Disaster Management
How Cities Can Prepare For The Worst
INTERNATIONAL DEVELOPMENT has always had political as well as economic and philanthropic rationales. The ready explanation for today's investment in international development has its roots in post-war paternalism. The Bretton Woods Convention of 1944 and the Marshall Plan of 1945 were two defining movements, not just to rebuild Japan and Europe after the Second World War, but to also reassess American and European democratic ideals globally.

The legacy of these initiatives continues today in a less dramatic but still effective way. Various governments, including those in Europe, North America and Japan, annually allocate hundreds of millions of dollars through their foreign ministries for international development. It is the continuation of a dialogue with developing countries that serves as a kind of foreign policy by helping to insert and secure freemarket values, along with a taste for democracy, through support for programs that foster fiscal stability, infrastructure development, environmental protection and education.

Thus the Swedes look at the feminization of poverty or the Dutch work on rural roads in Africa. The Danes work on the environment, the Canadians on municipal development, the Americans on election monitoring and the Japanese on education. When this form of investment and development occurs at the city level, it is known as Municipal International Cooperation (MIC), a somewhat clumsy title for a very dynamic and grass-roots-level process.

The practical aspects of city-to-city exchanges are intriguing: Canadian firemen swap techniques with their Nicaraguan counterparts; Dutch and Indonesian housing specialists share statistics and building methods. Around the globe, experts exchange best-practice information. It makes sense that city workers should act as professional resources for each other (just as union members do) sharing expertise with their peers in Windhoek, Porto Alegre or Jakarta to address common problems of municipal services and performance.

Sometimes the process delivers less than it promises. A program can involve a lot of "show and tell," for instance, but not build enough capacity for the recipients to continue applying the skills or processes they have learned. At other times, cultural differences and attitudes can get in the way of communicating ideas or methods.

Is MIC successful? Anecdotally, yes. Statistically, it is hard to tell. So many different organizations have developed their own models that it is almost impossible to grade the different systems of exchange. Probably the question to ask is: In each instance where MIC has occurred, has the knowledge been successfully passed on and then trapped for use by future generations?

Future-oriented thinking is also the crux of our Special Report on disaster management. Disasters are inevitable, but there is a lot cities can do to reduce their exposure to risk and vulnerability. Careful planning today can mean exponential savings in the future for insurance companies, governments and families. Money usually flows into disaster zones after the damage has been done. A tiny fraction of that annual amount—if carefully invested in long-term preparation projects—could spell the difference between devastation and survival.

Margaret Bergen, Editor-in-Chief

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SMALL GARDENS SAVED FROM WRECKING BALL

OVER 100 SMALL VOLUNTEER-TENDED GARDENS scattered throughout New York City recently came perilously close to becoming victims of their own success. After having been supported, even encouraged, by the city for over 20 years, the green spaces were on the verge of being plowed under and turned into building sites. Only last-minute efforts by a coalition of community gardeners and advocates, and agreement by city administrators to sell the lots to a land trust, reversed plans to auction the plots off to the highest bidders.

Many of the gardens were once unoccupied, rubble-strewn lots. During New York's economic crisis in the 1970s, volunteers began informally planting vegetables and flowers on these stretches of abandoned land. The city decided to formalize the process, offering nominal leases to community organizations and placing the program's management under the city's Department of Housing Preservation and Development. The arrangement was to be temporary; the lots were slated for construction of affordable housing when and if such plans became feasible.

Over two decades passed, with schools, churches and block associations becoming involved in planting and pruning, and neighborhoods growing accustomed to the presence of gardens on their streets. The gardens helped improve the neighborhoods in which they are located—which in turn made the land more interesting to developers. In 1998, the city announced that 114 lots were suitable for development and that it would hold public auctions for the sites.

Gardeners mobilized citywide against the auctions, testifying at land use review hearings. Newspapers and television stations told stories of poor city residents for whom gardening was the only access to nature and open space.

Ultimately, two environmental groups—the Trust for Public Land (TPL) and the New York Restoration Project—brokered a deal with the administration to purchase the gardens only days before the auctions were scheduled to begin. TPL raised US$3 million from foundations and private donors to take title of 63 properties, while the restoration project provided $1.2 million for 51 additional lots.

The fate of more than 600 other community gardens throughout the city is, however, still undetermined. TPL spokesperson Susan Clark is uneasy about the future of open space in New York City: private donors cannot be called upon indefinitely to preserve what the city is determined to sell. She notes that “It is very important that this not be viewed as a precedent for what can happen to preserve open space in the city;” rather, “this has to be the start of a dialogue.”

Disney Discusses Theme Parks In China

Negotiations are underway to build a Disney theme park in Hong Kong. The territory's government said it has identified Penny's Bay, on Lantau island, as the prime location for the Disney park. Beijing authorities are also talking with Disney about building a theme park there. Tom Deegan, spokesman for Disney, was quoted by Reuters as saying “It's conceivable we could build parks in both locations and they would not obviate each other. It never has been an either/or situation.” Meanwhile, press reports say the mayor of Shanghai was initiating a request to meet with Disney executives.

Dressed as a flower, Matthew Power of New York hands a sunflower to a child prior to a protest by community gardeners in New York.
A One-Stop Shop For City Services

"Consistent-integrated-anywhere-anytime." This is the mantra that drives service delivery at Australia's Brisbane Call Centre. Whether applying for a building permit or business license, accessing electoral information or getting a fallen tree removed from the backyard, Brisbane citizens need only call a single number, any hour of the day or night, any day of the year. A trained consultant answers their call—typically within 14 seconds—and serves as point person for a 120-member multi-skilled team to manage their inquiry. Ninety percent of incoming queries are answered on the spot, and the average duration of a call is 185 seconds.

It wasn't always this way, however. Six years ago, the Brisbane City Council—Australia's largest local government organization—was a traditional, rules-oriented bureaucratic authority. In 1994, the council had 650 phone numbers listed in the white pages. "It was like playing telephone ping pong," says Rob Carter, Brisbane CEO. "Callers were shunted from one government department to another, and response times varied from one day to 18 months." When the new lord mayor, Jim Soorley, came to office he brought with him a reform agenda. Customer service was his prime concern. "I didn't want to be the head of an organization with a dismal service delivery system," says Soorley. In October 1996, the call center initiative was launched. Over the next 18 months, Brisbane, looking to the models established by airline companies, financial firms and mail order houses, created a user-friendly, efficient information and service center for its 850,000 residents.

Service information was no longer classified by areas of responsibility or government department location, but rather by categories that make sense to customers. For example, service providers access visual computer icons that have information on dog registration, bin disposal, and elections information.

Brisbane is now marketing its customer service idea internationally—and successfully. Since 1997, Brisbane City Enterprises, a wholly owned corporate subsidiary of the city government that functions as its consulting arm, has been involved in 52 projects in 19 countries. These include a consultancy to the Hong Kong government to establish a call center, a bus priority system in Auckland, mosquito services for the Sydney Olympic area, and urban and financial planning for Riyadh.

Contact Brisbane City Call Centre at tel: 61-7-3403-8888, e-mail: bma@bce.com.au

DELHI'S UNCLEAN WATER

DELHI HIGH COURT has ordered the city government to set aside more funds to clear the city's water of pesticides. Delhi is already notorious for its polluted air; now, the rapidly growing city of 12 million is simultaneously acquiring a dubious reputation for its unclean water.

Two years ago, a Delhi-based NGO, the Centre for Science and Environment (CSE) alerted the city to the growing problem with its report, Homicide by Pesticides. The report, based on government data, noted that the Yamuna River—the primary source of Delhi's drinking water—contains alarming levels of pesticides. The river flows through the states of Uttar Pradesh and Haryana before entering Delhi. The report cited the negligence shown by the pollution control boards of the two riparian states as having made the Yamuna a "river of sorrow." Further, the report went on to fault the Delhi government's water supply agency for doing nothing about the health hazard caused by pesticide-laced drinking water.

The CSE report spurred Delhi lawyer B.L. Wadhera to file a public interest litigation with the high court, demanding that the government of Delhi and the neighboring states through which the Yamuna flows take immediate action on the pesticide problem. The court case has forced the Delhi government to allocate funds for water treatment plants. But Haryana is not cooperating. Wadhera remains undaunted and plans to take the case to the Supreme Court, the country's highest judicial body.

Pesticides are only one cause of the water problem. In April of this year, nearly 1,500 residents of a south Delhi slum contracted gastroenteritis when sewage mixed with drinking water.

Verdict Mixed On The State Of U.S. Cities

The U.S. government has just released the third annual State of the Cities report. The study, prepared by the Department of Housing and Urban Development, finds that most U.S. cities are doing well—urban unemployment is down from 8.5 percent in 1992 to 5.1 percent in 1998; more than 50 percent of urban families own their own homes, the first time such a high rate has been achieved; and urban crime has declined, so that the number of murders, for instance, fell from 35.5 per 100,000 people in 1991 to 20.3 in 1997. The report nevertheless finds that poverty rates in almost a third of the cities' central districts are 50 percent higher than the national rate. Some older suburbs are also experiencing problems commonly associated with central city areas—job loss, income inequality, crime, declining population and disinvestment.
Cities all over the world are getting together—both informally and in structured exchanges that have international sponsorship—to share their knowledge and expertise, and to improve the way they deliver services or manage programs for their residents. **BY ANITA PELTONEN**

Cities, despite their imperfections and inefficiencies, are often the best delivery systems available for a panoply of technological, business and public services. But their range of success is spread widely around the globe; some cities function as well-oiled machines, others struggle to provide even basic services.

Municipal international cooperation (MIC) is an umbrella term for point-to-point municipal knowledge exchanges that cross international borders. Such exchanges are designed to build capacity and to improve municipal responsiveness and service delivery. Recent worldwide devolution of power and resources from central to local authorities has accelerated the pace of MIC.

In a nutshell, MIC matches cities whose engines are already humming with those that need priming—and helps redress the balance.

MIC happens all over the world all the time. In one instance, a municipality or group of municipalities might seek advice directly from overseas counterparts (perhaps known to them through other cooperation work) on how to handle technological, environmental, housing, civic or urban management responsibilities—anything from drinking water to community-local government relations. Some exchanges start at a small level and with little formality—such as firefighters linking up to share experience, equipment and training. Other MIC partnerships begin at international municipal congresses, where it is easy to target overseas colleagues with appropriate skills. Once two groups agree to work together, each side identify its experts, and the information-sharing begins.

Participants usually receive no pay for exchange work. They share their municipal expertise because they’re interested in expanding their professional horizons and working in new environments. MIC organizers generally use seasoned municipal professionals trained in an urban environment who can relate to partners in parallel jobs, who are used to being fiscally responsible and, most important, who are eager to deal with partners face-to-face.

The typical MIC coordinator is a national municipal association supported by member city fees. Some municipal associations also tap development aid sources. Occasionally, an MIC partnership is launched to run a specific municipal development project for an international agency like the World Bank or the United Nations. Other players include international professional organizations
Jaime Delgado, chief of volunteer firefighters in Managua, never walks alone. Wherever he goes, he bristles with the antennae of the radio and cell phones that keep him in constant contact with emergency personnel across Nicaragua.

“We don’t have too many regular phones in Nicaragua,” he explains. “And the fire department is the center of communications for all emergencies”—fires, police incidents, medical emergencies—“so I’m never off duty.”

