Urban Health: Latin America and the Caribbean

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Abstract

Several urban features, while not unique to Latin America, characterize the specific health challenges facing cities in this region, including the growth of midsize cities and, especially, the growth of periurban spontaneous settlements where sanitation, education, employment, health services, and links to the formal urban economy are often precarious. Health issues in cities include infectious diseases and the increase in the risk of chronic disease (such as obesity), but accidents and injuries (motor vehicle collisions, homicide and violence) are increasingly accounting for a substantial proportion of morbidity and mortality in Latin American cities.

To address these issues, "urban health best practices" need to be identified and developed in Latin America and the Caribbean. Belo Horizonte, Brazil, is a city has that has taken a proactive approach to public health; four programs (participatory budgeting, Family Health Centers and physical academies, community mobilization against crime and violence, Dengue control) demonstrate a range of activities that overlap and interact in a cohesive approach to urban health.

Some general lessons from these model urban health programs and the supporting literature are the following: 1) Citizens can and should be called upon to actively engage in urban planning and improvement efforts. 2) Health determination is multifactorial; thus, efforts to improve health should be multisectoral and targeted at macro, structural levels as well as at individual determinants. 3) Efforts should be long-term and iterative, and should capitalize on mobilization stemming from completion of a successful project. 4) Routinized monitoring, surveillance, and analysis of program impact are key elements in assessing and improving upon urban health best practices.

Executive Summary

Several urban features, while not unique to Latin America, characterize the specific health challenges facing cities in this region. First is the growth of midsize cities.

Providing clean water, sanitation, adequate housing, and accessible health care to existing residents as well as new migrants poses a significant test for municipal and public-health officials.[8] A related problem is the growth of periurban settlements, such as those known as *favelas* in Brazil, *pueblos jovenes* in Peru, or *ranchos* in Venezuela. In Mexico City, almost half the city's population lives in such spontaneous settlements, where sanitation, education, employment, health services, and links to the formal urban economy are often precarious.

Second, while infectious diseases such as tuberculosis, HIV, and malaria remain critical health issues in the cities of developing countries, the epidemiologic transition has been accompanied by an increase in the risk of chronic disease (such as obesity). Furthermore, accidents and injuries (motor vehicle collisions, homicide and violence) are increasingly accounting for a substantial proportion of morbidity and mortality in Latin American cities.

Programs can be identified and described that may be intriguing examples to consider "urban health best practices" for development in Latin America and the Caribbean. Belo Horizonte, Brazil, is informative as a multiple case study as the city has taken a proactive approach to public health, and four programs (participatory budgeting, Family Health Centers and physical academies, community mobilization against crime and violence, Dengue control) demonstrate a range of activities that overlap and interact in a cohesive approach to urban health.

Some general lessons from these model urban health programs and the supporting literature are the following: 1) Citizens can and should be called upon to actively engage in urban planning and improvement efforts. 2) Health determination is multifactorial; thus, efforts to improve health should be multisectoral and targeted at macro, structural levels as well as at individual determinants. 3) Efforts should be long-term and iterative, and should capitalize on mobilization stemming from completion of a successful project. 4) Routinized monitoring, surveillance, and analysis of program impact are

key elements in assessing and improving upon urban health best practices.

Future directions in urban health in Latin America need to build on the evolving database of best practices. To catalogue best practices, the Together Foundation and UN-HABITAT have been collecting urban solutions submitted by communities around the world since mid-1995. They placed the information into a searchable database (http://www.bestpractices.org), allowing end-users to search for successful cases of improving the living environment by region, country, ecosystem, area of impact (solid waste, housing, greening, poverty reduction, et al.), partners, and keywords. These self-help solutions allow decision-making to occur at the local level, where people know what works best. While this resource does address social determinants of health, it has not included assessment of program impact on health with outcome measures and mixed methods of evaluation. The Ibero-American and Caribbean Forum on Best Practices (the Forum) which was established in 1997 with the support of the Government of Spain, specifically, the Ministry of Housing to serve as the regional arm of the Best Practices Programme in Latin America and the Caribbean, has provided an important foundation on which to build information for best practices in urban health.

1.0 Introduction

In 2007, for the first time, the majority of the global population will be living in cities.[1] Projections suggest that this proportion will continue to increase; by 2030 nearly two-thirds of the global population will be in urban areas. Most of the growth of urban areas will occur in the less-wealthy nations, and much of that will be concentrated in areas of urban poverty, or slums.[2] Currently one billion people live in slums, and this is expected to grow to two billion by 2030 and three billion by 2050 if conditions remain unchanged.[3]

A considerable body of literature identifies worse health outcomes in areas of concentrated disadvantage than in other areas of the same urban settings or in broader regions in the same country. This health inequity is considered a function of social determinants of health that include physical structure (such as water, sanitation, housing, land tenure, and electricity) and social conditions (including social exclusion or discrimination, poverty, income inequality, and gender roles, among others, but also participatory government, education, and employment opportunities).[4, 5] Place of residence can also affect health through proximity to natural or man-made disasters and other local environmental conditions (such as housing built on landfills). Social capital, including levels of trust and density and strength of social networks, has also been noted as an important determinant of health.[6]

While these topics have been characterized in considerably more detail elsewhere,[4, 5] few would disagree that addressing the health of urban areas is one of the greatest challenges of the 21st century. The United Nations' Millennium Development Goals identify and shape many of the current trends in slum improvement; through the goals of reducing poverty and hunger, empowering women, ensuring environmental sustainability, and developing basic and technologically advanced utilities, the UN has committed itself to improving the lives of millions of slum dwellers.[7]

In low- and medium-income country settings across the globe, a number of interventions aiming to improve the social, physical, and economic well-being of impoverished persons in urban areas have been implemented (see Appendix). Throughout the world, the strategy and design have varied widely, from broad structural interventions aiming to decentralize power and resources (usually aimed at improving capabilities at the municipal, and in some cases the community, level) to more targeted efforts that attempt to improve systems or outcomes in a certain sector (such as increasing access to water and sanitation services or controlling the spread of communicable diseases) or neighborhood. These interventions can be promulgated by actors either within the country or municipality (such as grassroots activists or local or central governments) or external actors (such as an NGO or world-governing body like the UN).

Single-actor efforts may be attempted, but their effectiveness is generally limited to their area of influence. As the complex and interrelated nature of the problems and barriers faced by poor citizens in the developing world has become better recognized, multisectoral solutions increasingly have been embraced and implemented. In addition, in recognition of the fact that sustainable solutions necessitate participation in both design and implementation by slum dwellers and other vulnerable groups, participatory frameworks and community-driven development have evolved as strong trends both in the international field and in Latin America.

In addressing urban health challenges, a starting point is to identify examples of programs that may be considered best practices in urban health and might be further considered as models for development in other cities and regions. To catalogue best practices, the Together Foundation and UN-HABITAT have been collecting urban solutions submitted by communities around the world since mid-1995. They placed the information into a searchable database (http://www.bestpractices.org), allowing end-users to search for successful cases of improving the living environment by region, country, ecosystem, area of impact (solid waste, housing, greening, poverty reduction, et al.), partners, and keywords. These self-help solutions allow decision-making to occur at the local level, where people know what works best. The Appendix to this report includes brief summaries of a number of urban interventions in Latin America and the Caribbean from this database as examples of what is available.

Best practices for cities have been framed in terms of living conditions or social determinants, and many have implications for the health of the urban population. Clean water, effective sanitation, poverty reduction, and participatory governance are clear-cut examples that have been shown to impact disease reduction and health promotion directly (as in sanitation) or through personal empowerment and reduced social exclusion (as in participatory governance).[5] It may be appropriate to review and evaluate best practices in terms of how they do or do not incorporate intersectoral, cross-sectoral, scale, and decentralization and participatory features (see Appendix for further discussion of these measures).

However, the Together Foundation and UN-HABITAT best practices project does not have a category that is titled "urban health." The purpose of this report is to raise awareness about the contribution of urban health and to provide descriptions of projects that can illustrate *urban health* best practices. Approaches to urban health can be direct, as in Dengue Control Programs and Family Health Centers, but can also be operationalized through efforts to build social support and social capital, as in participatory budgeting and community participation in the building (and, ultimately, utilization) of Family Health Centers. Thus, the focus of this report on urban health is not meant to create a contrast to the categories already provided through the UN-HABITAT program, but, rather, to expand the scope to consider additional contributions to improving the health of cities.

1.1 Latin America and Best Practices for Urban Health

Several urban features, while not unique to Latin America, characterize the specific health challenges facing cities in this region. First is the growth of midsize cities such as El Alto, a city of more than 500,000 in Bolivia; Manaus in Brazil; or Temuco in Chile. Often such cities are growing at a faster pace than megacities are, and have fewer resources to cope with their growing pains. Providing clean water, sanitation, adequate housing, and accessible health care to existing residents as well as new migrants poses a significant test for municipal and public health officials.[8] A related problem is the growth of periurban settlements such as those known as *favelas* in Brazil, *pueblos jovenes* in Peru, or *ranchos* in Venezuela. In Mexico City, almost half the city's population lives in such spontaneous settlements, where sanitation, education, employment, health services, and links to the formal urban economy are often precarious.[9]

Second, while infectious diseases such as tuberculosis, HIV, and malaria remain critical health issues in the cities of developing countries, the epidemiologic transition has been

accompanied by an increase in the risk of chronic disease (such as obesity).Furthermore, accidents and injuries (motor vehicle collisions, homicide and violence) are increasingly accounting for a substantial proportion of morbidity and mortality in Latin American cities. As in many other parts of the world, rates of obesity and overweight are increasing in Latin America but at the same time many countries face what has been called the "double-disease burden"—the unresolved problem of malnutrition caused by nutritional deficits.[10, 11] In addition, motor vehicle collisions and homicide/violence are two of the five leading causes of death in Mexico's urban areas.[12] Pedestrian injuries over a three-year period in Mexico City were three times those of Los Angeles.[13] Factors associated with pedestrian injuries in Mexico City included poverty, inattention to risky conditions, insufficient public investment in traffic lights, and the dangerous mix of industrial, commercial, and private traffic.

Latin America has the world's highest rate of homicide—7.7 per 1,000 population, more then twice the world average of 3.5 per 1,000.[12, 14] Violent crime is particularly prevalent in Latin America's large cities, disproportionately affecting men living in low-income neighborhoods.[15, 16] Gender roles and relations put men and women at risk of different types of violence.[17] Excessive violence in cities fractures social relations in communities by increasing fear and insecurity.[18]

Mental health also contributes to substantial morbidity in Latin American cities.[19, 20] For example, Harpham et al. (2004)[21] studied depression and anxiety among adolescents in Cali, Colombia; girls were three times more likely than boys to exhibit signs of ill health. Risk factors for ill health included being female, having no schooling or incomplete primary (relative to secondary) education, the existence of family violence, being a victim of violence, and perceptions that violence affects the community. Other research suggests that the rapid urbanization and periurban settlements that characterize Latin American cities may put a strain on the social support systems that can serve as a buffer against mental-health problems.[22]

However, several programs can be identified and described that may be intriguing examples to consider "urban health best practices" for development, and this paper will highlight and explore in detail four such programs in the city of Belo Horizonte, Brazil. The rationale for presentation of four programs within a city is to identify how programs are built upon and become connected to each other. Located in the southeastern part of the country, Belo Horizonte is the fourth-most populous city in Brazil, with approximately 2.3 million residents. It currently has the second-worst income inequality of Brazil's 12 largest cities and the second-highest number of *favelas*.[23] Belo Horizonte has made strides to address this disparity. At the Second World Urban Forum in 2004, Belo Horizonte presented the *Profavela* Program from the state of Minas Gerais, which has resulted in the regularization and upgrading of slums and poor neighborhoods. Belo Horizonte is the first city to implement this state mandate. Innovative aspects include a participatory master plan, management and monitoring mechanisms for the "Special Interest Zones" that the law provides for, and partnership with the private sector. Lessons learned include the importance of having a strong social component to policy and of recognizing community as well as individual rights. Belo Horizonte is an informative case illustration as the city takes a proactive approach to public health, and the four programs described here demonstrate a range of activities that overlap and interact in a cohesive approach to urban health.

The first program, participatory budgeting, is a broad-based program that is part of a participatory master plan for a city, the first iteration of which started nearly 20 years ago in Porto Alegre, Brazil, and for which there are now approximately 250 programs throughout the world (though primarily in Latin America, particularly Brazil).[24] While much of the description of this program has not referred to the resulting detailed health outcomes, there are theoretical advantages at several levels, including the addressing of social determinants that studies

have shown are linked to health.[4] The second program is the development and practice of Family Health Centers and physical academies within discrete areas (or planning units) of Belo Horizonte. Although this approach is not unique to Belo Horizonte, a field description of the organization, its practices, and the interface with the participatory budgeting process can provide a concrete example of a program specifically designed to address the health needs for the most disadvantaged portion of the urban population. A third program is the community mobilization approach that involves building social capital within areas of concentrated disadvantage to address high rates of homicide in these neighborhoods. The final program considers an example of an urban health solution that was started without participatory involvement: the case of Dengue control. A large outbreak of Dengue in the late 1980s prompted a rapid and centralized municipal response. The development of this program provides an illustration of adaptation toward community participation.

2.0 Participatory Budgeting

2.1 Overview and History

Participatory budgeting can be defined as any type of political system that allows citizens direct or indirect knowledge of and influence over the annual budget and municipal priorities. Although there is no identified "ideal" model of participatory budgeting, the vanguard status and apparent success of the process in the Brazilian city of Porto Alegre contributes to its role as the international standard. The roots of the city's process stretch back to the 1970s, when religious and popular movements began to agitate against Brazil's military government. Neighborhood associations, long a mainstay of Brazilian history, began to formulate populist and progressive agendas, and they eventually helped institute free elections in Brazil.[25] The workers' party, *Partido dos Trabalhadores*, won Porto Alegre's first completely free municipal elections, in 1988. At this time, the city faced falling wages, rising inflation (which reached a peak of 1,774 percent in 1989), and slum growth; by 1991, 33.6 percent of its population lived in slums or informal settlements.[26] For a number of years there had been discussion of more direct democracy and greater redistribution of resources, and the newly elected party began to institute many of these changes though the city faced municipal bankruptcy. The system has continued to evolve into what is now considered a model of participatory governance.

The process begins in March, when regional preparatory meetings are held in each of the city's 16 districts; these meetings are open to all citizens, including those residing in the "informal settlements" or *favelas*.[27] At these meetings, the government officials report on the implementation of the budget during the previous fiscal year and present the current year's budget (defined during the last year). Also during these assemblies, delegates are elected to attend a next round of meetings, to deliberate the district's needs and identify the four district priorities for that year.[26]

While the regional meetings are occurring, there are also five thematic meetings underway: 1) transportation and circulation; 2) urban planning and organization of the city; 3) education and culture; 4) health and social assistance; and
5) economic development and tax reform.[28] The thematic discussions center on long-term, municipalwide budgetary priorities. At these meetings, expert teams discuss with officials from the relevant city agencies the major construction, transportation, and sanitation projects that will occur over several years and across several neighborhoods. As in the regional assemblies, delegates are elected for a second round of thematic meetings where they, too, elect members to convene with the regional delegates as the *Conselho do Orçamento Participativo* (COP).[28]

At both the regional and thematic meetings, priorities are discussed. The district-level priorities, decided at the regional meetings, are weighted by the population size and the lack of basic services in each district; districts with a larger population and a more severe lack of basic services receive greater weight than others. The sum of the district priorities defines the three

citywide priorities to be implemented in the year.[26]

Composed of the elected delegates from both regional and thematic assemblies, the COP develops the budgetary priorities from July to September and then sends the budget for approval by the democratically elected municipal government. Once an agreement is reached, the delegates elaborate the budget, and in November and December, deliberate on the entire participatory budgeting process, determining whether any recommendations or adjustments can be made. In 2001, US$90 million, of a US$600 million municipal budget, was allocated through the participatory budgeting process.[26]

Though Porto Alegre is home to the first and one of the most expansive participatory budgeting programs, variations have been implemented in approximately 250 cities in Latin America and Europe.[24] Regarding the various iterations, Cabannes (2004) has developed a five-dimension classification system for participatory budgeting: participatory, financial, territorial, regulatory/legal, and political.[24] The participatory dimension includes the bodies making the decisions, their objectives, the control and implementation of decisions, whether the program's direct or representative, how it's evaluated, and whether and how traditionally excluded voices are included. The financial dimension concerns the amount of money available for deliberation, both as an actual amount and as a percent of the total budget. The territorial dimension involves how decisions are made in relation to neighborhoods and who decides improvements that affect multiple neighborhoods. The regulatory/legal dimension involves the formalization and regulation of the entire participatory process. The political dimension includes the links between the participatory budgeting bodies and the municipal government. See Cabannes[24] for more specific information on how participatory budgeting projects vary around the world; we detail the example of Belo Horizonte below.

