS-HABITAT www.unhabitat.org/campaigns/governance/activities_6.asp

113 ESCAP, *Cities and Sustainable Development: Lessons and Experiences from Asia and the Pacific* (ST/ESCAP/2290) (Bangkok, ESCAP, 2003).

Local government finances: The sources of municipal revenue usually stem from local taxes, user charges (such as rents, fines, permits and licence fees), income from investments, central government transfers, subsidies and grants. Some municipalities, especially in developed countries, also borrow money through the issuance of municipal bonds. In most countries local taxes may account for as much as 60 per cent of local government revenue. Very often the full potential of this source is not realized due to insufficient capacities (both human and administrative), institutional weaknesses, ineffective revenue collection, and unrealistic property valuation. A significant portion of local revenue in many developing countries comes from central or higher level government transfers. What is necessary is to broaden, strengthen and maximize the generally under-exploited local revenue base, especially the largely untaxed informal economy. It is indeed ironic that cities, which generally have a high proportion of the most prosperous enterprises and consumers, have to experience funding shortages.

Function of central governments: Despite the universal move to decentralize, national governments remain central to sustainable urban development. Apart from negotiating the rules of international engagement they also pass legislation that ultimately determines who controls local assets, they are watchdogs that ensure that environmental standards are met and ecosystems are protected, that the poor are treated fairly and that citizens have the opportunity to voice their opinion in decisions that affect them, that safety nets are in place in case of emergencies and perhaps most importantly that local officials are held accountable.

ANNEXES

Annex 1: Asia and the Pacific: per cent of total population classified as urban (1990–2030)

	YEAR								
	1990	1995	2000	2005	2010	2015	2020	2025	2030
1. ASIA									
SOUTH AND SOUTH-WEST ASIA									
Afghanistan	18.2	19.9	21.9	24.2	27.0	30.1	33.3	36.6	39.9
Bangxladesh	19.3	21.8	24.5	27.5	30.6	33.9	37.2	40.5	43.8
Bhutan	5.2	6.0	7.1	8.4	9.9	11.6	13.5	15.6	17.9
India	25.5	26.8	28.4	30.5	33.0	35.9	39.2	42.5	45.8
Iran (Islamic Republic of)	56.3	59.0	61.6	64.1	66.5	68.8	70.9	72.8	74.6
Maldives	25.9	25.7	26.1	27.2	29.9	31.5	34.7	38.0	41.3
Nepal	8.9	10.3	11.9	13.7	15.8	18.1	20.7	23.4	26.4
Pakistan	31.9	34.3	37.0	40.1	43.4	46.7	49.8	52.9	55.9
Sri Lanka	21.3	22.1	23.6	25.8	28.9	32.0	35.3	38.6	41.9
Turkey	61.2	69.2	75.3	79.7	82.6	84.5	85.5	86.4	87.3
SOUTH-EAST ASIA									
Brunei Darussalam	65.8	69.2	72.2	74.8	76.9	78.7	80.1	81.4	82.6
Cambodia	12.6	14.2	15.9	17.9	20.2	22.8	25.6	28.7	31.9
Indonesia	30.6	35.6	40.9	46.0	50.7	54.8	58.2	60.9	63.5
Lao People's Democratic Republic	18.1	20.7	23.5	26.4	29.5	32.7	36.0	39.3	42.6
Malaysia	49.8	53.7	57.4	60.8	63.8	66.4	68.6	70.7	72.7
Myanmar	24.6	25.8	27.7	30.2	33.4	36.7	40.0	43.3	46.6
Philippines	48.8	54.4	58.6	62.4	65.5	67.8	69.9	71.9	73.8
Singapore	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Thailand	18.7	20.0	21.6	23.7	26.2	29.3	32.5	35.8	39.1
Timor-Leste	7.8	7.5	7.5	7.8	8.4	9.5	11.1	13.0	15
Viet Nam	19.7	19.4	19.7	20.6	22.1	24.3	27.3	30.4	33.7
EAST AND NORTH-EAST ASIA									
China	27.4	29.7	32.1	34.7	37.6	40.7	43.9	47.1	50.3
Hong Kong, China	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Macao, China	98.7	98.8	98.8	98.9	99.0	99.0	99.1	99.1	99.2
Democratic People's Republic of Korea	58.4	59.1	60.2	61.7	63.5	65.6	67.9	70.0	72.0
Japan	77.4	78.1	78.8	79.6	80.5	81.5	82.6	83.7	84.8
Mongolia	58.0	60.8	63.5	66.0	68.4	70.5	72.4	74.3	76.0
Republic of Korea	73.8	78.2	81.9	84.6	86.7	88.2	89.2	89.9	90.5
NORTH AND CENTRAL ASIA									
Armenia	67.5	68.6	70.0	71.5	73.2	75.0	76.6	78.2	79.6
Azerbaijan	54.4	55.7	57.3	59.2	61.5	64.0	66.4	68.6	70.7
Georgia	56.0	58.3	60.7	63.1	65.4	67.7	69.9	71.9	73.7
Kazakhstan	57.0	56.4	56.4	57.2	58.6	60.6	63.2	65.6	67.9
Kyrgyzstan	37.4	34.9	33.3	33.3	33.7	35.0	37.3	40.7	44.0
Russian Federation	74.0	75.9	77.7	79.3	80.7	82.0	83.1	84.2	85.2
Tajikistan	31.7	27.5	27.5	27.5	27.8	29.5	32.7	36.0	39.3
Turkmenistan	45.1	44.5	44.8	45.8	47.5	49.9	53.0	55.9	58.8
Uzbekistan	40.1	38.5	36.9	36.9	37.2	38.6	40.9	44.2	47.4

