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Bridging the urban divide

Why cities must build equality

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- Interview: Marcio Fortes, Minister of Cities, Brazil

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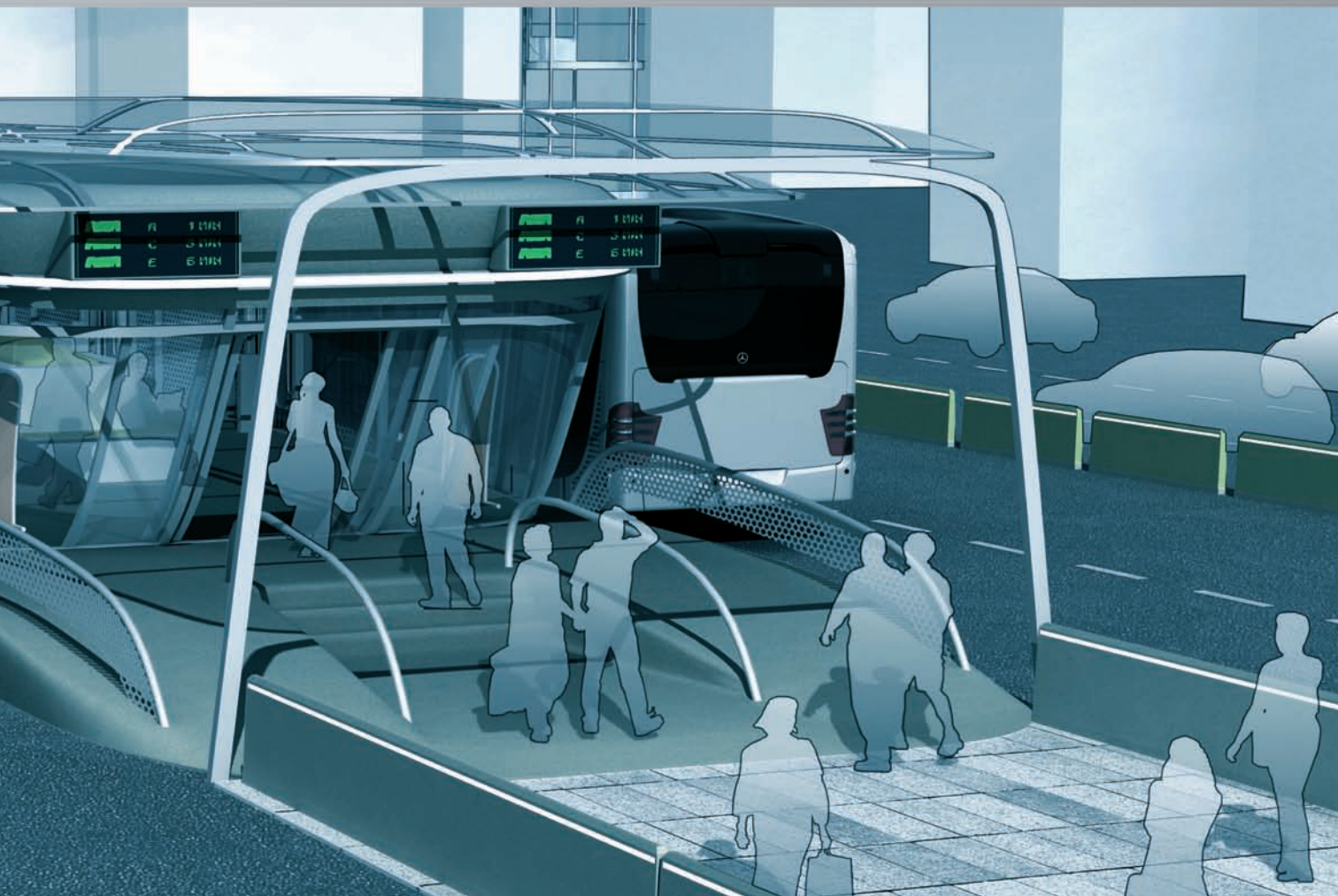
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The urban divide stands out as one of the major paradoxes – some would say scandals – of this early 21st century.