Delgado is also a master electrician. His technical knowledge, language skills and enthusiasm made him a natural participant in the Gatineau (Quebec)-Managua fire safety exchange.

The exchange began in 1997, when Yves Hamel, a vacationing firefighter from Gatineau, got to know Delgado’s boss, Hector Sevilla. Hamel discovered that the Managua squad only had two very old firetrucks—one of which had no brakes.

Back home, Hamel asked his boss, Gatineau Fire Department Director Pierre Bertrand, if they could help. Bertrand said he was taken with the idea, but “Public employees couldn’t just take public funds and use them for international aid.” They went to FCM in Ottawa for funding, but were told that Nicaragua was not on the priority list for aid.

“After many efforts, we convinced them,” says Bertrand. “Politically, this was a big step, because we are not diplomatic personalities, only firefighters.”

Bertrand used his contacts in Quebec’s Provincial Firefighters’ School to develop training books. They wrote courses in Spanish on everything from firefighting and proper ventilation to first aid and rescue equipment training. Two of his firefighters trained in intensive Spanish, although English was also used.

Meanwhile, Gatineau citizens and business leaders got involved. Toys were donated for Nicaraguan children, who would be encouraged to become fire scouts and trained in fire prevention techniques. Ultimately, the exchange also took on airport fire safety and an electrical wiring safety campaign aimed at preventing domestic fires.

The actual training involved five Gatineau firefighters and went from 1997 through early 1999. During training, Bertrand emphasized that his men had to respect the Nicaraguan culture. “The Nicaraguans fight fires with what they’ve got. It doesn’t mean that they don’t know what they’re doing.” The courses weren’t just a matter of teaching. The Canadians, including Hamel and Bertrand, were involved in much hands-on, side-by-side work.

Though the project has formally concluded, the feeling of collegiality is wholly intact. The firefighters are in constant contact by e-mail. And, as one Managuian bombero (firefighter) said during a visit by Canadian dignitaries, “I want you to know there is no more Canada, no more Nicaragua. We are all bomberos.”
action practices that brought larger numbers of blacks into higher level municipal jobs, the exchange focused on getting the public more involved in town planning and economic development, peer tutoring in English (Namibia's official language) and improving energy efficiency. Shipanga praises the program's flexibility, noting, however, that he would have liked to have it done "on a more sustainable basis."

In this regard, IHS director Emiel Wegelin warns that municipal associations should select their projects with care. Those that work best, he maintains, are "grouped around common, concrete, fairly technical issues—for example, with a manager of a solid waste management department who has to deal with dumping grounds, truck routings and so on. That kind of management process can be communicated to a counterpart fairly easily."

Communications logistics are key, Wegelin adds. Some early projects failed due to the simplest of miscalculations: there was no common language. (This is less of a problem now that English is widely spoken.) Cultural incompatibilities can sabotage a project, too. "Be sure the person you send has the flexibility to work in a completely different cultural and administrative environment," Wegelin advises.

Trust is another building block crucial to an exchange launch; to this end, participants must scrupulously prepare their information and technology.

Funding streams vary enormously from one MIC setup to the next. Sometimes, exchange funding comes entirely under municipal association aegis. At other times, there is national or supranational agency assistance, as from the World Bank.

Most major municipal associations are funded by membership fees but receive program assistance from their national development aid agencies. For example, IHS works closely with the Netherlands' Association of Municipalities, which handles exchange programs on behalf of the Ministry for Development Cooperation. Municipalities and the ministry each put up to 50 percent of costs. * Infrastructure Financing and Management

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THE INSTINCT TO TRADE, SELL AND DEAL for oneself fires the entrepreneurial spirit. Even under the stringent government regulations that curtail much independent commerce in Cuba, this spirit exists—and thrives. In Cuba's cities, artists, business people, market sellers and musicians strive in a multiplicity of ways to make a living on their own.

THE PHOTOGRAPHERS In front of the Capitolio in Havana, two brothers, Jose (foreground) and Yomar del Toro Hernandez, photograph tourists for a fee of one U.S. dollar. The cameras they use were inherited from their father—and were made by Kodak in 1900.

THE SCULPTORS In Trinidad, Manuel Herrera Rendueles (right) and Robin D. Puertas Rodriguez practice their craft opposite the Museo Historico Municipal, close to the Plaza Mayor. It takes them three or four days to complete one of their sculptures, which sell from US$60 to $200 depending on where they are sold, their size and quality.

THE SHOE SELLER The Cathedral Market in Havana offers many Cuban products for sale. Only tourists like this little girl, here on holiday with her parents, can afford to shop at the market, as the prices are too high for the average Cuban.
THE BAND On a deserted street adjacent to where the sculptors are working, this band plays during the day, hoping to attract tourists. The band's main source of income comes from playing at restaurants at night and by selling tapes of its performances to tourists.

THE LAWYERS Sebastiaan Berger (left) and Cameron Young are Dutch businessmen. They are working to set up the first law firm not owned by Cubans on the island country.

THE ART PROMOTER Christina Vives has evolved from art historian and researcher to passionate promoter of Cuban art and artists, including both photographers and painters. The young photographer with her is Arles A. Iglesias, who will have his first show in June. The older man is Korda, the photographer whose image of Che Guevara is the icon of the Revolution.

THE RESTAURANT OWNERS La Guardida is owned by Enrique Nunez and Odeysis Bavilosa, who is taking the order at the far table. The restaurant was established two years ago at the location where the film Fresas Y Chocolate (Strawberries & Chocolate) was made. In 1995, Fidel Castro allowed individuals to open their homes as restaurants but under strict conditions: maximum seating is 12 and, until very recently, no hiring was permitted, so the business had to be a purely family enterprise.

IAN MACDONALD-SMITH is a freelance photographer who has published four books.
Once the symbol of strength through steel-making, the city now relies on quieter, cleaner businesses for its economic growth. BY NICK HARRISON

Over the past 40 years, Pittsburgh, Pennsylvania has wiped its landscape nearly clean of rusting steel mills and slag heaps, reclaimed its air and water, and established a position in the worldwide marketplace for financial services, education and healthcare. Today's Pittsburgh is far different from the city that once stood as the symbol of the U.S. steel, glass and railroad industries, and that was proud of being dirty because dirt from industrial activities meant plentiful jobs, economic power and political influence.

Mayor Tom Murphy points to a photograph on his office wall as he recalls the city he knew as a child in the 1950s. The view shows the city's riverfront, totally obscured by a blanket of smoke and soot billowing up along the shoreline. After more than 100 years of heavy manufacturing in and around the city, he says, "Only bottom-feeding fish could survive in the water, and there were days when the air was so thick we could not see across the street."

Although the city had begun to address its environmental problems by the 1950s, the collapse of the U.S. steel industry subsequently left it without many economic resources and a long list of lingering difficulties. Its imploding economy caused the population to plummet from 640,000 in 1960 to 350,000 in 1997. Unemployment reached 12.2 percent in 1983, and the average age of the population increased as younger people left the area to find work.

To engineer its turnaround, Pittsburgh turned to its inherent strengths—a history of business development with strong ties to the city, a stable work force with deep roots in the city's neighborhoods, and internationally recognized research and education facilities. Now most of the smokestacks have been replaced with houses and parks. Fishing has returned to the shoreline, and the downtown area boasts gleaming buildings that house department stores, financial management firms, medical research centers and university classrooms. The population, while "still leaking," has stabilized, and Murphy says he expects it to reverse its decline in the next few years, largely because "we now have more jobs than people in Pittsburgh." The latest available statistics show Pittsburgh enjoying an unemployment rate under 4 percent.

To build momentum for improvement, the city called for support from its established business and foundation communities and created a $US100 million investment fund to acquire vacant industrial properties, put in infrastructure and provide low-interest loans for businesses. Some 700 acres of property, sometimes littered with the tangled remains of steel mills or piled with slag hills up to 200 feet high, was purchased through the fund. Some of the sites will eventually contain 740 units of housing; a 100 acres has become parkland.

The city administration, which contributed about 40 percent of the money, used a straightforward argument to gain additional financial support from businesses and foundations. "Basically," Murphy explains, "we said that if they wanted to make something happen in Pittsburgh, they needed to be at the table, and to be at the table they needed to put up cash. That is a fact of life, particularly within a city. The choice is to do nothing and to look at that industrial site as a vacant, blighting influence, or to assume the risk, deal with the old foundations and environmental issues and move forward." The argument fell on receptive ears in part because Pittsburgh is home to several national and international businesses—U.S. Steel, H.J.
Heinz Company, Mellon Bank, Alcoa, PPG Industries—and to universities and hospital centers whose operations reach far beyond the city’s boundaries. “This city is very market-driven,” says Murphy. “We try to be very entrepreneurial.”

The business community also sees value in working with neighborhood groups like the Southside Development Company, which represents the homes and businesses of an area across the Monongahela River from the downtown. Carey Harris, executive director, says that the 20-block-long business district had a vacancy rate of 40 percent when the organization was formed 17 years ago; the rate is now 7 percent. The late 19th century buildings that make up most of the area have been renovated to preserve their predominantly Victorian-style architecture, and 600 jobs have been created. “The city has helped with loans and grants, but it was the individual businesses that carried it out,” she notes. “Once one business does well, others will follow.”

Reviving the neighborhood has brought an unexpected tension between residents who are over 65—nearly a third of the residents—and younger people who have been attracted by the retail businesses, entertainment and housing of the area. In many ways the values and traditions of the older residents are what make the area attractive, Harris believes. “It is changing the character of the neighborhood,” she says.

The influx of new families into the Southside will undoubtedly continue as the result of an initiative by the city and the community group to build the first new housing development inside Pittsburgh since World War II. Seventy units of housing have been erected by a developer that previously only worked in suburban areas. To attract buyers, the city provided subsidies of up to $16,000 in the form of deferred mortgages that were repayable only if the selling price of the home produces a profit—which must then be shared with the city. “Previously, there was no known market for new homes here,” Harris points out, but the houses sold out quickly. Three phases are planned, and the subsidies are expected to disappear as the viability of the market emerges.

“The ultimate success is that we now have private developers working on 100 units,” Harris concludes.

The mayor, who himself ran a neighborhood organization before assuming public office, is particularly proud that he stays in close touch with the city’s neighborhoods and community groups. “In many ways,” Murphy admits, “we have a strategy for management in the city that is based on 88 separate strategies—one for each neighborhood organization.”

Attracting business to the central downtown area was “more expensive, but nevertheless is working.” As with many U.S. cities, retail businesses were moving stores to the suburbs. Murphy’s administration convinced a local developer to modernize a large building that formerly housed a department store; the building now houses several businesses with a total of 1,200 workers. “We saw the department store conversion as a catalyst. So instead of a city that was slowly losing its retail we are looking at a city that will have five department stores, many smaller specialty stores, movie theaters and other shops, all within a three-block area of the historic retail section of town.” The city plans to enlarge its downtown convention center and to build two sports arenas, one for football and the other for baseball. Opponents of the arena plans point out that the existing Three Rivers stadium, which will be demolished, still carries bond debt, but Murphy believes that the new facilities are essential. “Major league sports teams help give Pittsburgh its identity and draw people into the city from all around the region,” he says. In the political and budget battles that preceded the decision to go ahead with the construction, the mayor said he feared the teams would move to other cities if the facilities were not built.

