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## medio ambiente y desarrollo

Sustainable human settlements development in Latin America and the Caribbean

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Sustainable Development and Human Settlements Division

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#### Introduction

This document presents an overview of the regional progress made towards the targets and commitments derived from implementation plans and programmes for the main agreements of the Johannesburg Summit and Agenda 21 regarding human settlements thematic cluster in Latin America and the Caribbean. It has been submitted as part of the preparatory process for the twelfth session of the United Nations Commission on Sustainable Development, held in May 2004. A previous summary of this report was validated by the XII General Assembly of Ministers and Highest Authorities of Housing and Urban Development (MINURVI) held in La Paz, Bolivia, during November 2003.

The report addresses the principal social, economic and environmental issues in the region, as well as the challenges and opportunities for sustainable development in the region, highlighting advances made in the implementation of policies, reforms, programmes and projects in this area.

# I. The regional context: urbanization trends, recent economic performance and urban environmental conditions

Latin America and the Caribbean is the most urbanized region in the developing world, with an urbanization level rivalling that of many industrialized countries. Region-wide figures mask wide differences across countries -and within them as well, at the subnational level- in terms of both the degree of urbanization and the current speed of the process. At the one extreme are countries at an advanced stage of urbanization (Argentina, Chile, Uruguay and Venezuela), whose urban population in 2000, accounted for 86%, 87%, 90% and 93%, respectively, of the total. At the other extreme are very rural countries, such as the Central American countries and Paraguay, where the urban population makes up less than 60% of the total. The level of the Andean subregion is very close to the average for the region as a whole (ECLAC/UNEP, 2002). The region's urbanization level rose from 71% in 1990, to 75% in 2000 and to 77% in 2003, at which time its urban population amounted to 417 million, as against 126 million rural inhabitants (United Nations, 2004). In 2001, of the almost 400 million persons living in urban areas in the region, 6.1% of the total correspond to the Caribbean subregion, 23.6% to the Central American subregion and 70.3% to South America (Mac Donald, 2004). Over the past three decades the region's urban population has grown by 240%, while its rural population has grown by a mere 6.5% (ECLAC/UNEP, 2002). In the 1990s,

however, the trend towards a slowdown in the growth of the region's urban population became more pronounced. Moreover, a large proportion of the urban population in the region lives in large cities. The region accounts for only 8.6% of the world's population, yet it accounts for some 14% of the population living in settlements of more than a million inhabitants (Mac Donald, 2004).

The most common type of population movement in the region is migration between cities. Rural-to-urban migration, which has declined in absolute terms, is taking on new forms, particularly involving more educated young adults of working age and in situations of widespread civil conflict (Colombia). The region is also starting to become a source of outward migration to other countries, primarily the United States, and to a much lesser degree Canada, Europe and Oceania. In Central America there are signs that the networks formed between those who leave and those who stay are binding urban areas together. Emigration to the United States is significantly affecting demographic and socio-cultural patterns in all the Central American cities. In the Caribbean, international migration is often the most significant component of population dynamics, the social and demographic structure and the spatial distribution of the population (ECLAC, 2001a). The economic assistance provided by emigrants to relatives in their countries of origin has become a crucial macroeconomic variable for many areas, and even countries, of the region, especially Mexico (which receives some US\$ 7 billion a year) and Central America and the Caribbean (where these flows represent between 8% and 14% of GDP in small countries such as, the Dominican Republic, Ecuador, El Salvador and Jamaica) (ECLAC/UNEP, 2002).

The most significant feature of economic development in Latin America and the Caribbean over the past decade has been the recovery of positive growth rates, in a context of increased concern about national macroeconomic balances. In 2001 and 2002, the region experienced a stalling in its economic growth, which, added to a slump in the world economy, raised concerns about the future. During this period, the majority of the countries of the region grew at very slow rates and gross investment continued to decline principally due to decreases in external savings (ECLAC, 2003a). In 2004, however, the economy of Latin America and the Caribbean grew 5.5%, outdoing even the most optimistic forecasts. Except for Haiti, every country posted positive growth. The region's solid performance is closely tied to the international economy, and increased levels of commodity prices. The region's terms of trade rose 5.6% in 2004, as compared to an improvement of 1.3% in 2003. One salient feature of the current recovery is that the rise in output is occuring in a context of capital outflows (ECLAC, 2004a)

Some countries of the region have suffered from more pronounced economic instability, which has worsened the already adverse conditions in their labour markets. Average growth in most countries of the region, has been insufficient to overcome problems of poverty. Low growth rates have had negative effects on employment and the creation of new jobs. The sharp decline in the labour absorption capacity of manufacturing and the public sector, in a context of rapid technology absorption and fiscal adjustment, has had at least three effects: (i) the destruction of low-skill jobs, with a consequent rise in unemployment and informal employment; (ii) a widening of the wage gap between skilled and unskilled workers; and (iii) a downturn in the proportion of secure, stable jobs, particularly low-skill jobs, and greater disparity between skilled and unskilled workers in terms of rights at work (Kaztman, 2003).

According to ECLAC estimates, in the year 2002 the region's urban poor amounted to over 146,7 million people, of whom 51,6 million were indigent (ECLAC, 2004b). While poverty is proportionally lower in cities than in rural areas, the region's high level of urbanization has concentrated most of the population in urban centres, with the result that two out of every three poor people in the region are city dwellers. Almost 70% of total regional urban poverty is concentrated in urban areas in Brazil, Colombia and Mexico (Mac Donald, 2004). Regarding relative poverty incidence as a proportion of total urban population, four country groups exist in the

region: (i) a first group, where less than 25% of the urban population is poor (Costa Rica, Chile and Uruguay); (ii) the second, where between 25% and 40% of total urban population is poor (Brazil, El Salvador, Mexico, and Panama); (iii) the third, (Bolivia, Colombia, Dominican Republic, Ecuador, Guatemala, and Paraguay) where urban poverty fluctuates between 40% and 60% of the total; and (iv) the last group, with more than 60% of total urban residents being poor (Honduras and Nicaragua) (ECLAC, 2004b).

Urban poverty takes the form of low earnings related to precarious employment, a shortage of educational capital and patrimonial assets, and shows inequities based on gender. Households headed by women, apart from being over represented among poor households, tend to be more economically and socially vulnerable because of the lower number of workers per household, which makes them more likely to fall below the poverty line at times of crisis. While economic growth and increased social spending in all the countries have enabled them to make progress in reducing the percentage of people living in poverty, national inequality indices have remained high or deteriorated outright. ECLAC analyses show that wealth factors affect inequity as well as poverty.

After natural resource depletion, urban environmental degradation is the most serious problem facing the region in this area of development. Generally speaking, the causes of the increase in air, soil and water pollution are associated with unplanned urbanization processes, agriculture (use of unsustainable techniques and agrochemicals) and poor environmental management. The uncontrolled growth of cities has exposed a large proportion of the population to deteriorating air and water quality, solid and hazardous waste contamination and coastal degradation. Overcrowding, lack of infrastructure and urban sprawl heighten exposure to pollutants, with the result that the poorest sectors are usually the primary victims of pollution. The region's societies do not currently demonstrate a proactive awareness of environmental problems. In contrast to the 1990s, when the region saw an upsurge in citizen involvement on environmental issues (particularly in relation to industrial polluters), there is now widespread apathy on this subject. It should be pointed out that today, especially in metropolitan areas, the primary polluters are mobile sources (private and public transport), so that the polluters themselves (drivers) are the victims of their own actions.

Although urbanization processes slowed during the past decade, serious challenges continue to exist in the region's urban settlements: a scarcity of public services, marked social inequalities in habitat conditions, social and spatial segregation, inequity, poverty, unemployment and increased economic vulnerability, environmental degradation, complexities in the governance structures for urban environmental service provision, pollution, and vulnerability to technological and natural disasters.

The existence of a Regional Action Plan on Human Settlements<sup>1</sup> illustrates the concern of policy makers in response to these issues; this plan was developed in 1996 and updated for Habitat +5, and has been endorsed by the Ministers of urban development and housing of the region. This Action Plan incorporates critical issues in sustainable human settlements development in five key areas: social equity and poverty, increases in productivity, improvement of the urban environment, promotion of good governance and participation, and the efficiency of policy (ECLAC, 2001b). The Plan also illustrates a change in perspective among policy makers and analysts in the region, from a problem based perspective, to one that seeks to take advantage of the opportunities in urban economies, to reduce negative externalities, and to view cities as motors for development, and as instruments for the growth and development of regional economies, as well as to cope with environmental and social problems (Bárcena and Simioni, 2003a).

A similar plan regarding specific environmental issues also exists for the region (Latin American and Caribbean Initiative for Sustainable Development, UNEP 2003), as well as subregional initiatives specific to the Caribbean.

# II. Sustainable human settlements development

#### 1. Habitat

Serious housing problems persist in the region, especially among the poorer sectors of the population: 45% of these problems consist of quantitative shortages, while the rest consist in needed improvements. ECLAC has estimated new housing needs at approximately 38 million units (Mac Donald and others, 1998). It is expected that annual new housing needs will continue to grow, despite the slowdown in the region's population growth, owing to the diversification of housing demand (ECLAC, 2001a). The nuclear family model that predominated in earlier decades is now being supplemented by trends towards the formation of smaller households consisting of older persons and towards more households headed by women (ECLAC, 2001a). There is also a significant demand for replacement of the housing stock in the region, especially of the lowincome housing built from the 1950s onward, due to the historical lack of application of appropriate technical specifications and of maintenance measures and programmes, which has shortened the useful life of many housing complexes.

Among poor households, the most widespread problem observed is lack of access to sanitation, followed by lack of access to secure tenure and to drinking water networks. Next in importance is the problem of poorly constructed housing. Lastly, overcrowding continues to be a predominant feature of poor urban households. In

urban areas, precariousness<sup>2</sup> characterizes not only poor households, but also, albeit to a lesser degree, households whose income places them above the poverty line (Mac Donald, 2004). In the 1990s households headed by women were at a considerable disadvantage in terms of the physical aspects of housing, though this began to change around 2000. In terms of services, these households were in a better situation than poor households overall at the beginning of the decade, but towards the end of this period the expansion of service coverage did not significantly improve the situation of this group. Considering that this segment also lost its advantage in terms of security of tenure, it may be concluded that the housing situation of households headed by women, particularly indigent households, has become more precarious (Mac Donald, 2004).

The supply of public and private housing did not expand substantially in the 1990s and even stayed below the level required to meet needs related to the formation of new households. Macroeconomic circumstances have not allowed most countries in the region to maintain housing policies based on conventional production. Incipient new policy approaches have included more realistic standards with regard to technical housing specifications, under programmes aimed at the holistic, progressive and participatory consolidation of human settlements, using public resources and micro-credit, in addition to household saving. An additional challenge is to incorporate other alternatives such as the improvement or expansion of existing dwellings and housing mobility.