2.2 Belo Horizonte

The participatory budgeting process in Belo Horizonte began in 1993 as a municipal initiative with the election of a new social democratic government; a first Directive Plan for the city was published in 1996. The planning process to develop a governance structure and system was put together through municipal offices. This plan established procedural guidelines that also cover identification of necessary and feasible interventions and project implementations; the plan is updated periodically with the input of the *COMFORÇA* (an elected set of citizen delegates described below). At the municipal level, a management board composed of representatives from all departments and agencies that interface with participatory budgeting coordinates municipal activities related to participatory budgeting. Belo Horizonte is divided into nine administrative regions (of about 250,000 people each), which have a total of 41 subregions that are further divided into 81 planning units that cover 465 discrete neighborhoods and *vilas*.[†] The administrative regions coordinate the priority setting process of the planning units within their respective boundaries, and citizens make application for funds for specific projects that fit the criteria of the region.

The planning process starts with an intersectoral, municipal government committee that creates and updates the master plan for the city (*Plano Plurianual de Ação Governamental*—PPAG). Representatives from five sectors (urban policy, urban planning, office for disadvantaged populations (social exclusion), environment, and sanitation) meet to discuss and develop the overall city blueprint and establish citywide criteria (e.g., a road in one participatory budget district must connect with roads outside the district).

Though the above group establishes the municipal master plan, the participatory budgeting process establishes priorities. The procedure for the participatory budgeting process

[†] In Belo Horizonte, *favela* is a term that is considered stigmatized and considered interchangeable with *vila*. In other areas of Brazil, *vilas* are areas without roads connecting to the other parts of the city, while *favelas* have connecting roads.

leading to a successfully funded project starts with a petition of at least 10 people; the municipality reviews the proposal against the PPAG. If the proposal is not consistent with the PPAG, then the proposal is rejected. A proposal that survives this step then goes to an assembly organized within the respective subregion; any citizen of the subregion can participate in the assembly. Through a vote of those present, each assembly "pre-selects" up to 15 projects (so more than 600 overall across subregions) primarily for construction projects (roads, schools, housing, health centers, etc.) to be considered by the central planning council.

Also at the assembly, 100 to 200 citizens (depending on the number who attend the assembly) are chosen to be delegates to the next step of the process, and 20 percent of the delegates are selected to be members of the *COMFORÇA* (a citizen committee) to have a voice at the municipal level in each step of the process, including selection, review, and auditing of the process and progress. Administrative region-level meetings determine the 14 projects (per each of the nine administrative regions) that will be passed forward for implementation. As part of the process of finalizing the project list, delegates make site visits to each proposed project site (the "Priority Caravan"). Neighborhood coalitions can play a critical role in getting projects successfully through the process. In two neighborhoods visited, neighborhood leaders were interviewed about the process by which they succeeded in having projects located in their communities. The interviewed leaders each noted that their respective neighborhoods were successful by building coalitions of diverse groups that worked out arrangements as a unified block (where a proposal from one subgroup or faction would be put forward for one round, understanding that another proposal from another subgroup would be submitted for another round) that would then press forward proposals in the participatory process, provide a block of persons to become delegates to the assembly, and to work as a group that would "get out the vote."

The proposed projects are discussed at the regional assembly, and the final list of possible projects is slated for a general vote. Delegates from more vulnerable subregions get a higher weighted vote per person. For example, the city overall has 202,431 slum dwellers (just under 10 percent of the city's total population); in Barreiro there are 26,002 slum dwellers, accounting for 9.9 percent of that area's population, while in Centro-Sul there are 38,875 slum dwellers, accounting for 14.9 percent of the population there. For the former, each vote counts as 1.3 votes, while for the latter, each vote counts as 1.4 votes. This weighting provides an advantage to more vulnerable areas, but to be effective it requires adequate voter turnout (as fewer voters with higher weighting can be cancelled out by higher turnout among voters from regions with lower weighting).

There is an established formula for dividing funds among administrative regions. Fifty percent of the total budget is divided equally between the nine regions; this is meant to ensure that some less- populated regions with a higher average income but with slums receive at least some project funding. Allocation of the other 50 percent of the participatory budget is based on a score derived from two measures: the population size and Urban Life Quality Index for each of the planning units (a series of homogenous contiguous neighborhoods). The Urban Life Quality Index, an indicator of community vulnerability, has several variables that include, among others, water/sanitation, social assistance, sports and culture, and health. The health measure includes infant mortality, premature births, and health access measures (e.g., hospital beds). The scores of each planning unit within each administrative region are combined to arrive at a total score for that region.

The participatory budgeting process is weighted toward services and infrastructure for the most vulnerable populations. To assure middle-class and upper-class involvement, 30 percent of the budget is reserved for consideration of projects that are of benefit to all citizens (including the vulnerable population). In practice, about 40 percent of funded projects fit into this category with the other 60 percent focused on the most vulnerable populations. To attract more people into the participatory process, a Web-based

mechanism is being tested whereby people can be involved during different stages via computer; while this would seem to favor the middle and upper classes, terminals are provided in public places (e.g., at the physical academy described in section 3.2). However, the one visited during fieldwork for this report was temporarily closed, and the program is under review.

In 2006, 90 percent of the population lived within 1,000 meters of a participatory budgeting project. About half of the projects have been citywide for the benefit of all (infrastructure projects), one-third have been specific improvements to the *favelas* (slum upgrading), 10 percent have been health projects (constructing Family Health Centers), and the rest have been split between building schools, sports fields/physical academies, cultural centers, etc. Since the inception of the process, US$300 million has been committed to these projects, accounting for about 3 percent of the annual municipal budget. This figure is somewhat misleading as it covers only the cost of the projects (e.g., bricks and cement), while other expenses such as municipal staffing (about 100 staff) and expert consultation (such as engineers and health officials) are funded through other parts of the municipal budget. Over the past 14 years, there have been more than 800 construction projects, and the participatory budget covers the cost of the first year (more recently, the first two years) only, after which funds come from other sources. The intent of the program for community involvement is to show project initiation and viability, which can then be leveraged with the World Bank and other NGOs for funding to complete projects.[†]

2.3 Outcomes and Health Indicators of Participatory Budgeting

Determining the specific public-health impact due to participatory budgeting can be difficult. In Porto Alegre, infant-mortality rates have decreased from 18.38 deaths per 1,000 live births in 1995 to 12.21 in 1999.[29] The city now has both the highest standard of living and the longest life expectancy (76 years) of all Brazilian cities.[30, 31] In Belo Horizonte, from 1994 to 2005, the under-5 child-mortality rate decreased from 80 per 1,000 to roughly 25 per 1,000.[32] However, it is not clear how much the participatory-budgeting (PB) process has influenced these changes.

Porto Alegre, Belo Horizonte, and other cities with participatory budgeting also have implemented programs that likely impact the social determinants of health (though this is not necessarily the articulated purpose); these range from upgrades in housing or provision of utilities to underserved areas to allocation of space for cultural or recreational pursuits. From 1989 to 1996, the number of Porto Alegre households with access to water services rose from 80 percent to 98 percent; the population served by the municipal sewage system rose from 46 percent to 85 percent.[26, 33] From 1988 to 1999, nearly 12,000 units of social housing had been built by the government alone, garbage collection had doubled, roughly 25,000 lightposts had been added, and nearly six million square meters of pavement had been added to the city.[26] In Belo Horizonte, from 1991 to 2000, the percentage of people whose income is less than US$1 a day decreased from 7 percent to 5.6 percent.[32] With investments prioritized through the participatory budgeting process, 38 health centers have been constructed, 33 public schools have been extended and repaired, and 3,059 units of housing have been approved.[34] In other cases, health-specific resources have been created; the Family Health Centers in Belo Horizonte (discussed in section 3.0) are an example.

Higher levels of social capital are associated with positive health outcomes,[6] and the example of the Nordeste slum (discussed below) also illustrates how the process of participatory budgeting and perhaps other modes of representative and collaborative governance can be tools for building social capital.[27] Social capital refers to the features of social

[†] Information was collected including interviews with Ana Luiza Nabuco Palhano, Adjunct Secretariat in the Municipal Planning Department of Belo Horizonte, and Maria Auxiliadora Gomes and Marcos Ubirajara de Carvalho e Camargo, administrators of the participatory-budgeting program at the Municipal Planning Department.

relationships (e.g., trust, information networks, relationships with surrounding residents, and neighborhood associations) or of organizations that can facilitate collective action aimed at the improvement of society.[35] The transparency of the PB process can encourage reciprocal, trusting relations between the government and its citizens, even those without formal employment or tenure. Cabannes (2004)[24] suggests that as citizens become more aware of the municipal financial resources (or lack thereof) and more engaged in their distribution, their understanding of budget limitations increases their recognition of the difficulties municipalities face in providing services and infrastructure; increased awareness also increases citizens' support for and compliance with taxes and other social policies aimed at improving the well-being of the populace. USAID has noted the benefits good governance reaps in other cities: once citizens become more aware of the problems, they become more involved in the solutions.[36]

In addition to social capital bonds between government and its citizens, there may also be enhancement of internal social capital at the local, neighborhood level. In Porto Alegre, the PB process has the highest rates of participation in marginalized neighborhoods where few successful neighborhood associations existed prior to its development. In turn, the residents have formed new community associations to help themselves organize and campaign for their needs. On the other hand, Baiocchi (2005)[27] notes that the PB process may actually *undermine* existing community structures and organizations. In the case of Porto Alegre, existing community organizations were central in originating the idea of participatory budgeting, but many thwarted the first attempts at the citywide process. Many associations viewed PB as a threat to the existing system of clientelism, wherein political candidates promised favors to neighborhood associations in return for political support. The PB structure in Porto Alegre offers the opportunity for discussion and election of representatives to all citizens, even those who do not belong to community associations, thereby shrinking the power and role of those organizations. Thus, although initially some social institutions may be negatively affected, the overall process seems to contribute to increased neighborhood-level coordination and action.

Finally, considering the manifest issues faced by populations residing in urban informal settlements, participatory budgeting has proved to be successful in mobilizing and responding to the needs of even the most disadvantaged and disenfranchised populations in a city. For example, though the Nordeste district, a Porto Alegre neighborhood that is home to nearly 25,000 residents, remains one of the most impoverished and least-developed areas of the city, it has been an area of active participation and has seen dramatic changes since the onset of participatory budgeting. However, at the beginning of the process, there were few active neighborhood associations and little participation; after 650 new homes were constructed in the neighborhood in 1990 due to an effort that evolved from the participatory-budgeting process, more residents began attending participatory-budgeting meetings and engaging in discussions of urban-planning priorities for their area. In 1992, over 1,500 homes were constructed, and, in 1994, a health clinic was built. The rates of participation have continued to increase, and have become some of the highest in the entire city.[27] Thus, participatory budgeting may be an important tool when considering solutions to the particular health challenges facing vulnerable urban populations.

3.0 Family Health Centers and Physical Academies

3.1 Family Health Centers

In 2005, Belo Horizonte established a network of 140 Family Health Centers (FHC) throughout the city, assisting 450,000 families considered to be living in areas with high- and medium-degree of vulnerability. The city has 14 major medical centers for emergencies and 18 referral centers to specialists. While primary care in neighborhoods had existed before, the remarkable change was related to the assignment of each family to a unique referral family health (FH) team, comprising one physician, one nurse, one or two physician assistants, and three outreach workers.

The outreach workers must be residents of the assigned area of their FH team. They are trained for select activities, but they are especially valuable for their ties to the community.

To take one specific example: In the neighborhood of Tirol (pronounced *Chee-rohl*), in the south of Belo Horizonte, the FHC has five teams that each consists of a primary care doctor, a nurse, a physician assistant, and three outreach workers. Each team is responsible for 4,000 people (so 20,000 citizens in total). The team's outreach workers, garbed in blue smocks prominently marked "BH" (for Belo Horizonte), routinely visit each house in their assigned neighborhood, performing a broad systematic data collection and preventive orientation. At each house, they collect information on several adverse health effects. Some examples are immunization, breastfeeding, nutritional status, domestic violence, asthma and other respiratory diseases, and drug use among children and adolescents; domestic violence, prenatal care, family health planning, cancer prevention, hypertension, diabetes, and other non-transmissible diseases among adults; and violence, abandonment, and neglect among the elderly. Additionally, they studied several infectious diseases, such as tuberculosis, leprosy, and Dengue (the Dengue control program is described in more detail in section 5.0), and are trained in areas ranging from prevention to diagnosis in order to monitor their patients.

Although about 80 percent of the medical staff is permanent, about 20 percent is not. Instability of the doctors is still a problem, despite the efforts of the City Health Department. In Tirol, for instance, many of the doctors are new graduates (with an undergraduate degree) who stay for possibly a year. The nurses, too, usually stay for around a year. Although these staff members can have longer tenure, most prefer to move on to better jobs. There was resistance among doctors to taking these positions; the posts required eight hours per day (versus the earlier positions which were four hours per day, which had allowed the doctors time for more-lucrative private practices). Still, the salary is competitive (similar to an Associate Professor at a medical school); many use these positions to save money to start private practices. While the medical staff has had turnover, the neighborhood outreach workers are more likely to stay. However, the outreach jobs can also be stressful because neighborhood residents come to them at all hours for advice, leading to some turnover of these workers.

The Tirol FHC is new—about 18 months old—a product of community mobilization and action through the participatory-budget process. Despite the newness of the building, the equipment is somewhat antiquated. The Tirol FHC has a pharmacist (with limited stocks of common medications) and specialists who are present for 20 hours per week, such as a dentist, a psychologist, and a gynecologist. The FHC is open 16 hours a day and accessible to anyone, including those who live outside the district (although the outreach workers do not go outside their assigned area). The clinic is in a compound with high walls and gates that close at night and has bars on the windows, primarily to protect equipment when the complex is closed.
A complement to the city health department, which is responsible for staffing the FHC and formulating its health priorities, the Tirol FHC staff participates in two advisory boards that meet monthly. One board brings together the outreach teams and the clinician teams to go over health issues of the city (e.g., Dengue control through organizing teams to go door-to-door, teaching about not having standing water for mosquitoes to survive). There is additional community participation in this meeting, providing feedback from the community on the best way to do this. The outreach workers also bring to this meeting the observations and issues of the broader community. The second advisory group is a collection of various agencies, including church and civic organizations, that meet to address coordinated action for health problems and mobilization for political action (in the same way that prompted this facility to be built).

Priority topics at the Tirol FHC include diseases of concern (such as obesity, diabetes, immunizations, and prenatal and pediatric care), as well as broader health issues (such as unsafe roads and pedestrian injuries). The second

advisory group has successfully lobbied for stop signs. There is consensus among the administrator and team leaders that violence, especially domestic violence, is a major problem. However, they note that social factors may play a role in making women unwilling to report domestic violence, particularly in terms of involving the police.[†]

3.2 Physical Academies

While the FHCs represent a reorganized rather than an altogether new program, a recent innovation by the city health department is the development of what are called "physical academies"—community centers primarily for exercise but also for offering education about nutrition. Generally, they are located near FHCs; the first was opened in the neighborhood of Mariano de Abreu, in the Eastern Sanitary Health District.

On January 5, 1985, 11 families that had been squatters near an open sewage area left that area and moved to the neighborhood of Mariano de Abreu as squatters (although without municipal resistance; in fact, probably with tacit encouragement), where this new neighborhood was formed. The city has established basic utilities (e.g., water, electricity), and a local FHC exists that carries a heavy patient load and operates as a social as well as health center. Two factions or parties ("05 Janeiro 1985" Communist Party and the *Esperançia* Workers Party) are involved in political interactions in this community. Although relations can become strained at times, the two parties work cooperatively in terms of the participatory-budgeting process, taking turns in alternate years to put forth a project idea that the other agrees to support. Through this coalition, the community mobilized to submit through the PB process a petition to have a small abandoned open strip iron mine graded to become a football field (with the total space about the size of three football fields).

During this PB process, the health department entered into negotiations and an agreement was struck to improve the area to create not only the football field, but also a physical academy. The field is fenced and has a paved access road; there is a new brick building with toilets and showers for the children after sports. To the side of the field is a new, larger brick structure that serves as a community center; two-thirds of the building is a common room where the exercise classes are held. The remainder of the space is for evaluation rooms; there is also a room of computers where residents can access Internet-based participatory budgeting voting ballots. However, this room was closed for the time being because the manager was awaiting a monitor to ensure appropriate use of the Internet.

To join the organized classes, each resident must undergo an evaluation by a person trained as a physical education instructor; this includes height, weight, blood pressure, history of health problems, measures of strength and flexibility, quality of life, and client satisfaction. The program is crafted as moderate exercise to minimize the possibilities for injury and stretching, light calisthenics, and power walking are among the activities. With limited budgeting, the instructor has made dumbbells out of broom sticks and 1- or 2-liter soda bottles filled with sand. The program is staffed also with students in physical education (under the manager's supervision) and a nutritionist who supervises nutrition students (all undergraduates).