2. PACIFIC									
Australia	85.1	84.7	84.7	84.8	85.3	86.0	86.9	87.7	88.5
New Zealand	84.7	85.3	85.8	86.4	87.0	87.7	88.4	89.1	89.8
MELANESIAN COUNTRIES									
Fiji	41.6	45.5	49.4	53.2	56.7	59.9	62.8	65.2	67.5
New Caledonia	61.6	69.8	76.9	82.0	85.4	87.6	89.0	89.7	90.3
Papua New Guinea	15.0	16.0	17.4	19.1	21.2	23.7	26.7	29.8	33.0
Solomon Islands	14.6	17.0	19.7	22.5	25.5	28.6	31.7	35.0	38.3
Vanuatu	18.2	18.9	20.0	21.7	24.0	27.0	30.1	33.4	36.7
POLYNESIA AND MICRONESIA ISLANDS (MID-SIZED)									
American Samoa	48.1	50.3	52.7	55.3	57.9	60.6	63.2	65.6	67.9
French Polynesia	56.1	54.4	52.7	52.7	52.9	54.0	56.0	58.8	61.5
Guam	0.0	38.3	39.2	40.9	43.4	46.7	49.9	52.9	55.9
Northern Mariana Islands	52.7	52.7	52.7	53.3	54.5	56.2	58.5	61.2	63.7
Palau	69.5	70.9	72.4	73.8	75.3	76.8	78.3	79.7	81.1
Samoa	21.0	21.0	21.5	22.6	24.4	26.7	29.8	33.1	36.3
Tonga	32.6	35.2	38.0	40.9	44.0	47.1	50.3	53.3	56.3
SMALL ISLAND MICRO-STATES									
Cook Islands	57.7	58.9	59.4	60.3	61.6	63.3	65.4	67.7	69.8
Federated States of Micronesia	26.4	27.1	28.3	30.0	32.3	35.0	38.3	41.7	45.0
Kiribati	34.6	36.8	39.2	41.8	44.6	47.5	50.5	53.6	56.5
Marshall Islands	65.7	69.0	71.9	74.2	76.2	77.8	79.3	80.6	81.9
Nauru	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Niue	30.8	31.4	32.7	34.5	36.6	39.1	42.1	45.4	48.6
Tuvalu	40.9	46.8	52.2	57.0	60.9	64.1	66.5	68.7	70.8
WORLD	**43.5**	**45.2**	**47.0**	**49.0**	**51.1**	**53.4**	**55.7**	**58.0**	**60.3**
ASIA *	**32.4**	**34.4**	**36.7**	**39.2**	**41.9**	**44.7**	**47.6**	**50.6**	**53.4**
PACIFIC **	**70.6**	**70.3**	**70.2**	**70.2**	**70.5**	**71.2**	**72.2**	**73.3**	**74.4**

Source: UN-HABITAT – Global Urban Observatory Data Bases; Human Settlements Statistics Database (2001).

Notes: * (including some non-ESCAP region countries in Western Asia and excluding the Russian Federation)

** (including Tokelau and Wallis and Futuna Islands)

Definition of Urban Areas differs in some instances. American Samoa defines it as places with 2,500 or more inhabitants and urbanized areas; Cambodia: Municipalities of Phnom Penh, Bokor and Kep, and 13 urban centres; Timor-Leste: Dili; Fiji: Places with a population of 1,000 or more; Kiribati: Tarawa; Lao People's Democratic Republic: Sum of five largest towns: Vientiane, Luang Prabang, Savannakhet, Kammouan and Pakse; Marshall Islands: The entire population of Majuro atoll and Ebeye on Kwajalein atoll; Micronesia (Federated State of): Localities with 1,000 or more inhabitants; Nauru: Nauru; Niue: Alofi; Northern Mariana Islands: Places with a population of 1,000 or more; Palau: Koror; Singapore: City of Singapore; Tuvalu: Funafuti.