Types of financing have been diversified to give low-income households access to housing under schemes based on a combination of State subsidies, prior savings and mortgage loans, with a view to expanding the private sector's capacity to build and finance housing solutions for different socio-economic sectors. The regional experience in mixed financing schemes based on market approaches for social housing shows a number of lessons learned and pending challenges in the areas of subsidy systems, the use of savings, and housing credit policy. Experience shows (Costa Rica, Colombia, Chile) that too much emphasis on new housing subsidies, without incorporating qualitative deficit issues, may exacerbate levels of habitat precariousness (Szalachman, 2000; Held, 2000). While key issues for subsidy programmes include sufficient public resources<sup>3</sup> and land supplies at compatible prices, the characteristics of the subsidy system itself have been shown to be of particular importance: application system impartiality and transparency; beneficiary targeting issues (capacity to pay, supply and demand issues); and neutrality in terms of subsidy use (new or used housing, improvement or enlargement). Although not yet completely valued by, and incorporated within, housing policies in the region, the use of prior saving has been shown to effectively detect families' disposition to solve their housing problems. Access to the system for lower income families, however, should be assured by defining realistic levels and periods of saving; as well as a connection to a financial system that guarantees economic returns, security and liquidity. Although it is generally accepted that the loan component of social housing financing systems must operate within market conditions, indexed to inflation, two basic difficulties continue to exist regarding its wide spread adoption within the region: the scarcity of medium and long range funds, and insufficient development of financial markets (Arrieta, 2002). Recent advances in housing finance include the recognition of the need to create mechanisms for the transformation of loan terms, creating secondary markets for mortgages, as well as the provision of guarantees and insurance subsidies to commercial banks in order to reduce transactions costs issues.

Defined as the proportion of households without full coverage of housing needs, such as properly constructed housing, access to services (water, sanitation) and secure tenure.

<sup>&</sup>lt;sup>3</sup> ECLAC studies show that levels of at least 1% of GDP would be necessary (based on Chilean and Costa Rican programmes) (Held, 2000).

<sup>4</sup> This may imply establishing mechanisms for funds indexing or permitting variable nominal interest rates.

#### Box 1

#### DEMAND SUBSIDIES AND HOUSING POLICY IN CHILE, COLOMBIA AND COSTA RICA

The new policies for social housing in the region have implied significant changes in the roles of both public and private sectors. The public sector has taken on regulatory functions, demand subsidy management, and the role of subsidiary agent in specific sub sector areas where the private sector is not in conditions to perform adequately. The private sector is now generally responsible for building social housing, with market based mortgage credit (and State subsidies), and low-income households assist in financing their homes with previous savings, land, building materials and labour.

Based on a system which combines market based credit, previous savings and direct demand subsidies (for new homes, and in 1996 for used homes), the Chilean housing policy has been very successful in building many homes, particularly during the 1990s (roughly 800.000 homes for a country with 4 million households), as well as in increasing savings levels targeted towards housing investment (although by the end of the nineties, decreases in levels of savings have been shown). The Ministry of Housing and Urban Development, through its Housing and Urban Service (Servicio de Vivienda y Urbanismo, SERVIU) regulates the industry (including fixing prices for social housing), sets standards, administers the State subsidy system, offers credit to lower income sectors, and mortgage guarantees for social housing. While private construction businesses build social housing units (most often very large development projects, reaching 2,000 units), and organizes the demand (including the administration of savings accounts), banks and financial institutions issue and manage housing credit, as well as letters and bonds associated with mortgages in capital markets. In 1998, SERVIU issued 17,5% of the credit within the system, principally to lower income families, while the financial sector serviced middle and lower middle-income families (financed principally by pension funds). The transparent and objective points access system (based on criteria including levels of savings, income levels, household size and composition and social stratification factors) has gained broad based support and legitimacy among potential beneficiaries. Although this targeting system has been relatively successful, the poorest of the poor have tended to be excluded from accessing housing solutions (due to limited debt capacity as well as problems in supply and demand correspondence). Increases in land prices and lack of reserves have impacted negatively on the location of new social housing complexes, which, in metropolitan areas, tend to be built on the urban periphery, with the associated problems of access to services, increased costs, as well as social exclusion and segregation issues. Although subsidies may be used for used homes, the secondary market for social housing has shown very limited dynamism. Insufficient land reserves continue to be a major challenge. The new Dynamic Social Home Without Debt Programme (Programa Vivienda Social Dinámica Sin Deuda) offers a small housing unit financed via savings and subsidy that must be finished by its new owners, oriented to households without debt capacity.

In 1991, the Institute for Social Housing and Urban Reform (*Instituto de Vivienda de Interés Social y Reforma Urbana, INURBE*) and the housing demand subsidy system were created in Colombia. INURBE is the public institution responsible for the new social housing policy that norms the housing subsidy system. Additional functions include the administration of subsidies for low-income families (for new and used units as well as home improvement or expansion) and technical assistance for local level agencies and popular housing organizations. Private entities manage subsidies for households with income levels between 2 and 4 times the minimum wage. Although savings contributions (cash or labour) are required within the housing programmes, in general, previous cash savings have not materialized. In 1997, a new land policy for social policy was implemented, granting authority to municipalities to use land use planning instruments for land reserves as well as mechanisms to collect a percentage of the appreciation in land prices due to public investment. An additional innovative aspect of the Colombian experience is the incorporation of complementary public investments in health and education, as well as in other social sectors. Despite these innovative reforms, the new housing policy has yet to play a significant role in decreasing the housing deficit in Colombia.

In 1986, the National Financial System for Housing (Sistema Financiero para la Vivienda, SFNV) was created in Costa Rica with the Housing Mortgage Bank (Banco Hipotecario para la Vivienda) as it's executing organization. This Bank's function is to channel funds for social housing to authorized first floor financial entities, and to administer the Housing Subsidies Fund (funded from public resources). The SFNV includes direct demand subsidies to households (for new homes, and home improvement and expansion), market based mortgage credit access, and the construction of housing solutions by the private sector. The housing policy has fostered a strong expansion in the number of housing solutions built and the subsequent reduction of the quantitative deficit. Existing challenges include: (i) an increasing qualitative housing deficit, (ii) increased land prices and de facto exclusion of the poorest from access to affordable housing solutions, (iii) limited development of the secondary social housing market, and (iv) the need to develop capital markets and to improve access to long term funds for mortgage credit.

**Source**: Held, Gunther (2000), Políticas de viviendas de interés social orientadas al mercado: experiencias recientes con subsidios a la demanda en Chile, Costa Rica y Colombia, Economic Commission for Latin America and the Caribbean, United Nations, Serie Financiamiento del Desarrollo, Santiago, Chile.

Although population growth is slowing down in the region's cities, pressure on land is still strong, given the expansion of demand for housing, services, facilities, recreational spaces, industrial parks and road networks. The shortage of urban land for the expansion of human settlements is particularly acute in the Caribbean, owing to the diminutive size of the smallest islands and to topographical limitations. The amount of available land is further reduced by other factors, such as the absence or weakness of mechanisms for rational land distribution among competing uses, the scarcity of urbanized land in non-vulnerable areas (particularly for low- and middle-income families) and patterns of land ownership and use, especially in the case of foreign owners or large properties, or ineffective systems for land title provision.

Cities are expanding their boundaries at the expense of rural land. Two markets exist for accessing land: affluent sectors have secure legal access via the formal market and low-income sectors use survival strategies, resorting to an informal land market or occupying high-risk land. The later process includes the social construction of housing, which, viewed as a resource and investment by low-income sectors that may be activated, improved or capitalized, is perhaps one of the principal opportunities in this area of habitat development in the region. Explicit recognition, and articulation of this resource and its incorporation in habitat policy, however, is not generally observed among policy makers. Many individual experiences supporting these resources, however, do exist in the region. According to some analysts (Clichevsky, 2003), the informal land market has become one of the principle mechanisms to access land, surpassing land invasions (phenomena which had been projected to be dominant during the 1960s).

Integrated upgrading programmes for informal settlements is one of various strategies that the region's countries use to improve access to land by poorer sectors. This strategy implicitly recognizes the social construction of habitat by poor families, and tries to further capitalize and improve on investments made by poor families and communities, within a context of assuring secured access to land. Regularization of land ownership programmes is another example. Mixed financing schemes, which promote private sector construction of social housing at affordable levels is another approach to the land access issue. The scarcity of urbanized land and the speculative nature of land markets in the highly urbanized cities in the region, however, have dramatically increased land prices in LAC cities. In Chile, public housing initiatives in large cities, have had the effect of relegating low-income groups to the outskirts of cities, owing to the lower cost of the land, and have contributed to, and on occasions reinforced, socio-spatial segregation of the poor. Other access improvement strategies include the purchase and reservation of land for social housing and other urban development projects by national, regional and municipal governments,<sup>5</sup> as well as improving the quality and accessibility of the information base regarding land markets. As land prices increase in the region, however, the financial feasibility of the former programmes is not necessarily guaranteed.

By mid 2001, the region had approximately 128 million people living in urban slums, 32% of the urban population (Mac Donald, 2004). Slums, comprising a wide-range of low-income settlements, from deteriorated inner city dwellings to informal settlements with inadequate housing, infrastructure and services, overcrowding, in risk areas and with a variety of tenure arrangements, are in many cities, the only option available for the urban poor.

Although national approaches to slums have generally shifted from negative policies (evictions, involuntary resettlement, benign neglect) to more positive policies, based on a generally accepted regional consensus that strategies based on settling populations in the areas that

.

<sup>&</sup>lt;sup>5</sup> The municipal government of Quito, Ecuador, the regional offices of the Chilean Housing and Urban Development Services are two entities that implement programmes of this nature.

According to Clichevsky (2003), the threat of evictions continues to exist in Latin America, who cites examples as recent as the year 2001 (Sao Paolo).

they already occupy provide the most socially and economically desirable solution to the problem of informal settlements, property insecurity continues to exist in the region. In informal settlements, tenancy irregularity is a factor which increases ambiguity. Settlers tend to behave like dwelling owners and their social context recognizes them as such. Informal settlers, however, may not access the benefits that society grants property owners (Solís Pérez (2002) cited in Clichevsky, 2003). As settlers invest more in dwelling improvement, property insecurity becomes an increasing source of social tension.

Various programme approaches have been used to address slums, ranging from those limited to regularizing ownership of irregularly occupied properties to integrated neighbourhood upgrading programmes. Regularization may be legal and/or urban. Legal regularization refers to legalization of ownership, recognition of the right to occupy the property for specific periods, and the sale or donation of land to its occupants. Urban regularization refers to the process of recognizing irregularly occupied subdivisions as regular urban zones, that will in turn be serviced and pay taxes as the rest of the city (Brakarz, Green and Rojas, 2002). In the latter type of strategies, irregular settlements are accepted as an urban reality that cannot be eradicated, and as a part of the process of growth in cities.

#### Box 2 LEGAL REGULARIZATION PROGRAMMES

Legalization processes tend to be complex and slow in the majority of the Region's countries. The complex manifestations of informal development, the multiple actors involved, the lack of transparency as to the ownership of the land, the shear volume of titles to be processed, as well as institutional issues including out of date cadastres and weak specialized technical capacity all constitute difficulties in implementing these efforts (Brakarz, Green and Rojas, 2002; Clichevsky, 2003). Beneficiary requirements for legalizing land vary among countries, but generally include (i) lot occupancy during a minimum period of time, (ii) no other property ownership, (iii) household head status (often priority is given to female heads of households), (iv) no pending debts with the State, and, often, (v) sufficient income levels which would permit co-payment (Clichevsky, 2003). These requirements, in addition to the responsibilities that beneficiaries must assume post-legalization (payments, limitation on sale), may constitute important obstacles for an important portion of informal settlement inhabitants to access these programmes.