Before the field was graded to be made usable, bodies (following episodes of violence) were tossed off the cliff above. Since the construction of this field and physical academy, this practice has stopped (although runoff of sewage remains a problem to address). The physical academies are reported to be popular among the poor. In addition, the city health department has noted a secondary benefit: Those who are well (especially the poor) have a place for socializing other than the Family Health Centers (which are then more efficiently able to care for those most in need of available services). The city health department intends to open more programs, and public-

[†] Interviews were conducted with Denise Vianna Amador, the administrator of the Tirol FHC, Raner Pacheco da Silva and Giovanni Fonseca.

health researchers from the Federal University of Minas Gerais are organizing an evaluation.[††]

4.0 Community Mobilization Against Crime and Violence

4.1 Fica Vivo Program, Minas Gerais

Brazil has one of the highest homicide rates in the world. Between 1980 and 2002, the national homicide rate more than doubled, from 11.4 per 100,000 population to 28.4.[37] In Belo Horizonte, from 1986 to 2004, for every 100,000 city residents, armed robberies soared from 97.3 to 422 and homicides climbed from 8.4 to 44.8.[38] To address violent crime, the *favela* Morro das Pedras was chosen for a pilot project that involved an intensive multisectoral program of interventions involving multiple partners: the university (UFMG-CRISP); the military and civil police; various municipal departments, such as health, education, and social welfare; NGOs; and the residents themselves. The intervention components included public education (aimed at youth in the form of posters and pamphlets, lectures at schools, and talks on the radio); the shelter and protection of victims (programs for youth including sports, culture, and jobs); and a local advisory group to monitor local problems that needed to be addressed. In addition, the police are mobilized to investigate, issue warrants for, and generally respond to homicides more quickly, as well as to have surveillance and arrests for other offenses, including minor crimes; the program also urges courts to process cases more quickly. As a result of the interventions, homicides in Morro das Pedras dropped by 47 percent in the first five months (compared to an 11 percent *increase* in areas not served). Forty percent of the decrease occurred in the first 12 months of the project. In 2005, while the city's homicide rate increased 9.8 percent overall due to a crack epidemic, the rate fell 25 percent in the neighborhoods participating in the program. The project has now been adopted by the state government and has been replicated in 21 other high-crime areas in the state of Minas de Gerais.[39]

5.0 Dengue Control

One of the most significant public-health problems facing South America is Dengue control. Caused by one of four antigenically related but distinct virus serotypes [DEN 1-4], Dengue and Dengue hemorrhagic fever are spread by *Aedes aegypti*, a domestic, diurnally active mosquito. Infections result in a variety of clinical illnesses, ranging from a nonspecific viral syndrome to severe and fatal hemorrhagic disease. Risk factors include the strain of the virus, patient age, and prior exposure to Dengue. In the 1950s and 1960s, the Pan American Health Organization attempted to eradicate *Ae. aegypti* in an effort to control yellow fever. However, by the 1970s, the program had been discontinued in the United States, followed by reduced activity elsewhere.[40]

Since 1982, Dengue has begun to reemerge in Brazil.[23] The first epidemic of Dengue in Belo Horizonte since the 1960s was in 1996. From 1996 to 2002, Belo Horizonte had yearly epidemics that totaled nearly 90,000 cases (that involved Dengue 1, 2, and 3).[23, 41] Dengue cases vary geographically each year. In the first three months of 2007, the administrative region of Northwest had the largest number of Dengue cases (170 suspected and 50 confirmed) compared to all other municipal regions that have averaged fewer than 10 cases. Last year, another region (Pampulha) had the highest number of cases.

The 1998 outbreak led to the rapid development of a Dengue Control Program headed up by the city health department without public participation. The program involved surveillance for cases and containment through spraying of households (radius of two blocks for any confirmed case or a cluster of suspected cases) through an organization of teams that were

[††] Interviews with Maria Angelica de Salles Dias, Asst. Commissioner of Health; Maria de Fátima Pereira Batista, health manager of Eastern Sanitary District; and neighborhood community leaders Marisette (of the "January Five, 1985 Association") and Sandra (of the "Hope Association").

hired and trained quickly to respond to the outbreak. The program of surveillance, household inspections with education, and spraying on a monthly basis, has continued uninterrupted since then.

The organization of the Dengue Control Program operates as follows: For each of the nine administrative regions of the city, there is a sub-mayor. There is a link between the city health department and each of the administrative region submayors to coordinate Dengue control activities. Taking Northwest as an example, the region is divided into 65 Dengue zones for surveillance and control, and, ultimately, 123,490 buildings that require program action. As set up during the 1998 outbreak, the Northwest district Dengue Control Teams have several TSP persons, each of whom is responsible for an average of 800 houses, which they visit at least every two months (vulnerable areas such as the *favelas* have proportionately more workers). TSPs are expected to have finished eight years of primary education and to have passed a training course in Dengue control. Of the TSPs hired when the program was established during the large outbreak in 1998, 60 percent continue in their positions; in *favelas* and other neighborhoods, residents recognize the Dengue Control staff and allow inspections and spraying of their homes without incident (residents are asked to leave their homes while the TSPs do their work). TSPs are supervised in groups of eight, with the supervisor responsible for random checks of houses after inspection and placement of larvicide and spraying. Each health district also has a zoonoses expert assigned to the district. No occupational-health follow-up data are immediately available.

Unlike other programs described above (participatory budgeting, Family Health Centers and physical academies, crime prevention), the Dengue Control Program started without community participation, which is only to be expected given that it was rapidly designed in order to respond to a large outbreak of cases. The initiation of the Family Health Centers (FHCs) has been used as way to add in community participation to the Dengue program; the community outreach workers conduct Dengue educational campaigns as part of their home visits, and their community contact also is an important avenue for the provision of community feedback. The FHC staff (including the zoonosis expert) and the Dengue control teams communicate with each other regularly to coordinate education and any follow-up required between routine visits. ‡

6.0 Limitations of Evaluation Approach and Potential Contribution of Evaluation

A central limitation to understanding the health implications of best practice urban health interventions is the lack of adequate data sources with which to chart changes in specific health outcomes over time. Governance innovations and development interventions are not always articulated in terms of effects on public-health outcomes, and are more often a dialogue on human rights or social justice. However, health outcomes are a strong indicator of quality of life. Further, a healthier citizenry is in general better able to contribute to the needs of the community or city and further development of shared resources. For some cities, changes in life expectancy or infant mortality may be ascertained, but it is not always obvious how these relate to specific interventions or programs. Data on services delivered or infrastructure created also may be limited, contradictory, or incomplete for assessing impacts on health.

For instance, the spread of experiments in participatory budgeting across Latin America and Europe, as well as the anecdotal evidence of positive benefits from Belo Horizonte and other cities, has given further currency to the notion that citizens can be active participants in the development and maintenance of their cities. Yet there is a general lack of rigorous health-specific quantitative data with which to evaluate

‡ Site visit with Maria Elena Franco Morais, NW District Dengue Control Officer and Jose Eduardo Pessanha, Central Zoonosis Unit of the City Health Department.

the effectiveness of the diverse models and applications of participatory budgeting; those data that are available are generally qualitative or concern distal (to health) outcomes, such as percent of budget allocated to certain sectors or projects as well as service provision or infrastructure generated (such as number of households with access to water and sanitation services, or number of health centers built). In the case of Belo Horizonte, evaluation of the participatory-budgeting process and product in Belo Horizonte is actively being developed in partnership with UN-HABITAT.[7] A scale of indicators which is easy to measure and update has been developed; indicators include sanitation, housing, education, social health, and cultural and physical activity, among other variables.

Such data are clearly useful in guiding decision-making and in ensuring accountability in terms of adequate distribution and utilization of funds, and it is imperative to improve data collection and reporting on such factors. However, quantitative data on specific heath outcomes also can be particularly informative in determining both needed and appropriate budget allocations. In Belo Horizonte, though currently there are no specific ongoing health indicators, discussion has ensued over possible indicators from public files (e.g., homicide, drug overdose admissions to emergency rooms, etc.) and the prospect of periodic health surveys. In the Urban Life Quality Index (described in section 2.2), some public-health measures are noted, and these data are derived from the decennial census. The timeframe for when these data are collected and when the participatory-budgeting process was begun means there has been only one set of measures during the duration of the program to date; hence, the health measures are used to determine vulnerability rather than to evaluate changes over time for the program. The denominator for evaluation has been the topic of considerable discussion, as neighborhood population size or number of planning units are insufficient to have statistical power for comparisons. Instead, hydrographic maps of the 256 watersheds in the city are being generated, but having this conform to health data remains a challenge. At this time, the municipal offices for participatory budgeting note no intra-urban comparisons for program implementation and health indicators directly (morbidity and mortality) or indirectly (participation, satisfaction with participation, social capital, etc.). Work is ongoing, and similarly, systematically collected and analyzed health-outcome data could add considerable value to the efforts of the primary-care provision, human security, and Dengue control efforts in the city.

Though evaluation is generally recognized as an important programmatic component, there are manifest issues in terms of collecting and analyzing program-derived health outcomes—including lack of financial resources, infrastructure, technical training, time available, and prioritization for data collection and analysis—when many other needs may be more pressing for the communities or municipalities. Clearly, these are not insignificant barriers. External funders interested in understanding global development best practices should encourage and support evaluation efforts more fully by offering substantial financial and technical assistance for those efforts in order to broaden and strengthen the information base on urban health best practices. Providing technical and financial assistance at the municipal level for coordinated citywide surveillance of health indicators over time would be beneficial. Systematic collection of data across a number of cities could be highly informative in terms of necessary intervention designs and components to ensure successful outcomes; the more settings that are rigorously examined, the more easily generalizable the results.

7.0 Considerations in Disseminating and Applying Best Practices

Case Reports on Belo Horizonte: We have detailed four cases in Belo Horizonte that we believe serve as models of urban health best practices. The strategies represent different levels of citizen and governmental engagement that are each worthy of consideration by other cities across the globe. However, translation to other areas requires a thoughtful approach. Disparities in history and culture; physical, financial, and technical resources; extant infrastructure; governance; social capital; and other important contextual factors raises the question not merely of best practice models but also the consideration of stages toward building model programs.

It should be noted that participatory budgeting has not proven as successful in other cities as it has in Porto Alegre and Belo Horizonte. In Costa Rica, for example, the central government attempted to establish a "Triangle of Solidarity" that would facilitate communication between itself, local government, and community organizations. Modeled on a number of previous participatory organizations, the Triangle of Solidarity would not be able to administer public funds or begin projects. The process began with residents' assemblies, where residents were elected to district-development commissions and citizen-monitoring commissions. The district-development commission would then hold a planning workshop, where possible projects would be discussed and decided upon. Finally, a negotiating table would be held, where representatives from the three corners of the Triangle would meet and commit to community projects. Initially heralded by success, the Triangle of Solidarity broke down in high-need urban areas. In two urban neighborhoods, Rincon Grande de Pavas and San Felipe, the process became bogged down in land-titling and negotiation issues. Many of the projects slated for the neighborhoods had to be scrapped.[42]

In Peru, the municipal government of Villa El Salvador established participatory budgeting in 2000, committing 35 percent of its municipal budget to the process. This process relied on the participation of the citizens for the labor of projects as well as for the meetings that established those projects. Initially successful, the project was scaled back once a new mayor was elected. The process experienced difficulties in coordinating and organizing the influence of different branches of civil society. In addition, many municipal officials thwarted what they saw as a threat to their power. In turn, neighborhood leaders confronted the municipal government, instead of attempting to work with them. A similar program was also established in the city San Juan de Miraflores. Despite support from NGOs, it, too, suffered from a confrontational and distrustful attitude from the local population.[43]

Participatory budgeting demands a high level of civic action and responsibility; what is not clear is whether a threshold level of social capital must preexist in a municipality or neighborhood in order for participatory budgeting to operate in that area. There may be issues if communities lack the internal (bonding) social capital to organize, and this situation may be aggravated by high levels of distrust of government or external bodies, and by high levels of social disorganization and violence. Fostering social capital/cohesion with technical assistance from professional groups and NGOs is an option; however, such processes can take many years.[35, 44] Levels of support, as well as financial and professional capacity at the level of the municipal government can also affect the PB process. If the "participatory" nature of participatory budgeting is only rhetorical, the effort cannot operate effectively. It is also important to note that in some states, the central government, not the municipal government, controls much of the available resources.[24] Other important considerations in implementation and sustentation of participatory budgeting have been explored in detail by other authors.[24, 42, 43, 45]

Clearly, participatory budgeting is a highly complex program, but it would be a mistake to broadly apply—even within the same country or region—any of the programs we have identified as best practices without being sensitive to or tailoring interventions so that they are specific to

context. At the same time, it also would be a mistake not to move forward using these programs as models for interventions elsewhere. Though lacking rigorous health-outcome data, all of the programs we have described have strong theoretical foundations aimed at improving health either directly or indirectly. More programs (with attendant evaluation) will enable more nuanced understanding of the mechanisms through which urban health can be impacted. Further, within Belo Horizonte and Porto Alegre, the levels of social capital and social determinants of health differ from neighborhood to neighborhood, yet the programs have remained viable in both of those cities.[27] Although these programs have no guaranteed rates of success in other cities, the evidence is compelling that they can improve the lives of many people, from a variety of backgrounds.

Finally, some general lessons we can note from these model urban health programs and the supporting literature are the following: 1) Citizens can and should be called upon to actively engage in urban planning and improvement efforts.
2) Health determination is multifactorial; thus, efforts to improve health should be multisectoral and targeted at macro, structural levels as well as individual determinants. 3) Efforts should be long-term and iterative, and should capitalize on mobilization stemming from completion of a successful project. 4) Routinized monitoring, surveillance, and analysis of program impact are key elements in assessing and improving upon urban health best practices.

Global Summaries of Best Practices: As noted at the outset, best practices is a topic that has been a part of the UN-HABITAT work for over a decade. The no-cost searchable database (http://www.bestpractices.org) provides cases from over 140 countries judged to improve the living environment by region, country, ecosystem, and area of impact (solid waste, housing, greening, poverty reduction, et al.); it can be searched by partners and keywords. It currently contains over 2,650 descriptions of the practical ways in which public, private, and civil society sectors are working together to improve governance; eradicate poverty; provide access to shelter, land, and basic services; protect the environment; and support economic development.

Best Practices in Latin America and the Caribbean: The Ibero-American and Caribbean Forum on Best Practices (the Forum) was established in 1997 with the support of the Government of Spain—specifically, the Ministry of Housing—to serve as the regional arm of the Best Practices Programme in Latin America and the Caribbean. The Forum is a network of organizations that work together to improve the quality of life in human settlements through the promotion of best practices (contributing to the UN-HABITAT best practices database and their transfer). The Forum has been working on the development of a sustainable process of Transfer of Best Practices in the region. Transfer of Best Practices faces multiple challenges such as: the need to create and update inventories of best practices (the supply); the need to support the search for best practices applicable to their context (the demand); the technical facilitation of exchanges and the resources required to this effect; and the design of exchange modalities that respond to the specific contexts of the receptor and the provider.

Summary

Efforts have been started to develop best practices in urban health in terms of creating a supply of case studies and transfer to other settings. Increasing the supply of and demand for best practice case studies is an important direction for urban health practice. However, several other points are worth noting, including the following: the span of content for case studies; the multiple case study approach to examine how they can build on each other in a particular context; and the consideration of mixed methods of case studies and "natural experiments" for making empirical urban health.

Content of Case Studies: In one conceptual framework of urban health, living conditions—which include physical and social environment as well as health and social services—influence individual and population health, and they are remediable.[46] The UN-HABITAT list of best

practices addresses important elements of urban health with a focus on physical and social environment; the list can and should be broadened to include effective outreach of preventive health and social services for urban populations and effective approaches to immediate and long-term control of infectious diseases. Best practices also might be considered from a broader cross-cutting perspective: the context of what fundamentals are necessary to achieve success in planning and implementation of the particular project (preexisting conditions, actors, funding, etc.). The existing focus is on the impact of improving living conditions in the physical and social environment to provide safety and also self-determination—all of which are associated with better physical and mental health.

Multiple Case Study Approach: Most best practices are reported as individual projects where the context is described primarily for that particular topic or focus. In many cases, cities or neighborhoods are doing several projects simultaneously. How projects interdigitate concurrently—or what projects or conditions were in place before others—might provide key information on necessary preconditions or simultaneous requirements that is likely to improve the ability of case study consumers to evaluate information for translation to their own contexts. The context for the best practice beyond the immediate problem is inconsistently described. Foundations of the program (physical or social environment; local, regional, national, or international context; preexisting conditions that are judged as important foundations for success) can be informative in judging the likely success of adapting the program to a new setting. This report provided a multiple-project description for one city, Belo Horizonte. The extent to which multiple-project case reports covering a specific area can be done and improved upon for subsequent reports needs to be evaluated.