Turning again to the picture of the smoke-covered cityscape, Murphy notes that 60 percent of Pittsburgh’s workforce was involved in heavy manufacturing in the 1950s. Now, he says, it is below 10 percent. The city is attracting younger people by promoting its relatively low living costs and high-technology job market. It is also talking with companies that represent the industrial leadership of the future—computer program developers, medical equipment manufacturers, financial managers. In the Pittsburgh of today, Murphy points out, you can fish, walk or even buy a house along the same shoreline. Or you can sit back and take in the view of a city skyline that is industrious but no longer industrial—still busy, but clearly visible every day.
Dutch Habitat Platform

THE CITY-WIDE APPROACH

BY RON SPREEKMEESTER

The Dutch Habitat Platform has chosen the "City-Wide Approach" as a strategic instrument appropriate in the context of the agreements laid down in the UN Habitat Agenda. The Agenda was drawn up by all the UN member states during the conference in Istanbul in 1996. It advocates a holistic approach to human settlements: a way of tackling the problems of cities, but not in isolation. Their relationship with rural areas is part of the equation. The approach is an integral one, decentralised and based on partnerships between local government, local people and the private sector. It is not only concerned with the construction of housing, but with facilities such as water, transport, safety and security, depending on the needs of the city in question.

What is the City-Wide Approach?

The philosophy behind the City-Wide Approach is that the return on urban projects will be increased if they are set up in a coordinated way with input from a variety of sectors, are based on demand, and involve the participation of the local population. In brief, the sum is more than the individual parts. This means that good coordination is necessary between the various initiatives and projects. What is more, all interested parties, both in the city concerned and in the Netherlands, must be as closely involved as possible in formulation and implementation, so that an interactive process can be set in motion. In starting up cooperation on a city-wide basis it is advisable to link up, wherever feasible, with existing activities and partnerships, and to expand them step-by-step.

The fact that this approach works has already been demonstrated in the Indian city of Bangalore, where it was successfully applied by the Netherlands, working in cooperation with a local coordinator. It was adopted again in the South African city of East London. The Habitat Platform intends to continue collaboration with East London and hopes that, in the process, results will be accelerated. It should be noted that the approach is not a blueprint. It is a continuous search for new avenues, an ongoing learning process.

East London / South Africa

Various projects were launched in East London several years ago. These included a modernised earth technology project combined with job-creation through environmentally sound methods of producing building materials (compressed earth bricks), vocational training for the unemployed and setting up a non-profit housing association (rented housing). This approach, in combination with other projects started at the time in East London, appears to be successful.

To mark the city's 150th anniversary, the East London authorities recently organised, together with the Habitat Platform, a "market conference" entitled "From Sanc-

tions to Cooperation: Strengthening the Links." A wide range of local organisations, around one hundred in all, representatives of other South African municipalities, and about thirty Dutch organisations came together for a few days in February this year. Their initial aim was to get to know and trust each other, since mutual familiarity and trust are vital prerequisites for good communication which, in its turn, is a precondition for successful cooperation.

One of the participants was Paul Watson, from the International Institute of Multicultural Success in the United States. Paul, an ex-leader of a teenage gang, flew over with 'lein Liese to hold workshops with young people from East London and the local police with the aim of creating links between the two groups in order to improve the safety and security situation in the city. Visual artist Anna Ramsair led a workshop with a number of East London artists which aimed to develop proposals for improving the layout and design of public places. Children from the townships painted the walls of a factory to show they too could play a positive role in rebuilding the city. They will soon receive their own painting on a T-shirt.

According to all the participants, the mayors in particular, the conference created considerable momentum and a broad support base. It stressed the importance of partnerships, the role of the municipality in providing direction, and the importance of cooperation with NGOs. A challenging agenda for the future!

The City-Wide Approach is not a panacea for existing urban problems. It will have to be fleshed out in an interactive process involving all partners. The local authority provides direction here, particularly with regard to public-private ventures. Government remains, after all, the guardian of the welfare of its people. It will also be clear that international cooperation must be demand-led. Another lesson that has been learned the hard way is that the general principles of good governance constitute the pre-conditions for cooperation. What is more, not only local government, but also the local population (NGOs) and the private sector, including the informal economy, must be equipped with mandates, funds and above all-knowledge.

To sum up, the pre-conditions for good urban governance and the City-Wide Approach are:

- Participation and a bottom-up approach
- Partnerships with all relevant parties
- Accountability and a campaign to fight corruption
- Decentralisation based on mandates and sufficient funding
- Capacity-building, for all concerned and at all levels
- Information and coordination

For more information, please contact the secretariat of the Habitat Platform: Dutch Habitat Platform, Nassaulaan 12, Postbus 30435, 2500 GK, The Hague, The Netherlands. Fax: +31 70 3738311. E-mail: Habitat.Platform@BNG-Habitat.nl; Website: www.habitatplatform.nl

—Ron Spreekmeester is director of the Dutch Habitat Platform in The Hague, The Netherlands.
The destruction of property and the short-term human costs of disasters are often enormously expensive. However, even these staggering costs may not account for their full impact.

BY CHARLOTTE BENSON AND EDWARD J. CLAY

ESTIMATES OF ANNUAL LOSSES FROM NATURAL DISASTERS

over the first nine years of this decade averaged US$75.9 billion (in real 1998 prices). There is also clear evidence that the costs are increasing. Real annual economic losses averaged $4.9 billion in the 1960s, $9.5 billion in the 1970s and $15.1 billion in the 1980s. Record losses of $191 billion were experienced in 1995, the year of the Kobe earthquake. The second highest ever losses occurred in 1998, with disasters around the world causing estimated economic damage of $90 billion.

Dramatic as those figures are, the full economic cost is even higher. Estimated figures are largely based on direct physical impacts, or losses of fixed capital and inventory. Many indirect and secondary effects on economic activity—such as changes in fiscal policies or the long-term consequences of the reallocation of investment resources—go unrecorded. This partly reflects difficulties in isolating the impact of natural disasters from other factors on economic performance. Those assessing the costs of a disaster are usually concerned with meeting the short-term humanitarian needs of affected communities and funding reconstruction, and thus concentrate on physical damage.

This emphasis on direct, physical losses also engenders a widespread perception that, as a country develops and as the value of capital assets rises, the absolute cost of disasters increases and the relative cost as a percentage of gross domestic product (GDP) declines. However, recent analysis of the relationship between the structure and stage of development of an economy and its hazard vulnerability suggests a far more complex picture.

The economic impacts of a disaster depend on a range of factors, including:

- The type of hazard
- Its geographical scale of impact
- The size and structure of an economy
- Prevailing economic conditions

Most obviously, different types of hazard cause varying levels of physical damage to infrastructure and agriculture, with implications for their indirect and secondary impacts. Droughts, for example, can result in heavy crop and livestock losses, while infrastructure and productive capacity are typically largely unaffected. Earthquakes usually have little impact on standing crops, but can cause widespread destruction of infrastructure and other productive capacity. Floods can cause extensive damage to both infrastructure and agriculture, depending on the agricultural cycle. When compared to earthquakes, however, a much larger share of flood damage may be readily repairable.

The relative frequency of various hazards in particular regions of the world also plays an important role. It can determine the scale and nature of disaster mitigation and preparedness measures. Scientific, objective information on the probability of occurrence of particular hazards over specified periods may be largely lacking. Or, where information does exist, it may not be widely disseminated. Perceptions of risk therefore play an important role in determining behavior. Those perceptions are strongly influenced by the intervals between events, and thus the experience with disasters shared by governments and civil bilateral and multilateral agencies. For example, the Caribbean island of Montserrat was severely damaged by Hurricane Hugo in 1989, with an estimated 98 percent of the island’s housing stock, as well as the main jetty, damaged or destroyed. Total damage was estimated at $240 million. Hurricane-proofing features were introduced into the design of houses and other buildings during reconstruction. However, little regard was paid to maps showing risk from volcano damage. There had not been a major eruption for over four centuries, so the risk was perceived as very low. The subsequent eruption, which began in 1995, has since devastated the island’s capital, only four kilometers from the volcano, and destroyed much of the infrastructure that was repaired or replaced after Hugo.

The proportion of a country and region affected by a disaster
Natural disasters can have severe economic impacts. In the microstate of Niue in the South Pacific, the cost of repairing damaged government-owned buildings as a consequence of Cyclone Ofa, which struck the island in 1990, was estimated at $4 million, equivalent to 46 percent of GDP. Except in the case of widespread drought or severe natural disasters, natural disasters have not had measurable impacts on national economic aggregates—such as levels of GDP, the balance of payments or the rate of investment—in larger countries. Instead, their effects are perhaps best conceived of in terms of development opportunities foregone at a national level, even though they can cause serious local economic disturbances. In the Philippines, for example, modest achievements in improving the country’s transportation systems and the increased difficulties in meeting the social infrastructure needs of a growing population can be attributed to the fact that a large proportion of public resources that were earmarked for those programs has been redirected to disaster response. Relative hazard risks can also influence investment choices. In Vietnam, for example, some of the more hazard-prone regions have received disproportionately small shares of both private and public investment, as well as external assistance.

As regards economic structure, factors such as the choice of crops grown and the composition of the manufacturing and service sectors play an important role in determining the extent of vulnerability. For example, many traditional root crops and coarse grains are more drought-tolerant than newer crop varieties. Hybrid coconut trees can be more vulnerable to typhoons than more traditional varieties, which typically have longer rooting systems. Indeed, the development process itself can exacerbate hazard vulnerability. In the case of drought, the effects are diffused more widely through a developed economy rather than being focused on the agricultural sector. This reflects greater overall integration and stronger intersectoral linkages between the agricultural and burgeoning manufacturing sectors, which in earlier stages of development are often orientated around agro-processing and the production of agricultural supplies. Increasingly sophisticated economy-wide financial systems for flow of funds—including small-scale private savings and transfers—also play a role in diffusing the impact of drought more widely, including into urban areas. Public finance implications may also be more severe, since the government is likely to meet a larger share of the costs of the relief efforts itself rather than relying heavily on international assistance.

FINALLY, A MYRIAD OF FACTORS—both coincidental and deliberate—act to offset or amplify economic impacts. In terms of the balance of payments, for example, a number of developing countries rely on a handful of commodities for a significant part of their export earnings. Fluctuations in the prices of such commodities, as well as in major imports such as oil, can exacerbate or minimize the impacts of natural disasters, usually by chance timing. In 1984, high coffee and tea prices helped Kenya sustain its export earnings at a time of severe drought. World market dominance can also play a role. The Philippines has effectively benefited as a major coconut product exporter, with temporary disaster-related declines in production offset by higher international prices.

On the positive side, high levels of vulnerability to hazards are not inevitable. There is considerable scope for reducing risk through the application of appropriately designed disaster mitigation, preparedness, relief and rehabilitation efforts. Such measures should not be viewed as discrete activities undertaken by specialist government agencies, but rather as measures that can be incorporated into development projects, as well as economic activities and government planning exercises more generally.

Current practices in many areas of economic activity could be adapted to reduce vulnerability. For example, extension workers could do much to promote techniques that reduce hazard-related agricultural losses, such as encouraging intercropping of taller and shorter field crops to provide some protection to the latter during typhoons. Similarly, building codes could promote hazard-proofing features in earthquake- and hurricane-prone areas. Broader government and donor policy and planning documents could also take greater account of natural disasters. Indeed, even governments with relatively limited financial resources can do much to reduce vulnerability, and the degree of commitment by the public sector and donors to such issues should not be measured in financial terms alone.