Annex 2: Governance in selected Asian and Pacific Countries: Focus on central and local government relations and the Environment.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Australia (Area: 7,617,930 square kilometres or 2,941,285 square miles) HDI = 0.946 (#3) *** ESI = 60.3 (#16)	A Commonwealth democratic federal state; Head of State is English monarch; has one national government headed by Prime Minister, a bicameral Parliament and a Judiciary; the country consists of 6 states (New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania) and two territories (Northern Territory and Australian Capital Territory); the eight states/territories governments have considerable autonomy.	Urban areas governed by local governments/ councils and divided into capital city, Metropolitan developed, Regional town/ city and fringe; the country is highly urbanized, 88 per cent of the population living in cities and towns and more than half live in the eight capital city metropolitan areas; local government has a governance role, a service delivery role, a planning and community development role and a regulatory role; the scope of local government powers and functions varies from state to state.	Local governments (769 local governments/ councils)are not recognized constitutionally. Local government Acts have been legislated by each State Parliament. Many local government functions are provided through State government established and controlled by para-statal agencies (QUANGOs), which are on the increase. Mayors have been largely replaced by general managers who now head council's operations. Local government receive approximately 25 per cent of their revenue from the Commonwealth and state governments in the form of grants and special purpose payments. Stakeholder participation of the local government activities is not extensive.	Councils have discretion for environmental planning and management. This includes functions and services such as drainage - cleaning, waste collection and management, health and sanitation, and utilities. Councils are obliged to protect the environment.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Bangladesh (Area: 147,570 square kilometres or 56,977 square miles) *Formerly - East Pakistan.* HDI= 0.509 (#138) ** ESI = 46.9 (#86)	Parliamentary democracy/unitary form of government; Head of State -President, Prime Minister heads Parliament; the country is divided into 6 administrative divisions (Barisal, Chittagong, Dhaka, Khulna, Rajshahi, and Sylhet), which are subdivided into districts and "Thanas" mostly headquartered in urban centres.	Local government bodies in larger urban areas are municipalities (numbering 138). The four largest Municipalities, Dhaka, Chittagong, Khulna and Rajshahi, have been given metropolitan status and are known as City or Municipal Corporations with officials elected directly by the people.	Urban local government bodies are subject to strong jurisdictional and financial control from higher-level authorities, especially the central government and thus have little autonomy. However cautious moves are being made to decentralize control and empower local governments and increase public participation. Women can contest for direct election and also have seats reserved for them. Urban local bodies generate between 55-75 per cent of their revenue through taxes, rates, fees and charges levied among others; a significant proportion though comes from central government grants. Foreign or international project funds also contribute a significant share of a corporation's budget.	Urban local government bodies functions and responsibilities relate to socio-economic, civic and community welfare as well as local development; environmental functions include solid waste management, slum improvement, city maintenance/ improvements, and water supply.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Bhutan (Area: 46,500 square kilometres or 17,976 square miles) *Landlocked country between China and India.* HDI= 0.536 (#134) ** ESI = 56.3 (#30)	A monarchy governed by a Cabinet composed of Council of Ministers headed by a Chairman, also Royal Advisory Council; Unicameral National Assembly - some elected some appointed by monarch; the country is divided into 18 districts.	One of the lowest urban populations in the world; two municipal corporations (Thimphu and Phuntsholing) headed by mayors; Thimphu's MC set up in 1974 as an experiment in local self-government; subsequently municipal boards have been set up in larger towns.	The government uses traditional social institutions and involves people at the local level in planning and implementation for their own district, sub-district, or village. The municipal corporations have concentrated mainly on beautification and sanitation projects.	Central government provides water and sanitation systems, better cooking equipment, among others to increase quality of life of citizens. Each programme takes into account protection of the country's environment and cultural traditions. The cautious expansion of the tourist sector enshrines sustainability and encourages visits from upscale, environmentally conscious and conscientious visitors.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
China (Area: 9,600,000 square kilometres or 3,707,950 square miles) HDI = 0.745 (#94)** ESI = 38.5 (#129)	Socialist country; President-Chief of State; Government headed by Prime Minister and Cabinet (State Council) - all appointed by the Standing Committee of unicameral National People's Congress of China - the supreme organ of state power; The Local People Congresses at different levels are the state power organs at local level; the country is divided into 23 provinces, 5 autonomous regions, 4 municipalities and 2 special administrative regions (SARs) Hong Kong and Macao.	Local governments are the administrative organs of state under the State Council; local government at 4 levels namely provincial, city, special administrative regions (SARs e.g. Hong Kong and Macao) and autonomous regions. Provincial government includes SARs, municipalities and autonomous regions. Autonomous regions, provinces, cities, and municipalities have counties, towns and villages under their jurisdiction.	Local government in China consists of a hierarchical system of leadership at different levels, the lower level being Subordinate to higher levels (e.g. city governments are subordinate to provincial and national governments) and must accept the leadership, instructions, supervision and examination of higher-level governments. At the same time, local governments at different levels constitute a system of complete political power exercising their functions and powers independently although under the guidance of the higher-level government. Local financial revenues come from local taxes, shared taxes and non-tax revenues. Local governments redistribute their budgets according to the budgets checked and ratified by the next higher and central governments.	Provincial governments do not have any direct environmental mandate. City governments have an office of environmental protection and county governments have a bureau of environmental protection.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Fiji (Area: 18,272 square kilometres or 7,055 square miles) *South Pacific Island group consisting of 332 islands of which approximately 110 are inhabited.* HDI = 0.758 (#81)** ESI = n.a.	A Republic within the Commonwealth with a Government consisting of a President (Head of State), Prime Minister (Head of Government) a cabinet of Ministers, a bicameral Parliament and Judiciary.	A number of larger urban centres are located in or near the river deltas. The major urban centres are proclaimed as either City or Town and are administered by elected municipal councils headed by a mayor (2 cities and 9 towns as of 1997). At the local level, activities are undertaken through government and municipal administration. There are instances where the approval of the Minister of Local Government, Housing and the Environment is required before a municipal council can proceed with particular decisions or actions.	Municipal government is the second tier of government. It has expanded responsibilities due to increasing population density and urban development. Increasingly service functions are being contracted out. Municipalities are self-financing authorities a large part of their operations are funded by revenues generated from land tax and other local sources but collection remains a problem. Financial grants from the government are very rare and are only given for specific development projects. Most councils raise loans from the local capital market to finance capital development works. Security for the loan is a government guarantee or a debenture over the Council's income and assets. There is legal provision for the participation of people and civil society groups in the various activities undertaken by municipalities.	Councils are emphasizing their role in local environmental management. Consequently they are taking necessary actions to promote the health, welfare and convenience of the inhabitants of the municipality including public utility services, drainage, public health, and waste management. Particular emphasis is placed on reducing the incidence of litter in municipalities, including the organization of regular clean up campaigns and free collection of garden refuse with a view to fostering upkeep of the municipal environment. All councils provide a solid waste disposal service to remove household, commercial and industrial waste (often privatized).