Mixed Methods of Case Studies and "Natural Experiments": To date, best practices are described and evaluated based on a case-study methodology. In reviewing programs for this report, there was a paucity of quantitative information on those programs' possible health impact. Evaluations in the literature typically refer to case reports that describe a problem, the actors, the obstacles, and the process. Some of these case reports quantify results of the program in terms of products delivered (e.g., number of new construction projects started or completed; numbers of actors who participated or persons served). However, best practices might be stated more strongly in terms of considering multiple indicators to provide a realistic expectation of what the program can achieve.

Few case reports compare pre- versus post-implementation, or between program and non-program areas. Although the focus may be on clean water sources, sanitation, or poverty reduction, few case reports directly examine the health of those served (e.g., reduction in disease rates) pre- versus post-implementation. Case reports likewise rarely include an analysis of quantitative data. There are a number of reasons for this. First, existing data are usually collected on larger entities (e.g., entire cities) for purposes other than evaluation where the quality of information is appropriate for surveillance but not necessarily for evaluation (with data either missing key indicators or subgroups of the population). Original data is expensive to collect. Perhaps more basic, an assumption is that conditions are sufficiently unique in each setting to challenge the ability to make meaningful comparisons in terms of outcomes.

At another level, in the context of slum-upgrading projects, the most treasured evaluation designs are frequently not feasible or even desirable to implement because the intervention is multicomponent and multilevel, making it difficult to describe in sufficient detail for the purposes of replication and even calling into question the very possibility of replication. Having a "no-intervention" (or control) group might be unthinkable; the point of neighborhood-level interventions is to start a program, where *any* program that can be successfully introduced and become functional consistent with original intentions is considered a success. Quantitative data can be compelling information to persuade agencies and funders to adopt and adapt programs. Feasible evaluation

designs that provide quantitative information are needed.

One approach is the "natural experiment" where change occurs in one area and not in another (or in multiple areas for each type of group) where the areas without intervention are without the evaluators' intent. If information is available on what may be considered key indicators that are sufficiently available before and after initiation of the project, then information can become available. Frequently, this is simply not possible; some areas of intervention are outside or too small for data to be meaningful, or the measures available are too crude. However, other areas have household surveys that provide needs assessments and indicators, and may be the best practice for evaluation. A related design is the intent to implement programs in stages: Some areas receive the program early and the roll-out of the program to other areas is sequenced; such is the case of physical academies in Belo Horizonte. This "step wedge" design—*if* it can include measurement in multiple neighborhoods—provides a foundation for comparisons with simultaneous measurement of early versus later sites of implementation; this allows interim as well as final evaluation of program effectiveness. Efforts at evaluation need to become more sophisticated; the impatience to put programs into place does not allow for the "Law of Unintended Consequences." This should be the next stage in developing best practices for urban health.

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Appendix: Best Practices—UN-HABITAT

The UN-HABITAT Best Practices Database in Improving the Living Environment is available at http://www.bestpractices.org/. On the Best Practices Briefs portion of the Web site, UN-HABITAT has provided "summaries of selected practices from around the world designed to provide an overview of how cities, people, and their communities are solving critical social, economic, and environmental problems" and "…how the Habitat Agenda, Agenda 21, and the Millennium Development Goals are being implemented." The briefs are organized under the following thematic areas:

- Housing Policies and Practices
- Women Empowerment Practices
- Social Services Practices
- Poverty Reduction Practices
- Urban Planning and Development Practices
- Combating Racism and Discrimination
- Children and Youth
- City-to-City cooperation
- Urban Governance Practices
- Urban Economic Development
- Environmental Planning and Management
- Urban Infrastructure and Services
- Sustainable Biodiversity
- Water and Sanitation
- Urban-Rural Continuum

This appendix contains those practices from the Briefs pages that relate to urban initiatives in Latin America and the Caribbean. All text below appears exactly as it does on the Web site (see www.bestpractices.org/bpbriefs/index.html). More information on these and other programs can be found on the UN-HABITAT Best Practices Database in Improving the Living Environment Web site.

A list of best practices serves many purposes, from offering program models to global networking to identifying trends. Looking across the briefs on urban best practices in this appendix, several themes emerge:

a) Intersectoral
One approach to urban intervention is the intersectoral model, whereby participation and objectives stem from the cooperation and integration of multiple sectors, such as urban planning and infrastructure (transportation, housing, recreational/public space, sewage and water systems, landfills, etc.), economic, education, environmental, health, security, etc., at a single level—usually the level of local government. The Human Development in Communities at Aurá, Belém, Brazil (below), is an excellent example of this model, demonstrating improvements at the individual level (health outcomes, training, employment, etc.) to the community level (community organization).

b) Cross-sectoral
Another approach in best practices is the cross-sectoral model, characterized by multilevel partnership among two or more of the following bodies: national or local government, the private sector, non-governmental organizations, foreign governments, international aid agencies, and the local community.

c) Scale
Cross- and intersectoral interventions may attempt to improve the overall population well-being of a city, or they may be focused on a particular neighborhood or marginalized population within the city. Youth are often a population of interest as they are not only often a significant risk group, but they also represent the future of a city. Environmental protection and sustainability is often a key focus because of the broad impact it has across sectors and populations.

d) Decentralization and Participatory Frameworks
Although the intersectoral model in particular acknowledges the complex, mutlifaceted processes that impact well-being, both models can be criticized for being too "top-down" if the local perspective is not taken into account.

Thus, a strong and important trend in best practices is decentralization with the incorporation of a "participatory framework," meaning that the local community is an active partner in developing and even implementing the intervention. Participatory approaches are

informed by the understanding that community members have "on-the-ground" knowledge of not only the dilemmas and barriers that face the community, but also available resources and practicable solutions. One step beyond the participatory framework is community-capacity building, where education, skills-based training, and other technical capabilities are provided to community members, fostering sustainability and empowerment for further projects and programs.

Thus, a second way to review the best practice vignettes in this appendix may be to consider each in terms of how they do or do not incorporate intersectoral, cross-sectoral, scale, and decentralization and participatory frameworks features. For instance, in recognition of the dominant trends in best practices, there are often references to programs being "intersectoral", "participatory", or constituted by a "partnership". However, drilling down to the specific components and dynamics of these may be key to understanding the success of the program. For instance, stating that a given practice has a "participatory" element obscures at what level this participation occurred. Were community members actively engaged in *all* aspects of the development and implementation of the program or project, or only in a few? Was participation representative, or did only certain community members or groups have voice? To what degree did the community actors have equal power in decision-making compared to the other stakeholders?

Answers to these questions and others have two major implications. First, detail at this level can be useful in identifying what program designs are most workable and/or impactful in certain settings. Second, they generate interest and discussion in whether there are "right" answers. For instance, community advocates may have a very specific definition of what constitutes a "best practice" based on the dimensions of community participation. Others may argue that best practices may take on a variety of forms as long as other outcomes (such as improvements in education, infrastructure, etc.) were attained. Thus, developing and making publicly available a specific rubric for determining best practices may add value to the database both through increased precision and also through provoking debate about the measure.

Finally, for those interested in the health of urban populations, an additional area for improvement of this particular list would be to focus more specifically on health outcomes. Health interventions are captured to some degree by the current category of "Social Services Practices". However, we contend that as health is a significant indicator of individual population well-being, and that a variety of program designs can have direct or indirect effects on health outcomes, health clearly merits more careful attention in this database and in the intervention literature as a whole.

Housing Policies and Practices

Housing, Infrastructure, and Poverty Eradication—Villages and Slum Areas of Teresina, Piauí, Brazil

Teresina city is the capital of Piaui Province in northeastern Brazil; one of the poorer regions of Brazil with a per capita income of US$840 per year compared to the national average of US$2,924. Approximately 17.7 percent of Teresina's total population of 700,000 consists of unemployed and underemployed individuals who live in sub-human conditions and in sub-normal areas. There are 29,095 families, with an extremely low family income of less than US$163 per month concentrated in peripheral areas of the city, villages and slums. Most of these families have been living for years in very precarious housing conditions.

The main purpose of this initiative, since January 1997, has been to consolidate existing villages and slum areas in Teresina, northern Brazil, into neighborhoods replete with basic urban services so as to promote local social-economic development. The project was implemented in collaboration with the federal and local governments, local communities, and the private construction sector.

Results achieved to date include:

- implementation of a suburban renewal plan including infrastructure,

community development, education, employment, and income generation;
- establishment of a co-responsibility model enabling the involvement of civil society organizations and public authorities in the design and implementation of projects;
- changes in urban land-use via recovery of degraded areas;
- changes in attitudes and behavior of population, the empowerment of community leaders, and the promotion of human resources development. The initiative has resulted in the improvement of more than 116,000 inhabitants.

These results are attributable to a competent public, entrepreneurial and integrated management that has been capable of promoting effective partnerships between the community, the local authority, and central government. The initiative demonstrates how to expand the scale and outreach of urban development in a relatively poor society and to establish a distinct identity in human settlement development.

Adequate Shelter for All—Barbados

The Greater Bridgetown Area, Barbados, consists of 3,462 hectares and has a population of 103,000 which represents 40 percent of the island's inhabitants. This urban population comprises 33,600 households of which 13,000 (39 percent) are pensioners. The housing stock is aging with some 17,500 houses from a known 26,300 being more than 15 years old as of 1995, suggesting a high repair rate. Within the 33,600 households, approximately 5,000 pit latrines still exist as a reflection of the pockets of poverty that can be found in the urban landscape. There exists an affordability gap between the cost of new housing and the incomes of the urban poor. Other issues/problems that confront this target group relate to the lack of security of tenure faced by occupiers of rented land where six or more households rent the land from a single landowner, more familiarly and legally known as "tenantries" within the Barbadian context.

The Urban Development Commission was established in August of 1997 as a parastatal agency in response to a perceived need to improve the standard of living and quality of life of communities within a defined urban area called the Greater Bridgetown Area. Legislation was enacted first in 1980 and subsequently in 1997 to facilitate both the above overall goal and, secondly, to provide the operational mechanism, through the formation of the Urban Development Commission, by which government would seek to realize its objectives. The Government involved the civil society in the planning of a new vision for the urban area through the formation of an Urban Renewal Committee that had a broad representation of all stakeholders.

Hailed as a revolutionary piece of social legislation, the 1980 Tenantries Freehold Purchase Act created a right for tenants on both plantation and other tenantries to purchase the lots on which they had resided for a period of five consecutive out of seven years prior to 1980 or anytime thereafter. In the case of the plantation tenant, the statutory price was Barbados $1.00 (US .50c) per square meter; for the non-plantation tenant, the open market price. In respect of the security of tenure, the Government, through the Commission, has instituted the policy of subsidizing the sale price of lots in urban tenantries. Quantitative results of the urban renewal program include construction and upgrading of 397 houses, construction of sewerage facilities, and improvement of roads. The Urban Development Commission also established the Urban Enterprise Loan Fund to provide loan funds to the urban population for investment in and the development of small-business enterprise with a ceiling-borrowing limit of Barbados $25,000 (US$12,500). Housing development loans were also made available with a ceiling-borrowing limit of US$30,000 where a total of 400 loan applications were approved and funds disbursed. The role of enabling legislation on access to land by the poor is clearly demonstrated in this practice.

Popular Habitat Program—Costa Rica

Building houses is not an end but a means to achieve community development. With a population of 3,015,000 in Costa Rica, the

housing shortage reached a critical stage following the financial crisis of the 1980s, which resulted in the emergence of marginal areas and slums in the city of San Jose. This shortage effected the least favored classes of the population, exacerbating their social exclusion.

Families are actively involved in the programming, execution, and administration of the Popular Habitat Program. The program started off in 1988 as a bilateral assistance project to construct new housing for low-income families and to remediate the housing shortage in the city. To date, the community is becoming increasingly involved in all aspects of the program. Alternative methods of financing are being pursued and obtained to scale up and to sustain the project, resulting in the establishment of a revolving fund managed under a trusteeship.

Over 17,000 families have gained access to decent housing, helping to reduce the housing shortage in the city. The participatory nature, and a strong emphasis on community-capacity building, enabled over 30,000 of the newly housed people to have training in various fields related to operations and maintenance, project management, and administration. This has created employment and increased income. Community participation and capacity building have considerably strengthened community spirit and involvement in civic affairs and in improving the overall living environment. Another spin-off of the participatory process is the unique approach of having each neighborhood design its own housing projects, demonstrating that there can be no single model in responding to housing needs and demand. The needs of the poor vary just as much as, if not more than, other segments of the population and housing solutions will vary according to the conditions, desires, and necessities of the individual. Several international entities and institutions have studied the model of the Popular Habitat Program and its principles have been adopted by other projects in Nicaragua, El Salvador, Guatemala, and South Africa. The experience of this program has been taken into account for NGO training in the area of housing and development of Human Settlements.

Participatory Relocation—Samambaia, Brazil
At a distance of 25 kilometers from Brasilia, the Samambaia Administrative Region occupies the southwestern region of the Federal District, covering a total of 104 square kilometres. The urban area of 26 kilometres had only 5,549 inhabitants in 1989 but grew to a population of approximately 163,000 inhabitants in 2000.

The residents of Samambaia are resettled squatters from Brasilia. Confronted with squatting on the extensive public open spaces and gardens that characterize the planned capital, Central Brasilia, the city authorities entered into a dialogue with the squatters. The authorities offered to resettle them in the Samambaia suburb, provided the squatting families agreed that land titles would be given in the name of wives rather than husbands. This was to safeguard against the sale of plots by men. Reportedly, 10 years later, few, if any families had sold their plots. The relocated squatters were assisted to move, and sites and services were provided, but they had to build their houses themselves. In order to guarantee easy access to the City and employment, a subway has been constructed. The consolidation of the city through government-assisted settlement programs spurred the transformation of the wooden shanties of the early phases into brick-and-mortar houses, now constituting 85 percent of the housing stock. The community structures and networks were kept, as much as possible, intact during the resettlement process.

The city of Samambaia has now a high-quality life, a vibrant local economy, a well-established network of schools, and a center for professional-skills training. It has ample public open spaces and sports facilities, is well endowed with health facilities and has a good public transportation network.

With the approval of the Samambaia Local Structure Plan in 2001, a range of new initiatives are being executed by the Regional Administration of Samambaia. One of these innovative projects is the *Linhao de Samambaia*, which makes efficient use of a strip of land previously reserved for a power transmission line to accommodate approximately 68,000

additional urban residents. Another example is the *Arrendar* project, consisting of 1,350 units with rental-housing contracts offering future purchase options, implemented in partnership between the Federal Government and the Government of the Federal District.

These projects are part of a new multifaceted housing policy of the Federal District, designed to promote better use of existing urban land, to decentralize government action in the field of housing, to optimize employment generation, and to ensure synergy with other sectoral policies. This is backed up by a new housing information system to effectively monitor the interventions programd under the policy.

Women Empowerment Practices

Gender and Citizenship within an Integrated Program for Social Inclusion—Santo Andre, Brazil

Santo Andre, a city with a population of 625,654, is part of the São Paulo Metropolitan Area, one of the largest megacities of the Region. Developed as a center for industrial production some 30 years ago, Santo Andre has been dealing with a large crisis, generated by the crash and substitution of its original economic model. As a result, during the last decade, the living conditions for the majority of the population have deteriorated and a number of *favelas*, areas of extreme poverty, have sprung up in the city. The municipality is promoting an Integrated Program of Social Inclusion as a strategy to alleviate poverty. The Integrated Program of Social Inclusion, which is a pilot program, has as its purpose the establishment of new ways of managing local public policies addressing social inclusion. The program addresses decentralization and participatory management and comprises projects spearheaded by the Municipal Administration. Four priority groups were chosen to develop the Integrated Program (PIIS) as a pilot project. The four slums are: Sacadura Cabral, Tamarutaca, Capuava, and Quilombo II. Their resident population is 16,042 (50.72 percent male and 49.28 percent female) with half the population being unemployed/underemployed. Of the households, 57.6 percent are headed by females—and many of them earn less than half the minimum wage.

These areas were characterized by poor infrastructure, lack of access to basic services, and exposure of children and adolescents to crime. The objective of the initiative is to integrate community participation in the local management actions of social policies, giving the slum population an opportunity to develop social-inclusion strategies through integrated actions. Both the partner organizations and community agents participate directly in the PIIS management tiers. In the case of urbanization, for example, the entire process is decided step by step, with the residents of these low-income neighborhoods collectively determining issues ranging from project schedules to naming of streets. The emergence and strengthening of community leaders has been demonstrated by greater participation by these communities in the city's debate and decision-making forums, highlighting that the choices made by the community representatives have taken the gender perspective into account. The project has seen the improvement of basic services in some of the worst regions in the area. Microcredit facilities have been made available to small-scale entrepreneurs while health care is more accessible from community health agents appointed to provide medical attention within neighborhoods. Recreational facilities have also been made available while open spaces have been designated as playgrounds. An index that is used to measure social exclusion/social inclusion has been elaborated and data collection is done on a regular basis.