In Argentina, the most important national level policies include the National Programme of Fiscal Lands<sup>a</sup> (el Programa Nacional de Tierras Fiscales – Programa Arraigo (Decreto 2441/94)), and a 1994 law (24.374) regarding legalizing private lands. Both policies are implemented via local governments. The 1988 Brazilian Constitution incorporates the social function of property as a concept and creates a national institution for legal regularization. The majority of the State Constitutions, Municipal Organic Laws and Master Plans developed during the 1990s, explicitly incorporate this objective. In 2001, the City Statute (Federal Law for Urban Development, 10.257) effectively completes the legal framework for recognizing the social right of all inhabitants of informal settlements to a house, creating and regulating important supporting instruments (De Grazia (2002) cited in Clichevsky, 2003). Between 1993 and 1996, in Brazil's forty-five largest municipalities, legal regularization programmes assisted some 86,379 families. One specific programme, financed jointly by IDB and the Caixa Economica Federal, is Morar Legal, in the Rio de Janeiro Municipality. This programme seeks to regularize (urban and legal) irregular and clandestine municipal lots. Via participatory processes, based on eligibility criteria defined in the city's master plan, more than 35 thousand lots were urbanized and regularized. In Ecuador, a local ordinance exists for Quito, which provides the legal framework for legally recognizing and the regularization of informal settlements (Ordinance 2708/89). Since 2001, the Quito Municipality has shown greater interest in legalizing and regularization of informal settlements, condition that would allow access to municipal infrastructure. The Land and Housing Unit was created that year, consolidating various separate departments. In its first 8 months of work, 23 neighbourhoods were legalized, while in previous years, an average of two neighbourhoods were legalized (Frank (2002), cited in Clichevsky, 2003). In Guayaquil, between 1993 and 2000, more than 103,000 titles were granted, as part of a participatory process that formally integrated marginal settlements into municipal urban development plans (Varas (2002) cited in Clichevsky, 2003).

Box 2 (cont.)

In Mexico, in two decades, more the 2.5 million lots have been legalized, although more than a million of families currently await titles. In Peru, by November 2000, the Commission for the Formalization of Informal Property (*Comisión de Formalización de la Propiedad Informal, COFOPRI*), supported with funds from the International Bank for Reconstruction and Development (IBRD) granted more than 1 million titles in the country, half of which correspond to Lima. And in Venezuela, recently in 1998, the Housing Policy Law provided for the recognition and regularization of different forms of land tenancy and its incorporation into the urban structure (Vidal (2001), cited in Clichevsky, 2003). And in 2002, a specific decree was enacted that provides the legal framework for the development of participatory programmes to legalize urban lands occupied by popular settlers.

**Source**: Clichevsky, Nora (2003), Pobreza y acceso al suelo urbano. Algunos interrogantes sobre las políticas de regularización en América Latina, Economic Commission on Latin America and the Caribbean, United Nations, Sustainable Development and Human Settlements Division, Serie Medio ambiente y Desarrollo.

Upgrading strategies incorporate investments to improve infrastructure and urban facilities in neighbourhoods as well as develop programmes designed to alleviate the main social problems of the communities and improve their quality of life as a whole. Programmes have been implemented in many countries in the region, including Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Peru and Uruguay. They are in situ urbanization programmes that take advantage of the investments the residents have already made in their housing solutions, and emphasize community participation in the execution of operations. Lessons learned from these initiatives include (i) effective and direct participation by municipalities and communities in programme execution, (ii) effective inter-sectoral coordination of public programmes at national and sub-national levels, (iii) adequate technical and management capacity at execution levels, (iv) effective coordination of physical and social investments, (v) integration into public service networks (via physical connections as well as considering prices), and further maintenance and follow-up activities, and (vi) effective mechanisms for cost control and resource targeting (Brakarz, Green and Rojas, 2002). One critical economic and social aspect that has not been fully incorporated into these programmes is the effective creation of income generating opportunities.

## Box 3 UPGRADING PROGRAMMES

Neighbourhood upgrading programme objectives have changed over time, from an individual infrastructure or tenure solution orientation (lots and services, for example) to a more integrated poverty alleviation and urban development perspective, particularly in the 1990s, under programmes co-financed by international agencies (IDB, IBRD). The integral improvement of the living conditions of beneficiaries, community participation in investment decisions, improved management of local services, the provision of complementary social services and the increased participation of municipalities, are all characteristic of the later perspective (Brakarz, Green and Rojas, 2002).

<sup>&</sup>lt;sup>a</sup> This programme incorporates both urban and legal regularization objectives.

Box 3 (cont.)

In Argentina, the Neighbourhood Improvement Programme (Programma de Mejoramiento de Barrios, PROMEBA) began in 1997 with financing from the IDB. Projects that include drinking water, water treatment, sanitation, electrical energy, legal regularization, social support and environmental mitigation infrastructure components are eligible for programme financing. The programme model has been replicated in various provinces, including Salta, where the My Neighbourhood Programme (Programma Mis Barrios) has been implemented in the majority of its municipalities. In Bolivia, IDB has cofinanced (with 40% local counterpart support) the Neighbourhood Improvement Subprogramme, whose primary objective is focused on financing collective subsidies to groups of families for neighbourhood infrastructure. The programme is coordinated with other components of the new housing system, including the reorganization of the housing finance and subsidy system. The sub-programme has been implemented in 87 neighbourhoods of different regions in Bolivia. The Favela/Barrio programme, a BID financed effort operating since 1995 in Rio de Janeiro, sought the integration, in a period of four years, of 105 medium size slum communities into the city fabric. Via complementary municipal and programme interventions, the programme financed infrastructure, roads, social and recreation infrastructure, parks, credit for building materials, incentives for training in small businesses, business formation and child-care services. Communities were selected based on an objective points system based on poverty indicators and investment cost efficiency. The two phases of the programme had an investment of US\$ 600 million, and benefited approximately 500.000 inhabitants (Brakarz, Greene and Rojas (2002)). The Chile Barrio Programme, also financed by IDB, is oriented towards the 115,000 families living in irregular settlements (campamentos). Sector resources and interventions (training, health care, employment opportunities, housing) are coordinated in an integrated plan to respond to family needs. In Peru, the Materials Bank (Banco de Materiales), provides financing to individual families for building materials for basic home construction, expansion and improvement. The maximum loan amount is US\$ 1,720; the loan may be amortized up to 15 years; and the annual effective interest rate is 7%. One prerequisite for accessing loans is to be registered in one of the national land registries. It is estimated that 50% of the legalized lots in the Northern, Southern and Eastern Cones in Lima have accessed this loan (281,652 homes); loan payments are shown to be up to date.

**Source**: Clichevsky, Nora (2003), Pobreza y acceso al suelo urbano. Algunos interrogantes sobre las políticas de regularización en América Latina, Economic Commission on Latin America and the Caribbean, United Nations, Sustainable Development and Human Settlements Division, Serie Medio ambiente y Desarrollo.

Segregation in cities has increased in the region. While State initiatives regarding new housing have tended to locate the poor on the urban periphery or in sub-urban areas, the demands of high-income groups for residential exclusivity have led to the expulsion of poor groups from more upscale urban areas. This issue represents a current major challenge to urban planners and managers; while widely recognized as a priority within the region, strategies to effectively implement solutions have not yet matured within the policy making sphere.

### 2. Urban planning and management

Increased market stability and openness have enhanced the economic role of many cities, drawing attention to the importance of urban functionality from the standpoint of globalization. The growth of cities has translated into voluminous investments in real estate and infrastructure, though these investments have been subject to business cycles within countries. The further development of information technologies and the growth of a diverse and complex service sector have helped to set up a new dynamic between cities and the territories they influence. Nonetheless,

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See Regional Action Plan (ECLAC, 2001b).

land-use and urban management policies have not fully seized the opportunity to lead or keep pace with the growth, liberalization and changes in production taking place in the region.

The combined improvement of urban functionality and habitability conditions for urban residents (both material and intangible factors), particularly for poorer sectors, is a major challenge currently facing urban policy makers that requires an integrated, proactive and systems approach to urban planning and management (Jordan, 2003). Public intervention tends to encompass passive and normative approaches (zoning instruments and plans), strategic planning techniques (community participation, private sector involvement via incentives, definition of priorities), and a wide variety of land use planning instruments not necessarily coordinated together, nor used to induce or promote certain strategic outcomes. A variety of innovations, however, can be observed in different regional experiences.

On a policy framework level, is the recent (2001) Brazilian Urban Development National Law, the City Statute, which sets the groundwork for a new integrated strategy for urban policy and housing. This focus combines new mechanisms for the regularization and reduction of the production of irregular settlements, with the improvement and professionalization of urban management practices and technicians (Clichevsky, 2003). Included in this major urban reform effort is the creation of new institutional arrangements (the Ministry of the City). Colombia, Costa Rica, El Salvador and Mexico are developing public policies to strengthen urban planning and territorial regulation processes at the regional and subregional levels, integrating housing needs, land use and infrastructure development. The Colombian Urban Reform Law implemented in the 1990s gave municipalities autonomy over the regulation of the land markets, with explicit objectives of favoring the most disadvantaged groups of society. With the adoption of INRA Law 1715, Bolivia created a legal basis for land ownership and land redistribution. Peru established a strong legislative framework to facilitate community participation in decision-making on land use planning for sustainable human settlements.

A second tendency is the use of strategic urban projects to revitalize and interconnect urban fabric. These projects are often oriented towards the recuperation of central areas (central Quito), or may involve investment (public and private) in major economic or social infraestructure as part of urban development efforts (central Santiago).

# Box 4 STRATEGIC URBAN DEVELOPMENT PROJECTS URBAN RENOVATION OF THE QUITO HISTORICAL DISTRICT

The renovation of the central historical district is a key component of the participatory Strategic Plan of the Quito Metropolitan District (Ecuador). Actions are oriented towards making more viable a global rehabilitation of central Quito, based in tourism development, the generation of employment, and the recuperation of the city's historic memory. Specific strategies include a reordering of urban functions as well as the improvement of urban structure and environmental conditions. Municipal government intervention has been directed at solving public safety issues as well as organizing and rationalizing informal commerce. Since 1996, the Quito Historic Centre Development Company (ECH) (mixed capital based), has developed housing programmes within the historical centre, using financing from the banking sector, IDB, and credit from the Ministry of Housing and Urban Development. With 360 housing solutions built, and a total investment of 6 million dollars, the programmes currently work with self-financing schemes and capital reinvestment. The company's mandate is the integrated rehabilitation of 154 blocks of central historic Quito that had been named cultural patrimony by UNESCO. In order to support these efforts, the municipality developed a master plan, with the support of the Spanish cooperation agency. In order to help finance initial efforts, the Saving Cultural Patrimony Fund was created with initial funding via the contribution of 6% of Quito District income taxes. Later, ECH raised a total of 33 million US\$, with additional funds coming from international cooperation. In 1996, the City museum was created; parking was reorganized, other cultural activities initiated. ECH is now in charge of reorganizing the transport system within the historic centre as well as diverse micro enterprise support activities.