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Hong Kong, China (Area: 1,102 square kilometres or 426 square miles) *Consisting of Kowloon, Hong Kong Island, the New Territories and the Outlying Islands i.e. any of the other 234 islands* HDI = 0.903 (#23)*** ESI = n.a.	A Special Administrative Region (SAR) of China. Headed by the President of China. The government of Hong Kong, China consists of the chief executive who heads an executive council. Hong Kong, China has a two-tier system of representative government; an elected unicameral Legislative Council (LEGCO) at the central level and district councils (18) at the district level.	Hong Kong, China has a very limited system of local government. Initially there were two municipal councils (an urban and a regional council). These were replaced in 2000 by district councils.	Hong Kong, China Government is the overwhelmingly dominant political institution in the SAR. The Government is organized into Secretariat bureaus, which formulate policies and initiate legislative proposals, and departments, which implement laws and policies and provide direct services to the community. Apart from LEGCO policy input from Hong Kong civil society is limited.	The Environmental Protection Department (EPD) is the main government body responsible for carrying out work to improve the environment and prevent new problems from arising. EPD's functions include enforcement, monitoring, waste disposal, advisoring role, and awareness building.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
India (Area: 3,287,263 square kilometres or 1,269,217 square miles) HDI= 0.595 (#127)** ESI = 41.6 (#116)	Government consists of President (Head of State) Prime Minister (Head of Government), a Cabinet of Ministers and a Bicameral Parliament composed of Council of States (Rajya Sabha) and the People's Assembly (Lok Sabha). The country is divided into 28 states and 7 union territories.	Local government bodies are governed by the State Statutes, which confer wider powers to state governments. Urban government includes Municipal Corporations (for larger urban areas), Municipal Councils (for smaller urban areas) and Nagar Panchayats (in rural-urban transition areas).	Local government bodies do not have any constitutionally independent status or powers. Local bodies have a variety of functions. Indian Mayors have no executive authority, which is vested in the Municipal Commissioner. The central government controls the overall development initiatives in urban areas through the Ministry of Urban Affairs and Employment. State governments have significant control over the staffing, finances and administration of the Municipal Corporations and Councils. The state governments exercise control through their urban development departments.	The Government has created many authorities that control environmental pollution at national, state and local level which include a Ministry at the central government level which oversees the Department of the Environment at the state level which in turn directly oversees functions like traffic pollution, social forestry and industrial pollution while also having control over local authorities which have their own functions.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Indonesia (Area: 1,826,440 square kilometres or 705,179 square miles) *Consisting of more than 17,000 islands (6,000 of which are inhabited). Most of the population lives on the islands of Java and Sumatra.* HDI= 0.692 (#111) ** ESI = 45.1 (#100)	A unitary Republic with a president (who heads and appoints a cabinet) elected by the People's Assembly (MPR) and a House of Representatives (DPR), which together rule the country and are responsible to the MPR. The country is divided into regions which are themselves divided into Counties and Municipalities, which in turn are divided into Districts.	The population of Indonesia is increasingly urban. It is estimated that in 2004 urban population will be approximately 45 per cent of the population. The urban population lives in various metropolitan areas comprised of large and medium cities and in small towns.	Decentralization is constitutionally mandated. Some responsibilities and functions have already been transferred (devolved) by the central government to local governments nationwide. Public participation in development project is through a bottom-up planning process. In spite of it being a lengthy process, the end result is a fairly participatory. Local sources of income consist of local taxes and fees including land and building tax, income from enterprises owned by the local governments concerned, as well as foreign aid and funds from higher levels of government.	Functions of local governments include solid waste collection, water supply, disaster relief (except national disasters), forest conservation, hygiene and sanitation among others.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Japan (Area: 376,520 square kilometres or 145,374 square miles) *Consisting of a chain of islands -four major ones and some 3900 small ones.* HDI = 0.938 (#9)*** ESI = 48.6 (#78)	A constitutional monarchy with a parliamentary government. The bicameral Diet (comprising the House of Representatives and the House of Councillors) is the only legislative organ. The Cabinet is chosen and headed by the Prime Minister.	The country is divided into 47 prefectures further sub-divided into municipalities, both of which are corporate bodies and have equal standing. Municipalities are divided into cities, towns and villages whose origins can be traced back to over a century	Central and local governments depend on and complement each other. Prefectures and municipalities are corporate bodies, independent of central government. Both local autonomy and the continuity of local government are constitutionally guaranteed and can only be abolished by constitutional amendment. Local government covers almost all domestic issues. A variety of methods guarantee full consideration of public opinion when projects or services are planned and implemented. These include symposiums, informal gatherings etc. Public participation is also legally supported. Local government revenues come from local taxes, local allocation taxes, national treasury disbursements and local government loans.	Prefectures and municipalities cover a wide range of public services among them environmental protection and forestry. In addition they also have regulatory functions such as pollution prevention.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Kyrgyzstan (Area: 198,500 square kilometres or 76,641 square miles) *Central Asian country - a former Soviet republic.* HDI= 0.701 (#110)** ESI = 51.3 (#56)	An independent democratic republic headed by a President. The government comprising a Prime Minister and Cabinet of Ministers and its local state administrations, a bicameral Parliament with executive powers and a judiciary. The central government makes decisions on all questions of state administration.	The Kyrgyz Republic is divided into six regions (Oblasts) each of which has a mayor. In addition Bishkek, the capital city, is self-governing and is headed by an elected mayor. The country's rate of urbanization is relatively small and stable.	National administration is very strong but all regions of the republic are involved in establishing and developing self-government bodies. In principle local self-government is constitutionally guaranteed and is implemented through the local councils (Keneshes) and their executive bodies, which include towns, cities and the Bishkek Municipality which are accountable to both the state and the citizens of the respective communities. Local governments derive finances through a variety of sources and are mainly used to strengthen their financial basis, increase local budgets and execute various community-based programmes. National budget revenue may be released by state bodies if local government is unable to satisfy the minimum social standard of living.	No direct environmental functions is assigned to local self-government bodies but among their other functions are the control over rational utilization of natural resources, compliance with environmental, land and natural resource normative and legislative acts, as well as ensuring sanitary norms and regulations.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Lao People's Democratic Republic (Area: 236.800 square kilometres or 91,542 square miles) *Landlocked country having borders with China, Cambodia, Viet Nam, Thailand and Myanmar.* HDI= 0.534 (#135)** ESI = 56.2 (#32)	A people's democratic republic with a President (Head of State), a Prime Minister (Head of Government) and a cabinet composed of a Council of Ministers. The legislature consists of a unicameral National assembly and a judiciary. One of the poorest and least developed of the South-East Asian countries).	The country is divided into 16 provinces, one special zone and one prefecture: Vientiane. The provinces and the prefecture are divided into districts, which are divided into villages, (the lowest administrative unit). Each level has a committee with a bureau representing the ministry. Urban settlements are administered as part of the provinces in which they are located. And there are no separate municipal organizations. The country is mostly rural-even towns maintain a predominantly rural character with agricultural land within all urban areas.	The Government administration in Laos can be called "de-concentrated" rather than decentralized. Each province has a Governor appointed by the central government upon nomination or on advice of the People's Assembly of the province. Governance was initially very centralized but since 1986, trends towards decentralization have become visible. Poverty is widespread. Lao women and men have equal rights in all aspects of society, such as political, economic, cultural and social rights and also equal rights within the family. Although more women have started to be elected or selected for leadership positions, there are very few female leaders and policy markers at the national and local level. The government has not yet formulated a housing policy. Specific urban programmes are few.	There are no targeted environmental programmes. There is a drainage master plan for the Vientiane urban area prepared with JICA and ADB assistance as well as a programme for wastewater management supported by the EU. JICA has also provided assistance for solid waste management and water supply development in Vientiane. France has supported improvements to water supply schemes in small towns. Other foreign funded initiatives include provision of drainage and solid waste vehicles for public health improvement.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Malaysia (Area: 131, 582 square kilometres or 50,803 square miles) HDI = 0.793 (#59)** ESI = 49.5 (#68)	Constitutional monarchy with King as Head of State and a Prime Minister (Head of Government) and Cabinet of Ministers. Parliament is bicameral; Consisting of a federation of 13 states: Peninsular Malaysia (11 states) and East Malaysia (2 states -Sabah and Sarawak). Administratively, Malaysia is organized along a three-tier type of government: federal, state and local government. In distinct contrast to the arrangement in the federal government, all the states have unicameral legislatures.	Local authority is of two types: municipal councils for large towns and district councils for small urban centres.	The state government has jurisdiction over the local governments and authorities. The major functions of the local authorities are environmental, public, social and developmental. These functions are either mandatory or discretionary. State government influences the finances of local authority by granting approval for any development project. Most local authorities with the exception of the largest ones are weak and are not financially able to meet community demands and expectations. The public mostly participates in local authority-driven activities and local councils also assist community-driven programmes with logistic support through the loan of vehicles and equipment. Voluntary welfare-oriented organizations, citizen watch groups, consumer and neighbourhood associations and environmental protection societies also make contributions to a range of issues such as environmental pollution, beautification, improving the quality of life of residents and preserving the heritage of the community. Local governments have changed fundamentally, albeit slowly from a service provider to a facilitator of growth, assuming a more developmental role in creating an enabling environment for businesses to thrive and for citizens to prosper.	Environmental functions relate to functions of maintenance and improvement of the environment within the area of jurisdiction. This includes obligatory services such as cleansing, collection and disposal of solid wastes, proper drainage and sewage, sewerage system and beautification programmes.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
New Zealand (Area: 268,670 square kilometres or 103,733 square miles) *Consisting of two main islands (North and South Island), Stewart Island and several outlying islands.* HDI = 0.926 (#18)*** ESI = 59.9 (#19)	A unicameral parliamentary democracy within the Commonwealth. A Governor General represents the Head of State - the British monarch. The Government consists of a Cabinet (Executive Council) headed by a Prime Minister, a Parliament (House of Representatives) and the judiciary. The Government has two branches, central and local, and the country is administratively divided into 13 regions. Many functions of central government have been privatized with some services delivered through State Owned Enterprises (SOEs) operating similarly to private companies and outside of direct government control.	Local government reforms have resulted in regional councils, headed by a chairman, and territorial (city and district) authorities, headed by a mayor. These have separated but complementary functions, with neither being subordinate to the other. The majority of the population lives in urban areas with a significant percentage concentrated in five main urban areas - Auckland, Wellington, Christchurch, Dunedin and Hamilton.	Local government has become increasingly independent and autonomous of central government control. While local authorities have certain legislated roles and functions, their primary responsibility is to the electors. Service delivery is largely through corporatized Local Authority Trading Enterprises (LATES), or service delivery may be contracted out or tendered. Local government funding is about 90 per cent locally sourced. However central government maintains oversight of local government's stewardship roles through an external audit of its management and environmental activities. For instance the Parliamentary Commissioner for the Environment has the power to investigate the effectiveness of environmental planning and management.	Among the environmentally related functions carried out by regional councils are resource management, especially their use and development. This extends to effect on natural and physical resources, land, air and water discharges and water allocation; policy aspects of bio-security; and regional hazardous waste disposal. Territorial (city and district) authority functions included environmental health and safety and Infrastructure (sewerage, water and storm water).