The Gender and Citizenship Program proposes to foster male/female awareness by promoting institutional arrangements that help reduce conflicts, working simultaneously with the community and program teams. The Gender and Citizenship Program resulted in the strengthening of women's roles in decision-making processes and family relations in the community and the city. The Gender and Citizenship Program is the result of a partnership between the Santo Andre Municipality and the Center for Health Studies (CES). A total of 112 discussion groups, gender-awareness courses, and

campaigns geared towards combating violence against women have been held, involving approximately six thousand people. Progress has also been made in other areas, including property rights on the lots and housing units being transferred to female-headed households, and improved reproductive health care. Community-based agents represent about 50 percent of all the individuals involved in implementing the program. This is a positive strategy, since in addition to generating employment and income for local residents, especially women, it provides a close link between the programs and the communities' real needs. The Integrated Program for Social Inclusion has directly benefited 3,600 families, improving their quality of life and their access to social policies, work, and income, especially in achieving their rights as citizens. At the management level, the Program's greatest triumph has been its intra- and inter-institutional integration, contributing to the operational consolidation and collaboration of the respective work teams, thereby expanding each program's efficacy.

Social Inclusion Strategy—São Paulo, Brazil

São Paulo is the largest city in South America, and the third largest in the world. Its population has doubled in the past 30 years, and has now reached about 18 million people. Forty percent of Brazil's GDP (US$536 billion) is produced by the city. The dimension of income inequality and social exclusion in the city of São Paulo reflects the size of this metropolis. Its urban space, as the generating center of the country's wealth, is beginning to show more evidence of the impact of last decade's stagnation in the national economy. This is in addition to the uneven concentration of growth that characterises the historical evolution of the Brazilian economy.

Overcoming this situation seemed impossible toward the end of 2000, especially taking into account the dilapidated state machinery and heavy public debt inherited by the present municipal administration. Nevertheless, work that opened new horizons was started. Human, material, and financial resources were mobilized, revealing a strategy of social inclusion and a set of basic principles to guide the government intervention.

A policy to combat urban poverty was formulated based on a decentralized structure, which targeted areas with high incidences of social exclusion. Participation of the civil society, and integration of efforts among the various spheres of public administration, were also key to the policy's success.

With a policy framework in place, it was possible to match available resources with empowerment projects. Dignity and citizenship were the goals of the process. A strategy that gave priority to the direct transfer of resources (and rights) to the poor in needy regions of the city was adopted. In addition, a set of related policies was established—vocational training, participation in community activities, access to microcredit, formation of cooperatives and popular participation, creation of local development forums, and employment bureau to match supply and demand of job opportunities—for segments that had been forgotten by the state.

These policies have benefited 320,000 families, 12 percent of the population in the municipality, in a period of three years after their implementation. Approximately 80 percent of the families are women while 32 percent are female-headed households. Other tangible results include qualification of 110,000 people from the municipality's training program, formation of over 440 enterprises; elaboration of production activities within the local context, with the participation of employers' representatives, trade unions, and the civil society. An employment network, involving 54 partner institutions and 15 job-placement agencies was established to match newly acquired skills with appropriate jobs.

Finally, the creation of a database and usage of computer solutions (Citizen Database—BDC) enabled access to timely and updated information on the target group and status of current intervention strategies. This also serves as a monitoring and evaluation tool to provide feedback about the whole process.

Social Services Practices

Integral Health Team—Betim, Brazil

Betim has a population of 270,000 and is situated in the metropolitan area of Belo Horizonte in southeast Brazil. Its economy is predominantly industrial, although some traces of its agricultural and livestock history still remain. The annual budget is estimated to be US$86 million. The city administration spends 20 percent of the budget on the Health Sector.

The network of Public Health Services is managed almost completely by the city administrator and consists of the following units:

- Basic Health Units;
- Special Care Units;
- Emergency Care Units;
- Maternity Ward;
- City Hospital.

This network has been undergoing change since 1993, aimed at revolutionalizing public-health services to meet consumer needs. It has been implementing the principles of the Unified Health System (i.e., universality, comprehensiveness, equity, and simplification of procedures).

The changes establishment of reference and surveillance teams. The former aim at linking a certain number of users to one of the Basic Health Units, establishing a bond between the professional and the user which is essential to a good clinical practice. The surveillance teams aim at increasing the follow-up, control, and implementation of actions capable of preventing health risks.

The reference teams are formed by Medical Doctors (General Practitioner, Pediatrician, Gynecologist-Obstetrician), Nurses, and Assistant Nurses, with the support of Social Workers. The population chooses, from among the Basic Health Units close to their homes, the team they want to be linked with. Each team has between 1,200 and 2,000 users under its responsibility and organizes the work according to the following targets:

- To get to know the epidemiological profile of its users;
- To organize its agenda according to its users' needs;
- To promote regular meetings to discuss cases;
- To activate other resources (intra- and inter-institutionally) according to the users' needs;
- To implement home care whenever the users' autonomy is impaired;
- To search for absent patients whose health may have worsened or who may be under any risk condition;
- To promote general actions of collective and preventive nature involving the whole Unit.

Doctores da Alegria (Doctors of Happiness)—Brazil

"Doctors of Happiness" is Brazil's preeminent performing-arts organization devoted to bringing joy to hospitalized children two days a week, 48 weeks per year. Based on clown theatre, professional artists perform parodies of medical rounds using the healing power of humor. The artists undergo six months of training in hospital protocol and artistic adaptation, followed by reviews to maintain high quality of work. The training enables them to visit special units such as intensive care, burn units, and bone-marrow-transplant and AIDS patients. Working one-on-one with chronically ill children, their parents, and health-care professionals, these "doctors" help ease the stress of hospitalization by introducing laughter as part of the patient's life. The secret to their success is that while doctors and nurses focus on treating the illness, clown doctors focus on stimulating recovery.

Established in 1991, Doctors of Happiness has received recognition from major medical institutions, doctors, the media, sponsors, and the general public. It received the prestigious "Children Award" by the Abrinq Foundation, Brazil's leading foundation for children's rights. Doctors of Happiness works in the six major hospitals in São Paulo and five in Rio de Janeiro, and since 1998 expanded to South America's only pediatric-cancer hospital, bringing the total number of visits made to children, their doctors, and parents to 165,000.

In 1998, Doctors of Happiness established a Research and Study Center and now runs specialized workshops such as "Doctors and Clowns: a Partnership for the Future" to share results with medical professionals and the general public. The workshops have become part of the official curriculum for all resident doctors of the Children's Institute, South America's largest pediatric university hospital. These workshops provide resident doctors with the opportunity to reflect on and discuss innovative ideas regarding the treatment of severely injured and chronically ill children. They also expose young doctors to how the clown approaches the hospital universe; with no fear of contact with, interaction with, listening to, or communicating with patients.

Training Program in Public Security, Human Rights and Citizenship—Brazil

In Brazil there is much police arbitrariness, causing aggravation of exclusion and violence. In Amapá, a former Federal Territory, police behavior was based on the Armed Forces motto of "defending the frontiers against invaders." This war-like ideology degenerated into treating the citizen as the enemy. Furthermore, the police force was badly coordinated and often worked at odds with security departments.

The program was initiated in 1996. Its objective is to humanize police action by training the police force to become aware of and uphold human rights and the exercise of citizenship. The training includes social psychology, group interaction, and self-analyses focusing on changes in behavior and attitudes based on the respect of ethical principles of citizenship, defense and security for the people. It also aims to provide better integration of different departments involved in the public-security system.

The program led to the adoption and implementation of the following policies and initiatives: (i) interactive policing involving civil society in determining priorities for public security; (ii) establishment of an Environmental Battalion responsible for monitoring and preventing environmental degradation and promoting environmental education; (iii) a unified Public Security system integrating all security departments at all levels to coordinate their actions and interventions including coordination between the Chief Justice and the Secretary of the State for Security; (iv) de-commissioning of the Shock Battalion which was used in the past to suppress labor unions and popular manifestations.

Cooperation in Literacy Program—Brazil

Illiteracy is a major social problem in Brazil with 1997 statistics showing an illiteracy rate of 55 percent in the 15-year-and-older age group in 38 municipalities. The Cooperation in Literacy Program was created in 1997 by the Solidarity Community Council, a national forum for the development of social programs based on partnerships between central government, private organizations, and civil society. The program is managed by a non-governmental organization, the Association for Support of Cooperation in Literacy Program. The program's objective is to provide education to the illiterate at the national level, targeting regions with the highest illiteracy rates and adopting a model to meet the specific characteristics of each region.

The program's model is based on modules of semester literacy training that take place through a simple alliance between the government, civil society, and the academic community. Each semester runs for six months of which one month is dedicated to building the capacity of literacy trainers who are selected from within the targeted community. The trainers then embark on education programs during the remaining five months. The program targets youths and adults, giving priority to youths to ensure continuity where the majority of the students are from rural districts. Financial resources are leveraged from the National Fund for the Development of Education and the Brazilian Ministry of Education. Members of the public, the private sector, and individuals also contribute towards the program.

By the end of 2001, 70 percent of the municipalities involved had increased the number of student enrolment by 114 percent. The program qualified over 100,000 literacy trainers. The program aroused interest in the academic cycles resulting in the emergence of

holistic solutions that address illiteracy in the country. Specific curricular subjects and specialization courses have since been developed and include theoretical and practical guidelines. Before inception of the program fewer than 10 higher learning institutions focused on education for youth and adults, but the number has since risen to 204. The program began in 38 municipalities and is currently being implemented in 2,010 municipalities, which corresponds to 45 percent of the municipalities of the country. The program is also being replicated in East Timor, São Tome and Principe, and Mozambique.

Downtown Urban-Renewal Intervention (Third Millennium Project)—Bogotá, Colombia
Third Millennium Project is located in downtown Bogotá and has a population of 230,000 of whom 2,500 were homeless. This sector presented the highest indicators of crimes and murders and the lowest life expectancy, and was identified as a haven for drug pushers and addicts. Initiated in 1998 by City Mayor Enrique Peñalosa Londoño the project, promoted by the public sector, is aimed at complete urban and social recovery of the most deteriorated area of the city located at Santa Ines neighborhood. The objectives of the project are to rehabilitate downtown Bogotá and promote social inclusion of citizens, offering a better quality of life to its inhabitants. The strategies employed included rehabilitation of drug addicts, housing projects, and health, education and social-welfare programs that were made accessible to all. The project was divided into phases that outlined different priorities depending on the needs of the specific community.

This project is the first-ever integrated urban-renewal intervention in Bogotá, undertaken by the Government. After consultations with the community in Santa Ines neighborhood, the Urban Development Institute, working closely with the Municipal Authorities, acquired land from homeowners and businesses operating in the area who were temporarily relocated to other neighborhoods. The structures standing on the earmarked land were demolished, a section of which was dedicated to the creation of a Metropolitan Park. The San Victorino sector was earmarked for redevelopment of a commercial and economic sector, the "shopping mall with open sky." The Urban Renewal Program is working with the community (residents, formal and informal merchants, and private organizations), drafting agreements, and establishing laws to guarantee the sustainability of the public space that is being recovered with joint investments and encouraging new real-estate developments. The San Bernardo neighborhood has as its main purpose the rehabilitation of residential areas. The Urban Renewal Program promotes housing programs with private investors.

As a result of the initiative, 585 properties have been acquired, 65 percent demolished, and 1.5 Ha opened as a park to the public. 4.4 Ha is currently under construction and was opened in April 2002. The relocated businesses have appropriate infrastructure in an improved environment. The monetary compensations that were given to residents has become a policy for the Urban Development Institute when relocating low-income residents during the process of construction. Security improved markedly with 1,948 drug addicts being treated and rehabilitated. Education was made available to 1,025 high-risk and socially excluded individuals such as drug addicts, children, the elderly, and female-headed households, among others. To date, 260 people have made a transition from the informal sector to the formal while 160 families received title deeds to their rehabilitated houses. More than 5,000 jobs were created during the various phases of construction and health assistance provided to more than 4,000.

Poverty Reduction Practices

Promoting Full Citizenship for Overcoming Poverty—Venezuela
This program is aimed at providing alternatives for development of the poor population at Maracaibo city-slum, which is located on the city border, with 78 percent inadequate houses and 97 percent without running water. It has been developed on the practice of the local civic consultations of and creation of a strategic

alliance between governmental, non-governmental, and academic actors.

The program addressed the problem of urban poverty, beginning with access to housing finance. It increased and democratized access to credit for housing improvements, facilitated community motivation, and stressed the importance of saving as a fundamental component in the creation of opportunities.

The program was carried out by agreement among LUZ, PGU-ALC/HABITAT, and the municipality. Innovative programs and policies were developed to overcome poverty by improving housing, generating employment, and promoting gender equality.

The program has achieved integration and coordination of different actors. The strategic alliance among partners has produced a change in their individualistic culture. The community discovered that its management capacity produced changes in the program's design and its decision-making processes. The community internalized the importance of saving and the improvement of its houses.

Bioremediation of Sanitary Landfill—Aurá, Belém, Pará, Brazil

Belém, a city of 1.36 million inhabitants is in the Amazon region of Brazil. For more than 12 years, the urban solid waste of Belém's metropolitan region has been disposed off without any control in the landfill of Aurá, with negative environmental impacts on soil, air, and water. Socially excluded scavengers live at the landfill area, with their children adopting the same means of survival.

Since 1997, the Municipality of Belém, with financial assistance from national financial institutions, developed the *Biorremediação do Aurá* to: (i) physically recover the degraded sanitary landfill; and (ii) construct new housing to meet the needs of the metropolitan region of Belém through 2020. The goal is to ensure, through environmental sanitation, the monitoring of domestic, public, and special waste, and to control liquid and gaseous effluents. The project provides alternative employment to the scavengers and their families so as to promote social rehabilitation and integration of children. This includes the organization of cooperatives, training, and the enrollment of children and adolescents in socio-educational activities. This contributes to the development of their creativity and self-esteem. In this regard, 400 people work in the waste-management program while 800 children and youth have benefited from the education program.

The participation of the population in public management is important. It has also enabled the development of strategies to overcome problems encountered, particularly those of a social nature, since the initiative engages various population segments as partners, thus restoring their self-esteem.

Human Development in Communities—Aurá, Belém, Brazil

The city of Belém is the capital of Para state and has a population of 1.36 million. The main objective of the two initiatives was to integrate public policies related to the remediation of the environment, social inclusion of waste recyclers, and in particular those that touch on youth development. The Aurá landfill was characterized by child-youth labor exploitation, and exposure to abuses, infectious and contagious diseases, and dangerous effluents from industrial, hospital, and domestic waste. The Tomorrow's Seeds Project is an intersectoral initiative by government which involves education, health, social assistance, sanitary hygiene, and environmental and cultural policies, and aims to prevent the exploitation of labor by child and adolescents aged between 7 and 17 years. This group of socially excluded youth and their parents was engaged in waste recycling at the Aurá Landfill within Belém district. The initiative works with a group of 500 children and adolescents. In addition to forming and organizing the families of this target group, it provides opportunities to create humane alternatives for their survival and social inclusion.

This comprises a set of fundamental activities in the precepts of environmental education and art education. The initiative is backed by the

Statute for Children and Adolescents' Rights (ECA) and the Organic Law of Social Assistance (LOAS). The local government (in partnership with UNICEF and local stakeholders) has taken the responsibility to eliminate child labor and expand employment options and income generation for adults from these families. The Tomorrow's Seeds Project is facilitated through training workshops, monitoring of the target group in schools, professional-education courses for adolescents, and providing psychosocial assistance to families. The municipality provides support to these families by supporting the professional training and employment initiatives for adults from the families.

With the implementation of joint activities organized between the public authority and civil society on the issues of social inclusion of families and their children who live off waste-scavenging and who are exposed to different risk situations, some advances are already evident, such as the creation of the Cooperative for Recyclable Material Collection. The adult members of these families have been mobilized to form groups to undertake meaningful work at the landfill. Additionally, an association of producers of plants and handicrafts by youths from the Águas Lindas and Aurá communities—APPAJ, was formed that take part in the Plant Workshop in the Tomorrow's Seeds Project.

The cooperative, COOTPA, brought together scavengers from the landfill into a formal organization. This organization was charged with the sale of recycled materials from the waste. Approximately 21,000 members have benefited from the initiative. More specifically, 450 workers (256 men and 194 women) are employed fulltime in the recycling of materials. Results: 100 percent of child labor eradicated; 32 percent reduction in child malnutrition; 15 percent reduction in skin diseases; 80 percent reduction in stunted growth; establishment of the Aurá professionals working cooperative and direct commercialization of over 50 percent of the material collected; participation of environmental wardens in national and international events; vocational training of 123 workers in nine vocational courses; employment of 40 environmental wardens in selective collection, generation, and employment and income for 22 families through family-scale agriculture; community organization involving 80 leaders from the surrounding communities; establishment of six environmental committees; vocational training of 40 cooperative members; and an expectation of a brightest future .