In addressing both hazard vulnerability and post-disaster response, more attention needs to be paid to economic activities rather than focusing primarily on economic assets. This shift in focus would contribute to improved contingency planning and a more effective and considered response.

CHARLOTTE BENSON is an economist and member of the UK International Decade for Natural Disaster Reduction Risk Applications and Implementation Working Group. Edward Clay is a research fellow at the Overseas Development Institute, London.
Invisible Face Of Disaster

The psychological impact of disaster remains long after the physical reconstruction of an area is completed. The challenge for disaster assistance professionals lies in understanding the true nature of disaster-related psychiatric disorders, finding both immediate and long-term programs to help those who are suffering. BY ITZHAK LEVAV

NEWSPAPERS RECOUNT EMOTIONAL STORIES ABOUT THE devastating effects of disasters. Television does likewise, though more graphically, showing us horrible views of mutilated bodies, children clinging to their parents, adults searching for shelter, destroyed houses, debris-filled roadways and collapsed bridges.

What the mass media seldom report is the additional and long-lasting psychological toll disasters inevitably leave in their wake. This is a very real, very costly impact, and there are abundant scientific data to support its existence. It has the potential to disrupt the lives of otherwise healthy survivors and to further endanger those who are wounded or sick. It pervades disaster sites long after the physical reconstruction has been completed, and it may even lie dormant for a time only to emerge later in wholly unexpected and devastating ways.

The challenge for disaster assistance professionals lies in understanding the true nature of disaster-related psychiatric disorders and disability, separating them from the purely physical ramifications of assistance programs, and finding both immediate and long-term programs to help those who are suffering.

Let us reflect on the nature of traumatic events. Fundamentally, they embody intense fear, constitute a major threat to the integrity of life and body, and bring with them considerable losses, not only in terms of property but in people’s personal sense of security and hopes for the future. This constellation of factors constitutes the framework within which disaster-linked reactions express themselves.

Although the nature of these reactions is mental and not physical, they can be measured and reliably diagnosed, just as physical damages are. Based on a study by the Pan American Health Organization/World Health Organization and the Ministry of Health in Tegucigalpa, Honduras following Hurricane Mitch, it is possible to estimate that between 400,000 and 600,000 adults throughout the country were emotionally affected by the disaster. Post-Traumatic Stress Syndrome and Major Depressive Disorder are two of the most commonly identified reactions that afflict disaster victims. The Honduras study showed precisely those reactions in the aftermath of Hurricane Mitch. Adults living in neighborhoods that were hit heavily by the storm had higher levels of psychiatric disorders. For instance, women from areas that were not severely damaged suffered major depressive disorders at a rate of 14.6 percent, whereas those who lived in areas exposed to the most destruction suffered at a rate of 26.2 percent. The proportions for men were 9.8 percent in low-risk areas and 15.8 percent in areas that suffered most. The figures for Post-Traumatic Stress Syndrome followed similar patterns.

The study also showed a rise in the abuse of alcohol among the men of Tegucigalpa. It is well known that individuals may attempt to reduce their mental anguish by turning to alcohol, since it is the most universal and readily available method of self-medication. The researchers also found that the distribution of post-traumatic disorders was far from random. There was a direct connection between the rates at which the disorders appeared and the status of the neighborhoods, a proxy for social class. Rates were highest among the residents in shelters, all of whom came from neighborhoods with lower status, where the residents had endured the greatest stress.

Honduras is a country with markedly adverse economic, social and health situations. When the hurricane struck, more than half of its population lived at or below the poverty line; following the disaster, statistics showed that an additional 17 percent of the inhabitants had plummeted into poverty. Thus, the effects of the disaster were compounded by the situation on the ground.

When poverty levels are combined with what is known about the distribution of psychological trauma, there is a clearer pattern for aid workers to follow when dealing with psychological damage control. In other words, efforts to extricate people from poverty would need to take their probable mental status into account. That mental status could well
Mental health experts have many roles to play in disaster assistance, but one of the most important is to help fashion public policies.

Constitute a factor that could weigh down those attempts.

Fortunately, much can be done to alleviate the trauma that people experience as a result of disasters. Obviously, nothing can replace programs that assist people in reconstructing their communities and their nation. Housing, food and work are essential. But equally important is work on reorganizing communities, building support systems, fostering positive leadership and promoting a sense of solidarity. The appropriate psychological intervention and psychotropic medication for individuals, as well as counseling for groups, families and individuals, are all needed if mental health and quality of life are to be restored.

Mental health experts have many roles to play in disaster assistance, but one of the most important is to help fashion public policies. For instance, should children be separated from parents to provide them with safer conditions while the emergency lasts? Studies going back as far as World War II have shown that such a policy is wrong, despite the apparently humane motivation behind it. Should schools be closed? Mental health experts would recommend against it.

The experts can also assist decision-makers to cope with their own trauma. In one instance, a very perceptive mayor of a town in Nicaragua told me how affected she was by the whole thing yet, because of her duties, she felt that she could not leave her post. She longed to talk with someone who could understand her situation and offer help. Moreover, she wanted help for her excellent and committed technical team members, who had worked hard and efficiently during the emergency but who were now fighting with each other in the aftermath.

Helping people, whether they are in positions of authority or poverty-stricken victims, involves a wide range of outreach programs. Depending on their degree and complexity, they will undoubtedly increase the burden on service providers. What is clear is that there is no alternative but to make the effort. The psychological effects of trauma cannot be erased by simply turning away. National authorities and donors need to ensure that the psychological cries for help from those who are caught up in disasters are heard by informed ears.

When television cameras and newspaper reporters tell the story of destroyed buildings and gutted roads, there are very few arguments about the need to reconstruct the physical world and repair the structural damage. Less visible to the casual viewer—but arguably more important to the recovery of the afflicted nation—is the reconstruction of people. That is, after all, the overriding reason for any intervention.

Itzhak Levav is the mental health program coordinator in the Division of Health Promotion for the Pan American Health Organization.
Gambling On Catastrophe

Despite significant technological and scientific advances, the ability to predict, quantify and prepare for natural catastrophes remains inadequate. While new approaches continue to be developed by a sophisticated insurance industry, they have not extended to a developing world largely unprepared for catastrophe and dependent on little more than divine providence. **By Paul Freeman**

**CTS OF GOD—THE THREE WORDS THAT GRACE ALMOST**

every insurance policy and that summarize the most unpredictable and devastating forces of nature: earthquake, flood, hurricane—are among the most difficult to insure against. Insurance works most effectively for events that occur frequently and have minor financial impact, such as traffic accidents or theft. These risks can be quantified and mapped over time—they are small, unrelated losses. Catastrophic events, on the other hand, have the opposite impact—they occur infrequently, with devastating effects often spread across large geographic regions.

Developing countries are often worst hit, socially and economically, by these catastrophes. A number of factors explain why developing countries suffer most. The key reason is that proper quantification tools and risk modeling techniques do not exist to explain why planning and management of risk transfer would benefit emerging economies vulnerable to natural hazard events. The second is a lack of insurance traditions in these countries. Finally, a juridical structure or central agency responsible for assessing, collecting and transferring risk is absent.

During the past decade, enormous progress has been made in understanding the nature and consequences of natural catastrophes. This is due to the increased use of catastrophe simulation modeling. Computer modeling techniques developed in the 1970s have been used to simulate both the physical characteristics and impact of natural hazard events and to estimate the economic loss over a period of time. However, the insurance industry did not take much heed of this modeling work until the 1990s, despite warnings that the industry had badly underestimated the costs of catastrophes. A series of major disasters, the most significant of which was Hurricane Andrew in 1992, changed the attitude of the insurance industry.

The development of computer modeling and the growing knowledge and understanding of the risk and impact of catastrophes have created a bigger market for the insurance industry. The amount of catastrophe insurance purchased in the world insurance markets has increased 34 percent over three years. In 1997, the most common type of catastrophe reinsurance—excess of loss coverage—amounted to US$1.9 billion. The innovations in computer modeling have also created the opportunity for insurance companies and corporations to spread these risks to capital markets. Instead of having the risk assumed by the traditional insurance companies, the risk is "embodied" in new financial instruments called "catastrophe options" or "catastrophe bonds." Through 1998, nearly $2.7 billion of these capital market instruments have been issued for risks as varied as hurricanes and earthquakes in both the United States and Japan. While representing less than 2 percent of the total market for catastrophe risk transfer, the accessing of the capital market is an intriguing long-term

The insurance industry relies on computer modeling techniques to understand and measure the risk and impact of catastrophes.
ENORMOUS AND ESCALATING COSTS

The year 1998 proved to be another period of significant costs to the world from natural catastrophes. They claimed the lives of 50,000 people and caused economic damage of nearly US$90 billion. This is the second highest damage total in history, only eclipsed by the damage caused in 1995 by the Kobe earthquake. Compared with 30 years ago, the annual cost of natural catastrophes has increased nine fold.

Over the last 10 years, geological events such as earthquakes and volcanic eruptions have occurred evenly throughout the period, while the number of atmospheric events—windstorms, hurricanes, flooding, drought, avalanches and forest fires—have increased. Windstorms and flooding are most common, each accounting for approximately 33 percent of all events. Sixty percent of deaths from natural disasters are the result of floods. While economic losses from floods, windstorms and hurricanes are almost equally divided, with each accounting for nearly 30 percent of all losses, only 8 percent of flood damage is insured as opposed to 67 percent of the damage from windstorms. The reason for this is that windstorms occur in areas of the world where there is a high level of insurance—the United States, Japan and Australia—while floods dominate in Asia, where the insurance level is low.

In many developing countries, infrastructure is owned by the state, which must bear the costs of repair and reconstruction after a major catastrophe. The obligation of the government to pay for catastrophe losses would be less if a well-established insurance market existed that assumes partial responsibility for the damage to infrastructure. Governmental reform may be required to create a juridical entity to collect and transfer exposure to catastrophic risk as well as create the environment for an active private market. Risk transfer can be a powerful planning tool. In relation to natural catastrophe risks, new tools have been developed over the last five years to help entities in developed countries transfer catastrophe risk to capital markets. Unfortunately, the benefits of these tools have not extended to developing countries. The World Bank is exploring ways to make the benefits of risk sharing available to a larger number of countries. As the frequency and severity of natural catastrophe events continue to increase, this work will become more important.

Paul Freeman is a senior research scholar for the Risk Modeling and Policy Project, International Institute for Applied Systems Analysis, Austria.
Asia's Risk-prone Cities

Asia is the most disaster-prone region of the world. With the increasing concentration of population and economic activity in rapidly growing cities, its urban areas are more vulnerable than ever.

KOBE, JAPAN (pop. 1.5 million)

1 On January 17, 1995, the port city of Kobe was struck by an especially deadly and destructive earthquake, which killed over 6,000 people and destroyed more than 90 percent of the port's 187 berths. A 500-meter elevated section of Kobe's main east-west road, the Hanshin Expressway, gave way as did the elevated track for the shinkansen—the 250-kilometer-per-hour “bullet” train. Damage was estimated at US$100 billion—about half of Kobe's normal yearly economic output.

