

INT-2383

C.A

INT (2383)

Distr.
INTERN

LC/IN.139 / C.A
4 December 2003

ORIGINAL:
ENGLISH

Economic Commission for Latin America and the Caribbean – ECLAC

**LATIN AMERICA AND THE CARIBBEAN PREPARATORY PROCESS
FOR THE TWELFTH SESSION OF THE
COMMISSION ON SUSTAINABLE DEVELOPMENT
SUSTAINABLE HUMAN SETTLEMENTS DEVELOPMENT**

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03-12-882

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**I. THE REGIONAL CONTEXT. URBANIZATION TRENDS, RECENT ECONOMIC
PERFORMANCE AND URBAN ENVIRONMENTAL CONDITIONS**

Latin America and the Caribbean (LAC) is the most urbanized region in the developing world, with an urbanization level rivalling that of many industrialized countries². The region's urbanization level rose from 71% in 1990 to 75% in 2000,³ at which time its urban population amounted to 380 million, as against 127 million rural inhabitants (ECLAC, 2001a). Moreover, a large proportion of the urban population in the region lives in large cities⁴. 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. 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 Oceania⁵.

The most significant feature of economic development in Latin America and the Caribbean over the past decade has been the recovery of positive growth rates⁶, in a context of increased concern about national macroeconomic balances. In 2001 and 2002, however, the region has experienced a stalling in its economic growth, which, added to a slump in the world economy, raises concerns about the future⁷. Current levels of direct foreign investment continue to decrease, and in 2003, are predicted to be similar to those ten years ago (ECLAC, 2003b). As a result, for the fifth consecutive year, the region will suffer a net exodus of resources. Moreover, the region has still to realize its full capacity for participation in the global economy.

According to ECLAC estimates, by the beginning of the 2000s the region's urban poor amounted to over 138 million people, of whom 46 million were indigent (Mac Donald, 2003). 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. Urban poverty takes the form of low earnings related to precarious employment, a shortage of educational capital and patrimonial

¹ The XII General Assembly of Ministers and Highest Authorities of Housing and Urban Development held in La Paz (Bolivia) the 6th and 7th of November 2003 agreed "That the regional situation and priority issues for sustainable human settlements development developed by ECLAC, with the support of the UN-Habitat (ROLAC), that will be presented in the next CDS in New York in 2004, identifies the regional priorities in this area".

² Region-wide figures mask wide differences across countries – and within them as well, at the sub-national level – in terms of both the degree of urbanization and the current speed of the process.

³ 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%. In the 1990s, however, the trend towards a slowdown in the growth of the region's urban population became more pronounced (ECLAC/UNEP, 2002).

⁴ 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, 2003).

⁵ In Central America there are signs that the networks formed between those who leave and those who stay are binding urban areas together and that 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).

⁶ The majority of the countries of the region grow at very slow rates and gross investment continues to decline principally due to decreases in external savings (ECLAC, 2003a).

⁷ ECLAC predicts a 1,5% growth in the regional GDP for 2003, completing a period of six years (1998-2003) of accumulated losses in annual variation in per capita GDP (ECLAC, 2003a).

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.

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 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.

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 (MacDonald 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 demand⁸ (ECLAC 2001a). There is also a significant demand for replacement of the housing stock in the region, especially of the low-income 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,⁹ 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

⁸ 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).

⁹ 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 (MacDonald, 2003).

predominant feature of poor urban households. In urban areas, precariousness¹⁰ characterizes not only poor households, but also, albeit to a lesser degree, households whose income places them above the poverty line (MacDonald, 2003).

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. 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 (Chile, Costa Rica, Colombia) that too much emphasis on new housing subsidies, without incorporating qualitative deficit issues, may exacerbate levels of habitat precariousness (Szalachman, 2000).

Although population growth is slowing down in the region's cities, pressure on the land is still strong, given the expansion of demand for housing, services, facilities, recreational spaces, industrial parks and road networks.¹¹ 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. This latter process, 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 of this resource and its incorporation in habitat policy, however, is not generally observed among policy makers.

By mid 2001, the region had approximately 128 million people living in urban slums, 32% of the urban population (Mac Donald, 2003). 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.

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 they already occupy provide the most socially and economically desirable solution to the problem of informal settlements. Various programme approaches have been used, ranging from those limited to regularizing ownership¹² of irregularly occupied properties to integrated neighbourhood upgrading programmes. Regarding the former, the complex manifestations of informal development, the multiple actors involved, the lack of transparency as to the ownership of the

¹⁰ 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.

¹¹ 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 built-up 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 giving title to land (ECLAC, 2001a).

¹² 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).

land, as well as the sheer volume of titles to be processed all constitute serious difficulties in implementing these efforts. 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.

Upgrading strategies¹³ 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. 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.

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 Latin American and Caribbean 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 strategies include the purchase and reservation of land for social housing and other urban development projects by national, regional and municipal governments,¹⁴ although, as land prices increase, the financial feasibility of these programmes is not necessarily guaranteed.

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.