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Pakistan (Area: 803,940 square kilometres or 310,402 square miles) HDI= 0.497 (#142)* ESI = 42.1 (#112)	A federal republic, comprising a President (Head of State), a Prime Minister (Head of Government and appointed by the National Assembly) a cabinet (appointed by the Prime Minister), a bicameral Parliament (Senate and National Assembly) and the judiciary. The Parliament together with the Provincial Assembly for each province forms the Electoral College, which normally elects the President. Consisting of 4 provinces [North Western Frontier Province (NWFP), Baluchistan, Sindh and Punjab] and federally administered regions [one territory and one capital territory, Islamabad]. The functions of federal and provincial governments are outlined in the constitution.	Local urban areas are defined as town, municipality, city or metropolis based on population size. The corresponding local government is a town committee, a municipal committee, a municipal corporation or a metropolitan corporation. Towns have populations of 5,000-30,000. Municipalities have populations up to 250,000. Cities beyond that size and provincial capitals either have a municipal or a metropolitan corporation. Different forms of local government have similarities in their organizational structure.	Constitutionally, some responsibilities and functions are exclusively federal while others can either be federal or provincial. The existence of local governments is not formally embodied in the Constitution and owe their existence and powers to the provincial governments. Local governments do not operate independently from the provincial government and therefore, have hardly little autonomy. Local governments are under the supervision of various provincial governments, whereas provincial governments have began to delegate some of their functions and responsibilities. Local governments also play no role in the political and electoral structure of Pakistan. Urban local councils essentially provide three basic services-garbage disposal, maintenance of roads and street lighting. In larger cities, local government also looks after preventive health care, as it is beyond the scope of smaller urban councils. The process of giving more autonomy to local government and increasing public participation in local governance is progressing slowly both formally and non-formally.	Most urban local councils provide solid waste management and are involved in the maintenance of water, drainage, and sanitation services, including public safety.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Philippines (Area: 300,000 square kilometres or 115,874 square miles). *An archipelago consisting of some 7,100 islands (over 50 per cent of the population lives on Luzon Island).* HDI = 0.753 (#83)** ESI = 41.6 (#117)	A republic headed by a President (both Head of State and government) – a Cabinet of 26 secretaries), a bicameral Congress (Senate and House of Representatives) and a judiciary. The country is divided into 15 administrative regions in each capital of which the 26 national departments have regional offices.	Local government is divided into provinces, cities, municipalities, and Barangays (similar to a village). In addition there are special units, such as the Metropolitan Manila Development Authority (MMDA), which is the metropolitan government for Manila covering 8 cities and 9 municipalities, as well as the autonomous regional government (ARMM) and a special administrative region (CAR). Over half the population is estimated to live in urban areas.	Local governments have four major functions, efficient service delivery, environmental management, economic development, and poverty alleviation. Cost effectiveness in service delivery as well as in other local ventures is achieved through inter-municipal cooperation. Intergovernmental relations tilted more towards local autonomy and decentralization. National government apart from general supervision has no control over local governments. National government departments are primarily responsible for policy formulation, standard setting and implementation of national sectoral or departmental programmes only after consultation with local governments. The constitution guarantees the right of public participation. Civil societies are represented in various local development councils and several sectors of society like youth; women, farmers and other special groups have voices in the process of public decision-making.	Environmental management is specifically legislated to local governments. This includes environmental protection, imposition of penalties, prevention of environmentally hazardous activities which result in pollution, accelerate eutrophication or result in ecological imbalance. All these functions are pursued in addition to adopting measures and safeguards against pollution and for the preservation of natural ecosystems in consonance with approved standards on human settlements and environmental sanitation.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Republic of Korea (Area: 99,392 square kilometres or 38,340 square miles) *Southern half of the Korean Peninsula.* HDI = 0.888 (#28)*** ESI = 35.9 (#135)	The country is a republic with a unitary, democratic form of government. The President is Head of State and has a wide range of powers over the central government which consists of a Cabinet called a state council) headed by a Prime Minister. There is also a unicameral National Assembly and a judiciary.	The country is divided into 9 provinces and 7 metropolitan cities and has a two-tier local government system consisting of upper-level local governments (metropolitan and provincial governments are autonomous with relatively broad territorial jurisdiction) under the central government as well as lower-level local governments (basic level local authorities), which include cities and urban districts. All local governments in Korea have the governing structure, which includes chief executives (governors, mayors, county executives and district executives) and local councils. Central government has strong control over local government.	The central government exercises very strong power and influence over local government through its administrative authorities as well as through fiscal control mechanisms. While the introduction of elected local council members has given some local autonomy the fact that the central government may exercise its own power and control over any of its functions has seriously weakened the power and autonomy of local governments. Citizens can participate in local administration through various institutional mechanisms such as a citizen petition, resident voting, and resident request for audit and investigation, participation in committees, etc. The local council has the authority to represent citizens' interests and to oversee local administration but the chief executive has the authority to control all the administrative affairs within the jurisdiction of local governments. Thus the central government has revealed a very conservative tendency as far as local autonomy is concerned. It has been reluctant to decentralize administrative functions and to strengthen local governments. As a result, the functions of local governments are still limited to a great extent but decentralization of administrative functions is eagerly looked forward to.	Environmental functions of local governments include functions relating to regional development and the construction and management of environmental facilities. Grants provided by the central government are aimed at programmes that promote both national and local interests, which include environmental protection.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Russian Federation (Area: 17,075,200 square kilometres or 6,600,758 square miles) *Largest country in the world in terms of area. Its border (with 14 countries) is the world's longest stretching almost 20,000 kilometres.* HDI = 0.795 (#57)** ESI = 49.1 (#72)	Constitutionally a democratic, federative, law-based state with a republican form of government. The country headed by a President (Head of State) with a Prime Minister (Head of Government) and a Cabinet of Ministers, a bicameral Parliament - consisting of an upper house (Federation Council) and a lower house (the State Duma).	The country is divided into republics, krays (territories), oblasts (provinces), okrugs (regions). Moscow and St. Petersburg have separate status as "cities of federal significance," Units of local self-government operate in raions (districts); cities and towns; selsovets (groups of villages) and villages.	Central government holds the majority of power while examples of joint power sharing between federal and local authorities are less numerous, and regional jurisdictions are only allocated exclusive powers not specifically reserved to the federal government or exercised jointly. These include municipal property management, regional finances, tax collection, and maintaining law and order. As the power and influence of the central government have become diluted, governors and mayors have become the only relevant government authorities in many jurisdictions. Presently power is increasingly becoming centralized. The Moscow area suffers from high levels of industrial and vehicular air pollution and improper disposal of low-level radioactive waste.	Central government includes a Ministry of Environmental Protection and Natural Resources. Environmental Commissions were formed in the early 1990s in Moscow and other cities blocked many large, environmentally dubious projects of the central government, since then they have been disbanded. The official environmental protection system includes environmental agencies in each of the eighty-nine sub-national jurisdictions and also several state committees responsible for the use of mineral, water, and forest resources. Urban areas in particular suffer from poor air quality with the most polluted being centres of heavy industry and include Moscow and St. Petersburg. Other urban problems include water pollution, lack of potable water, water borne diseases among others.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Singapore (Area: 693 square kilometres or 268 square miles) *An independent City-State that was briefly part of the Malaysian Federation.* HDI = 0.902 (#25)*** ESI = n.a.	A parliamentary democratic republic. The city-state has only one level of government with a President as Head of State and a Prime Minister as Head of Government who heads a cabinet of Ministers. There is also a unicameral elected Parliament, and a judiciary.	Singapore had only one level of government-national government and local government were one and the same. The form of the government reflected the country's unusually small area and modest total population. Below the national level, the only recognized territorial divisions are the parliamentary constituencies consisting of Community Development Councils (CDCs) headed by a member of parliament appointed as mayors who undertake various social services previously provided by the Government.	A key strategy is the corporatization of the public sector to enable them to operate and compete in a private sector like environment. The Singapore Green Plan (SGP) initially launched in 1992 was developed with a view to changing the attitude and behaviour of society and business by integrating it into economic development and improving the quality of the environment, in other words sustainable development. Initially it involved six areas, namely environmental education, environmental technology (especially promoting the country as a regional hub for environmental business such as R&D and expertise), resource conservation, clean technologies, nature conservation and noise pollution. The SGP2012 launched at the WSSD is the country's blueprint for sustainable development for the next decade and aims to integrates six areas (clean air, water supply, waste management, conserving nature, public health and international cooperation) showcasing innovation and community partnership.	The Ministry of Environment provides environmental services including infrastructure, water and waterway pollution and flood prevention and control, sanitation, disease control, sewerage infrastructure, solid waste management and drainage improvement. A Master Plan for environmental; protection has been in place since 1980.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Sri Lanka (Area: 64,740 square kilometres or 24,996 square miles) *An Island with strategic location near major Indian Ocean sea-lanes.* HDI = 0.740 (#96)** ESI = 51.3 (#55)	A democratic socialist republic with a president (Head of State and Government), Cabinet of Ministers headed by a Prime Minister. Central and provincial government (currently there are 8 provincial councils namely Central, North Central, North Eastern, North Western, Sabaragamuwa, Southern, Uva, and Western). Central, Provincial as well as local government officials are elected.	Local urban government is not tiered but made up of Municipal, Urban or Town councils, under the Provincial Councils. Approximately 22 per cent population is urban - mostly centred on the primate city Colombo and its suburbs.	Local authorities are under Provincial Councils. All urban local authorities are dependent on the government grants disbursed through the provincial councils. Decentralize of power begun in the provincial councils of the North-western and Central Provinces, which have given additional powers to local authorities. Local government functions include environmental management and social services. Some of these functions done by state owned and managed boards, corporations or statutory authorities making local authorities dependant on these institutions thus limiting their revenue earnings capabilities. Mayors head the municipal councils assisted by the Municipal Commissioner. Shortage of staff is largely responsible for the weak performance of local authorities Local authorities unable to plan services for a larger geographical area as it involves large investments, especially apparent in urban local authorities where the non rate paying urban poor, living in shanties and squatter settlements are often not given the same service as ratepayers. Lately however the Colombo Municipal Council has begun to privatize garbage collection and street cleaning with encouraging results. While deciding on priorities for funding, government may be receptive to citizen groups.	The majority of Municipal Council functions (health and sanitation activities, solid waste disposal, greening of the areas under their control and development of parks) can be categorized as environmental activities. Generally Urban Council powers and duties are not very different from those of Municipal Councils the main functions again being environmental in nature.