After all, cities concentrate what has become known as the ‘urban advantage’, namely, a bundle of opportunities which, from basic services to health, education, amenities and gainful employment, have never been so favourable to human development. Yet all too frequently, cities also concentrate high, unacceptable degrees of inequality as these opportunities elude major segments of the population.

Equal access to urban services and opportunities is often restricted by all kinds of invisible barriers, but the outcome is so visible. Look, for example, at the growing number of gated communities in many countries that continue to shut the have-nots out. Walk along a street in the capital of a developing country, and you can see the back of the well-served, well-appointed local headquarters of a worldwide business consultancy facing a row of tiny, ramshackle shops catering to the needs of low-income residents.

More often than not, the bumpy stretch of mud that passes for a street will lead to a slum—the cruellest form of urban divide.

The other paradox – or scandal – of early 21st century cities is that the opportunities that come with the ‘urban advantage’ are often closed to women, children and young people with vital roles to play in our collective future. Beyond livelihoods, health and personal development, the whole continuum of deprivations that characterizes the wrong side of the urban divide has a tangible impact on bodies and minds, stunting the physical and intellectual potential of millions among present and future generations.

Even from a purely economic perspective, the stark inequalities making the urban divide look paradoxical too. Business and affluent residential areas typically thrive on the many cross-border linkages that ultimately connect them to the tight network of ‘global’ cities dominating the world economy. The resulting prosperity is what drives the rural poor and immigrants into urban areas, in the hope of securing their own fair share.

The irony is that for lack of qualifications or opportunities, they remain largely confined to a slum-based informal sector that looks like an inverted image of the glowing formal economy in terms of productivity, technology and business connections.

Nearly 10 years into the 21st century, the urban divide has become so acute that its main determinants have, in turn, become easier to identify. Just as slums and sub-standard housing stand as the by-products of inadequate land and housing policies, the informal economy stands as an offshoot of inadequate regulation.

Today’s urban divide is largely an outcome of the biases and inadequacies of the three main tiers of government – central, local and municipal.



The international survey at the core of UN-HABITAT’s forthcoming *State of the World Cities Report 2010 – Closing the Urban Divide* does more than identify the factors behind the economic, social, political and cultural inequalities that continue to plague so many urban areas across the world. Survey respondents and analysts answer the challenges of the urban divide with a number of pointed recommendations.

I believe that the way public authorities perform their duties is just as important as the nature of what they achieve. Governments must strengthen existing institutions, or create new ones. Effectiveness also

requires new linkages and alliances to be established between the three tiers of government as a matter of daily routine, for the sake of sustained, enhanced coordination and sharing of resources across any political gaps or shifts.

A realistic assessment of specific assets and potential opportunities must give rise to a sustained, comprehensive “vision” for any given city, and one that speaks to the aspirations of the whole population. The gradual realization of this vision entails the broader, more equitable redistribution needed to close the urban divide.

Such sustained redistribution cannot be just of an economic nature: integrating the poor and marginalized into mainstream urban life calls for a redistribution of broader opportunities as well. This brings improved quality of life, human capital as well as enhanced political and cultural inclusion. It also brings cleaner, greener cities, and places that are good for business for everyone.

Experience shows that lack of inclusionary planning is only planning for trouble. Any sustainable vision for the future of any city can only be of an inclusive, not divisive nature.

These are just some of the reasons why we have chosen to launch a new global campaign at the Fifth Session of the World Urban Forum in Rio de Janeiro. We see Rio as the beginning of something new – the World Urban Campaign. We are launching the campaign to keep up the momentum of the forum, to heed the messages of our partners inside and outside government, the private sector, and of course our survey respondents.

The idea is to start with 100 best cities in the world and then trumpet their ideas to spread the word to more and more cities so that we can multiply to 1,000 cities and beyond. This is how UN-HABITAT and our partners will lobby to bridge the urban divide.