**Source**: Arízaga Guzman, Dora, 2003, "Recuperación de áreas centrales" in *Gestión urbana para el desarrollo sostenible en América Latina y el Caribe*, Ricardo Jordán y Daniela Simioni, compilers, Economic Commission for Latin America and the Caribbean, United Nations, pp.203-243. www.centrohistoricodequito.com

A third area relates to the integration of urban environmental management practices into land use planning instruments (Cordoba, Argentina; Manizales and Bogota in Colombia; and Santiago, Chile). In Santiago, with the collaboration of the German Technological Cooperation Agency (GTZ), the regional government launched the Environmentally Sustainable Land Use Planning Project (OTAS), to support the regional government in land use planning and decision making in four key areas (human settlements systems, transportation, socio-production systems, and physical environmental systems). Based on a methodology called landscape planning, developed in Germany for the protection of nature and landscape, this project has created an ecological inventory of the Metropolitan Region of Santiago, elaborated environmental maps and environmental based criteria for land use. The project has provided an ecological base for planning, sector interventions and land use. Its benefits include zoned environmental objectives, an action guide for the environmental authority regarding environmental measures and requirements for land use, a data base for strategic environmental evaluations of plans and programmes, a reference framework for environmental impact assessments, informed orientation regarding public private investments, and a system of environmental information which facilitates public debate (Salas, 2002).

Additional tendencies are the marked increase in the use of participatory practices in urban and local development (participatory budgeting in Puerto Alegre and Curitiba, in Brazil) as well as public-private financing schemes in service delivery and urban development projects.

Innovations in economic instruments to create incentives to change environmental behaviour or to modify the emplacement and functioning inside the city (levies, tariffs, taxes, subsidies, licenses) are incipient in the region (Trivelli, 2000).

Box 5

#### A SHORT REVIEW OF SOME ECONOMIC INSTRUMENTS APPLICABLE IN URBAN POLICY

The levies and tariffs that the consumer pays for urban services (electricity, gas, water, sewerage, public transport, garbage collection) can incorporate incentives that affect their behaviours in the city. It is possible to fix a reduced tariff for garbage collection to households who separate waste; or to establish a reduced tariff on water consumption to those households who maintain consumption below a minimum level; or higher tuition fees for students who attend schools outside of their neighbourhoods. Economic incentives applied to real estate contribution taxes may include, for example, a surcharge for vacant inner city lots, or exemptions to induce business relocation. The success in implementation depends on a variety of factors including legitimacy and leadership levels of local authorities, clear objectives linked to a city project or image, community participation, and clear rules which are maintained during a sufficient period of time. Some specific examples from LAC are:

- In order to revitalize a deteriorated patrimonial area, the Uruguayan Mortgage Bank offers soft credit for housing renovation or the purchase of renovated houses.
   In Chile, an urban renovation subsidy for central Santiago for new homes, was implemented in order to increase population density in an area of the city which had been depopulated.
- In Espiritu Santo (Brazil), the State Development Fund and the Economic Development Bank created a set of incentives to favour the installation of commercial enterprises within the city. These included: tax deductions, land sales at subsidised prices, support for credit operations, support for credit guarantees to facilitate external trade, and a fund for new businesses.
- The Municipality of Montevideo (Uruguay) charges a surcharge on real estate taxes for abandoned or heavily deteriorated lots and buildings. This incentive would reduce the negative effect of speculative land transactions in the city, as well as facilitate the recuperation of land and buildings in the central part of the city.
- In the historical area of Curitiba (Brazil), owners of historical buildings have the right to transfer the construction potential of their land lots to another part of the city. Compensation is traded for the prohibition to demolish historical buildings. Additionally, since 1990, construction companies can buy up to two additional stories above the legal limit in certain city areas. The payment for these extra floors is made to the Municipal Housing Agency, which uses these funds for social housing. The price is calculated at 75% of market value.

**Source**: Extract from Trivelli, Pablo (2000), Urban Management for the Sustainable Development of Big Latin-American Cities, paper presented to URBAN 21 – Regional Conference for Latin American and the Caribbean – Urban Administration for Sustainable Development, Rio de Janeiro, Brazil, April; Final Project Document, "Development of Action Plans for the planning of Economic instruments in the solution of environmental problems in Large Cities", prepared for the National Commission on Environment (Chile), by SUR Profesionales, Santiago, Chile.

Cases of sustainable urban planning processes that incorporate environmental, social and economic concerns exist in the region. Perhaps the most well known experience is Curitiba, Brazil. With a population of 1,500,000 persons (annual growth 2.3%), the Curitiba experience is often cited both for its success in local implementation and management of a visionary urban development plan, as well as for the results that this process has had over the city's environmental, economic, cultural and social evolution. Curitiba's process originated in a visionary land use and urban development plan (definition of criteria for urban structural axes and associated land use, and roads and transport systems; central area valuation and preservation of patrimony; definition of desired urban population densities; economic and employment development; adequate provision of public infrastructure and services; and protection of the environment), as well as the creation of a specific institution that would be responsible for coordinating and monitoring urban development

processes (*Instituto de Pesquisa e Panejamento Urbano de Curitiba*) (Vallicelli, 2002). After three decades of innovative practices, in the year 2000, the Zoning and Land Use law was approved and is currently used as a planning instrument, that defines use parametres that orient both public and private investment.<sup>8</sup>

Other examples include land use and territorial planning and management, where the boundaries of the territory are defined by ecological and social criteria, and the management processes originate from a group of coordinating local jurisdictions. For example, the trans-border management of urban environmental factors to reduce and monitor air quality based on the establishment of an international atmospheric basin, between El Paso, Texas (USA) and parts of New Mexico (USA) and the city of Juárez, in Chihuahua, Mexico. Via agreements between the two nations, as well as a trans-border local joint working group, which includes active community participation, plans and programmes are developed and monitored to improve air quality in the basin (Borderlines, 2000). Another example is the Integrated Apolobamba Project in Bolivia, which incorporates land use planning of natural resources in national protected areas, the development of sustainable productive activities with local indigenous populations, infrastructure provision, and local participatory management of protected areas. The project's principal partners are the National Service for Sustainable Development and Planning, and the municipalities of Charazani, Curva and Pelechuco. The project's main objective is to improve the quality of life of the population living within the protected area, integrating the sustainable productive use of natural resources with their protection and conservation.

#### 3. Urban environmental infrastructure

#### 3.1 Urban services: some reflections

During the nineties, the urban services sector in Latin America underwent deep transformations, due to a shift from State only provision to other joint public private (community and private business) arrangements. Insufficient public resources has implied a search for financial equilibrium in urban service provision, and the introduction of economic efficiency criteria in decision making. Management models and the location of services has tended towards privatization and increased fragmentation (including decentralization), while service operations are more and more global, integral and international (Pírez, 2001).

Although according to economic theory, many urban services may be considered private goods, 9 in general, the term "public service" is applied to all urban services. And when urban services are collective, they have public characteristics; for example, water sources and public letrines. Additionally, those urban services that aid in improving or safeguarding health conditions for both communities and individuals (garbage collection, proper final disposition of solid waste, adequate and appropriate water treatment and provision) are considered to be meritory goods and within the realm of government "responsibility". 10 The public nature of many urban services does not necesarily mean that these services are provided by a public organism. 11 Urban services are a

<sup>8</sup> www.ippuc.org.br, www.curitiba.pr.gov.br.

For example, those who do not pay for services, may be easily excluded from the water, or waste disposal or electric services networks (mutually exclusive goods); and services may not be jointly consumed by two or more consumers at the same time (rival goods) (Rakodi, 2003).

Additionally, some urban services, sewage systems, or drainage systems for example, may be natural monopolies.

<sup>&</sup>quot;Conceptually, the public character of a service implies its definition as a community right, independent of its management model and who produces the good or service. This characteristic infers a need to guarantee, in some manner, the access conditions and continuity for the total population, independent of place of residence (territorial conditions), of its link with land property (institutional conditions), and its resources (economic conditions). In order for a service to truly reflect this public character, a

result of a system of relations among different actors (family units, economic units, and governmental organizations) with distinct interests and dotations of resources and capacities (particularly, economic and political). Their management may be understood as a group of functions (definition of the policy framework, planning (proceedures, instruments), investment or financing, service production, and control) performed by different actors. Those functions that are of a public nature refer to decisions which must be independent from specific economic interests, and those related to general welfare and equity issues. Private nature functions may be assigned to private actors, within conditions that guarantee economic efficiency (Pirez, 2001). Understanding urban governance (multiple actors, public private relations, differing institutional arrangements according to the nature of the good or service, and the phase of its provision) is becoming more and more important to assure adequate provision of services.

#### 3.2 Water and sanitation services

The LAC region, although basically humid, and generally with little shortage of water resources in the region (except in some Caribbean islands and other arid zones), continues to present difficulties in the provision of water and sanitation services. Water pollution is a major problem because of municipal, industrial and mining related liquid waste dumping and the diffuse pollution caused by agrochemicals.<sup>12</sup>

In the year 2000, 90% of the region's urban households had secure access to drinking water and 86%, to basic sanitation (ECLAC/UNEP, 2002). In rural areas, access levels are 42% and 57%, respectively (ECLAC/UNEP, 2002). Wastewater treatment is far less widespread: less than 15% of the region's municipal wastewater is treated. The demand for these services, especially in the 1990s, has increased much faster than the response capacity of water management systems. As water consumption rises and wastewater collection increases only somewhat, the insufficient installed capacity for treatment is overwhelmed and the rivers, lakes, beaches, coastal areas and seas in which effluents are dumped become polluted. Deficiencies in waste water treatment have increased the vulnerability of the Caribbean countries in particular, because of their impact on marine and coastal resources and on groundwater contamination. These figures mask the tremendous diversity of situations across countries, cities and parts of cities, as well as serious deficiencies in the quality and level of supply. In the sanitation area, this might mean in situ sanitation (of varying quality levels), without connections to sewers; regarding drinking water, this may mean access to water without house connections, and/or an intermittent supply of water.

The new models of urban water management have been marked primarily by the privatization (partial or full) and decentralization of services, as well as the institutional restructuring of the sector (creation of regulatory entities). These modernized water management systems are experiencing serious difficulties in equitably meeting the needs of low-income sectors and in financing investments in modernization. Some countries, like Chile, have successfully implemented subsidies geared towards demand, focused on the poor, yet in many countries this would be difficult to implement due to the debilities in the State. The cases of the social conflict in Cochabamba, Bolivia, and the failure in Buenos Aires, Argentina to consider the issue of service for the poor, illustrate this issue.

Which administrative level is best suited for managing water services is a particularly complex and conflictive matter, given that it is subject to economies of scale and scope. Relationships between centralization and decentralization of activities appear to show that, rather

widely shared social valorization of such character must exist, that is institutionally consolidated via mechanisms and proceedures established within democratic practises" (Pírez, 2001).