Country	Central/State Government	Local/Urban Government	Central - Local Relationship (including local participation if any)	Environmental Aspects
Thailand (Area: 513,115 square kilometres or 198,189 square miles) *Formerly Siam. Borders with Burma, Cambodia Lao PDR, and Malaysia.* HDI = 0.768 (#76)** ESI = 51.6 (#54)	A constitutional monarchy with a western style bureaucracy consisting of three levels (central, provincial and local). Central administration comprises a Prime Minister as Head of State and Council of Ministers, constituting a Cabinet. Also a bicameral National Assembly (Senate and House of Representatives). The country administratively is divided into 76 provinces, as well as districts and sub-districts (or Tambons - consisting of several villages).	Three of the six forms of Local administration pertain to urban areas namely (a) The Bangkok Metropolitan Administration (BMA), (b) the municipalities, which governs urban centres in the provinces and is divided into cities, towns; and tambons, and (c) the City of Pattaya.	Local and provincial administrations overlap to some extent. Local governments operate independent of one another but are considerably controlled by the central government through the Ministry of the Interior. The BMA is divided into districts and sub-districts, with an elected governor as chief executive but overall supervision is under the Minister of Interior. Municipalities are based on the council-mayor form of local government and divided into 3 categories namely city, town and tambon based on decreasing populations. The tourist resort city of Pattaya has an experimental unique form of local government. Here a manager hired by the City Council governs both rural and urban areas answering to and managing the city according to policy guidelines given by the Council. People's participation in any level of local government is minimal (usually limited to voting in elections, and there is no legal provision for such participation. The general public knows little about the functioning, the problems and the general affairs of local government, However more recently increased leeway has been provided for people's participation in the affairs of the state.	Environment has ministry status in the Central government. Among the environmental functions carried out by urban local governments are provisions of sanitary services (water supply, waste disposal, sewage and drainage) as well as provision of public utilities, provision and maintenance of public recreation space and facilities; and improvement of slum dwellings.