Anna Tibaijuka
Executive Director UN-HABITAT

A handwritten signature in black ink, which reads 'Anna Tibaijuka'.

Urban transport is key to the development of Brazilian cities

As Rio de Janeiro gets ready to welcome the fifth session of the World Urban Forum in March 2010, *Urban World* talked to Marcio Fortes, Minister for Cities in Brazil, about his expectations for the city and the experiences Brazil can offer to other governments.

The theme for the UN-HABITAT World Urban Forum 5, to be held in Rio de Janeiro in March 2010, is ‘The Right to the City – Bridging the Urban Divide’. What do you hope to achieve from this conference?

With regards to the World Urban Forum 5, it is important to make the most of this opportunity to share experiences and to look at solutions offered by other countries that went through similar problems. I went to Angola last year and their government officials then came here because of their interest in building a million houses in four years and because of our experience of regularizing urban property.

In Brazil, the creation of the Ministry of Cities, in 2003, as well as the Statute of the City, the law that regulates the constitutional chapter on urban policy, were crucial in triggering the government to develop policies on the country’s urban and social infrastructure. Programmes such as the Plan for Acceleration of Growth (PAC) relating to sanitation and housing have led to a new organization of our cities, introduced better living conditions and brought public and social services, like community centres and schools, to people who live in slums with little money. However, there is still a lot to be done to tackle the problems that began with the rural exodus in the 1960s, during the country’s period of rapid industrialization.

Recently the federal government launched a housing programme ‘My House, My Life’, which is causing a revolution in the real estate market as it imposes the challenge of

building a million houses on the private sector. Companies that are used to dealing with middle and upper class clients are having to reorganize themselves to reach the lower income population, which is the main target of the programme and which is the part of the population most affected by the lack of housing in Brazil – 6.2 million new houses will have to be built to tackle the problem.

Currently our number one challenge is to make progress in the areas of urban transport and mobility. In order to host the FIFA World Cup 2014 properly, we have just drawn up a set of projects for the 12 host cities, to introduce better transport systems with bus only lanes and light rail systems.

What can you share at the conference, with other cities and countries, from your experience as Minister for Cities in Brazil?

One of the most interesting elements I have seen is the participation of organized civil society in the changes we are implementing. We have recently introduced a National Council of Cities, which brings together representatives of community groups, universities, the private sector, and local government.

In addition to the National Council of Cities, which holds regular public meetings, the National Conference of Cities – a national meeting held every three years, with a larger number of representatives – puts forward proposals to amend the government’s urban policy. The advent of the National Fund of Social Interest Housing is also the result of a popular initiative, which since 2006 has had