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 globalisation. 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). A variety of innovations can be observed in different regional experiences:

- new institutional arrangements (creation of the Ministry of the City in Brazil);
- strategic urban projects to revitalize and interconnect urban fabric (central Quito);
- public private partnerships and financing systems;
- innovative urban environmental management practises (Cordoba, Argentina; Manizales and Bogota in Colombia; and Santiago, Chile);

¹³ Programmes have been implemented in many countries in the region, including Chile, Colombia, Argentina, Brazil, Uruguay and Bolivia.

¹⁴ The municipal government of Quito, Ecuador, the regional offices of the Chilean Housing and Urban Development Services.

- participatory practises in urban and local development (participatory budgeting in Puerto Alegre and Curitiba, in Brazil);
- real estate and land market observatories which provide updated information for decision making (OSMI¹⁵ in Medellin Municipality, Colombia);
- urban planning processes incorporating environmental, social and economic concerns (Curitiba, Brazil in its local implementation and management of a visionary urban development plan, as well as the creation of a specific institution responsible for coordinating and monitoring urban development processes (Instituto de Pesquisa e Planejamento Urbano de Curitiba);¹⁶
- spatial management by a group of coordinating local jurisdictions, of a physical area defined by ecological and social criteria (trans-border management of urban environmental factors to reduce and monitor air quality based on the establishment of an international atmospheric basin - El Paso, Texas and New Mexico, USA, and Juárez, in Chihuahua, Mexico - via bilateral agreements, and a trans-border local joint working group¹⁷; the Integrated Apolobamba Project in Bolivia, land use planning of natural resources in national protected areas, sustainable productive activities with local indigenous populations, infrastructure provision, and local participatory management of protected areas¹⁸);
- economic instruments to create incentives to change environmental behaviour or to modify the *emplacement and functioning inside the city* (levies, tariffs, taxes, subsidies, licenses) (Trivelli 2000).

2. Urban environmental infrastructure

a) Water and sanitation¹⁹

There is no shortage of water resources in the region, except in some Caribbean islands. However, water pollution is a major problem because of municipal, industrial and mining related liquid waste dumping and the diffuse pollution caused by agrochemicals. In 2000, 90% of the region's urban households had secure access to drinking water and 86%, to basic sanitation (ECLAC/UNEP, 2002).²⁰ Wastewater treatment is far less widespread: less than 15% of the region's municipal wastewater is treated. As water consumption rises and wastewater collection increases only somewhat, the insufficient installed capacity for treating is overwhelmed and the rivers, lakes, beaches, coastal areas and seas in which effluents are dumped become polluted.²¹ 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 supply²². The demand for these services, especially in the 1990s, has increased much faster than the response capacity of water management systems.

¹⁵ Observatorio del Suelo y del Mercado Inmobiliario (Real Estate Market and Land Observatory).

¹⁶ Simioni, Jordán, et.al., 2002; www.ippuc.org.br, www.curitiba.pr.gov.br.

¹⁷ Borderlines 63, volume 1, January 2000.

¹⁸ www.bolhispania.org.bo.

¹⁹ 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.

²⁰ In rural areas, access levels are 42% and 57%, respectively (ECLAC/UNEP, 2002).

²¹ 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.

²² 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 intermittent supply of water.

The new models of urban water management have been marked primarily by the privatisation (partial or full) and decentralisation of services. These modernized water management systems are experiencing serious difficulty 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 of the State itself. 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.

The management of a public good, such as water, as both a resource and a service, is problematic and precarious when regulatory institutions do not adapt to the nature of the thing they are regulating. In this respect, the procedures for institutional change in Latin America have often neglected the fact that markets do not function properly without free flows of information, competition, and control of externalities. Fundamental is the re-allocation as resources become scarcer in relation to demand. In order to satisfy increasing demands, countries have to decide whether to use administrative mechanisms or water markets to achieve water re-allocation. The most interesting experiences in the region over the last few decades have been in Mexico, where water resources are managed by the National Water Commission (Comisión Nacional de Aguas), and in Brazil, which recently set up the National Water Agency (*Agência Nacional de Aguas*) with the principal objective of overcoming traditional conflicts and limitations imposed by a system in which, until now, water had been under the charge of functional ministries. Other examples of non-user organizations, or at least of those that are not linked to specific water sectors, are the Ministries of Natural Resources in Colombia and Venezuela, and the Water Directorate (Dirección General de Aguas) in Chile. In the Caribbean, Cuba and Jamaica have also devised interesting systems.

Which administrative level is best suited for managing water and its services is a particularly complex and conflictive matter, given that the resource is not limited either by administrative or by institutional boundaries and, as a service, is subject to economies of scale and scope. Relationships between centralisation and decentralisation of activities appear to show that, rather than a problem of radical alternatives, it is more importantly a question of structuring balanced systems. A study in Colombia, found that implementing decentralisation without first conducting a thorough activity analysis led to the loss of economies of scale, and that assigning responsibilities to local organisations lacking technical training are not conducive to sound resource management (Solanes and Getches, 1998). Inter-jurisdictional and basin organisation agreements have also been tried. In this context Brazil has stressed the importance of "Basin Committees", as appropriate management institutions. Curiously, basin organisations have also been employed in unitary countries for ensuring better local participation. This proves that appropriate institutional arrangements are a function of the nature of the resource more than of the political or organisational philosophy of a particular country. Chile, one of the most successful experiences in the region, has adopted its own model, capitalising 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.