Sources: For Bangladesh, India, Pakistan, Sri Lanka, Indonesia; Malaysia, Philippines, Thailand, China, Japan, Republic of Korea, Kyrgyzstan, Australia, New Zealand, Fiji - UNESCAP Local Government in Asia and the Pacific (2001) www.unescap.org/huset/lgstudy/index.htm

Bhutan: Area Handbook Series US Federal Research Division Library of Congress (1998) http://countrystudies.us/

Hong Kong, China: http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN007492.pdf
www.info.gov.hk/eindex.htm
www.epd.gov.hk/epd/misc/ehk04/english/hk/index.html#a10

Lao People's Democratic Republic: UN City Profiles (2001) www.unhabitat.org/programmes/guo/guo_cityprofiles.asp

Russian Federation: Area Handbook Series US Federal Research Division Library of Congress (1998) http://countrystudies.us/

Singapore: www.worldbank.org/wbi/urbancitymgt/singapore/assets/s-limsooping-mod02.pdf
www.worldbank.org/wbi/urbancitymgt/singapore/assets/s-sengeng-mod08.pdf
www.nea.gov.sg/sgp2012aps/index.htm

Notes: HDI = Human Development Index - Value (# - World Rank out of 177 countries) - Human Development Report (2004) UNDP (http://hdr.undp.org)

***High Human Development >0.799;

**Medium Human Development (0.501-0.799);

*Low human development <0.501

ESI = Environmental Sustainability Index - Value (# - World Rank out of 142 countries) - Main Report (2002) – Yale Center for Environmental Policy and Law, Yale University, and CIES, Columbia University, USA (www.ciesin.columbia.edu/indicators/esi/ESI2002_21MAR02a.pdf)

n.a = Information Not Available

Annex 3: Asia and the Pacific – Human Development Index and Environmental Sustainability Index (2002)