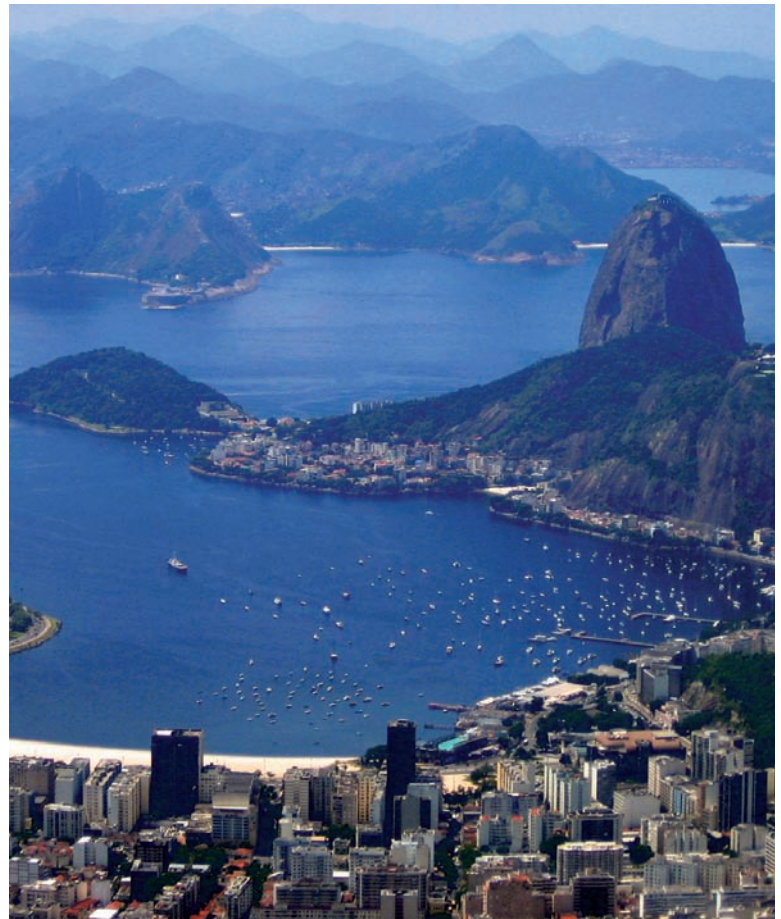
Marcio Fortes

PHOTO © MINISTRY OF CITIES

an annual budget of BRL one billion (USD 600 million).

Brazil has one of the most urbanized populations in the world, what are the number one issues facing Brazilian cities today?

Regularizing urban property in a country where there are approximately 30 million houses occupied without proper title deeds, maintaining investment in housing and sanitation, and increasing the resources available for urban transport and mobility projects are the key issues. Next year we will launch PAC 2, as President Lula has announced, ►



Improving transport and urban mobility are the main challenges for the Minister
 PHOTO © RODRIGO NUNES/MINISTRY OF CITIES

Rio de Janeiro is experiencing strong growth from tourism
 PHOTO © ERICK LUCKSH SANTOS

which means enlarging or completing ongoing projects in slums and also investing in projects that were not financially supported by the first PAC.

All of this will happen in a very different atmosphere from the one we encountered at the beginning of the first PAC, when local government had neither the projects nor the technical staff capable of carrying them out. That is because there had been a long period with no investment in these areas. Now things are different.

Olympic games are often used to reinvent a city. Since Rio de Janeiro lost its status as capital to Brasília, and with most manufacturing and banks moving to São Paulo, how do you see the future for Rio?

Rio is experiencing considerable growth, not only in terms of tourism, which is its natu-

ral inclination, but also in other sectors such as the fashion industry. The oil business has been responsible for a constant and increasing income for the state government.

How do you rate the importance of public/private partnerships and also with multilateral organizations such as the Inter-American Development Bank and UN-HABITAT?

As far as partnerships between the public and private sectors go, these offer an opportunity in particular to guarantee water and sanitation services for everyone. The law that regulates these partnerships is already in force and examples include the clean water projects in the northeastern state of Bahia and in the southeastern state of São Paulo.

With respect to partnerships with multilateral organizations, the Ministry of Cities has put together two extremely successful programmes

financed by the World Bank. The first one financed important projects in slum areas that are currently being entirely funded by the PAC.

The other World Bank-financed programme provided the government with funding for a number of studies on sanitation during the 15 years of the partnership (which ends in February 2010). The most relevant one is the National Information System on Sanitation, which gathers a series of data to give the government a picture of the sanitation sector over the past 13 years.

This year the Brazilian government set up another partnership with the World Bank to help the government integrate its actions and policies on water. The programme will provide funding for studies as well as the implementation of concepts such as integrated management. The programme will start in August 2010 and will last for the next five years. ♦

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Why cities must build equality

As a municipal official, one has to decide whether to spend taxpayers' money on road infrastructure, which in developing cities mostly serves higher income citizens with cars, or to spend it on public utilities and amenities, thus providing for a majority of the population, particularly benefiting the poor. This is why the major issues for today's cities have to do with equality and politics, rather than engineering alone, writes **Enrique Peñalosa***, former mayor of Bogotá, Colombia.