RECONSTRUCTION: In December 1995, the Hanshin-Awaji Economic Revitalization Organization (HERO) was established by Hyogo Prefecture, Kobe City, and towns and villages, as well as private enterprises, in the quake-stricken area. The organization carried out research surveys on reconstruction, held seminars, and created an exchange of information to achieve the revitalization goal. In all, nearly $5 billion was spent to restore the port's facilities. In the aftermath of the earthquake, the activities of volunteer workers have expanded due to restraints on individual disaster management institutions. In 1998, the Asian Disaster Reduction Center was established. At the national level, plans are in process to create a special office for disaster management within the cabinet led by the prime minister. Following the earthquake, Japan launched a five-year plan for emergency earthquake disaster prevention in all its 47 prefectures. Resistance capability of ports, bridges, roads, railways and other public buildings has been checked. A law has been enacted for buildings to meet seismic standards; tax credits and tax exemptions are available to help companies enforce this.

KATHMANDU VALLEY, NEPAL (pop. 1.5 million)

3 The last earthquake that struck Kathmandu Valley measured 8.4 on the Richter scale. That 1934 disaster destroyed 20 percent and damaged 40 percent of the valley's building stock. In Kathmandu itself, one-quarter of all homes were destroyed.

RECONSTRUCTION: In January 1999, the National Society for Earthquake Technology (NSET-Nepal), a professional association of disaster managers, established an Earthquake Safety Day to increase seismic awareness on the anniversary of the earthquake. The prime minister delivered a public radio message and formally released the Kathmandu Valley Earthquake Risk Management Action Plan and the Earthquake Scenario of Kathmandu Valley, two key documents produced under the Kathmandu Valley Earthquake Risk Management Project. NSET-Nepal organized an earthquake awareness exhibition and presented a "shake-table" simulation of how different building types, with and without seismic reinforcement, would react to a high-intensity earthquake. NSET-Nepal has since been overwhelmed with requests for information on constructing earthquake-resistant buildings.

METRO MANILA, PHILIPPINES (pop. 10 million)

2 In November 1995, the metropolitan Manila area was hit by three typhoons that claimed over 1,000 lives—with hundreds missing—and left thousands more homeless. Three years later, in October 1998, Typhoon Babs hit the northern Philippines, leaving parts of Manila submerged. About 15,700 people, including many squatters, were evacuated from the low-lying areas.

RECONSTRUCTION: Following Babs, the Philippines government declared a state of emergency in the worst affected areas, releasing local and national disaster funds to hasten relief and rehabilita-
BAGUIO CITY, PHILIPPINES (pop. 120,000)

On November 1990, an earthquake struck the resort town of Baguio in the city of Baguio. Nearly 1,000 people were trapped or died in damaged buildings. Several hotels, the University of Baguio and the Philippine Military Academy were especially badly hit. The three main access roads to Baguio were blocked by landslides, making delivery of critically needed aid impossible. The airport was temporarily closed to commercial flights so food, supplies, equipment and rescue personnel could be transported via military and privately owned aircraft.

RECONSTRUCTION: The Philippines is a good example of how the private sector can be harnessed for urban disaster management. The private sector got involved in disaster relief after the 1990 Baguio earthquake. Members of the Philippine Business for Social Progress (PBSP), a corporate-led social development organization, got together and formed the Corporate Network for Disaster Response (CNDR). CNDR was formed initially as a loose alliance of private firms which responded to the needs of victims of the July 16, 1990 earthquake. Founding members included the Makati Business Club, the Philippine Business for Social Progress, the Philippine Investment-Management Consultants, San Miguel Corporation, UCPB Foundation, and Coca-Cola Foundation. After the Baguio quake, the CNDR adopted a standard operating procedure to conduct a needs assessment of the areas hit by a disaster before accepting offers of assistance from member and non-member companies.

BANGKOK, THAILAND (pop. 6.8 million)

In November 1995, floods washed over parts of Bangkok as high tides flowing up the Chao Phraya River met floodwaters coming down from deluged central provinces. Authorities circled central Bangkok with a network of flood barriers, but neighborhoods on the wrong side of the embankments were inundated. More than 200 people died. Unpredictable severe rainfall-induced floods have made decisionmakers rethink current dam and reservoir projects. Low-lying Bangkok—which is almost at the mean sea level—was less damaged than other parts of the country because of some structures erected for flood protection in 1983.

RECONSTRUCTION: After the 1995 floods, the drainage and sewage department of the Bangkok Metropolitan Administration (BMA) and the city police have been working out plans to prevent and ease flooding on roads in flood prone areas of the city. Water pumps have been installed in key areas to drain flood water from roads within three hours.

DAqing, China (pop. 2.5 million)

In August 1998, raging river waters threatened to flood the city of Daqing, site of China's largest oil field, despite round-the-clock sandbagging by soldiers. Daqing has 26,000 wells which produced 17.9 billion gallons of oil in 1997—about a third of the nation's total. Flooding at Daqing closed 527 oil wells, reducing output by more than 2 million gallons.

RECONSTRUCTION: A lottery has raised US$81 million to help the hundreds of thousands of people hit by devastating floods last year. The flood relief lottery launched in October 1998 had prizes ranging from cars to color televisions and bicycles.

BANDUNG, INDONESIA (pop. 3 million)

Despite its location in the seismic zone of west Java, Bandung has not experienced a devastating earthquake during the past 100 years, and therefore little awareness of urban seismic risk exists among the general public and decision-makers. The establishment of the Indonesian Urban Disaster Mitigation Project has increased awareness in Bandung through an education program for school children. The program began in October 1998, when school children and teachers of selected elementary and middle schools participated in an earthquake scenario workshop to learn about urban seismic risk. Since January 1999, the program has developed educational materials that include posters on what school children should do before, during and after an earthquake. Special interactive classes, earthquake drills and awareness day activities have contributed to the success of the campaign. The program will be replicated in other schools in Bandung and nationwide by the Ministry of Education. A Web site has also been developed: http://www.kompak.or.id

Compiled by PATRALEKHA CHATTERJEE and LAURA FRIED, Asian Disaster Preparedness Center.
A View From DHAKA

One year after the century's worst floods there is growing public realization that the city of Dhaka needs to move beyond crisis management to a culture of prevention. BY PATRALEKHA CHATTERJEE

DHAKA, BANGLADESH, IS A CITY THAT CAN NEVER BE completely immune to flooding. It is on the banks of the river Buriganga and surrounded by a network of other rivers. When the water level rises during the monsoon season, the city becomes very vulnerable. Currently, though, the degree to which one is vulnerable in Dhaka depends on where one lives.

In this teeming metropolis, the west is best. In August 1998, residents of the western part of the city escaped the flood's full fury, thanks to a city protection embankment. The tens of thousands living in the unprotected eastern part of the city bore the full brunt of the floods. But ultimately, even parts of the protected area—including upscale neighborhoods and the diplomatic district—suffered.

"I was lucky," says Mohammed Sirajul Islam, a young architect working in the recently established Urban Planning Department of Dhaka City Corporation. Islam says he is fortunate he lived in one of the protected parts of the city. But even here, the drinking water was contaminated as sewerage floated through the city.

A different set of reasons was responsible for the good fortune of Moinuddin, a Dhaka rickshaw driver. When the floods came, he stayed in his hut on the slope of a dike. Like many shanty dwellers living in the low-lying, flood-prone parts of Dhaka, he realizes that life atop the embankment site is the best insurance policy against future hazards.

I met Moinuddin quite by chance when I was taken to the embankment site one morning by Shahadat Hossain Chowdhury, who heads the Dhaka Integrated Flood Protection Project (DIFPP). The purpose of our visit was to see the dam—the centerpiece of the official strategy to protect Dhaka against future floods. Chowdhury also wanted to show me the row of mud-walled huts on the slope. "They are breaching the embankment. Maintenance is becoming a serious problem," he said, pointing at the shanty dwellers standing nearby. Every time there is a flood in the country, thousands from the countryside stream into Dhaka, lured by the prospects of free food and shelter, he noted. The new migrants settle wherever they can.

Moinuddin and others who have been living on the flood wall relute the charge that they are hazards to the dam. The government says it is working out a resettlement plan, but—given
The magnitude of the problem—the task ahead will not be easy. The embankment is a direct result of a major flood that swept Dhaka in 1984. That flood galvanized the international community into thinking seriously about how to make the city less vulnerable.

Subsequently, the Dhaka Integrated Flood Protection Project was launched in 1992. The initiative was one of the recommendations of the flood action plan formulated by donor agencies, led by the World Bank, in consultation with the Bangladesh government.

Initially, the plan was to cover 260 square kilometers of Dhaka, but money for the entire project area could not be raised. The executing agencies therefore divided the work of flood protection, drainage and environmental improvement into two phases. They decided to start with the more densely populated western part of the city which covers 136 square kilometers. Today, phase one, which is funded by the Asian Development Bank is nearing completion, and the Bangladesh government is talking to a consortium of donors to fund the next phase covering east Dhaka.

Despite this elaborate effort to protect Dhaka, however, the city still proved vulnerable in 1998. It is easy enough to figure out why the floodwaters wreaked havoc in the unprotected western part of the city. But why did Dhaka west, supposedly protected by a flood wall, become inundated?

I met Prof. Ainun Nishat from the water resources department at Bangladesh University of Engineering and Technology, to understand the issue better. A study Nishat conducted after the '98 floods—together with Prof. M. Faisal and M.R. Kabir, two other eminent water resource experts in Bangladesh—points out several shortcomings of current flood management practices. If 20 percent of Dhaka west, the protected part of the city, went under water in 1998 and it did, leakage through un gated drainage pipes and through incomplete segments of the flood wall along the Buriganga river south of Dhaka, plus inadequate pumping from retention ponds and lack of coordination among the various government authorities responsible for flood control and drainage are to blame.

Unplanned construction activity also plays a role. Specifically, it is destroying the city's retention ponds. Nishat stresses that attention must be given to maintaining a proper internal drainage network, and that this must be incorporated into Dhaka's long-term land use plan.

A 10-page document presented to me by Mohammed Sirajul Islam of the Dhaka City Corporation outlines the steps the city authorities took in the aftermath of the '98 floods. It notes that after the floodwaters receded, work on protecting the slopes of the embankment and improving the city's drainage network has been speeded up. In some parts, the height of the dam has been increased, major flood-damaged roads have been repaired, cracks in the embankment are being plugged and pumps are being installed to drain wastewater.

Meanwhile, speculation continues about when the dam will be completed. The project is behind schedule, and Shahadat Chowdhury, the man in charge, blames it on delays in finalizing consultant agreements as well as recurring labor strikes. Shamsul Islam, a joint secretary at the Ministry of Disaster Management and Relief, assures people that the project will be completed by 2002.
WHILE THE DAM IS THE GOVERNMENTAL RESPONSE to floods in Dhaka, the city’s influential NGO community is starting to rethink its strategy toward natural disaster response. For starters, there is a growing realization that urban issues need to be given greater attention.

In 1972, 8 percent of Bangladesh was urban. Today, that figure has increased to nearly 25 percent. “But Bangladesh still does not have a national urban policy,” comments Shabir Ahmed Chowdhury, coordinator of the recently established urban program at the Bangladesh Rural Advancement Committee (BRAC), the country’s largest NGO. I met Chowdhury in BRAC’s main office. He mentions one innovative program—unclogging choked drains in Dhaka as the floodwaters started receding. “We started a scheme where people could earn money to help clean the city. Five Bangladeshi takas for one kilo of polybags—that was the rate. Then we sold the polybags to those who had recycling units.”