See LAC regional contributions to CSD 12 for water and sanitation: Effective Water Governance in the Americas: A key issue and Informe de Saneamiento de América Latina y El Caribe, respectively.

than a problem of radical alternatives, it is more importantly a question of structuring balanced systems. A study in Colombia found that implementing decentralization without first conducting a thorough activity analysis led to the loss of economies of scale, and that assigning responsibilities to local organizations lacking technical training were not conducive to sound resource management (Solanes and Getches, 1998). Chile, one of the most successful experiences in the region, has adopted its own model, capitalizing on economies of scale and scope in order to extend services efficiently on the basis of regional companies, each of which serves an extensive area. Meanwhile, countries that have adopted models on a fragmented political base at the municipal level show serious difficulties, between rich and poor municipalities, and due to non-functional subsidy schemes.

The region has privatized a significant number of drinking water and sanitation services. The situation after privatization has, however, been cause for some concern. Regulatory and structural failures include: the vulnerability of regulators to institutional capture; ambiguity regarding their independence; the non-application of concepts such as reasonable income and returns; the monopolization of essential infrastructure; the unilateral control of some resources that constitute key supplies; and others, such as price transfers and the lack of information or accounting practices that limit the monitoring of the supplying companies' service.

#### 3.3 Solid waste management

Over the past 30 years the generation of solid waste in the region has doubled. The composition of this waste has changed, with less organic waste and more waste that lasts longer in the environment, as well as the generation of a significant amount of toxic waste. Most of the countries lack the infrastructure (particularly for the final disposal of solid waste) or managerial capacity to address this situation. In the Caribbean countries, problems can be found at all stages of the flow of waste (collection, disposal and treatment). Although many countries in the region have some kind of legal framework regarding solid waste management, in the majority of the countries, there is no formal solid waste sector. <sup>13</sup>

Some large cities in the region (Buenos Aires, Cali, Montevideo, Rio de Janeiro, Santiago, among others) have collection services with from 90% to 100% coverage. In many metropolitan areas, however, such as Mexico, Sao Paulo and others, marginal districts in the suburban metropolitan areas are not included. The average collection coverage rate is 89% in large cities and 50% to 70% in smaller ones. Refuse collection is generally the responsibility of municipalities, which pay for it out of their finances. Metropolitan regions and large cities are increasingly solving their problems of refuse collection via concessions and private sector contracts, sometimes organizing service provision through public companies that encompass various local jurisdictions. Smaller and medium sized cities tend to use municipal based forms of administration (Otero, 1997).

Due to both increased land prices and local community opposition, it has become more and more difficult for the cities of the region to access appropriate sites for final solid waste disposition. Further complications exist due to potential problems in the pollution of ground water due to inadequate technological specifications for landfills. The increased distances to new sanitary landfills have obliged cities to incorporate transfer stations into the recollection chain (Bolivia, Brazil, Colombia, Chile, Ecuador, Mexico, Peru and Venezuela), with associated sanitary and congestion problems.

Very few advances have been made in the region regarding reuse, recycle or recuperation of energy from incineration processes. There are few large-scale formal recycling programmes in the

<sup>13</sup> See LAC regional contribution to CSD 12 for sanitation: Informe de Saneamiento de América Latina y El Caribe.

region.<sup>14</sup> At present, incineration and composting technologies are justified only in some cities of the region, in specific circumstances.

Continued problems that characterize solid waste systems include lack of segregation of hospital and industrial waste from domiciliary waste and open landfills. While some countries have legal frameworks for the control of hazardous waste, they do not have sufficient infrastructure to treat, recycle or dispose of it, nor do they have the resources to enforce the law. As a result, many hazardous wastes end up in places where they pose serious health and environmental risks.

Key issues in the region include needed improvements in collections systems and the final disposition in soils. Two areas for potential innovation is the incorporation of these issues in land use planning, particularly in relation to the organization of industry, and sanitary landfill demonstration projects that incorporate appropriate technological and environmental criteria (Otero, 1997).

Segregation and recycling as a form of alternative informal employment is prevalent in the region: it is estimated that more than 100,000 families in the region work as informal segregators of solid waste (IDB/PHO/WHO, 1998), within poor sanitary conditions. The proportion of material recuperated in proportion to the total amount of waste generated is estimated to be quite small.

#### 3.4 Energy, public transport and air pollution

Per capita energy consumption in Latin America and the Caribbean has risen steadily in the past 20 years as a result of the region's economic growth and the adoption of more energy-intensive development models. According to ECLAC studies, the region shows inefficiencies in the transformation and use of energy as a result of: (i) insufficient absorption of energy-efficient technologies, (ii) an obsolescent industrial base and (iii) high and inefficient fuel consumption by motor vehicles. Economic, financial and political barriers have severely limited the absorption of energy-efficiency and renewable energy technologies in the region. Few of the region's energy policies take these issues into account (ECLAC/UNEP, 2002).

Regarding specific energy consumption patterns by poor groups and their linkages with environment degradation, a reliable and accurate quantitative information base does not exist in the region. However, in general terms, the following characteristics are observed:

- biomass is the most important source of energy in low income groups, the overconsumption of which contributes to deforestation processes;
- low total levels of energy consumption are registered in poor groups, in a context of insufficient coverage of basic needs;
- low efficiency of energy consumption is observed, leading to public health problems (caused, for example, by indoor pollution) and high energy costs including the time devoted to gathering fuel.

Issues in energy consumption for the urban poor would be quite distinct from rural issues; the latter of which has received relatively more attention in development project interventions (rural electrification, adoption of alternative technologies). Within the urban sphere, where alternative technologies are less applicable, poverty alleviation issues would relate to access to energy as a basic necessity and as an input for productive activities (price, supply), as well as its efficient use (technology). Understanding these issues (from an empirical perspective) and their incorporation in urban poverty alleviation efforts is a current challenge in the region.

A case in point, however, is Curitiba, Brazil, where it is estimated that 70% of the population recycle (Durán, 1997).

The operation of urban transport consumes 3.5% of Latin America's GDP; the cost of travel time is equivalent to another 3% (Bull, 2003). Since the early 1990s rising demand for transport and road use has led to increases in congestion, delays, accidents and environmental problems in the region's large cities. Motor vehicle use is the main cause of pollution in cities. Public transport is still the urban population's primary means of getting around, although the spread of the use of private motor vehicles by middle- and high-income sectors has affected the quality of public transport services by sharply increasing congestion. Urban sprawl is also posing challenges for road and transport systems, particularly with respect to their economic viability and their regressive effects (in terms of time, cost and access) on poor urban sectors.

The measures taken to reduce congestion have been aimed at both transport supply (separate lanes, higher-quality buses, organization of intersections, coordination of stoplights) and demand (limitation of parking spaces, education, use restrictions) (Bull, 2003). An interesting example of the latter are some of the initiatives implemented by the Sao Paulo (population 17 million) municipal transit company, which has shown notable progress in maintaining traffic flow: transit security education to children, youth and adults, varied starting times of different city activities, and vehicle use restrictions. Use restrictions have been applied during peak hours in the central part of the city. These measures have been shown to significantly reduce congestion and increase traffic speed. Benefits have been estimated at US\$ 2 million 570 thousand per operating day (78% corresponds to saving time and 10% to reduction in fuel consumption).

#### Box 6

#### DEMAND BASED MEASURES TO REDUCE CONGESTION: CHILE (SANTIAGO) AND BRAZIL

In Santiago, Chile, several municipalities have contracted companies to manage curbside parking using personnel with manual electronic registers that also give receipts to clients. In periods of increased unemployment, this system successfully regulated street parking and created formal jobs. A 1997 Chilean law permits municipalities to offer in concession local subsoil for underground parking lot construction and management, as a measure to reduce congestion and air pollution. The concessions must receive previous approval from the central authority (Urban and Housing Ministry) and must guarantee the suppression of 120% of the total underground parking spaces on ground level, within a certain perimeter of the parking garage.

Staggered work schedules implemented in various Brazilian cities (Rio de Janeiro, Sao Paulo, Porto Alegre, Recife and Curitiba), have been shown to reduce trip numbers during peak congestion periods, to reduce fuel consumption and to increase speed of public transport. In Santiago, schedules have been slowly adjusted to stagger starting times in different urban activities. Construction begins at 8:00, factories at 8:30, schools between 8 and 8:30, the public administration at 8:30, and the banks at 9:00. The private sector opens between 9 and 9:30 and commerce from 9:00 on.

**Source**: Bull, Alberto (2003), *Congestión de Tránsito, El problema y cómo enfrentarlo*, Cuadernos de la CEPAL 87, Economic Commission on Latin America and the Caribbean, United Nations, and German Technical Cooperation (GTZ), Santiago, Chile.

The Curitiba and Bogotá experiences are two well-known regional success stories. One of the key success factors in the city wide massive transport systems interventions via buses in Bogotá (Transmilenio) and in Curitiba was the integration of land use planning and transport issues, as key components of sustainable urban development plans and processes that actively incorporated public actors, the private sector and the citizenry (Boletín FAL, 2002). Strong, longer term, and well informed local leadership (mayors) was also important to successful implementation.

## Box 7 TRANSPORT INITIATIVES IN BOGOTÁ, COLOMBIA

The first phase of the reorganized transport system, Transmilenio, was inaugurated in late 2000, and is structured in high speed, schedule based, principal axes services, operating in segregated lanes, and fed by buses that connect nearby neighbourhoods to terminals. These principal axes services are integrated into other public transport lines, at terminals and various intermediate stations. Articulated buses are used that operate both in ordinary and express modes. Payment is via intelligent cards, administered by a specialized company. A Global Positioning System centrally controls and manages bus locations. Costs are far less than those of metro systems, although Transmilenio operational characteristics are quite similar to these types of systems; a year and a half after its inauguration, the systems transports some 700,000 passengers per working day. Transmilenio has successfully positioned itself among Bogotá's citizenry as a city development project. The Urban Development Institute, the Secretary for Public Works, the Secretary for Transportation and a small, high tech company called Transmilenio S.A manage Transmilenio. The private sector is a key player within the system; as concessionary of bus operations, tariff collection and fiduciary agent.

Since 1998, the programme "Pico y placa", (automobile use restrictions during peak congestion hours and socialization of transport alternatives), has been operating in Bogotá. With restrictions of four license plate digits during morning and afternoon peak circulation periods, average traffic speed has increased by 43%, fuel consumption has reduced by 8%, and air pollution has been reduced by 11%. Complementary measures to create incentives to walk (sidewalk recuperation) and to use bicycles (a system of bike paths), as well as the Transmilenio effort have been implemented as well. On Sundays, 150 kilometres of streets are closed to automobile use, and opened as bikeways. Finally, the first Thursday in February has been named the day without cars, and the citizenry is invited not to use their automobile, proposal that has received much approval in the city.

**Source**: Hernández A., "Bogotá, una ciudad vivible, (http://www.cepal.org/Transporte/noticias /8/9178/Bogot\_viv.doc), March 2002; Sandoval, E, "Concepto integral del espacio público y la movilidad urbana. Enfoque de la ciudad de Bogotá. Caso específico: Transmilenio", document presented at international seminar in Caracas, 2001 and electronic edition of El Tiempo, "15 buses más para TM", (http://eltiempo.terra.com.co/bog/2002-07-25/index.html), July 25, 2002.