Peñalosa introduced a USD 300 million new bus system in Bogotá

PHOTO © BHARAT VOHRA

The definition of a good city lies in the realm of ideology. There is no scientifically or technically correct or incorrect way of creating a city. Defining a good city is more a matter of the heart and the soul than of engineering. It is more akin to art than to science.

We could survive inside an apartment all our life, just like a bird survives inside a cage. But just as the bird would be happier in a cage the size of an auditorium, and happier still flying free, we are happier on a 10 metre-wide sidewalk than on a one metre-wide one. It is not something that can be proven scientifically or mathematically: it is something we feel in our heart and soul, particularly if we are with a young son or daughter.

Beyond survival needs, such as clean water and a roof, a good city is one in which every detail reflects respect for human dignity. It provides, not only for survival needs, but also for 'happiness needs' such as walking, being with others, not feeling inferior, having contact with nature or beautiful architecture, facilities to develop children's human potential such as music lessons, good schools and sports facilities.

There are class conflicts in developing country cities today but not the ones Marx had predicted between capitalists and salaried citizens. The conflict today is between car-owning upper middle classes and car-less lower-income ones. It is a conflict for public funds and for road space. Upper middle classes want more, bigger and better roads from the government. Such investments absorb funds which could be better invested in solving the low-income citizens' needs, like: housing, water and sewage, parks, schools and hospitals. Along with this conflict for public funds, there is also one for road space: how best to distribute it between pedestrians, cyclists, public transport and cars.

In Bogotá, as in other developing country cities, higher income citizens live in private spaces. They drive from the parking space at home to an office parking space, parking lot at the mall or to the car park at their club. To them the city is an unpleasant and even threatening space they have to cross between parking spaces. They can go for months without walking a city block. As a result they do not care much about a city's parks or public schools.

Unlike the private sector, it is not easy to define a better public investment. In the

Urbanizing Asian and African countries would do well to study Latin America's experience for all the mistakes to be avoided.

business sector, a 'good' project or capital investment is easy to identify: it will be the one with a higher rate of return, which returns 15 percent instead of 10 percent. In contrast, in the public sector every project is 'good', a police station, a road, a school or a park all provide a benefit which is difficult to measure. In choosing among alternative public investments, the main consideration should be how poorer citizens fare.

Government roles

Government has many roles but a fundamental one, in democracy, is to build equality. For legitimacy to exist in society, citizens must perceive that inclusion and equality are fundamental objectives of public authorities.

Democracy is not just about casting a vote. It is about public good prevailing over private interest. This principle is a logical consequence of the first article in most constitutions which states that all citizens are equal before the law. This should be a democratic government's guiding parameter.

When I became mayor in 1998 I found international consultants had recommended that billions of dollars be invested on highways, several of them elevated ones. Instead, we restricted car use through a tag number system and restricted parking, getting thousands of cars off sidewalks where they used to park. And with a USD 300 million investment we created a state-of-the-art bus transit system, which now expanded, carries 1.6 million people daily. On top of that we provided more and better children's nurseries, public libraries and schools as good as those available to the high income citizens. More than 100 top quality schools have been built in Bogotá's poorest neighbourhoods over the last decade.

Public capital expenditure in cities is something that ideally should be more broadly debated, with participation from low-income groups, in order to better stand up to the wealthier, more educated, and more influential citizens. Yet in developing country cities, the poor and the most vulnerable members of

society are too busy surviving to participate much in such government decisions and are often not informed about them.

Therefore low-income citizens' participation should be promoted, but in any case it is the role of government to represent them, ensuring that decisions lead to greater equality and justice, rather than the contrary.

Quality of life

While it is not possible to achieve income equality in market economies, it is possible to realistically strive for equality in quality of life, particularly for children.

For example, all children should have access to green and sports facilities, music lessons and good schools. A quality school or library in a low-income area is a symbol showing children that education is important; something not obvious in places like Colombia, where a large percentage of children in poor neighbourhoods do not even know their father. Beautiful iconic public buildings in poor areas also strengthen identity and self esteem.