One significant outcome of the 1998 floods has been the growing public realization that the city needs to move beyond crisis management to a culture of prevention. Sitting in his office in Mohammadpur, a quiet leafy neighborhood in Dhaka, Oxfam’s Anamul Haque speaks emphatically about the need for strategic planning. “We know how to mobilize paramedical staff and essential drugs at short notice. But we need to have a more well-defined contingency plan. If there is a flood in 1999, we will strengthen our health intervention. Safe drinking water is a scant commodity during the flood. We have water purification equipment, we have the expertise, so this will be one thrust area. The other initiative could be a mobile hospital of volunteers, paramedics and doctors who will travel in boats from area to area doing pathological tests and transporting patients to hospitals.”

The idea of a permanent disaster loan fund is also slowly gaining currency within the city’s NGO community. Lack of a revolving fund for disaster emergencies has been a major constraint for the nonprofit sector. Large NGOs like BRAC, Proshika and the Association for Social Advancement came forward with interest-free shelter assistance for members to rebuild their houses immediately after the floods.

There is some movement on this front. The World Bank says it wants to fund an emergency flood recovery credit scheme for Bangladesh. The project will provide immediate, quick-disbursing credit to various sectors in the Bangladesh economy which were affected by the floods, including the ready-made garments industry, a vital foreign exchange earner.

One initiative that is already under way is the Emergency Loan Assistance Project (ELA), an initiative of the Income Forum, a network of 38 local NGOs dealing with microfinance in urban areas and under the aegis of the Cooperative American Relief Everywhere (CARE) and the UK’s Department for International Development. “ELA is a post-flood rehabilitation project with two main goals,” says Shafiqul Islam, coordinator of Income Forum. The project has provided emergency financial assistance to 50,000 of the worst affected low-income households in Dhaka to rebuild their lives and businesses. The amount disbursed to each household is only 500 Bangladeshi taka (about US$10), but at least it’s a start. ELA also wants to establish a Disaster Loan Fund, a standby reserve fund that can be tapped by member NGOs in case of another disaster.

Critical to the success of any disaster mitigation strategy is public awareness and people’s participation in the planning process. Thanks to a government initiative this year, Dhaka’s school children are studying a chapter on disaster management. Currently, the curricula in all training institutions has a section on disaster management.

The key obstacle for Dhaka’s 10 million inhabitants is that much of their energy is focused on survival rather than prevention. The most effective insurance against flooding is teaching people the importance of prevention through structural and financial measures.

PATRALEKHA CHATTERJEE, Asia correspondent for Urban Age, is a New Delhi-based journalist who specializes in development issues.

DHAKA FACT FILE

Dhaka is the capital and largest city of Bangladesh, one of the poorest countries in the world with a per capita income of US$285.

Dhaka has more than 9 million inhabitants. By 2015, the population will reach around 19.45 million.

54 percent of Dhaka’s population live below the official poverty line.

The city is surrounded by a network of rivers. It is within the monsoon climate zone. Nearly 80 percent of the annual rainfall—1,854 mm—occurs between May and September.

71 of Dhaka City Corporation’s 90 wards were seriously affected by floods.

400 kilometers of roads were severely damaged.

Power supply: 400 switch boxes were under water.

Health: 82,054 people were affected by diarrhea; approximately 300 people died.

SOURCE: DHAKA CITY CORPORATION
Globalization, the Internet and Trends toward fiscal and political decentralization are among the many forces that are pushing cities to compete worldwide for businesses, tourists, resources and intellectual capital. But the concept of competitiveness is also a constant challenge to city leaders—many of whom will have considerable difficulty approaching a state of sophisticated free market bliss anytime soon.

What does competition require? What resources, skills and investment do cities need to develop as they compete regionally and internationally? How can the private sector help? The Competitive Cities Congress sought to answer these and other questions by exposing city leaders and participants to the latest thinking and practices in the private sector and at the World Bank. At the same time, it allowed the city leaders to explain the complexity, burdens and needs of their administrations.

While investment in infrastructure, waste water management and telecommunications remain municipal priorities, new ways of thinking are required—how to identify a city’s unique strengths; how to market a city and develop a public relations platform; how to create cultural, social and other strategies, and much more. In fact, the “competitive city” will emerge only after identifying comparative advantages and acting on them.

From the Podium

At the Congress, presenters and participants, private and public sector leaders, discussed topics ranging from city marketing and private sector finance to information technology and water management.

Find and Fill a Need

Cities need to “find a need and fill it,” stated Sir Peter Hall, professor of planning at University College London and author of Cities and Civilisation. Increasing competition and globalization has led to a rapid transition in urban economies. Industrial wastelands have been transformed into service sector and knowledge-based economies. Using examples such as Bilbao, Hong Kong and Singapore, Professor Hall noted that “cities need to constantly reinvent and reform themselves,” adding that “solid infrastructure and quality of urban life are also crucial.”

Attracting World-Class Events

Events can create strategic spin-off effects for cities such as attracting new investment, promoting flexible planning laws and encouraging municipal experimentation. When planning for such events, cities need to consider whether to go for a “big bang” strategy or take 100 small steps. Do big glamorous projects work? Or are smaller ones better? World-class events should be locally driven but internationally marketed.

The Digital Age

Singapore has developed a single system called “Singapore One—one network, one city.” This high speed, broadband network has
150 applications for shopping, entertainment, business, distance learning and government information. With a small land mass and no natural resources, the city-state needs to retain its competitive edge as a knowledge-based, service sector economy.

Goods that are moved virtually still need to be delivered on the ground. "There is no fully virtualized firm or sector," argued Dr. Saskia Sassen, professor of urban planning at the University of Chicago. "We have to go back to actual space." Thus, almost paradoxically, information technology is re-igniting cities in a number of significant ways. For example, the more globalized a firm's activ-

"Cities need to constantly reinvent and reform themselves."

ities, the more complex its organization. This requires outsourcing of traditional in-house services—legal, accounting, financial and regulatory. A new networked sector of advanced corporate services are invigorating downtown areas. Cities have a competitive advantage as strategic sites with access to sound infrastructure.

To maximize the benefits of technology, a mix of talent is required. A complex labor market can only be found in cities.

Private Finance For Public Purposes

"The private sector has US$20 trillion in capital to invest in emerging markets," said Everett Santos, managing director of Emerging Markets Partnership, "far more than international organiza-
tions." This capital could help to develop urban infrastructure and services where local investment is limited. "But accessing this money requires taking risks." Santos admitted frustration with governments that do not understand or trust that basic economic model. "Governments suggest that they want to privatize, but then act to limit privatization," he said.

"Using private finance effectively requires private sector skills," said Andrian Montague, chief executive of the United Kingdom's Treasury Taskforce. "Although the difficulty often is that public sector officials are policy makers, not deal makers." Private finance is different from privatization. It is used to re-equip government. Instead of selling off public assets into complete private ownership, the government partners with the private sector. Effective finance programs, he said, need a sound legal framework, strong political support and a clear strategy.

The Business Of Transportation

During a roundtable discussion on transportation infrastructure, representatives from Warsaw, Pretoria, Bogota and Kathmandu stated that they wanted the private sector to be more involved in transportation projects. However, they required more information on concessions, franchising and management agreements. Warsaw wants to build a second metro line through a public-private partnership and may do this through a private sector concession arrangement. Bogota wants to build a subway, and Kathmandu is planning to put its bus service under a private management contract. Pretoria is struggling to reorganize its taxi services, which all belong to different private organizations.

The Private Sector Delivering Water

There are obvious and compelling reasons for the private sector to enter the market for delivery of water in the world's cities, according to Alexander Kulpecz, president of AZURIX, a global water company based in the United States. For example,

- A billion people in the developing world lack water, and 2 billion need wastewater services.
- Infrastructure is either deteriorating or nonexistent. In many parts of the world, population growth has outstripped the ability of systems to keep up.
- Government budgets are often inadequate to meet the challenge, whereas the private sector has access to capital.
- What should a city do if it is interested in using a private company for water delivery? "Look at how you handle water differently," said Kulpecz. A city should analyze what goes into delivering the water, including the costs of equipment and personnel, and judge that against the income from user fees. He suggested that cities talk to companies and look for those that have experience, that understand the city's circumstances, and that operate on sound business principles.

Cities Alliance Launched

World Bank President James D. Wolfensohn and UN Under Secretary-General Klaus Toepfer, Acting Executive Director of the United Nations Centre for Human Settlements (Habitat), met during the Competitive Cities Congress to launch the Cities Alliance, a multi-donor coalition with cities and their development partners. This initiative has been conceived to improve the efficiency and impact of urban development cooperation in two key areas: to define shared visions and strategies for city development, and to improve the living conditions of the urban poor.

The Alliance is a global partnership of UNCHS (Habitat) and the World Bank with other UN agencies, regional development banks, bilateral agencies, local authority associations, NGOs and the business community. Through the Alliance, successful local initiatives and practices will be transferred to other cities to promote sustainable, healthy urban areas. Partner cities and countries will be selected on the basis of competitive criteria that emphasize their prospects of success and sustainable change.

The Alliance's initial funding target is US$21 million for its first three years of operation. Given the direct linkage of Alliance activities to investment strategies, it is envisaged that these funds will leverage urban development investments of well over $500 million.

To contact the Cities Alliance support team, which is based in Washington, telephone 202-473-0575 or send an e-mail to: CitiesAlliance@worldbank.org
Urban Age interviewed mayors and other highly placed city representatives at the Congress. What emerged was a sense of the unique scale and requirements of their responsibilities. The officials mused on a variety of themes and topics: how they receive and use information, how they propose to "sell" their cities, the growth of city populations—both planned and unplanned—and how to make the best use of their comparative advantages. Problems abound. (In Bogota alone, for instance, 1 million people lack access to water, and within the city there are 1,500 kilometers of unpaved roads.) But everyone we spoke with shared a realistic—and often wry—understanding of their prospects for growth and improved management.

The Mayor of Pretoria, Nombuyiselo Joyce Ngele, on information

"A strong mayor is one who listens," says Mayor Ngele. Because the mayor has "no time for newspapers or television," she gathers municipal information through a system known as the Planning Zone Forums. The forums gather information from grassroots organizations and transmit it to her council. Her executive committee also provides her with information, and she regularly meets with other mayors from her province, Gauteng, to discuss common issues. In this way, she is able to "do what people need."

The Lord Mayor of Prague, Jan Kasl, on "selling" his city

Mayor Kasl has created a strategic plan to sell Prague under the slogan "10 Centuries of Style." The city has also developed programs to promote its culture, literature, history and other attributes. The programs are aimed at improving the city's public relations and marketing of the city and at creating a business-friendly environment. Mayor Kasl feels these will generate interest in Prague and draw businesses, tourism and development to the city. Once the programs have begun, he is certain the momentum they will create will result in greater financial resources for the city, which will be used for infrastructure development and a sustainable city center.

The Mayor of Bogota, Enrique Penderosa, on growth

During the last 50 years, Bogota's population has grown by 1,000 percent. According to Mayor Penderosa, only half of the 150,000 people who are added to the city's population each year are new births within the city. The other half is due to movement into the city by people from the surrounding rural areas. Country-wide, there is often conflict about how to ensure that growth is organized and well managed. There has been a tradition of illegal growth and squatter housing in the city, but no agreement between the municipality and the national environmental agencies about how to handle it.