Urban Planning and Development Practices

UCISV-VER Housing Program—Peripheral Areas of Xalapa, Veracruz, Mexico

The Union of Tenants and Housing Applicants, Veracruz (UCISV-VER) is a community organization that was established in Xalapa, Veracruz in 1984. The main problem afflicting the low-income population in Xalapa was access to land for housing: they had settled on public land on the city's periphery, which was in a state of neglect and where urban service provision was nonexistent. These areas had grown considerably, largely due to rural out-migration, with 46 percent of the city's total population of 400,000 inhabitants living on the city's periphery.

The project sought to improve housing, urban conditions, and quality of life to the population living in 80 irregular settlements on the periphery of Xalapa, Veracruz. The project began with the elaboration of a partial plan for all the zones using participatory-planning methods. This was finished in 1991 and was used as a basis for negotiation with the state and city authorities for land and services provision.

The project's achievements are the following:

- Training of a large section of the population in settlement issues and self-construction methods;
- The slogan "protest with a proposal" came out of this process;
- Provision of ecological sanitary units in the peripheral areas;
- Provision of urban services in the peripheral areas;
- Access to land (with a secure tenure) on a State Government reserve for construction of low-income housing;

- Construction of a prototype house which is used in the self-construction training program;
- Setting-up of a savings-and-loans plan for the housing program on the territorial reserve and for improving housing in the peripheral areas.

UCISV-VER's Integrated Social and Urban Improvement Plan had led to the realization of several follow-up programs including educational, nutritional, environmental, and urban management and planning.

Integrated Management of Water Resources—The Paraiba Do Sul River Basin, Brazil

The Southeast Coastal Hydrographic Region of Brazil has an area of 231,216 square kilometers, accounting for 3 percent of the country's total area mass and has a mean river discharge rate of 4,024 m^3/s (3 percent of the country's total). Its main rivers are the Paraíba do Sul and Doce rivers, run for 1,150 and 853 kilometers respectively. The Paraíba do Sul basin alone produces an impressive 10 percent of national GDP. This hydrographic region also presents significant economic differences, with the GDP per capita ranging from R$5,239 in Minas Gerais to R$9,210 in São Paulo. The national GDP per capita is R$5,740.

The Paraíba do Sul river crosses three of the most important and developed states of Brazil: Minas Gerais, São Paulo, and Rio de Janeiro. It is the main water supply for more than 11 million people in Rio de Janeiro City, and it is also used extensively as a waste-disposal system by industrial facilities in all three states. The river basin has a total population of 7,600,000 (IBGE/2000 Census). The integrated water-management initiative is a model of sustainable management for this important river basin to guarantee water for future use.

The establishment of a committee (CEIVAP) comprising 60 members from Central government, nine state governments, local authorities, research institutes, industries, and water users is a complex and effective model of partnership. The objectives were to implement a pioneering and fully operational management system and establish a set of instruments in compliance with the Brazilian National Water Resources Policy and the respective Federal Act 9433/97. CEIVAP thus obtained resources for structural interventions in environmental remediation and improvement of water availability in a river basin. The committees also introduced billing for water use covering large portions of three key States: Rio de Janeiro, São Paulo, and Minas Gerais, with 180 municipalities all characterized by extreme economic, social, and political heterogeneity. The discussions and approval of water billing rates took into account users' economic interests and involved various sectors and participation at various levels in the Committee.

The initiative has been successful in implementing structural interventions in the water supply, sewage treatment, waste collection, drainage, and slope stabilization in order to arrest and reverse environmental degradation and ensure the availability of water resources. This type of management system involves participation by society as a whole in the preservation and use of rivers (some 127,000 liters of water per second are drawn from this river basin every day, used for household, industrial, and irrigation purposes), including a sustainable water supply for 14.4 million inhabitants, 80 percent of whom are in Greater Metropolitan Rio de Janeiro. A Program for Participatory Mobilization was established to ensure decentralized and participatory management. The sensitization campaign was realized through the Waterway Environmental Education Program.

Combating Racism and Discrimination

Actions for Coexistence—Colombia

Actions for Coexistence is a public contest of the City Hall of Bogotá done through its Administrative Department of Community and Citizen Participation (DAACD) where the public and private sector converge with community organizations. The purpose of the initiative is to promote citizen participation and community organizational processes, creating cohesiveness among neighbors and a sense of belonging to build together a better city where

people can coexist despite different racial backgrounds and improve living conditions in their neighborhoods.

This program encourages alliances among Base Line Community Organizations, but also between these organizations and local authorities in order to implement the decentralization process. This process allows neighbors to plan, decide, execute, and supervise those strategies designed to improve their living conditions in a responsible and transparent way, and is open to any neighborhood community organization. The prize at the end of the contest is the financing needed to develop the project.

Nine lines of action are developed through the program: Arts and Culture, Arborization and Gardening, Security and Coexistence, Neighborhood Development, Public Space Maintenance, Community Communication, Recreation and Sports, Preventive Health, and Emergency Prevention. In order to develop these lines, several local authorities provide their support such as the Tourism and Culture Institute of Bogotá, the Botanic Garden, the Secretary of State of Bogotá, and the Secretary of Education of the city.

Actions for Coexistence offers, during its first phase, training and advice so participants can propose a solution to a particular problem in their environment. The proposal should become a viable project ready to be executed, with a high degree of people participation and according to the Development Plan of the city. If the project is selected, Actions for Coexistence searches for a partner for the organization in order to finance the proposal, awarding US$3,500 on average. The community provides no less than 15 percent of the cost, through economic resources, materials, or labor. In addition, Actions for Coexistence supervises the execution and investment of resources along with the community. The program is a channel of communication between community organizations and public entities interested in working on each line of action.

As a result, there are better recreational areas, more environmental training and awareness programs, community libraries, waste-management campaigns, art activities, and sports camps organized by communities in more than 900 neighborhoods throughout the city.

Instrumental Group and Chorus Andes Music Embassy—Argentina

The *Embajada Musical Andina* (EMA) is an instrumental group and chorus formed by children and youth from Antofagasta (Chile), Tilcara y San Salvador de Jujuy (Argentina), and Cochabamba (Bolivia) that has been working for cultural integration through music since 1993.

The Director selects the repertoire that should be practiced throughout the year in each local workshop, together with the musical coordinator. This repertoire is assembled in biannual get-togethers in Tilcara. Each get-together awakens and models the huge range of feelings particular to adolescents, accentuated by the different cultures.

The EMA has presented its message of peace and integration in the most prestigious concert halls of Argentina, Chile, Bolivia, Venezuela, and France. Besides these presentations, the EMA never abandons the task of taking the music where it cannot reach, institutions such as prisons, hospitals, and homes for the elderly.

The EMA was named by the UNESCO in 1998: "Embajadora de paz ante la juventud" (Peace Ambassador to the Youth) and in 2001, it was chosen as the only South American chorus member of the EU International Federation of Choruses, and was named "Cultural Ambassador."

Pedagogia Del Afecto—Colombia

Colombia is a country of significant natural resources, and has a diverse culture reflecting the indigenous Indian, Spanish, and African origins of its people. But it has also been ravaged by a decades-long violent conflict, involving guerrilla insurgencies, drug cartels, and gross violations of human rights. The fourth-largest country in South America and one of the continent's most-populous nations, Colombia is endowed with substantial oil reserves and is a major producer of gold, silver, emeralds, platinum, and coal. The

country has a population of 44.2 million (UN, 2003) and a Gross National Income per capita of US$1,820 (World Bank, 2002). Cali (population 2.3 million) is a city in southwestern Colombia, located on the Cali River. Seventy percent of Cali's population (estimated as two million inhabitants according to the last national census) does not receive income of more than two minimum salaries. (Minimum salary is only £90 a month; economists estimate that four minimum salaries are required to allow a family to afford all basic needs.) According to the figures of the Education Secretary for Cali Council, 200,000 children do not have access to the education system.

This initiative aims to eradicate violence against children especially within their families. It acknowledges that mistreatment of children—47 percent of children are victims of various forms of violence in Colombia—is the leading cause of school drop-out cases. It emphasizes a caring approach ("*pedagogia del afecto*") based on the needs of children by parents, teachers, and formal or informal educators. It began in 1994 through a pilot program in Cali, which adapted progressively the lessons learnt from related international experiences. The pilot program involves FAMI (Family Women and Infancy program of the Colombian Institute for Family Welfare ICBF) in partnership with Dutch Government. The program is based on careful analysis of educational process within Colombian families and on the specific needs of children. It elaborates an appropriate thematic focus whose contents are transmitted, mainly through workshops, to parents or educators. The project trains selected persons from government agencies who interact with communities and have the opportunity to meet with parents. Since 1996, close to 720 trainers and 6,300 mothers have been involved in the program.
The results, which are regularly evaluated, have shown a significant (70 percent) change in attitude of the parents. The evaluations have also necessitated the program to review specific cultural practices in order to eradicate practices, which do not respond to children needs. In that sense this initiative, implemented in partnership at both the national and international level, is a permanent, rigorous, and creative learning process.

Human Security and the Urban Poor: A Holistic Approach to Social Exclusion and Violence—Rio De Janeiro, Brazil

The regional context of armed violence in MERCOSUR countries (Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay) includes the following general characteristics: an emphasis on urban violence and criminal activities; increasing privatization of security agencies and a lack of effective control over their operations; an increase in armed violence related to drug trafficking; problems with corruption in security and justice institutions; legislative loopholes and lack of operational mechanisms to enforce compliance. Rio de Janeiro, with a population of 6.2 million, has been grappling with these realities for some time.

This practice demonstrates a holistic approach to combating urban insecurity in a country and city affected by high crime rate and insecurity. It aims at developing a culture of peace, reducing stigmatization of poor people, and indiscriminate repression, while promoting social inclusion of groups at risk and inhabitants of marginalized neighborhoods.

A set of different and coordinated activities have been initiated to include poor neighborhoods in the wider society. Among them are: job creation; vocational training; access to microcredit; education and sports for children and youth; community support to youth at risk; community policing; design and implementation of citywide plans. Viva Rio works in partnership with educational institutions, three spheres of government, multilateral agencies, and the private sector. More than 700 local partners offer infrastructure, personnel, and knowledge of local conditions. Viva Rio is involved in project planning, implementation, technical assistance, and monitoring. Through TV, radio, newspapers, and training material, the communication strategy of Viva Rio is a model to give voice to people, to reach out to decision-makers, and to eliminate prejudices against poor and people at risk.

Since 2001, this initiative has been combining community development and security at local, state, and national level with social inclusion of children and youth at risk, weapons control, and criminal justice system reform. A set of multisectoral projects has been launched in partnership with all stakeholders. They include more than 20,000 persons in income-generation initiatives, and around 100,000 young people in vocational training. In addition, more than 110,000 small arms were publicly destroyed. Around 5,000 policemen have participated and benefited from community-policing training. People receive legal assistance through "Citizens' Counters." The projects promoted by Viva Rio are considered as "prototypes" that could be replicated by local communities.

***Circo Volador* (Flying Circus): Youth & Popular Culture—Mexico City, Mexico**

Mexico is home to a diverse mix of people and landscapes. It is also a nation where affluence, poverty, natural splendor, and urban blight rub shoulders. In 1987, Mexico City was bombarded by the media on youth violence and gangs. "Drug addicts, assassins, pickpockets, rapists, alcoholics, vagrants, and gang members" were some of the terms used by both government and the media to describe youth in working-class districts. Mexico has approximately 25 million young people ages 12 to 24, at least half of whom live in poverty or extreme poverty, and no social policy has been designed to deal with their problems. Mexico's population is over 104 million and the youth represent a quarter of its population. Mexico's gross national income per capita is US$5,920 (World Bank, 2002).

In 1987, Action-Research began working to assess the situation of working-class youth identified as "gangs." Their aim was to curb the growing violence and find mechanisms that would enable them to be reincorporated into a society that regarded them as adversaries. The name '*Flying Circus*' is derived from meetings held on the streets between the initiators of the program and the youth. Majority of the latter group had animal nicknames: The Cat, The Flea, The Dark Animal, etc. and they would contend that: "We are a bunch of animals, as though we were a circus…but with nowhere to land….we are a *Flying Circus*" (sic).

As a result, the initiators mobilized members to locate premises to "bring their proposal down to earth." The group managed to obtain a lease from the municipal government to occupy an abandoned cinema hall in exchange for restoring and maintaining it through the collective work of the young people involved. Flying Circus is an innovative approach aimed at youth at risk and offering space for the promotion of their cultural and social values. Circo Volador Cultural Centers afforded at-risk youth the opportunity to express themselves through rock concerts, radio programs, graffiti, and Web sites, and to allow them to reconstruct the social fabric between youths between different social sectors. Some of the results of the intervention include: 50 training workshops (over the past three years); 350 radio programs focusing on youth-based themes; and 250 concert and musical performances.

This cultural expression helped to reinforce identities, gender empowerment, and direct tackling of social exclusion. The creation of youth observatories, monitoring and actively proposing public policies, provides sustainable means for youth's social development. The program has realized tangible results through the creation of Youths Nets sharing new opportunities which are more effective because they arise from youths' own interests and values.

Children and Youth

Income Generation, Dignity and Citizenship—Rio de Janeiro, Brazil

This initiative empowers young black youth (aged 14 to 21 years) from low-income families by training them as Afro-Brazilian Beauty Specialists. The objective of the initiative is to generate alternative sources of income for young black girls, thus reducing poverty levels from communities on the periphery of Rio de Janeiro. The process not only provides the women with technical skills, but also builds up their self-esteem as a minority group.

Resources were provided by the "Solidarity Community Program Support Association" (AAPCS) and the federal government. The program, which runs for six months, has expanded its trainee base from 30 in 1996, to over 900 in 1999. Students train for 720 hours and cover courses in world issues, critical thinking, administration, aesthetics, black culture, gender, and ethnicity. In addition, the modules provide opportunities for discussions on women's reproductive health, chronic diseases such as HIV/AIDS, education, sanitation, environment, etc.

Girls graduating from the program are absorbed into the mainstream labor force in salons in Rio, or in their own neighborhoods, thus meeting the needs of the Afro-Brazilian clientele. The process of inserting qualified persons in the market has been forged ahead by the creation of new partnerships with associations, beauty parlors, and individuals.

Results have shown that with the increasing employment opportunities, the girls are able to support their families, re-enroll in higher education, afford better housing in well-serviced neighborhoods, and increase their self-esteem. As a result, the girls gain a renewed sense of citizenship, identity, and self-awareness.

The program continues to expand by holding workshops in other poor communities, thereby reaching more youth.

EnREDando Jóvenes Para el Desarrollo **(Involving Young People in Development)—Argentina.**

Argentina had a population 37,031,802 in 2000 and this is expected to grow by 12 percent to 41,473,702 people by 2010. In the provinces of Jujuy, Misiones, Buenos Aires, and San Juan, policies related to youth development were lacking especially in terms of skills development. It was especially difficult for young people to gain space and participate in the communities' institutions. This led to massive exodus of young people to urban centers and resulting in the premature ageing of small communities.

The NET Program aims to involve young people in local development by developing their capacity to undertake needs assessment and to appropriately respond to issues that are identified. The program builds the capacity of young people by training them to plan and manage different projects that improve the quality of life.

This program is a synergy between different tiers of government as well as among different sections of the organized communities. It consists of an open examination of local development-project proposals, an offshoot of the educational process in which groups of young people belonging to organizations from different cities and towns participate. Successful proposals are given seed funding after proving that they will be financially sustainable in the long run.

The training process involves non-formal education that has its basis in two different approaches: attending training sessions and a long-distance process of education. The financial support accorded to the program is directed towards the execution and management of the individual projects of each community.

The main aims of these projects are focused on promoting and establishing youth networks; building of human capacity to plan and manage development projects; encouraging and promoting communication between young people and their communities as a strategy to build participation; and maintaining an information system on the capacities possessed by various youth and members of the community.

Among achievements in the three provinces of Argentina (Misiones, Jujuy, and Buenos Aires): approximately 300 groups of young people have participated so far in the program while a further 1,000 young people have been trained; close to 6,000 young people have been directly involved in various programs that range from health education to social and cultural programs. Close to 34 municipalities have collaborated and helped sustain the program.

Juntos Construyendo una Vida Mejor **(TAC) — Valparaíso, Chile**

Chile has a population of 15,665,216 (July 2003 estimate) with a gender ratio of 1:1 and a total land area of 756,950 square kilometers. The Republic of Chile has one of South America's strongest economies developed with substantial foreign investment and a very strong export sector. The country is rich in resources and it is now in the process of adding value to its own resources, moving away from a commodity-based export sector. Its GDP per capita is US$3,913.