Parks in the cities of the south are crucial investments. It is during leisure time that inequality is more acutely felt. At work the highest and lowest paid employees are equally satisfied or dissatisfied: they do their jobs, meet their work mates and so on. But once they leave work, the higher income ones go to large homes with gardens, have access to country clubs and leisure homes, vacations, restaurants and cultural activities. Low income citizens and their children often go to small homes and their only leisure alternative to television is public pedestrian spaces. Thus quality pedestrian spaces such as sidewalks, parks and sports facilities are the least a democratic society should provide its citizens. A good city should have at least one great public space – one so attractive that it is frequented even by the high-income citizens.

In the future access to green spaces may become the most significant factor of inclusion, or exclusion. All children should have access to green spaces like sports fields without being members of a country club. A few decades ago few dreamed low-income citizens in ▶



Access to public spaces like New York's Central Park is important for social inclusion

PHOTO © DAVID LAT

developing countries would have access to electricity, television sets, much less to mobile phones. In the future low-income citizens will have access to most goods high-income citizens have today. What they will not have is access to green, unless something is done about it; land for parks should be bought and reserved today.

New York's Central Park was created towards 1860, when New York was poorer than most developing cities are today. Parks are as important as roads or schools. Governments should buy land at the urban edges for future parks. Many other problems can be solved in the future. But it would be extremely difficult to demolish dozens or hundreds of buildings in order to open up space for parks.

Sidewalks are at least as useful for socializing as they are for mobility. They must be freed from any encroachment by cars. They are the most important infrastructure element in a democratic city, and should be well-designed, especially near schools. Poor sidewalks in many developing country cities show there are first and second class citizens: those in cars and those who walk. More than highways or subways, what differentiates advanced from backward cities are quality sidewalks.

When shopping malls replace public pedestrian space as a citizens' meeting place, it is a symptom that a city is ill. Malls in developing countries are not just a place to see people: they are designed for certain social classes and to exclude others. They are almost a sort

of country club. With globalization, malls in all countries have the same shops; they are also kept at the same temperature. Inside them it is not possible to see the trees, the mountains, or the architecture of a city. A democratic city with character should have lively sidewalks dotted with shops where every person feels as welcome and comfortable.

Administrative fragmentation

In many countries, the institutional set-up does not favour equality. A frequently encountered institutional problem is the multiplicity of small urban municipalities (up to 32 in São Paulo, Brazil to cite one example), into which cities are divided, becoming a factor of inequality. It makes it difficult to transfer funds from richer municipalities to poorer ones within the same city. It also fosters bureaucracy and inefficiency.

Such subdivisions can also hinder long-term planning. Even the construction of a critical road artery or rail line can become problematic. When different political parties control different municipalities or the surrounding state, more problems arise, as has been the case in Mexico City.

Moreover, the bureaucratic costs of many small municipalities are comparatively high, while staff skills and capacities are poor. When teachers in one municipality are paid more than teachers in another, like what happens in the USA, there can be no equality in education. In 1954, seven municipalities in

Bogotá were merged, resulting in more equitable policies across the board thanks to sharing of tax revenues through a single city government. It also facilitated a qualified technocracy at the local government level.

Wealthier municipalities typically tend to oppose mergers, as some of their funds are to be redistributed to lower-income areas. Many small-town politicians also oppose fusions for fear of not being able to get elected in the larger precinct, or simply because they prefer to be big fish in a small pond. Administrative fragmentation is a crucial issue for urban planning and policies, but so far the topic has attracted very little research.

Planning for the yet unborn

Acting to prioritize public good and the majority's interest, public authorities must act also on behalf of future generations and wage battles for those yet to be born. It is desirable, for instance, to acquire rural land surrounding the city, to hold it for future urban development or parks. During my term as mayor we invested millions of US dollars in land for low-income housing as well as for park land. But such schemes should be much larger and have a national scope, with national government participating in their funding.