Air pollution is seriously affecting the health of more than 80 million inhabitants in the region, causing some 65 million lost workdays. Air pollution is the principal cause of some 2.3 million cases of chronic respiratory insufficiency per year in children, as well as over 100,000 cases of chronic bronchitis in adults (ECLAC, 2001a). Air pollution is caused by the emissions from both fixed (industry) and mobile (cars, transportation) sources of contamination. While advances have been made in monitoring air quality in some major cities in the region (Buenos Aires, Mexico City, Rio de Janeiro, Santiago de Chile and Sao Paulo), not all cities have adequate monitoring systems. In the last 10 years, cities with monitoring systems have made advances in the introduction of measures (technology, economic incentives, oversight mechanisms, voluntary agreements) effectively reducing emissions from fixed sources. Reducing emissions from mobile sources has proven to be more difficult, although various strategies have been shown to be effective (use restrictions, unleaded gasoline, among others).

Box 8

#### VEHICLE RESTRICTION FOR ENVIRONMENTAL REASONS: SANTIAGO, CHILE

Vehicle use restriction has been used in Santiago, Chile since 1986, with the explicit objective of reducing air pollution produced by motorized vehicles. Although air pollution is more serious during winter months (due to reduced winds), the restriction measures in recent years have been applied from March to December, showing additional implicit congestion reduction objectives. Use restriction is city wide, from Monday to Friday, according to a predefined schedule of license plate digits. Within the primary circulation beltway, this restriction also applies to cargo vehicles. When pollution levels surpass defined acceptable parameters, additional measures are declared (alert, pre-emergency and emergency) with corresponding restriction of additional digits. Also, specific roads are defined to be public transport use only, in order to reduce emissions. Originally the use restriction was applied only to autos without catalytic converters, as an incentive towards the acquisition of vehicles with converters. Since 2001, however, in emergency and pre-emergency situations, the restriction measures also apply to cars with converters, although in a smaller proportion, as these vehicles also contribute to pollution production.

**Source**: Bull, Alberto (2003), *Congestión de Tránsito, El problema y cómo enfrentarlo*, Cuadernos de la CEPAL 87, Economic Commission on Latin America and the Caribbean, United Nations, and German Technical Cooperation (GTZ), Santiago, Chile.

The creation of incentives to reduce private automobile use is a current challenge, given that it implies a change in culture and behaviour, as well as major improvements in collective transportation, which has been generally operated via private markets. An additional challenge is the real possibility of increased growth of vehicle numbers in the cities of the region due to rising real incomes and the liberalization of used vehicle imports, which could result in explosive growth in the number of cars in the fasted growing cities (Mexico City, Santiago and Sao Paulo, for example).

## 4. Urban vulnerability and disasters

The Latin American and Caribbean region is subject to extreme climatic events and natural phenomena that take place in frequently recurring cycles; these events and phenomena (earthquakes, tropical storms, hurricanes, floods, droughts, volcanic eruptions) are not duly taken into account in urban planning and management. The region is highly vulnerable to these increasingly intense and frequent natural phenomena, which affect its ever more fragile ecological and social systems. Within the region, the Caribbean is the subregion most affected by natural disasters. The entire region's cities are extremely vulnerable to disasters of both natural and technological origin (the risks inherent in hazardous activities), with negative microeconomic and macroeconomic consequences at the local, regional and national levels. Moreover, urbanization patterns, especially among poor sectors (occupation of high-risk land, use of unsound materials), further heighten urban vulnerability.

In developing countries the consequences of disasters are more severe than in developed countries; the degree of vulnerability to disasters, although a function a various factors, <sup>15</sup> is essentially a development issue. For example, due to cost restrictions, infrastructure in developing countries is generally not built according to specialized codes minimizing possible impacts from extreme climatic or natural phenomena. Institutional and cultural organization patterns show very limited capacity to respond to disasters, to mitigate impacts, and to recuperate from catastrophic events (Simioni, 2003). The urban poor are especially subject to higher levels of urban

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<sup>&</sup>lt;sup>15</sup> See Simioni, Daniela, 2003.

vulnerability (for economic, social and cultural factors). These sectors are also more severely effected when disasters hit, suffering losses of major assets (housing).

Developments in the region in this area have consisted in a better understanding of the natural phenomena underlying critical events, as well as the conceptual underpinnings of vulnerability and risk. In general, there is increased awareness in both academic and policy circles regarding the need for planning in prevention and mitigation. In the former, significant advances are observed in the development of a region specific conceptual base for planning and implementation measures. Although increased recognition of the need to invest in prevention and mitigation is observed in the region (significant investments in early warning systems; and an emphasis on structural solutions as well as post-disaster attention rather than prevention), more massive effective implementation efforts are limited by political, cultural and technological factors.

Regarding regional and subregional coordination efforts, the creation of the Centre for Coordination for the Prevention of Natural Disasters in Central America (CEPREDENAC) and the Caribbean Disaster Emergency and Response Agency have played an important role in the promotion of regional cooperation in this area. Many regional and subregional networks in the area of disasters and urban vulnerability also exist in the region. One important experience is the regional mandate from Central American governments to emphasize vulnerability and disaster impact reduction during the period 2000-2004 and the creation of the Caribbean Disaster Emergency Response Agency, with 16 member states, whose mandate is to implement and coordinate immediate responses to any disasterous event within the Caribbean area.

In Central America, all countries are either revising, or have modified their national legislations to provide for national risk reduction systems. During the nineties, all countries of this subregion transformed their emergency response institutions into some kind of national system for risk reduction, generally under the direct authority of the President of the country.

Due to the severe and wide spread impact of Hurricane Mitch in 1998, the local management of risk reduction has begun to gain importance in the region. Although incipient, municipal associations and municipalities, have begun to assume a more proactive role in implementing participatory local initiatives to reduce risk. In Nicaragua, through training of local monitors within the public health system, and with support from the Pan American Health Organization, local emergency preparatory plans have been developed through participatory processes in the majority of Nicaragua's municipalities. These plans have been proven successful in mitigating post emergency risk in recent critical events related to fires in the northern part of the country.

Finally, incorporation of urban vulnerability issues in land use planning instruments has been show to be an effective strategy for disaster prevention and impact mitigation. El Salvador, for example, has successfully incorporated participatory risk reduction planning and risk maps in regional (San Andrés river basin) and national land use instruments, as well as risk reduction criteria in investment decision making.

#### 5. Access to economic opportunities and employment

In the course of the decade, the workforce and the economically active population (EAP) became further urbanized; the number of people of working age continued to increase and women's economic activity rates continued to climb. Despite the massive increase in women's incorporation into the labour market, labour participation rates still show a bias in favor of men. According to all

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See, for example, recent studies by ECLAC as well as the German Technical Cooperation (GTZ).

the relevant economic indicators –employment, unemployment, income (50% of men's income), business ownership and managerial jobs– women are at a disadvantage in relation to men.

Job creation has continued to shift from goods production to services: 9.6 out of every 10 new jobs created since 1990 have been in the service sector. Employment has become more precarious owing most significantly to the increased frequency of short-term (temporary, seasonal or part-time) hiring.<sup>17</sup>

Current urban unemployment rates continue to be high in the region. According to ECLAC estimates, average urban unemployment during the 2000-2003 period, reached 10.2%, as compared to an average of 7.7% during the decade of the nineties (ECLAC, 2004b). Its impact is widespread, affecting both older and younger workers, and both women and men.

All of the increase in employment recorded in the region was in the informal sector. Out of every 10 jobs created since 1990, 7 have been in the informal sector. By the end of the decade, a higher percentage of workers were engaged in informal-sector subsistence jobs (own-account and domestic employment) than in informal-sector microenterprises (ECLAC, 2001a). This shows that the higher-productivity, higher-income segment of the informal sector still represents a relatively small share of total employment in this sector. Nonetheless, in the 1990s one third of the increase in urban informal employment was accounted for by microenterprises, which have gained ground as a proportion of urban employment since the 1980s. Informal employment is more common among members of poor and indigent households than among members of non-poor households, although 57% of the latter work in this sector. The share of informal employment is higher among women in all the countries (ECLAC/UNEP, 2002).

Many countries of the region have implemented both passive and active labour market policies. Passive policies are oriented towards alleviating the unemployment and poverty situation of specific social sectors; they include temporary employment programmes and unemployment insurance. Active policies refer to the generation of productive jobs. Criticisms of these policies include (i) the lack of specific orientation towards some vulnerable groups (particularly women and youth), (ii) poorly defined target beneficiary profiles, (iii) the lack of coordination among different institutions administering these programmes as well as with social and economic policies, and (iv) little evaluation of programme outcomes (ECLAC, 2003a).

Social funds (FOSIS in Chile, FIS in Bolivia, for example) have implemented short-term initiatives to address the problem of insufficient earned income including job training programmes, provision of credit to the informal sector and combined temporary employment and training programmes for vulnerable groups. Although their impact is usually temporary, programmes carried out through social funds are nonetheless of significant value as pilot experiences that facilitate the design of larger-scale initiatives and improve the administrative and project management capacity of municipalities.

Over the past decade the resources and responsibility for carrying out employment programmes have been shifted to municipalities or other small jurisdictions. The countries of the region lack national policies for promoting small-scale production from the standpoint of local economic development. Municipal experiences in this regard have had little success, although experience shows an increasing demand in this area (Llorens, Alburquerque, Castillo, 2002). Although municipalities are beginning to take action with respect to labour demand (municipal productive development), their finances and investment capacity are severely constrained. Actions targeting the labour supply (to bolster the resources and job skills of poor individuals and households) have been more sporadic and unrelated to efforts in the area of demand (González,

Additional factors include the expansion of the list of permissible reasons for dismissal, the reduction of severance pay, restrictions on the right to strike and limited access to social security services.

2003). Local economic development paradigms and basic data regarding in-country relative regional competitiveness is being generated in the region (Silva, 2003), although its application in the field is incipient.

The vast majority of the region's countries have national programmes to provide credit, training and technical support to small production units. However, these programmes do not have a clear direction and are marked by a strong social emphasis that does not take into account the diversity that characterizes this sector; instead, these initiatives seek to reduce poverty and marginalization in large segments of the economically active population, particularly operators of subsistence micro-enterprises. This approach strengthens micro-enterprises as buffers for softening the impact of adjustments and crises on labour and production, but does not necessarily help them become successful participants and competitors in the formal economy. The entrance of microenterprises into the formal sector is hampered by a number of obstacles, including the inadequacy of policy regimes (inequitable conditions for smallest scale producers in tax systems, licensing requirements and financial regulation networks) and the limited availability of financial and nonfinancial services- fewer than 5% of the region's micro-entrepreneur's have access to formal financial services (IDB, 2000). Although nongovernmental organizations offer access to credit to a significant number of microenterprises, most of these organizations are not yet sustainable financially, and require some level of subsidies. Moreover, these organizations are generally not permitted to offer saving services. In addition, small business owners lack access to training in basic business techniques (IDB, 2000).