1. ASIA	HDI			ESI		
	World Rank (out of 177)	AP Rank (out of 42)	#	World Rank (out of 142)	AP Rank (out of 32)	#
SOUTH AND SOUTH-WEST ASIA						
Afghanistan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bangladesh **	138	39	0.509	86	15	46.9
Bhutan **	134	37	0.536	30	3	56.3
India **	127	32	0.595	116	26	41.6
Iran (Islamic Republic of) **	101	24	0.732	104	22	44.5
Maldives **	84	17	0.752	n.a.	n.a.	n.a.
Nepal **	140	40	0.504	99	20	45.2
Pakistan *	142	41	0.497	112	24	42.1
Sri Lanka **	96	22	0.740	55	9	51.3
Turkey **	88	19	0.751	62	11	50.8
SOUTH-EAST ASIA						
Brunei Darussalam ***	33	7	0.867	n.a.	n.a.	n.a.
Cambodia **	130	34	0.568	97	19	45.6
Indonesia **	111	27	0.692	100	21	45.1
Lao People's Democratic Republic **	135	38	0.534	32	4	56.2
Malaysia **	59	9	0.793	68	12	49.5
Myanmar **	132	35	0.661	90	17	46.2
Philippines **	83	16	0.753	117	27	41.6
Singapore ***	25	5	0.902	n.a.	n.a.	n.a.
Thailand **	76	12	0.768	54	8	51.6
Timor-Leste *	159	42	0.436	n.a.	n.a.	n.a.
Viet Nam **	112	28	0.691	94	18	45.7
EAST AND NORTH-EAST ASIA						
China **	94	21	0.745	129	29	38.5
Hong Kong, China ***	23	4	0.903	n.a.	n.a.	n.a.
Macao, China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Democratic People's Republic of Korea	n.a.	n.a.	n.a.	140	32	32.3
Japan ***	9	2	0.938	78	14	48.6
Republic of Korea ***	28	6	0.888	135	31	35.9
Mongolia **	117	30	0.668	42	6	54.2
NORTH AND CENTRAL ASIA						
Armenia **	82	15	0.754	38	5	54.8
Azerbaijan **	91	20	0.746	114	25	41.8
Georgia **	97	23	0.739	n.a.	n.a.	n.a.
Kazakhstan **	78	13	0.766	88	16	46.5
Kyrgyzstan **	110	26	0.701	56	10	51.3
Russian Federation **	57	8	0.795	72	13	49.1
Tajikistan **	116	29	0.671	110	23	42.4
Turkmenistan **	86	18	0.752	131	30	37.3
Uzbekistan **	107	25	0.709	118	28	41.3

2. PACIFIC	HDI			ESI		
	World Rank (out of 177)	AP Rank (out of 42)	#	World Rank (out of 142)	AP Rank (out of 32)	#
Australia ***	3	1	0.946	16	1	60.3
New Zealand ***	18	3	0.926	19	2	59.9
MELANESIAN COUNTRIES						
Fiji **	81	14	0.758	n.a.	n.a.	n.a.
New Caledonia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Papua New Guinea **	133	36	0.542	51	7	51.8
Solomon Islands **	124	31	0.624	n.a.	n.a.	n.a.
Vanuatu **	129	33	0.570	n.a.	n.a.	n.a.
POLYNESIA AND MICRONESIA ISLANDS (MID-SIZED)						
American Samoa	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
French Polynesia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Guam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Northern Mariana Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Palau	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Samoa **	75	11	0.769	n.a.	n.a.	n.a.
Tonga **	63	10	0.787	n.a	n.a	n.a.
SMALL ISLAND MICRO-STATES						
Cook Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Federated States of Micronesia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Kiribati	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Marshall Islands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nauru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Niue	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tuvalu	n.a.	n.a	n.a.	n.a.	n.a	n.a.

Notes: HDI = Human Development Index - Value (# - World Rank) - in Human Development Report (2004) UNDP (http://hdr.undp.org)

*** High Human Development >0.799;

** Medium Human Development (0.501-0.799);

* Low human development <0.501

ESI = Environmental Sustainability Index - Value (# - World Rank)
– ESI Main Report (2002) – Yale Center for Environmental Policy and Law, Yale University, and CIES, Columbia University, USA (www.ciesin.columbia.edu/indicators/esi/ESI2002_21MAR02a.pdf)

n.a = Information Not Available

Annex 4: City Development Index (CDI) – Asia and the Pacific (1998 data)

1. ASIA			
	City	CDI #	AP Rank (out of 46)
SOUTH AND SOUTH-WEST ASIA			
Bangladesh **	Chittagong	39.3	43
	Dhaka	47.1	40
	Sylhet	40.6	42
	Tangail	35.3	46
India **	Bangalore	58.0	36
Nepal **	Kathmandu	62.0	31
Pakistan *	Lahore	61.1	32
Sri Lanka **	Colombo	58.4	34
Turkey **	Ankara	72.0	20
SOUTH-EAST ASIA			
Cambodia **	Phnom Penh	39.2	45
Indonesia **	Jakarta	69.2	24
	Medan	58.0	36
	Semarang	58.1	35
	Surabaya	62.2	30
Lao People's Democratic Republic **	Vientiane	47.1	40
Malaysia **	Penang	67.3	25
Myanmar **	Yangon	51.3	39
Philippines **	Cebu	67.0	26
	Mandaluyong	70.8	22
	Naga	66.7	27
Singapore ***	Singapore	94.5	3
Thailand **	Bangkok	82.6	8
	Chiang Mai	78.5	11
Viet Nam **	Hanoi	74.2	17
EAST & NORTH-EAST ASIA			
China **	Hohhot	65.8	29
Hong Kong, China ***	Hong Kong	92.0	4
Mongolia **	Ulaanbaatar	66.0	28
Republic of Korea ***	Hanam	89.9	5
	Pusan	88.6	7
	Seoul	95.8	1
NORTH AND CENTRAL ASIA			
Georgia **	Tbilisi	72.2	19
Kyrgyzstan **	Bishkek	55.8	38
Russian Federation **	Astrakhan	71.2	21
	Belgorod	77.3	13
	Kostroma	75.1	15
	Moscow	89.9	5
	Nizhny Novgorod	78.6	10
	Novomoscowsk	74.5	16
	Omsk	73.8	18
	Pushkin	81.1	9
	Surgut	77.6	12
	Veliky Novgorod	76.2	14

2. PACIFIC			
	City	CDI	AP Rank (out of 46)
Australia ***	Melbourne	95.5	2
MELANESIAN COUNTRIES			
Fiji **	Suva	69.3	23
Papua New Guinea **	Port Moresby	39.3	42
POLYNESIA & MICRONESIA ISLANDS (MID-SIZED)			
Samoa **	Apia	59.0	33

Source: CDI = City Development Index; www.unchs.org/publication/Analysis-Final.pdf

Notes: HDI values *** High Human Development >0.799; ** Medium Human Development (0.501-0.799); * Low human development <0.501

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