Valparaíso, or "Valpo," is a city of 300,000 inhabitants, and the second-largest city in Chile. This port city is known for its sinuous cobbled streets, zigzag roads, and steep footpaths. *Juntos Construyendo una Vida Mejor* (TAC) is community organization operating in Cordillera Hill of Valparaiso. Since 1990 TAC has been working to promote social inclusion for children. This area is characterized by a strong cultural identity and social cohesion, and has some of Chile's unique social and physical cultural heritage. Before the advent of TAC's community program, social ties were weak and community participation in local development was lacking. In addition, the Cordillera Hill neighborhood was also characterized by deterioration and loss of public spaces, lack of waste-management systems, and a general lack of trust for community leaders.

The main aim of TAC is to utilize the existing social structures to develop a community program where the community ties would be reconstructed or strengthened as a precursor to mobilizing community members to improve their social and economic welfare. The community-development initiative acknowledges leadership as a process of mediation between 'different worlds.' This has seen the active promotion of participation by more than 40 partners: universities, schools, churches, grassroots organizations, civil society organizations, public services, volunteers, inhabitants of the sector, children, youth, professionals, students, and artists.

The validity of this consolidated process is highlighted by the tangible results within the neighborhood: community gardens, murals, public places rehabilitated; inclusion of young people; and the impact on other communities. Some of the social interventions have been in the areas of education, government, and academics. This has been possible due to the formation of a proactive civil society. There is heightened awareness of the environment through the improvement of the surrounding areas. Over 10,000 community members have been involved in strengthening the community bonds and promoting local identity and ethics such as tolerance, solidarity, and integration of common differences. The most important indicator of success has been the development of trusting relationship between community and public organizations and creation of local spaces in order to develop active and dedicated citizens.

Due to the legitimacy and permanence of TAC in Cordillera Hill, the initiative has been able to impact in a positive way in public policies related to local and regional issues, such as Educational, Environment, Infancy, and Housing policies. This community practice has been selected because it is a model of (re)construction of social fabric ties in a physically and socially deteriorated neighborhood of Valparaiso. In addition, it presents a process of progressive ownership of public spaces and constitutes an inclusive city practice.

City-to-City Cooperation

Solidarity in Literacy Program—Brazil

The Solidarity in Literacy Program was created in 1997 by the Solidarity Community Council, a national forum for the development of social actions based on partnerships between central government, private organizations, and civil society. The program is managed by a non-governmental organization, the Association for the Support of the Solidarity in Literacy Program. The program's objective is to provide education to the illiterate at the national level, targeting the regions with highest illiteracy rates and adopting a model to meet the specific characteristics of each region.

The program's model is based on modules of semester literacy training that take place through a simple alliance between the government, civil

society, and the academic community that runs for six months. One month is dedicated to the training of the literacy trainers who are selected from within the community that will be served. The other five months are used to offer classes to the illiterate community.

By the end of 2001, 70 percent of the municipalities involved had increased the number of student enrolment by 114 percent. The program qualified over 100,000 literacy trainers. The program began in 38 municipalities and is currently working in 2,010 municipalities, which corresponds to 45 percent of the Brazilian municipalities. The program is being replicated in East Timor, São Tome and Principe, and Mozambique.

Urban Governance Practices

Municipal Environmental Urban Management "A Commitment for Everyone"—Argentina
The city of Rafaela, Argentina, has been working since October 1996 on the development and implementation of a Strategic Plan. The Plan is anchored on broad-based participation and consensus of all citizens and social actors. The Strategic Plan seeks to transform Rafaela into a place to live and invest. Rafaela has 80,000 inhabitants with 450-odd industrial firms dealing with dairy processing, refrigeration, tanning, and metallurgy. The urban environment was highly polluted and social conditions appalling. The negotiations amongst social actors ended with the approval of 110 projects to be implemented by the different institutions and organizations of the city. A Forum with 135 institutions was established, providing for broad-based participation and partnerships, chief ingredients for sustainability.

As a result, there was increased commitment from local authorities to address social and environmental problems and an Environmental Education Program and an Action Plan for urban drainage was developed. Another achievement includes the development of a strategic land-use plan to provide opportunities for real-estate development as well as the provision of green public spaces. The initiative illustrates that it is not possible to raise a long-term, transforming policy only from the political government without the support and consensus of the city. In Argentina, 32 other cities have adopted the approach used by Rafaela to improve their living environment.

Participatory Urban Action—Villa El Salvador, Peru
Villa El Salvador is home to people of diverse cultures who come from all over the country with 340,000 of its inhabitants living below the poverty line. The Participatory Urban Action Project of Villa El Salvador was initiated in 1994 in consultation with the city's residents. One of the priorities identified was to ensure that the inhabitants of Villa had secure tenure on the land they had been allocated by the government.

The project's emphasis was on partnership development with the beneficiaries, the residents and community of Villa El Salvador, being directly involved in decisions affecting their livelihoods. Youth, women, and other community members' views were incorporated in the development of the poverty-eradication strategy. The partnership involved the participation of the public and private sectors with the inclusion of specialized institutions addressing issues such as democracy, the economy, the environment, education and culture, public safety, governance, and citizen participation. The involvement of various actors culminated in the formulation of "Vision 2010: Villa El Salvador, the Society and Its Development" and demonstrates the importance of establishing partnerships, promoting the involvement of stakeholders, civic awareness, and creating a culture of sharing information and lessons learned from experience. Through the participatory planning and implementation process adopted from Porto Alegre Participatory Budget, the community not only became more self-reliant but the settlement at large became safer, healthier, more inclusive, and integrated with the formal city. Women's living conditions and their contributions to economic, social, and human settlement development have also increased considerably. The case highlights the need for specific measures to promote

sustainability, and the critical contribution of an enabling legislative framework.

Participatory Budgeting—Porto Alegre, Brazil
Porto Alegre is the capital of the State of Rio Grande do Sul, with 1.29 million inhabitants. For nearly a decade, the city of Porto Alegre has been involved in an innovative experiment in the budgetary process. Its "Participative Budget" initiated in 1989 has institutionalized the participation of civil society through a combination of regional, subregional and thematic meetings that reach down to the very grassroots of the city. Through these meetings, the citizens scrutinize the past year's expenditures, agree upon current priorities and allocate funds for new projects. After priorities are clarified, counsellors are elected to represent these priorities in discussions with city officials. An Investment Plan is developed and forwarded to the City's executive council. While the executive body retains the right to modify and amend the Investment Plan, the participatory process prevents them from making fundamental changes.

The Participatory Budget substantiates that a participatory and transparent management of resources is an effective way to avoid corruption and mismanagement of public resources. In opposition to some technocratic views, popular participation has favored an efficient management of public resources and expenditures, resulting in very important works and actions for the population. Since its implementation, the projects approved by the Participatory Budget have represented investments of more than US$700 million, used primarily to improve urban infrastructure and quality of life. The Participatory Budget has also proved that the creation of practical participation tools and the commitment of the government in implementing the decisions made by the population are critical to the removal of bureaucratic barriers and to strengthening citizenship and civic engagement.

Program for the Urban Recovery of the North Bank of the Biobio River—Chile
The North Bank of the Biobio River area was initially considered to be outside the city. Most of the families of the sector arrived in this area after losing their homes in the 1939 earthquake. The Program for the Urban Recovery of the North Bank of the Biobio River began in 1993. A working commission that operated between 1993 and 1994 established the following priorities: examine property deeds to the land; evaluate the possibility of zoning the area; formulate a project to provide families with permanent dwellings; identify other possible actions. The objectives of the project were: (i) to rehabilitate and revitalize an area comprising 3,000 families characterized by social and physical problems, isolation, flooding, and delinquency; (ii) to increase the city's urban area and to remodel the city; (iii) to mobilize public, private, and civil society actors to participate in and jointly manage the urban renewal.

Out of a total of 1580 families who have lived in marginal conditions, 283 dwellings are completed and another 693 dwellings scheduled for completion in the second phase. Other notable achievements include: the recovery of urban land in close proximity to the city center, the design of 13 hectares of parks and gardens; improved pedestrian and vehicular connections between the area and the city; and the eradication of abandoned factories and illegal dump sites that deteriorated the urban environment.

The initiative's success has much to do with decentralized leadership and participatory decision-making. A committee was established to mobilize and work with neighborhood associations in each stage of decision-making. Communication and participation was facilitated via different media including television programs, the publication and distribution of brochures and informational magazines, radio messages, conveniently located on-site offices, and public meetings. A directorate of Urban Projects was established within the Ministry of Housing and Urban Development with the necessary tools and authority to ensure transparent and accountable bidding for contracts and procurement and to ensure quality control.

Financial resources were mobilized by the Ministry of Housing and Urban Development through an agreement with the United Nations

Development Program (UNDP). The initial public investment will be recovered through the commercialization of land and real estate investment. Funds lent by the Ministry to residents for the purchase of their homes are recovered through a mortgage-payment system.

With the regeneration and revitalization of their urban space, the North Bank dwellers are no longer socially and physically excluded from the city and the rest of the community. Likewise, the development of new public-use areas such as parks, walkways, scenic lookouts, avenues, the Fine Arts Theatre, and public-service buildings have enabled conception to fulfill its long-cherished wish to recover this natural space.

Neighborhood Participation—District of Santiago de Surco, Peru

Surco has a population of 25,000 residents. Following a number of years of mismanagement of Municipal resources, there has been deterioration in the environment, and a lack of basic urban services reflecting on the quality of life in the neighborhood. This was further aggravated by the lack of an environmental-protection policy at the Municipal level. In 1996, the new Municipal authority started engaging community members in activities to protect natural resources and improve quality of life. The areas identified as priority areas were service provision; cleaning and maintenance of streets, parks, and gardens; resource management; and sensitization of community members. For each of the priorities identified, strategies were developed to meet the set objectives. As a means to keep the efforts being made in service provision from being controlled by mafias in Surco, the Municipality took on overall responsibility. A wastewater-treatment plant was established in Rio Surco to treat effluents from the city's major river. Volunteers from the neighborhood embarked on a door-to-door environmental campaign and started collecting and sorting recyclable materials at the established recycling centers where 90 percent of employees are women. Schools were supplied with educational materials and a program was initiated where students carry out waste separation.

As a result of these efforts, 600,000 square meters of land has been designated as parks and gardens and neighborhood associations tasked with the responsibility of maintaining them. There has been a behavioral change with regard to separation of garbage at source with 193 tons per year of material being recycled thereby contributing to the region's economy. The wastewater-treatment plant saves the municipality US$450,000 in water used for irrigation. This initiative successfully engages community members in the management of their living environment making it more sustainable.

Urban Economic Development

Relocation of Street Trading, Successful Experiences of Recovery of Public Spaces—Peru

During the last decades, the Lima Historical Center, one of the internationally renowned areas with the highest cultural and architectural value in Peru and South America, underwent processes of urban blight, saturation of public spaces, deterioration of services, and unplanned changes in land use. Unfortunately, previous administrations' attempts to solve these problems were unsuccessful. Street trading accelerated the process of deterioration of the city and was compounded further by recession and unemployment.

Since 1996, the successful intervention by the City Council in coordination with street traders and private investors, their relocation to business areas in the metropolis, and the reconditioning and revival of important public spaces have made it possible for the population to regain their identity. As a result, the historical center of Lima has once again become a place to live and work. Ninety percent of the street traders were accommodated in 50 shopping centers and fairs, occupying 149,000 square meters whose construction and rehabilitation were funded by the private sector (US$59 million). The remaining 10 percent were incorporated in the Historical Center tourist network. Twelve squares and parks, five promenades and avenues and 194 roads were reconditioned. The city has realized savings of up to US$1 million in public cleaning, due to the reduction of solid residues

(from 13,140 metric tons in 1996 to 4,672 metric tons in 1999). Revaluation of real estate and public-space heritage has seen the values of property appreciate by up to six times.

Solid Waste Management and Environmental Sanitation (A Public-Private Management Program)—San Salvador, El Salvador
This Public-Private Management practice is based on the modernization of institutional entities brought about by the new political environment in the Metropolitan area of San Salvador. The area is composed of 10 municipalities and has a population of two million inhabitants. The office responsible for metropolitan planning and urban affairs (OPAMSS) initiated a process of participatory and democratic decision-making and the efficient use of resources.

The Municipality of San Salvador, together with the nine other Municipalities of the Metropolitan Area, joined efforts with the private sector, NGOs, CBOs, and a university to develop and implement an Integrated Solid-Waste-Management Program. The idea was to cope with the critical environmental problems caused by inadequate solid-waste management. This program brought innovative procedures to solid-waste management: street cleaning, separation at source, composting, recycling, and the construction and operation of a sanitary landfill. Partnerships between the public and private sectors, including micro-enterprises, cooperatives, utility companies, and a Canadian company were established. The Municipality, NGOs, CBOs, and the university undertook awareness-building and educational campaigns in order to improve habits and promote compliance among micro-enterprises. A training-educational program was implemented for waste collectors and residents.

The Private-Public Solid-Waste Management practice has redressed the negative repercussions on public and environmental health produced by the inadequate collection and dumping practices. The practice there has been intermunicipal cooperation and the establishment of effective partnerships between the public, private, and civil-society sectors. There have been tangible impacts, including: improved waste collection and sanitation in poor settlements by 20 percent; the treatment of 1,100 tons of solid waste per day; the reduction of clandestine dumping by 40 percent; the creation of five cooperatives and five micro-enterprises (in San Salvador, Nejapa, and Apopa); and the social reinsertion of 300 waste collectors.

Popular Habitat Program—Costa Rica
Building affordable houses is not an end but a means to achieve community development. In Costa Rica, with a population of 3,015,000, housing shortage reached a critical stage following the financial crisis of the 1980s, which resulted in the emergence of marginal areas and slums in the city of San Jose. This shortage effected the least-favored classes of the population, exacerbating their social exclusion.

Families are actively involved in the planning, execution and administration of the Popular Habitat Program. The program started off in 1988 as a bilateral assistance project to construct new housing for low-income families and to remediate the housing shortage in the city. To date, the community is becoming increasingly involved in all aspects of the program. Alternative methods of financing are being pursued and obtained to scale up and to sustain the project, resulting in the establishment of a revolving fund managed under a trusteeship.

Over 17,000 families have gained access to decent housing, helping to reduce the housing shortage in the city. The participatory nature, and a strong emphasis on community-capacity building, enabled over 30,000 of the newly housed people to have training in various fields related to operations and maintenance, project management, and administration. This has created employment and increased income. Community participation and capacity building have considerably strengthened community spirit and involvement in civic affairs and have improved the overall living environment. Another spin-off of the participatory process is the unique approach by which each neighborhood designs its own housing projects demonstrating that there can be no single model in responding to housing needs and demand.

The needs of the poor vary just as much as if not more than other segments of the population and housing solutions will vary according to the conditions, desires and necessities of the individual. Several international entities and institutions have studied the model of the Popular Habitat Program and its principles have been adopted by other projects in Nicaragua, El Salvador, Guatemala, and South Africa. The experience of this program has been taken into account for NGO training in the area of housing and development of Human Settlements

Urban Agriculture Program—Rosario, Santa Fe, Argentina

In 2001, Argentina was in turmoil as public anger over a deepening recession and widespread poverty sparked riots, looting, vandalism, and angry protests. Located in the Santa Fe province, Rosario City, population 906,004, was no exception. The Urban Agriculture Program (UAP) was initiated after the economic crisis, which manifested itself in Rosario with poverty levels rising to 60 percent of the population.

The program was initiated to respond by providing sustainable means of food production in urban centers for a population whose poverty line is US$90. The objective was to promote a constructive process of endogenous development, with participatory strategies and cooperative forms of production, transformation, and commercialization, as well as healthy food consumption.

The impact of the program has been to make low-income families (especially women) feel valued and recognized as actors forming part of an inclusive process. So far 791 community gardens have been established and this has led to the improvement of the urban neighborhood landscape as well as the quality of life of its inhabitants. Currently, more than 10,000 families are directly linked to the production of organic vegetables, which are consumed by 40,000 people. This has been possible through the creation of an economy of solidarity network that includes 342 productive groups. Each group participates weekly in three of the locally established fairs, deriving a monthly income ranging between US$40 and US$150.

The produce from the community gardens has a high social value in terms of quality. One example has been the development of a production plan to supply soup kitchens and schools within the framework of a common social network. The poor now have access to secure tenure on the land that the community gardens occupy. This has been possible through the institutionalization of urban agriculture (UA) as a local government public policy. The latter was instituted through Ordinance HCD 7341/02 of Rosario's Deliberative Town Council and Decree of the Secretary of Social Promotion N° 808/03 while the use of lands for the AU is regulated by Ordinance N° 4713/89 and 7341/02. The market fairs are regulated by the Ordinance N° 7358/02 of the Deliberative Town Council.