#### Box 9 MICRO ENTERPRISE SUPPORT PROGRAMMES

BANCOSOL was the first commercial bank in Bolivia devoted to microfinance activities. It was founded in 1991 by the non-profit organization PRODEM, which received funds from IDB for the launch of BANCOSOL. Today, BANCOSOL has become the most important microfinance bank in Latin America, with more than 80,000 loans and a portfolio totalling some US\$75 million. Financiera Calpia received initial support from IDB (loan and technical assistance) in 1991, in order to expand credit and financial services provision to micro entrepreneurs in El Salvador. In 1994, this non-governmental organization became a formal sector financial intermediary. Today, Financiera Calpia is one of the leading institutions of its kind, with over US\$22 million in outstanding loans to 29,000 clients. It is both profitable and efficient, and it consistently maintains a high quality loan portfolio. Additionally, Financiera Calpia is expanding the spectrum of financial services to micro entrepreneurs, now offering high-demand products such as savings deposits and credit cards. PROARTE is a profitable private enterprise that acts as a commercial intermediary between some 100 Nicaraguan craftsmen and international buyers. PROARTE provides producers with services that facilitate the entry of their products into more profitable markets. Aided by a market-based strategy and an analysis of required services, producers have successfully penetrated the extremely competitive handicrafts market. The Micro-enterprise Forum is an annual event for presenting and analyzing best practices and innovative instruments for micro-enterprise development. An average of 600 persons have attended these events representing the private sector, NGOs, governments and academic institutions in Latin America and the Caribbean, the U.S.A. and Europe. The first forum was held in 1998 in Mexico, the second in 1999 in Argentina, and the third in Barcelona in 2000.

Source: IDB (2000) Group support to the Micro enterprise sector (1990-2000), IDB, Washington, DC.

Although regional governments are clearly concerned about increased unemployment and economic vulnerability (ILO, 2003), it is not clear as to whether these newer labour market related income and employment generating programmes incorporate a more broad based perspective on the causes of urban poverty, and the recent lessons learned from anti poverty programmes. These refer to, for example, the idea of the labour market as a source of assets for poorer or excluded sectors: physical capital (income and access to credit), human capital (learning, skills and knowledge), and

as a depository for social capital, which should be stimulated and capitalized (Kaztman, 2003); or more rights based approaches developing citizenry conditions via empowerment of poor or excluded sectors.

While more persons live in poverty conditions in urban areas, 63.7% of all persons living in rural areas are poor (ECLAC/UNEP 2002). The high levels and slow reduction of rural poverty entail a risk of further urban impoverishment in countries experiencing a delayed rural-to-urban transition owing to new flows of migration from rural areas to cities:

- Recent ECLAC studies suggest a territorial integrated approach to interventions: based
  in municipalities, and coordinated with key public and private actors; combining efforts
  in agriculture, rural off farm employment, migration, transfers, coordinated resolution of
  basic problems in infrastructure, markets, services and institutions (Dirven, 2003).
- Initial data may indicate, as well, that investments should be targeted to rural areas that act as cluster corridors near to more dynamic intermediary urban centres, where transactions costs have been shown to be less than in rural areas with disperse population settlement patterns (Dirven, 2003).

#### Box 10

#### LESSONS LEARNED FROM SUCCESSFUL RURAL DEVELOPMENT PROGRAMMES

In the last decade, a new generation of rural development initiatives, significantly different from the previous integrated rural development schemes, and based on new beneficiary characteristics (broad range of household income generating strategies, complementary among household capitals, diverse levels of control and access to public and private information, use of individual and collective strategies) has been implemented in Latin America. This new approach may be characterized by (i) coordination at national levels with other public initiatives, including rural development programmes via a multiplicity of institutional alternatives, (ii) a regional or municipal level approach based on spatial factors, (iii) investment in both capital for the rural poor as well as in public institutions so that these resources may maximize productivity, (iv) demand based (household, municipalities and grassroots organizations), (v) strengthening of grassroots organizations and municipal governments as agents, and (vi) creation of incentives regarding demand responses.

These programmes may be organised in three types: those to improve relative levels of household capitals (natural, physical, human, financial and social); those oriented towards improving the economic context to value capitals via public goods and institutions, and the strengthening of municipal governments and grassroots organizations; and those programmes that resolve basic needs via social public goods and institutions that provides social services.

A number of important programmes using this approach have been implemented in the region. These include the Mexican programmes in Education, Health and Food (PROGRESA), and the National Solidarity Programme (PRONASOL); the Peruvian National Compensation Fund for Social Development (FONCADES) and the National Programme for River Basin Management and Soil Conservation (PRONAMACCS); the Nicaraguan Rural Development Institute (IDR); and the Colombian Social Solidarity Network. Analysis based on initial programme results has shown that these programmes seem to have more success in meeting basic needs than increasing autonomous incomes. Also, although coordination is a key aspect of the new focus, effectiveness of these activities is quite limited (cross sector, with macro economic policy, for example). And regarding the spatial component, few institutions achieve effective integration at regional levels, or between rural and regional development efforts, and among the private public and community sectors.

**Source**: De Janvry, Alain and Elisabeth Sadoulet (2003) "Nuevos enfoques del desarrollo rural en América Latina" in *La pobreza rural en América Latina: lecciones para una reorientación de las políticas*, Economic Commission on Latin America and the Caribbean, División de Desarrollo Productivo y Empresarial, Unidad de Desarrollo Agrícola, Serie Seminarios y Conferencias.

## III. Finance and governance issues

## 1. Financing sustainable human settlements development

The following observations apply to macro level sustainable development financing (ECLAC/UNDP, 2002):

- External debt service constraints (from 500,000 million US\$ in debt service in 1990 to over 800,000 million US\$ at the end of the nineties);
- Decreasing levels of official development assistance (ODA) (present levels represent less than one third of the amount for which commitments were made at the Summit in Rio de Janeiro; bilateral and multilateral ODA declined from 0.35% of donor countries' GDP in 1992 to 0.22% in 1997, and although in the immediately following years this was followed by a slight increase, in 2000 and 2001 levels dropped once again to 0.22%);
- While during the 1990s, net inflows of private international finance increased notably (from an average of US\$ 18.2\$ billion in 1990-1994 to US\$ 69.5 billion in 1995-1999, and peaking in 1999), in 2000-2, net outflows have been registered, and volatility in financial flows is clearly an obstacle to sustainable development in the region;

- Continued support from international lending organizations and regional multilateral banks (Inter-American Bank, Andean Development Corporation, Central American Bank for Economic Integration, the Carribbean Development Bank, and the Latin American Reserve Fund supporting environmental measures);
- opportunities to access international multilateral funds (although Global Environmental Facility allocations to LAC, while noting sharp increases between 1994 and 2000, in 2001 and 2002 significant decreases have been posted);
- slow development of internal financing of both public and private environmental spending spending (total environmental spending in the last decade amounted to approximately 1% of GDP, while total public environmental spending was rarely more than 3% of total).

The current challenge in the region regarding financing is expanding and/or generating new internal urban (sustainable) development financing sources. The most significant recent developments in this area in the region are fiscal descentralization, public private collaboration (including privatization), and incipient subnational markets for financing urban development.

# Box 11 INTERNATIONAL COOPERATION: KEY DEVELOPMENT ISSUES AND PROJECTS IN SUSTAINABLE HUMAN SETTLEMENTS DEVELOPMENT

The World Bank activities in the urban sector are focused on four main areas of intervention: urban poverty (infrastructure improvement projects and support to regional strategies), urban housing and land markets (support for property deeds issue and for regulatory and land reforms; support for governmental financial institutions and for sector development), the urban environment (municipal development; disaster mitigation, vulnerability reduction, post emergency recovery and reconstruction support) and urban management (municipal development, finance and service provision). Twenty-five projects in the area of human settlements development are currently being prepared for the period 2004-2007, for a total of 1,716.88 million USD. Existing urban projects total budget amounts to 1,829.32 million USD for the period 1993-2000. Additional support by The World Bank in this area consists in studies and technical assistance for country specific poverty and urban strategies, as well as disaster management support studies.

The *United Nations Environment Programme* created the work programme, Urban Environment in Latin America and the Caribbean, comprised of the Network of Metropolitan Authorities, web links on Best Urban Practises, training for metropolitan environmental authorities in environmental management, the GEO (Global Environmental Outlook) Cities Project, the Programme for Sustainable Cities (in conjunction with the Regional Office for Habitat), and publications.

The Inter-American Development Bank portfolio of projects currently underway and in preparation, in the area of human settlements comprise activities in four major areas: (i) urban development, including operations to improve neighbourhoods, housing, urban recovery and urban transportation; (ii) environmental management, focused on integral programmes for environmental improvement and ordinance, management of solid waste, management of air quality and clean production; (iii) municipal development, that includes programmes to strengthen states and municipalities, integrating elements of urban and environmental management; and (iv) natural disasters and reduction of vulnerability, including the alleviation of environmental risks.

ECLAC has undertaken various projects based on sustainability criteria, in order to support regional countries in the drafting and implementation of management systems and land ordinance to attain the goal of sustainable human settlements. These include projects related to urban management strategies and instruments for sustainable development, strategies related to urban poverty, and air pollution and participation and citizen awareness. During 2003, various courses have been held related to these areas: poverty and precarious urban housing in Central America and the Caribbean; municipal environmental management; a regional specialization in human settlements, and land and cities management.

Source: UNEP/ROLAC, 2003, Human Settlements in Latin America and the Caribbean, October 2003.

The devolution of responsibilities to sub-national entities of government has proceeded at a fast pace in the last decades. Municipal governments are increasingly responsible for both urban and local environmental service provision and management (urban and environmental infrastructure and services, zoning and land use planning). In less than 15 years, the average share of public expenditures managed by sub-national governments rose from 8% to almost 15%. However, there are significant variations among countries in the degree of decentralisation. While Argentina, Brazil and Colombia are highly decentralized (with over 40% of total government expenditures managed by sub-nationals) others are still highly centralized. For instance in Costa Rica, Dominican Republic, and Panama, sub-national governments manage less than 5% of total government expenditures. In Barbados and The Bahamas the central government remains in charge of all expenditures. In industrialized countries 35% of government expenditures are in the hands of local authorities (IDB, w/d (a)).

National and sub-national patterns of governmental decision making authority tend to be complex and quite often ambiguous. Central governments often retain decision-making authority in the allocation of resources for services, but assign their provision to lower levels of government. Clear definition and division of responsibilities for functions among levels of government is rare. Municipal governments tend to heavily depend upon central government transfers to finance their functions and activities because locally generated funds are quite limited, and constitute a relatively small proportion of municipal budgets. In practice, intergovernmental transfers are the major source of subnational revenue in most Latin American countries (IDB, w/d (b)). Sub-national governments are currently restrained from accessing sufficient sources of financing for ensuring good performance. While own sources of revenue should constitute the principal source of financing for sub-national governments, the current state of affairs is far from this:

- Intergovernmental transfers are appropriate when services are associated with national or regional priorities, but ideally these should not substitute for own revenues. Territorial inequities, however, both in theory and in reality, in the generation of revenues are common in the region.
- Municipalities tend to be homogenous in terms of social and economic representation (poorer sectors segregated with low revenue generated small business and vice versa). Central State redistributive initiatives are required in order to equilibrate basic budget capacity for social and urban investment.
- The Chilean Municipal Common Fund is a case in point, where own revenues are redistributed among municipalities based on poverty related indices. In addition, the current proposed reforms incorporate sound urban development criteria in creating sanctions for unused urban land.