The Mayor of Kathmandu, Keshav Sthapit, on culturally led competitiveness

"I like to bring people together," says Mayor Sthapit. One approach has been to invest in sports activities and facilities, which he feels will help build a sense of community and, at the same time, generate income for the city. As the member secretary of Kathmandu's Sports Council and a member of the city's International Olympic Committee, Sthapit established the World Cup for Right- and Left-Handed Cricket Players. The cricket tournament, to be held at the end of this year, is expected to attract 50,000 people. Sthapit points out that Kathmandu has two comparative advantages in this venture: the first is the country's climate. It is too hot and humid to play cricket in Southeast Asia during the summer months; Kathmandu's cooler, mountainous location is an obvious alternative. The second advantage is the city's location between Pakistan and India. "It's difficult for Pakistanis to go to India, so hosting a sports event in Nepal makes sense," he said.

The Deputy Mayor of Warsaw, Maciej Brzeski, on comparative advantages

"We want investors in Warsaw," Mayor Brzeski says, adding that the city has "very good conditions," comparable to Prague and Budapest. He listed the assets that he considers to be Warsaw's strong points. First is its history as the national capital, especially as a focus for tourism and as a recognized place for doing business. Second, its location, along a line from Paris to Berlin and Moscow, makes it a central point for all types of commerce. Third, Warsaw is experiencing increased foreign investment—investors from the United States, Sweden and Korea are erecting office buildings and hotels within the city. Hotels will help provide a better future for this city's 1.6 million inhabitants, he believes, by making Warsaw more "tourist-friendly" as well as encouraging the business traffic that he expects to grow in the city.
Urban Age Survey Probes City Leaders' Views on Issues, Challenges

Traffic congestion and dealing with solid wastes are among the most severe issues facing city leaders today, according to a survey of attendees at the Competitive Cities Congress. The survey, sponsored by Urban Age and KPMG, the international consulting firm, asked attendees to rank 14 city-related issues ranging from air pollution to urban crime.

The most commonly expressed concerns relate to the rapid growth cities are experiencing. More than half the respondents ranked automobile congestion as severe or very severe. Pressure to provide public transportation facilities was considered less urgent, and the growth in traffic has not yet caused air pollution to rise to the level of a major concern. Cities are struggling with the collection and disposal of solid wastes, especially disposal, and are frustrated by an inability to provide adequate housing and employment for their citizens. The related areas of health services and urban poverty each merit attention, according to the respondents, as do educational services. They had less concern about their ability to work directly with citizen groups or with issues associated with discrimination. The city leaders feel they are doing a good job of keeping their streets safe, rating crime and overall personal safety as among their least concerns.

The questionnaire also asked the participants to project the issues that they felt would be important over the next 10 years. Their responses indicate an expectation of even greater growth and increased population density. Housing stock and land tenure moved to the top of the list of concerns, while traffic congestion continued to be a major concern. Crime, air pollution and unemployment moved up in the rankings. Public transportation remained a moderately severe concern, but a larger percentage felt that way. Participation by the civil society will be a bigger problem. Health services were rated as moderately severe, as were educational services. The collection and disposal of solid wastes will be more manageable, although providing clean water will be relatively more difficult. Opinions about solid waste disposal varied widely. Poverty problems will be of less concern, and issues related to discrimination were expected to remain manageable.

The questionnaire asked for additional issues the respondents consider important. Several indicated that financial management—especially better collection of taxes and greater sharing of resources among different levels of government—should be high on the list of concerns. Better coordination among governments in general was frequently mentioned. One respondent mentioned privatization of services, noting that "city government does too much with too little."

The welfare of young people also concerns city officials. Some mentioned drug use among children. Others said that recreation facilities should be built, "especially for children and young people."

Additional areas of concern included the environment, destruction of historic cityscapes, public information and transparency, racial integration and controlling corruption.

When the respondents looked down the road for issues that would resonate with cities 10 years hence, several mentioned both the increased age and density of their populations. "A rising number of older people in contrast to a decrease in newborn children," wrote one. Work on city infrastructures will be needed, some said. Others said a sense of competitiveness and an international outlook will be increasingly necessary. The ability to stay abreast of technological innovation will become more important, as will the challenge of finding people who are skilled in the information fields. Financial stability remained high on the list, as did the relationships between local and other governments, although those relationships were not as frequently mentioned they were in the present-day context.

Virtually all the officials who completed the questionnaire said their cities had relationships with the private sector for service delivery. Solid waste collection and disposal were frequently included, as were utilities such as water, electricity and natural gas. Several cities said that sports complexes were run in partnership with the private sector, as are parks and other green spaces. Several public transportation systems were handled by private concerns, and one city said that a company had provided some construction funding for an express highway and would maintain it for 10 years. Another city uses a private firm to provide software support.

**ISSUES AND CHALLENGES FACING CITIES TODAY**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid waste disposal</td>
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<tr>
<td>Traffic congestion</td>
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<tr>
<td>Housing stock and land tenure</td>
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<td>Solid waste collections</td>
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<td>Unemployment</td>
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**ISSUES AND CHALLENGES OF THE NEXT DECADE**

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<td>Unemployment</td>
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**ISSUES OF CONCERN TO RESPONDENTS**

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<tr>
<td>Health services</td>
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<tr>
<td>Educational services</td>
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**NOTE**: Respondents were asked to rank issues on a scale of one to five; this chart combines the total rankings into three categories based on frequency.

*The variation was high among the respondents on this issue; relatively the same number of respondents consider it severe as consider it not to be a concern.*
The landscape of Johannesburg lends itself to easy metaphor—a country fractured, fenced off, fenced in. The lush gardens, paved roads, staid offices buildings and high-security residential areas of white Johannesburg stand in dramatic contrast to the chaotic, indigent life of the African township.

It's with this setting in mind that South African playwright and advertising executive John Hunt envisaged his project, Hands Across the Highway. The project's centerpiece was the staging of his play, Stand in the Sun, a production that broke new ground in local South African theater when it opened in Johannesburg on April 15.

It was the actual staging of the production that was unique. Hunt produced two versions of the play simultaneously, presenting two casts in two venues: one in Sandton—a largely white, highly affluent residential area—and one 3 kilometers away—literally across the highway—in Alexandra (Alex), a desperately poor township of 500,000 people.

For generations, these two communities have been divided on all possible grounds—race, language, economy, class and politics. They share little beyond a deep-rooted mutual suspicion.

Audiences who would typically have gone to one venue were bussed to the other—the idea being, Hunt says, to link, through performance and spectacle, two distinctly different cultures and communities who in everyday life rarely interact. It was an effort, explains Hunt, to extend "hands across the highway."

The need for two traditionally polarized communities to come face to face with each other was probably much more urgent for the
STAND IN THE SUN

John Hunt is a partner in TBWA Hunt Lascaris, one of the most successful advertising agencies in the country. Five years ago, he was invited to the inauguration of President Nelson Mandela. "There I was watching this thing unfold," Hunt says, "and thinking, what do you do now that water has turned into wine? Is a miracle sustainable—if not, what happens next?"

From then on, Hunt explains, he wanted to watch where South Africa was going, "not in the political sense," but "by tracking the nation's mood."

About two and a half years ago he "started taking notes." Then he met Justice Hlomuka-Ngidi, the mayor of Sandton and Alexandra which together form the eastern metropolitan area of greater Johannesburg. Like most other whites, Hunt had never been to Alex before, so Ngidi invited him to come and take a look. They had a number of informal meetings to discuss ways in which these two diverse areas might be brought closer together. After exploring the town and meeting with some local people, Hunt decided to write a play and set it on the outskirts of the township.

Stand in the Sun revolves around two Alex residents—an older South African man and a flashy get-rich-quick townswoman—and a white man who works as a security guard in Sandton. Through these three characters—Vusi, Daniel and George—the play explores where South Africa and its various peoples have found themselves five years after the end of apartheid. George stumbles upon Vusi and Daniel at the crossroads, as he searches for gas for his car, which has broken down at the side of the highway dividing Alex and Sandton. Their meeting point is also at a metaphorical crossroads, and the three engage in a confrontational dialogue.

The play brings the inverse of Hunt's inauguration day anything-is-possible feeling into sharp focus early on, when the young Vusi taunts the modest, older Daniel, who is sitting at the crossroads, about "waiting for the new South Africa to drive past on a Putco [public transport]."

Five years into the new democracy, the prevailing feeling in South Africa is disillusionment rather than optimism—certainly for the majority of the country's black population, for whom economic circumstances have remained dire, if not deteriorated. Hunt's play ends with the two young men, at loggerheads throughout (George accuses Vusi of having stolen his car), finally tied together by Daniel. "Now I can see the new South Africa," Daniel says, laughing at the tangled spectacle of South Africa's next generation.

Annabel Biles is assistant editor of Urban Age magazine. Adele Sulcas is a journalist for The Sunday Independent, Johannesburg.
How much of an average person's income goes toward buying a house or renting an apartment tells a lot about the health of a city's housing market. In a well-functioning market, housing expenditures should not account for an undue portion of household income. These figures also provide information about housing policies. Variations in values among apparently similar urban areas may mean that policies have affected the availability of housing and land. Countries that have enacted policies to enable individuals to own their own homes, for example, often have much more affordable and larger dwellings than countries of similar developmental or income levels with heavy market restrictions.

The house price to income ratio measures the median free-market price of a dwelling unit and the median annual household income. Household income is defined as gross income from all sources, including wages, salaries, income from business or informal sector activities, investment income and, where such information is available, in-kind income such as consumption of agricultural produce that might otherwise have been sold. Expenditure data can be used to estimate incomes if actual income data are not readily available.

Housing value is defined as the price at which a house would sell if placed on the market for a reasonable length of time by a seller who is not under pressure to sell. Since the median price has 50 percent of houses priced below it and 50 percent above it, the calculation includes all housing, old and new, formal and informal. If, for example, the majority of the housing stock is informal, and the informal housing is generally cheaper than the formal housing stock, then the median priced house will probably be an informal unit. Where the informal sector is small and data are reliable, median house prices are determined directly from published (formal) sales figures or from recent surveys. If recent average prices are available, they can be converted to median prices through a median/mean ratio from an older household survey. Much of the research done on housing markets in developing countries has shown that median prices are generally about 70 percent of the average. This figure is higher where housing is more equally distributed and lower where housing is less equally distributed.

Preliminary studies suggest that house price to income ratios are particularly high in countries that have restricted private property rights and where the public sector owns much of the land and housing. A high ratio also indicates excess demand in housing markets, and is often associated with reduced housing consumption and rates of home ownership. Cities in transitional countries have the highest rates (12.0 on average) and Latin American cities have the lowest (3.7 on average). Other areas with particularly high ratios are those with high construction costs and high land prices, caused in part by tight regulatory environments affecting land use and housing construction, with complicated and time-consuming regulations.

The house rent to income ratio is the median annual rent of a dwelling unit and the median household income of renters. Rents are contract rents or the amount paid for the property alone, and do not include utilities such as electricity, heating, etc. If median rent data are not available, estimates based on ranges of rents for different categories of housing can be used. Where controlled or public rents are significantly different from uncontrolled rents, the indicator is estimated separately for each sector and the weighted average taken. House-

### Housing Affordability By Region

<table>
<thead>
<tr>
<th>REGION</th>
<th>HOUSE PRICE TO INCOME RATIO</th>
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<td>Latin America &amp; the Caribbean</td>
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<tr>
<td>Industrialized</td>
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<td>Arab States</td>
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<tr>
<td>Africa</td>
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<td>Asia</td>
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<table>
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<th>REGION</th>
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<td>Africa</td>
<td>.253</td>
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<tr>
<td>All cities</td>
<td>.205</td>
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**hold income** is the median gross income of private and public households. Where renter household income data do not exist, median income of all households is used.