Environmental Planning and Management

The Matura Turtle Tourism and Conservation Program—Trinidad

Promoted by a community-based organization, Nature Seekers Inc., in cooperation with the Wildlife Section of the Trinidad Ministry of Agriculture, Land, and Marine Resources, the Matura program has successfully decreased the slaughtering of leatherback turtles in that part of Trinidad. It has also introduced ecotourism as a means to improve the local community by blending sustainable tourism and preservation of nature with economic growth.

Uncontrolled tourism was responsible for disturbing the nesting of the leatherback turtles, an endangered species. But the slaughter of turtles for meat and eggs by local fishermen was also an issue. The institution of a joint public-community partnership reversed a trend that could have destroyed the turtles. The creation of patrols to monitor beaches during the nesting season promoted conservation while increasing controlled tourism activities generating opportunities for economic development for the area's residents. As a result of the Matura initiative, a training program for tour guides was established generating even more employment and securing sustainability through the involvement of the private sector. Apart from

saving turtles from slaughter, the Matura program has already had an impact on other communities in Trinidad as well as internationally.

Program achievements include:

- creating a model for the protection of natural resources through a joint government/community-based effort;
- a pilot initiative has already been replicated in Trinidad as well as in Sri Lanka;
- promoting heritage tourism and ecotourism as a means to achieve sustainable forms of economic development;
- capacity-building through training programs for tour guides and wildlife conservationists resulting in increased economic development opportunities;
- reversal of a trend that was leading to the destruction of an endangered species while making it possible to share and exchange lessons learned with others.

Urban Agriculture Development—Camilo Aldao, Argentina

Camilo Aldao in the province of Córdoba covers an area of 402 hectares and has a population of 5,302. The main economic and income-generating activity is agricultural. The "Urban Agriculture For Agroecological Development" project originated following the 1995 economic crisis that led to the closure of the only agricultural cooperative and two mutual savings-and-loan institutions. The once highly profitable cash crops had resulted in neglect of subsistent products such as vegetables, fruits, and animal husbandry. Fruit and vegetable products were sourced from urban centers located 170 to 300 kilometers away.

The Municipality brought together actors from different sectors to form the "Solidarity Action Center," to establish a sustainable local-development strategy. The aim was to involve the community in activities they knew about, to stem emigration, and to promote use of local resources and potential. Different schemes were initiated engaging community members to exploit the potential of rural land to provide for local consumption and contribute to the development of Cordoba's economy. The schemes included the communal dairy farm, which utilized land donated by the municipality and a 1,300-liter communal milk cooler acquired by loan to collectively sell milk delivered by individual families. The productive use of Domestic Waste plan involves sensitization and continuous training of the population to separate household waste by young volunteers from local environmental clubs (Ecoclubs). A cottage jam industry was established at a local educational center, which trains handicapped students. A poultry farming initiative was set in motion with 20 percent of the production being delivered to a local social-welfare institution. Organic community farming was initiated in March 2001 with the municipality availing arable land. Currently a group of 25 families has been formed mainly consisting of single mothers, long-term unemployed, handicapped, and pensioners, who cultivate the land and sell their produce to the community.

The initiative's efforts have thus far achieved the following results:

- 85 percent of the community members participate in waste-separation at origin;
- The community takes care of its own environment, and consumes local products;
- The "Ecoclub" of young persons (7 to 17 years old) was established to promote and incorporate education awareness programs;
- 107 families have learned how to produce their own food ecologically, improving the quantity and quality of their diet as well as their own income;
- 20 percent of vacant land is now being utilized for production purposes while the urban landscape has improved;
- Local development policy has shifted focus from social assistance *per se* to self-reliance through farming (for consumption and income generation), and has enabled the reintegration of women, elderly, and the handicapped into mainstream social life;
- The community is now increasingly involved in local decision-making

processes;

Intermunicipality collaborations have been institutionalized with strategies for environmental and financial management, generation of employment opportunities, and formulation and implementation of various programs being undertaken jointly by participating municipalities.

Ecocitizen Program—Macae, Brazil
Macaé City produces 80 percent of the Brazil's oil and its oil reserves have been heavily exploited since 1980. Located 182 kilometers from Rio de Janeiro, Macaé has a 40-kilometer coastline and a diverse ecosystem with expansive beaches, forests and mountains. Between 1980 and 2000 there was population growth from 40,000 to 120,000 leading to unequal growth and environmental deterioration accompanied by lack of basic urban services to meet the demands of the growing population. A daily mobility of 35,000 workers linked to the Petroleum Company (Petrobras) coming from neighboring towns presents a major challenge to the city's maintenance.

The Ecocitizen Program was initiated in Macaé to raise social awareness on the protection of the environment, as a means to improve quality of life. The process was institutionalized in 1999 by an NGO, the Environmental and Contemporary Culture Studies Center. Through questionnaires given to several sectors of the community, priorities, and needs were outlined. Strategies were created to sensitize the citizens on various environmental issues. Schools, religious groups and local organizations provide volunteers and open space for different activities. Local and international universities provided technical support. Creativity and social engagement were strengthened through the awareness process. The blind were given materials written in Braille outlining the program's activities. The program has been working closely with the private, public and academic institutions. Changes in people's attitudes towards the environment are regularly monitored through field research. This program engages different sectors of the community in an innovative way to address health and environmental issues. It has yielded the following results:

- Reduction of indiscriminate waste disposal by four tons per day;
- A 70 percent increase in use of public-waste containers;
- Separation of garbage at source has increased by 70 percent;
- Work-related accidents among garbage collectors have decreased by 87 percent;
- Creation of a recycling industry that processes waste into briquettes which eliminate use of fossil fuel when cooking;
- The garbage collectors' income has gone up by 40 percent per month through sale of recyclable material which is becoming more popular among the population;
- Improved aesthetical value of the city that has boosted tourism, business and entertainment

Repapel Paper Collection and Recycling in Schools—Uruguay
Prior to 1998, there was no paper collection and recycling facilities in Montevideo and paper from industries as well as industries was being discarded together with other waste. CEADU, an NGO involved in environmental activities in Uruguay, organized a discussion workshop involving 50 teachers from 15 urban schools of Montevideo to outline the goals and strategies of the REPAPEL project. Having been declared a public interest project, the general goal of REPAPEL is to generate participatory activities in primary schools, enabling children to gain first-hand knowledge on how recycling benefits the environment. A program for gathering used newspapers and other types of wastepaper was initiated in each of the participating schools. The children collect newspapers and papers from their homes, neighbors, and neighborhood stores and take them to their respective schools. The waste paper collected by each school is consolidated, sorted, baled, and transported to a local paper-manufacturing factory (IPUSA) for recycling.

The factory regularly gives back a volume of recycled-paper products (folders, notebooks, toilet tissue, and packaging paper) equivalent to

the value of the newspapers and paper supplied, which are distributed to the participating schools. On average, the project distributes a monthly volume of recycled-paper school supplies equivalent to 40 tons of paper. At the same time, hands-on paper-recycling activities are carried out in the schools to give children the chance to sort and recycle paper themselves. These activities are complemented by training workshops for teachers to enable them to conduct other recycling workshops.
A total of 96 schools (total student population of 25,000) from Montevideo have been involved in this project and several companies have donated waste paper for use in manufacture of school supplies and to be distributed in schools. Since 1999, US$120,000 worth of supplies have been distributed, corresponding to 950 tons of paper collected by schools, companies, and other organizations that support REPAPEL. The experience has also been replicated in other Uruguayan cities: Trinidad, Melo, Colonia, Salto, and Paysandú.

Regional Integration for Availability of Water—São Paulo, Brazil
The rapid increase in population (to four million inhabitants in 62 municipalities) in the Piracicaba, Capivari, and Jundiaí river basin region in addition to the withdrawal of water from the river basin to supply the greater São Paulo metropolitan area resulted in depleted local water supply. In addition there was low coverage at three percent of sewage collection and treatment in the region. The Consortium PCJ (Piracicaba, Capivari and Jundiaí rivers) was created as a result of the need to have a regional body to resolve issues related to water resources in the region. Initiated in 1989, the Consortium involved 11 cities, a number that has grown to 42 cities and 34 companies. The project also contributes to the economic, social, and environmental sustainability of the region.

The main priorities and strategies were identified through open forums and events for local leadership development, involving stakeholders from different sectors. Regional integration, planning, and management for sustainable water supply and awareness-raising on environmental protection, are the main priorities. An integrated support program was developed for the implementation of the Consortium that outlined specific projects: Cities Support; Technical Cooperation; River Basins Management; Industrial and Urban Waste Treatment; Domestic and Health Solid Waste Management; Protection of Water Springs for Public Supply; Public Water Distribution Systems Management; Replanting Forest Areas, and Environmental Education.

Community mobilization was carried out by local groups, and coordinated largely by women. Responsible citizenship and environmental awareness were stimulated though schools and youth groups, and the program has been carried out with the support of local governments and the private sector. A Water Collection and Production Plan for the Piracicaba and Capivari Rivers was elaborated and a Basin Committee founded. The PCJ Consortium has assisted the creation of other similar initiatives, which utilize sound management practices such as: cost recovery, budgeting and priority definition, executive secretariat structure, environmental education, participatory process model and methodology, etc. The experience has contributed to the definition of a River Basin Management Policy.

Reciprocity Waste-Recycling Program—Santo Andre, São Paulo, Brazil
Santo Andre is located in the southeastern part of Brazil and has a population of 550,000 people. The city had poor waste management resulting in shortened life span of the sanitary landfill. The Reciprocity Waste Recycling Program was initiated in 1997 to address the above and other issues including human resource development, old technologies and environmental degradation of urban space. 30 partners from Government, civil society, and the private sector participated in awareness building and defining priorities to address issues related to urban environmental remediation. With political support from the municipality and financial support from the private sector, Santo Andre has developed a three pronged approach to recycling: traditional household separation of organic and non-organic waste; special collections from schools and public buildings and business recycling of construction

and industrial wastes. The Program involved participation of 200,000 people during the awareness-building phase, almost one-third of the city population. As a result, urban areas transformed from being illegal disposal sites to recreational sites and recycling centers.

The local government units and 10 secretaries have been involved and there was an essential intermunicipal cooperation with seven cities in São Paulo State and Brazil. The recycling program has opened opportunities for income generation and rehabilitation centers for drug addicts and street children. Solid Waste Management and Public Cleaning efficiency has improved. Promotion of Environmental Education through cultural, recreational and educational activities has had a major impact. Almost 60,000 people in 90 public schools and 10 community groups have participated. The program teaches the importance of transparency, education and social inclusion in decision making and serves as benchmark for use by other municipalities.

Integrated Solid-Waste Management Program—Ecuador

The City of Loja was characterized by dispersed dumping yards in inhabited areas, which led to outbreak in infections and contagious diseases. There was no coordination in household waste collection efforts and recyclers were working in inhumane conditions. As part of the "Action Plan for Loja - 21st Century", Loja Municipality elaborated the Integrated Solid Waste Management Program in consultation with members of the public and other stakeholders. The Plan focuses on supporting the poor and marginalized citizens and environmental conservation through use of new technologies.

Through comprehensive information and educational campaign, the community members actively contributed to the establishment of a sanitary landfill. Through a resilient door-to-door campaign, municipal personnel deliver green and black waste bins, informational pamphlets and collection schedules to each household. Of the city's households, 80 percent separate waste at source. A system of fines and higher fees for non-compliance was introduced to promote separation of household waste at source. Biodegradable waste is used to produce compost in a worm-composting plant which is later sold. All the recyclable materials are processed and sold while special arrangements have been made for safe disposal of toxic and infectious hospital waste.

The program covers more than 80 percent of the Municipality, with a participation rate of 90 percent of the population and has resulted in the improvement of the quality of life of Loja residents and changes in their behavior and attitude towards their environment. The institutional capacity of Loja Municipality has been strengthened at the local and national level as programs have been put in place to share their experience with other municipalities.

Urban Infrastructure and Services

Rehabilitation of Urban Areas/Guarapiranga Project—Brazil

The Guarapiranga Water basin is located in the northern part of São Paulo region of Brazil and extends into Embu-Guaco and Itapecerica Da Serra municipalities. The Environmental Sanitation Program of the Guarapiranga Water basin started in 1993, aiming to guarantee the water quality of the Guarapiranga Reservoir, through corrective actions including basic sanitation infrastructure and capacity building for fresh-water management. The implementation was based on the concerted efforts of state and local authorities with financial support from the World Bank.

The Guarapiranga Reservoir presently supplies nearly 25 percent of the drinking water to the São Paulo Metropolitan Area (SPMA). The urban informal settlements (more then 190 different slums) had progressively expanded into the lower part of the basin, near the reservoir. The rehabilitation and expansion of the Guarapiranga area entailed relocation and resettling of the slum dwellers. The works included new streets, paving, drainage, channelling of streams and waste collection. The population participated in the process of

architectural design and civil works by offering suggestions on the most suitable design solutions.

The implementing authorities also developed a proposal for the Guarapiranga Water-basin Management agency which involved an environmental master plan for the water basin integrating sectoral plans for land use, sewerage, solid waste, and water quality.
As a result of the program the following has been achieved:

- Construction of basic infrastructure for 190 slums, home to 20,000 families (or 100,000 inhabitants);
- 264 kilometers of sewer network to serve 80 percent of the 580,000 inhabitants of the Guarapiranga Water-basin;
- Drainage construction and restoration of 13 square kilometers of urban areas which had deteriorated due to insufficient drainage
- Land-use planning and the resettlement of 4,000 families living in high-risk sites with construction of houses averaging 42 square meters.

Sustainable Biodiversity

Green Life Association of Amazônia (AVIVE)—Brazil

The municipality of Silves is located 300 kilometers from Manaus, down the Amazon River in an area surrounded by lakes of different sizes and shapes. AVIVE was founded in Silves to defend and preserve the local environment and culture while also working to improve the quality of life of local people, especially women. Since being launched in 1999, much of AVIVE's work has focused on developing techniques for sustainable extraction of the Aniba plant, also known as pau-rosa, as well as other medicinal and aromatic native plant species. The project also promotes the home production of natural medicines and cosmetics as an economic alternative for the women of Silves. These products are now sold in stores, catering to local consumers and tourists, and are marketed abroad to generate income for local women. The organization also leads an important environmental education program and produces seeds for the replanting and recovery of regional forests, where extractive activities threaten biodiversity. To protect the endangered pau-rosa and other rare plant species, AVIVE highlights the importance of sustainable extraction and is actively involved in the creation of a Sustainable Development Reserve where these species can be cultivated in ways that do not imperil their existence.

Water and Sanitation

Regional Integration for Availability of Water—São Paulo, Brazil

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Urban-Rural Continuum

Urban Agriculture Program—Rosario, Santa Fe, Argentina

In 2001, Argentina was in turmoil as public anger over a deepening recession and widespread poverty sparked riots, looting, vandalism, and angry protests. Rosario City, population 906,004, located in the Santa Fe province was no exception. This was a culmination of two decades of gradual economic decline which left many people unemployed. Consequently, the peri-urban zone was characterized by irregular settlements, inhabited by unemployed families and migrants from the northern provinces of the country. The Urban Agriculture Program (UAP) was initiated after the economic crisis, which manifested itself in Rosario with poverty levels rising to 60 percent of the population.

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EnREDando Jóvenes Para el Desarrollo **(Involving Young People in Development)—Argentina**

Argentina had a population 37,031,802 in 2000 and this is expected to grow by 12percent to 41,473,702 people by 2010. In the provinces of Jujuy, Misiones, Buenos Aires, and San Juan, policies related to youth development were lacking especially in terms of skills development. It was especially difficult for young people to gain space and participate in the community's institutions. This led to massive exodus of young people to urban centers and resulted in the premature ageing of small communities.

The NET Program aims to involve young people in local development by developing their capacity to undertake needs assessmentsa and to appropriately respond to issues that are identified. The program builds the capacity of young people by training them to plan and manage different projects that improve the quality of life. This program is a synergy between different tiers of government as well as among different sections of the organized communities. It consists of an open examination of local development project proposals, an offshoot of the educational process in which groups of young people belonging to community's organizations from different cities and towns participate. Successful proposals are given seed funding after proving that they will be financially sustainable in the long run.

The training process involves non-formal education that has its basis on two different approaches: attending training sessions and a long-distance process of education. The main aims of these projects are focused on promoting and establishing youth networks; building of human capacity to plan and manage development projects; encouraging and promoting communication between young people and their communities as a strategy to build participation; and maintaining an information system on the capacities possessed by various youth and members of the community.

Among achievements in the three provinces of Argentina: Misiones, Jujuy, and Buenos Aires: approximately 300 groups of young people have participated so far in the program while a further 1,000 young people have been trained; close to 6,000 young people have been directly involved in various programs that range from health education to social and cultural programs. Close to 34 municipalities have collaborated and helped sustain the program.