A holistic approach should be based on Integrated Water Resource Management as a process promoting coordinated management and development of water, land and related resources, aiming to maximise the resultant social and economic welfare equably, yet without compromising the sustainability of vital ecosystems.

b) Solid waste management²³

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, and 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.²⁴

- 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, 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 region²⁵.
- 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.

c) Energy and public transport

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-

²³ See LAC regional contribution to CSD 12 for sanitation: *Informe de Saneamiento de América Latina y El Caribe*.

²⁴ In the Caribbean countries, problems can be found at all stages of the flow of waste (collection, disposal and treatment). There has been a sharp rise in the production of solid waste owing to the large number of tourists and the impact of cruise-ship arrivals.

²⁵ A case in point, however, is Curitiba, Brazil, where it is estimated that 70% of the population recycle (Durán, 1997).

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, no reliable and accurate quantitative information base exists in the region. However, in general terms, the following characteristics are observed:

- biomass as the most important source of energy in low income groups, the overconsumption of which contributes to deforestation processes;
- low total levels of energy consumption in poor groups, in a context of insufficient coverage of basic needs;
- low efficiency of energy consumption, 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 (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)

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.
- The Curitiba and Bogotá experiences are two well-known 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.

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 (Mexico City, Rio de Janeiro, Sao Paulo, Santiago de Chile, and Buenos Aires), 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). 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.

3. 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.²⁶ The 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 of various factors,²⁷ 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 vulnerability (for economic, societal and cultural factors). These sectors are also more severely affected when disasters hit, suffering losses of major assets (housing).

The region has made advances in the areas of risk reduction:

- 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 which have played an important role in the promotion regional cooperation in this area. Many regional and sub-regional networks in the area of disasters and urban vulnerability also exist in the region²⁸. One important experience is the regional mandate from Central American governments to emphasize vulnerability and disaster impact reduction during the period 2000-4.
- In Central America, all countries are either revising, or have modified their national legislations to provide for national systems of risk reduction.
- 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

²⁶ Within the region, the Caribbean is the sub-region most affected by natural disasters.

²⁷ See Simioni, Daniela, 2003.

²⁸ See www.disasterinfo.net of the *Organización Panamericana de Salud*.

incipient, municipal associations, and municipalities, begin to assume a more proactive role in implementing participatory local initiatives to reduce risk.

- Finally, incorporation of urban vulnerability issues in land use planning instruments has been shown to be an effective strategy for disaster prevention and mitigation of impacts (El Salvador).

4. Access to economic opportunities and employment

Today, 17 million of the region's urban workers are unemployed. The current urban unemployment rate is 9.2% (ILO, 2002). All of the increase in employment recorded in the region was 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 micro-enterprises (ECLAC 2001a). 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) lack specific orientation towards some vulnerable groups (women and youth), (ii) poorly defined target beneficiary profiles, (iii) 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 will 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 in increasing demand in this area (Llorens, Albuquerque, Castillo 2002).

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. 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 micro-enterprises into the formal sector is hampered by a number of obstacles, including the inadequacy of policy regimes and the limited availability of financial and non-financial services.²⁹

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 rural-to-urban migration:

- Recent ECLAC studies suggest a territorial integrated approach to interventions: based in municipalities, and coordinated with key public and private actors; combining efforts in

²⁹ Fewer than 5% of the region's micro-entrepreneur's have access to formal financial services (IDB, 2000).

agriculture, rural off farm employment, migration, transfers, 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).

III. FINANCE AND GOVERNANCE ISSUES

1. Financing sustainable human settlements development in the context of decentralisation processes

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

- external debt service constraints,
- decreasing levels of official development assistance,
- volatility in private international financial flows and in 2000-2, net outflows,
- continued support from international lending organisations,
- opportunities to access international multilateral funds,
- slow development of internal financing of both public and private environmental spending.

The current challenge in the region regarding financing is expanding and/or generating new internal urban (sustainable) development financing sources.

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.³⁰ In industrialized countries 35 % of government expenditures are in the hands of local authorities (IDB, w/d). 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.

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.

³⁰ While Argentina, Brazil and Colombia are highly decentralised (with over 40 % of total government expenditures managed by sub-nationals) others are still highly centralised. 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 (IDB w/d).

- 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 urban 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. Privatisation 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 privatisation of services must also be addressed (by central or sub-national governments).

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 in 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).

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 competences and 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. 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 is incipient.

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. 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 decentralisation and their reform should play a major role in any decentralisation process. Sub-national 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 sub-national 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 practises, as well as of civil society composition and behaviour has paralleled decentralisation 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 practise), *cabildos* ("town meetings" regarding specific local issues).

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