The lowest house rent to income ratios are in transitional countries, where public housing dominates the market. Moscow and Prague, for example, have rent to income ratios as low as 3 percent. Rent to income ratios in other regions range from 20 to 25 percent. In general, a low value for this indicator is a sign of the prevalence of public housing or of rent control measures. Rents are affected by government intervention, usually in the form of rent controls; they can also be affected by market factors. Countries with high demand pressure, as represented by high household formation rates, have higher ratios of rent to income.

These ratios appear to be associated with residential mobility and tenure choice. When ratios of rent to income are high, owning becomes more attractive than renting. Thus, home ownership rates increase.

**MEASURING HOUSING AFFORDABILITY**

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<thead>
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MIC | continued from page 7

ation mechanisms—which IHS's Slits says are often lacking—in an informal but highly informative fashion.

When does MIC yield real benefits, and when does it not? That question is best answered on a case-by-case basis. In the best examples, benefits—tangible and intangible—accrued to both sides of an MIC partnership. In a broad analysis, MIC seems to maximize action and minimize bureaucratic costs. Compared with other types of international cooperation, MIC is usually more reactive and more needs-matched, and its results become better known within the community. In the worst cases, cultural or technical mismatches bottleneck a project. A project might also be too narrowly conceived or lack built-in sustainability. But the learning experiences from municipality-to-municipality cooperative efforts will go into partners' information banks and be used to strengthen future enterprises.

Cultural benefits are hard to quantify, but MIC experts claim that such benefits permeate their work. Developed and developing country partners learn how to operate in each other's social and business milieu; this is important for the success of present and future exchanges as well as for any global business either partner wants to conduct. Further, many developed country participants, on returning to their own multicultural cities in North America or Western Europe, cite a new awareness of diversity at home.

MIC exchanges can be two-sided in other respects as well. FCM's Carlton cites a case where municipal personnel from São Paulo, studying ambulance response procedures and time in Toronto, pointed out ways to improve human traffic flow in the city's subway system. Ramps and transfer points for the Toronto system were consequently redesigned. Moreover, Canadians working in São Paulo on emergency service, low-cost housing and recreational facilities projects took home inspiration for a field-to-market food distribution scheme for Toronto.

Rebecca Morris, program director for the nonprofit organization Megacities, drives home the message: "The South has as much to teach the North as the North does the South—a point often missed."

The typical geographic structure of partnerships is North-South or West-East. There are some important North-North exchanges, especially in the environmental and bio-sustainability arena—like a London-New York information exchange on reclaiming landfill as city greenspace. And South-South cooperation is gaining momentum as well, especially in Latin America. It is still struggling in Africa, observes UN Municipal Development Program Task Manager Jossy Materu, because "local authorities are often limited to declarations of intent and agreements. Cooperation projects are never defined, and agreements are seldom followed through." Yet the group led by Nicholas You, a coordinator of best practices at UNCHS (Habitat) Kenya, has concentrated on South-South transfers and peer-to-peer learning, and has seen municipal exchanges work within these geographic structures.

Because MIC operates on a one-on-one, site-specific basis, MIC partners usually aren't beset by problems endemic to bilateral or multinational donor-recipient relations—relations which are often hobbled by size or by the remoteness of contacts. Consequently, as Jobin points out, "Municipal-to-municipal partnerships are becoming the model for institutional international cooperation." And Wegelin observes that MIC is an "improvement on aid relations" between national governments or between multinational agencies and national governments. But MIC "should not replace these things," since MIC may not cover the local-to-national interrelationships well or because the resources may need to come from beyond the local scope. MIC is part of a network; it co-exists with other modalities. Notes Wegelin, "One needs these additional modalities as well."

As more of the world's population lives in cities, the cities must thrive. And cities involved in MIC probably have a better chance of thriving—at the very least because they husband skills in coordination with others, harnessing as a global group resources and knowledge that the individual entities might never muster on their own. [R]

ANTIA PELTONEN is a New York-based journalist who covers politics and the arts for a number of U.S. and European newspapers and radio broadcasters.

Urban and City Management Course
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The World Bank Institute (WBI) is organizing a course to expose city managers, planners and local level policymakers to a broad set of complex urban issues and the tools to address them. The course is targeted at South Asia.

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- Capital Investment Programming and Budgeting-Synthesis
- Cultural Heritage
- Urban Poverty
- Closing the Circle - Next Steps

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For more information, please contact Claudia Conti via email: cconti@worldbank.org or fax: 202-334-8350.
Awards and Competitions

1999 World Habitat Awards. Entries are being sought for projects that offer sustainable futures to residents and provide practical and imaginative solutions to current housing problems in both developed and developing countries. Competition and preliminary submissions are due by July 1, 1999. Contact: Diane Diacon, Deputy Director, Building and Social Housing Foundation, Memorial Square, Coalville, Leicestershire LE67 3TU, UK. Tel: 44-1530-510-444; fax: 44-1530-510-332; e-mail: BSHF@compuserve.com; Web site: http://www.bshf.org


One World. Virtual gateway to the world of non-governmental organizations. http://www.oneworld.org

The Car Free Cities site provides detailed design principles for dealing with the urban automobile. http://www.carfree.com/

Print Resources

Adding Life to Years: New Ideas and Attitudes to Housing for Older People. The Building and Social Housing Foundation, Coalville, Leicester, UK, 1999.


Implementing the Habitat Agenda: Towards Child-centred Human Settlement Development in Developing Countries.


Urban Organizations

Cooperation for the Continuing Development of Urban and Suburban Transportation (CODATU) is a non-profit association. Contact: CODATU, Espace Ville, rue Maurice Audin, 69518 Vaulx en Velin, France. Tel: 33-4-7204-7701; fax: 33-4-7204-7702; e-mail: codatu@entpe.fr

Habitat Advice and Research Platform, Box 1781, 3000 BT Rotterdam, The Netherlands. Tel: 010-4021-534; fax: 010-4045-671; e-mail: harp@antenna.nl; Web site: http://harp.antenna.nl/
Editor:
I WAS INTERESTED in the Urban Age article “Measures of Travel Time in Cities,” having written some articles on the subject in the early 1980s when employed by the World Bank.

I have just been working in Manila, and—while travel congestion there is the worst I have ever seen anywhere—I find the 120 minutes of travel time you cite not credible. According to the recently published report of the Metro Manila Urban Transportation Integration Study (MMUTIS), average trip times in 1996 were:

- By bus, 78.1 minutes
- By car, 53.8 minutes
- By jeepney, 43.4 minutes
- By taxi, 57.7 minutes
- By tricycle, 17.7 minutes

For no mode of travel did the number of trips lasting 120 minutes or more exceed an eighth of the total. Thus, while the MMUTIS data cover all trips, and yours apparently cover only work trips (this is not explicitly stated but is implied), I cannot help feeling that the 120-minute figure is an uneducated guess.

On another matter, while work trip travel time is of interest, total travel time is as well. Can it be that (for example) travelers in Lucknow spend less time on daily travel than travelers in Melbourne? Are data on total daily travel time being collected as an urban indicator?

GABRIEL ROTH
Maryland

Dear Mr. Roth:
THANK YOU FOR YOUR MESSAGE of interest—and warning. We are well aware that the Global Urban Indicators Database is far from perfect. Most of the data were officially reported by governments. Some data were easy to cross-check and verify; some were not and were constantly reported at the same value by governments, even if potential mistakes were pointed out to them by our team. We are thus engaged in a capacity-building program to assist data collectors and users in improving information for better urban policy and monitoring at the city level.

Thank you for pointing out the problem with the Manila data. I suggest you explore our homepage at the following address: http://www.urbanobservatory.org

It contains the complete database with definitions, as well as other material on indicators and best practices.

CHRISTINE AUCLAIR
Advisor, Urban Indicators Programme
UNCHS (Habitat)

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TAMPERE, FINLAND—August 18-20, 1999. Citizens and Public Administration in the Information Age: Constructing a Citizen-Oriented Society for the Future. Contact: Matti Mälkä, University of Tampere, Department of Administrative Science, Box 301, 33101 Tampere, Finland. Tel: 358-40-504-2498; fax: 358-3-215-6020; e-mail: malkia@uta.fi; Web site: http://www.uta.fi/laitokset/hallinto/CIPA99

GLASGOW—September 19-23, 1999. Connected Cities. Contact: Congress Coordinator, 43 Wassenaarseweg, 2596 CG The Hague, The Netherlands. Tel: 31-70-328-1504; fax: 31-70-328-2085; e-mail: ifhp.nl@inter.nl.net

BUDAPEST—September 23-26, 1999. Caring Communities for the 21st Century: Cross-sectoral Dialogues. Sponsored by the Open Society Institute in cooperation with the International Council for Caring Communities (ICCC) and the United Nations Centre for Human Settlements. Contact: ICCC, fax: 212-759-5893; e-mail: iccc@undp.org

MUNICH—October 10-13, 1999. Gerontotechnology: Aging and Technology. Contact: IMU-Institut Hermann-Lingg-Strabe 10, 80336 Munich, Germany. Tel: 49-89-544-1260; fax: 49-89-5441-2611; e-mail: imu-muenchen@t-online.de

MEMPHIS, TENNESSEE—October 17-20, 1999. Conference on Regionalism hosted by Mayor Jim Rout to explore innovative solutions to regional issues on transportation, economic development, arts and cultural assets, and private sector initiatives. Contact: Dierdre Gilmore, tel: 202-887-5990; fax: 202-466-4845; e-mail: partners@livable.com

LOS ANGELES—October 21-23, 1999. Global City-Regions. Contact: University of California-Los Angeles, School of Public Policy and Social Research, 3250 Public Policy and Social Research, Box 951656 Los Angeles, CA 90095-1656, USA. Tel: 310-794-5477; fax 310-267-0282; e-mail: globalcityregions@sspr.ucla.edu

SANTIAGO—October 20-23, 1999. 5th International Symposium and 4th General Assembly of the Organization of World Heritage Cities. Contact: Institute for Housing and Urban Development Studies, Box 1935, 3000 BX Rotterdam, The Netherlands. Tel: 31-10-402-1523; fax: 31-10-4024-5671; e-mail: f.kelly@ihs.nl; Web site: http://www.ihs.nl

To contribute to the Urban Age City Resource Guide or Urban Calendar, please send brief descriptions and contact information to Annabel Biles, fax: 202-522-2152; e-mail: Abiles@worldbank.org

Suzanne H. Crowhurst Lennard, Program Committee Chair, Box 7586, Carmel, CA 93921, USA. Tel: 831-626-9080; fax: 831-624-5126.


DURHAM, UK—November 22-24, 1999. Cities in the Global Information Society: An International Perspective. Contact: Elizabeth Storey, e-mail: elizabeth.storey@ncl.ac.uk

NEW YORK—February 10, 2000. Caring Communities for the 21st Century: Imagining the Possible. Contact: International Council for Caring Communities, fax: 212-759-5893; e-mail: iccc@undp.org; Web site: http://www.ilo.org/events/agingcf.htm

SINGAPORE—March 8-10, 2000. International Conference on Quality of Life in Cities. Contact: Dr. Foo Tuan Seik, Conference Secretary, e-mail: qolnet@nus.edu.sg


SANTIAGO—October 20-23, 1999. Making Cities Livable: Cyberspace, Y2K and the Sustainable City. Contact:

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