Private sector involvement for investment in urban infrastructure development has increased during the 1990s. A wide variety of modalities has been used: direct negotiation, sale of assets via public open bidding processes, public company rationalization processes, among others (Herzer and Passalaqua, 2003). Privatization of services (partial or full) and concessionary models (for both major city wide infrastructure as well as more local investments) are wide spread in the region. The development of an adequate regulatory framework for the private provision of services is a new area of concern where sub-national governments need to develop capacity, and reflects a tendency toward increased complexity in management activities. Equity issues arising from the privatization of services must also be addressed (by central or sub-national governments).

Based on three successful local governments and their management of public-private relations in service provision (Curitiba, Brasil; Ilo, Perú, Valledupar in Colombia) three common key elements have been identified in supporting adequate and efficient service provision:

(i) political continuity in the medium run, legitimacy, and electoral success, which assured a continuity in the applied policies; (ii) real, essential participation of the population in the decisions, application and the control of services, from coproduction of pavement of roads to waste collection to neighbourhood definition of necessities; and (iii) innovations in management mechanisms and arrangements of services, and in general, of the municipality, and in techniques for articulating with the private sector and the third sector (Herzer and Passalaqua, 2003).

The generation of sub-national markets for financing urban investment is a major current challenge in the region. Borrowing, regulations and sub-national capital markets are another option for new financing sources, whose development is incipient in the region. Risks for over borrowing by sub-national governments exist if not accompanied by a sound structure of intergovernmental relations and credit discipline. An interesting case that combined reforms to create incentives for sound sub-national fiscal performance and the creation of private sub-national private credit markets is Mexico (changes in the rules for sub-national debt towards more transparent and reliable conditions; promotion of national savings through pensions; banking regulations and risk classification, and capital market reforms).

## Box 12 REFORM SYNERGIES IN LOCAL CREDIT MARKET DEVELOPMENT IN MEXICO

Through a process of complementary reforms in decentralization regulation, the national pensions system, banking and capital market regulation, and the collaboration of international actors (Dexia Credit, IDB, World Bank) and the Mexican Government, a subnational bond market was developed, that in the period between 2001 and September 2003, has emitted 22 bonds for a total of US\$2,000 million. Towards the end of the 1990s, with the transfer of significant responsibilities to subnational governments for water and transport systems, the intergovernmental fiscal relations framework was modified to improve transparency and predictability. Bailouts by central government for municipal and State loan defaults were eliminated and credit rating requirements for subnational governments seeking loans were implemented. The later generated a healthy competition among States and Municipalities, with governors and mayors seeking improved credit ratings; of 75 States and Municipalities ranked by Standard and Poors, on a local scale, 50 received an A rating or higher. The creation of obligatory savings in the form of pensions increased the demand for fixed income bonds in local currency, and capital market regulation reform authorized the emission of subnational bonds. The increased demand for infrastructure financing on a subnational level, on the one hand, and increased supply of liquidity from national savings, on the other, within a context of transparent evaluation of risk, permitted a subnational bond market to emerge.

**Source**: Vetter, David (2003) Instrumentos financieros de financiamiento, presentation in Seminar, Potencialidades para el Desarrollo Urbano en America Latina y el Caribe, Acceso al Suelo, Impuestos y Gobierno Local, ECLAC, 23-24 September.

#### 2. The policy and institutional context

In the majority of the region's countries, the maximum environmental authority has ministerial status. In some cases (Peru and Chile), this authority lies in a collegiate organism, comprised of those areas of the public administration whose decisions affect the environment and the natural resource base. A common characteristic of these two models is their excessive number of functions in relation to their capacities. Regulatory frameworks for the environment also made headway during the 1990s, particularly with respect to land-use management, impact assessment, economic instruments, the definition of new offences and penalties and legal actions to protect the environment. Norms have been developed to regulate and establish controls for environmental

quality, emissions, solid waste disposition and concentration, among others. This direct regulation paradigm has been complemented with other norms which have opened the possibility of the use of economic instruments for environmental management as well as participatory models. An example of the former is environmental criteria for the distribution of receipts from the goods and services circulation tax in order to channel new funds to municipalities, in keeping with guidelines for environmentally sustainable development (Brazil). In the state of Minas Gerais, the application of environmental criteria involves the use of two indicators: one associated with the installation of environmental health infrastructure (disposal sites and sewer systems) and another linked to the establishment, regulation and installation / maintenance of conservation land plots. The experience of this past decade has shown that the current challenge refers to strengthening enforcement capacities, rather than reforming current environmental norms.

The process of integration of environmental policies with sector policies also has shown advances and difficulties. In general, the incorporation of the concept of the sustainable use of resources and the conservation of natural resources in the different productive and service areas (including housing and urban development) is incipient. The integration across sectors of the environmental, social and economic dimensions of sustainable development, on national levels, is not generally observed in the region. Sub-national governments, particularly municipalities have increased responsabilities in key sector areas related to sustainable development and human settlements, creating a great potential for territorial based perspectives and interventions in this area..

The more than 100 states and provinces (also known as departments or regions) and 14,000 municipalities that exist in the region comprise a vast and varied set. The great majority of municipalities are small; 90% of the municipalities have less than 50,000 inhabitants and more than 30% have less than 5,000 inhabitants. Excluding Jamaica and Uruguay, the average population of municipalities is 36,000 as compared to 12,000 in European Union countries. Very small municipalities (with less than 10,000 inhabitants) account for 53% of the total number of municipalities but serve only 8% of the population. Small size (usually accompanied by lack of human and financial resources and low population density) poses a significant challenge to the efficient provision of services. A second group of municipalities includes those in the 10,000 to 100,000 range (42% of the total number, serving 40% of the population). These local governments are also hampered by lack of institutional and financial resources (IDB, w/d (a)).

The third group of municipalities encompasses populations between 100,000 and 1.5 million; with less than 4.5 % of the total number of municipalities, these local governments are very significant, providing services to 40% of the population (IDB, w/d (a)). This becomes even more important because medium sized cities are growing faster than any other urban areas in the region. Large metropolitan areas make up the last group and represent a special case in local governments. Large urban agglomerations extend beyond the administrative boundaries of core municipalities, encompassing the jurisdiction of several local governments. In these metropolitan areas, the authority and responsibilities for the provision of services weaken and overlap. Increasing complexity in the management of transport and environmental problems of these agglomerations is another problem that often surpasses the capacity of any single municipality. Examples of problems created by metropolitan growth include imbalances between the demand for services felt by core municipalities and the resources available to provide them.

Increasing evidence shows that the underlying system of incentives determine the outcome of decentralization and their reform should play a major role in any decentralization process. Subnational governments should be capable of taking over expanded responsibilities in the provision of services and infrastructures and become active players in the promotion of sustainable development of their jurisdictions. This, however, presents a challenge to State reform processes in the region

with respect to measures and incentives for capacity building, good fiscal management, and good governance structures:

- While sub-national governments lack clearly defined responsibilities as well as sufficient resources to discharge their functions at socially acceptable levels of performance, they also require effective budget constraints that force decision makers to fully assume responsibilities for the trade offs involved in collecting and allocating a limited pool of resources.
- Constituents need precise, opportune and understandable information as well as
  effective mechanisms of citizen representation and oversight so that elected subnational officials can be held accountable and the management of local affairs can be
  made more transparent.
- Complementary to these local level interventions, is the strengthening central government functions related to setting performance standards, performing evaluations and ensuring the transparency of sub-national governments operations.

Political and social democratisation of the region's public structures and management practices, as well as of civil society composition and behaviour has paralleled decentralization processes in Latin America and the Caribbean, opening important spaces for innovation in participatory development of urban services. More and more formal mechanisms for civil society participation in municipal programme development and implementation are prevalent in the region: joint working groups, plebiscites, participatory budgeting (more than 100 Brazilian municipalities have made institutional this practice), and *cabildos* ("town meetings" regarding specific local issues).

# Box 13 EXAMPLES OF PARTICIPATORY BASED URBAN MANAGEMENT PROJECTS

Actions for Coexistence in Bogotá, Colombia is a public contest held by the Municipality of Bogotá through its Administrative Department of Community and Citizen Participation. To participate in the contest community based organizations propose potential projects for improving their neighbourhoods. Communities are able to generate their own development on the local level, adapting and managing public political space. Capacity is generated to provide goods and services with government as an initial source of economic resources. The results have been better recreational areas, more environmental training and awareness programmes, community libraries, waste management campaigns, art activities and sports camps organized by communities in over 900 neighbourhoods in the city.

In 1996, for the first time in Ecuador, an indigenous mayor was elected in Cotacachi (an area with limited access to land, and high levels of poverty). Participatory citizen policy, management reconciliation, and local development were institutionalized through the Municipal Ordinance in designing a participatory Town Development Plan. A Development and Management Council and Cross Sector Committee were established to permanently monitor and coordinate initiatives and projects. Budget distribution criteria were established based on participatory processes.

The Greater Montego Bay Development 2014 Plan is a citizen driven plan, aimed at enhancing the framework for integrated urban management of the Greater Montego Bay Area, Jamaica. Its goal is to create the climate for integrated development and broad-based economic growth, through equity, partnership and participatory development. One specific result of this process is the formation of community based development trusts, now extending nation wide.

Source: http://bestpractises.org/bpbriefs/

#### IV. Final comments

Progress has been made in the region in implementing measures towards sustainable development on different levels: national scale (sector, finance, and State policy reform issues), broad based territorial or city-wide approaches (joint jurisdictional integrated plans and actions for urban development and environmental management), local levels (municipal based programmes and projects) and community or specific group based initiatives (projects). Full advantage should be taken of the wide-ranging and diverse (in terms of actors, instruments and scale) regional experience in managing the social, economic and environmental dimensions of sustainable development. It is also important to tap the potential of networks of specialists and practitioners (urban planners, local development agents, social leaders and environmental technicians, among others), both formal and informal, in all areas. Available sources of systematized information (statistics and information related to experiences, programmes and policies), though deficient, should also be used to the fullest extent possible. These regional resources are valuable assets to Latin America and the Caribbean and provide opportunities for information exchange, learning and debate among different countries and cities.

The convergence in the urban sphere of economic efficiency constraints (financing issues), social equity concerns (habitability, investment in capitals, employment), the need to internalize environmental costs (management, governance) and to improve urban functionality with respect to regional integration and globalization tensions, present great challenges to urban policy makers on regional, national, sub-national and local levels. This document discusses these

issues in their social, economic and environmental dimensions, as applied to sustainable urban settlements development in the region, focusing on constraints and opportunities as well as regional progress in terms of policy reform, programme implementation and project development.

The resolution of the current and increasingly critical issues of inequity, poverty and the exclusion of vast sectors of our societies must be considered a public good, whose provision should be articulated by involving all societal actors (citizenry, government(s), private sector) in development processes. Within the urban sphere, these processes imply addressing the issues of functionality, habitability and environmental sustaintability as well as investment financing constraints, within a dynamic perspective. The later implies the incorporation of the following four criteria in these areas: (i) not to worsen the current situation for the entire population, (ii) to tackle existing deficits, (iii) to inhibit the reproduction of complex phenomena, and (iv) to project future needs and concerns.

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