Private property and the market do not work in the case of land around growing cities. If the price of tomatoes goes up, tomato supply increases and prices are driven back down. This is not the case with land: prices can increase indefinitely, yet the supply of land accessible to jobs, water, transport and education remains fixed.

Recently it was proposed that the Colombian national government buy 6,000 hectares adjacent to Bogotá for USD 250 million which could have radically improved the possibilities of satisfying low-income citizens housing needs.

In the end the project did not get funded. More expensive rural irrigation projects benefiting a few landowners were funded instead. While such irrigation investments are useful, they could have been done a couple of decades from now. Illegal developments where millions will live for hundreds of years into the future are a consequence of speculative private investment in suburban land.

The government should own all or most land around cities. Land around cities in Finland and Sweden was bought by the government in

1904. In general suburban land and the surplus value generated by changes to its use are strictly government controlled and taxed in Europe. This is one of the reasons behind the high quality of most European cities.

City planners in developing countries should develop different ways of creating urban environments. Hundreds of kilometres of bus-ways, greenways, pedestrian-and-bicycle-only promenades could easily be incorporated into the growth areas of such cities. These not only improve mobility, but also the quality of life for all citizens. Pedestrian-and-bicycle-only promenades are also wonderful community plazas and powerful symbols of respect for human dignity.

The right to mobility

Are protected bicycle ways pleasant architectural features, or are they a right? I would propose the latter, unless we believe the only ones who have a right to mobility without the risk of getting killed are motor-vehicle owners.

Bogotá, has recently provided a cheap and simple example with 24 kilometres of pedestrian cycling, and jogging routes running through the poorest neighbourhoods, which people can use for commuting. Today, five percent of *Bogotanos*, or more than 350,000 people, go to work by bicycle.

It goes beyond numbers. In low-income neighbourhoods, pedestrian areas create self respect and a sense of belonging. A low-income cyclist riding on a protected bikeway symbolizes that a citizen on a USD 30 bicycle is as important as someone in a USD 30,000 automobile.

Discouraging cars

There are two reasons why car use should be discouraged. Firstly, a city designed for cars negatively affects quality of life: it is not pleasant to be near wide, high velocity roads. If pedestrian spaces get larger and motor vehicle spaces narrower, then the quality of the urban environment improves for the citizen. The second reason why car use should be discouraged is mathematical: it is simply not possible to move all the people in a large city with private cars.

Large roads do not solve traffic jams. All US cities have large highways yet traffic has been progressively getting worse over the last 30 years. What creates traffic is not just the number of cars, but the number and length of

the trips. That is why highways or flyovers have never solved traffic jams. More or bigger roads mean additional and longer trips. Trying to solve traffic jams in this way is like trying to put out a fire with gasoline.

In advanced cities, 'transportation policy' translates into 'ways to reduce car use'. Unfortunately, in developing country cities it means the opposite: how to get rid of traffic and how to facilitate car use. High-income citizens use public transport in the world's great cities, such as London, New York, Tokyo or Paris. Yet whenever people use public transport, it is rarely out of love for the environment. They use it out of necessity due to there being some sort of restriction to private car use such as parking limitations, congestion charges or simply traffic.

Let us imagine there is a severe fuel crisis caused by war. A city's leaders would allocate scarce fuel to buses rather than cars, otherwise the city would collapse. And if road space was in short supply, a rational and democratic allocation should give buses exclusive bus-ways all through the city. Moreover, if it is true that all citizens are equal before the law, a bus with 80 passengers has a right to 80 times more road space than a car with one.

High-income citizens demand metro systems but they rarely have the intention of using them. They suppose, wrongly, that metros will ease traffic jams as other citizens, particularly bus passengers will use them. It is not possible to cover the mass transit needs of a developing city with rail. Metro investment and operating costs make it impossible for a developing country city to solve its mobility needs. Mexico City is the only developing country city to move more than 10 percent of the population by subway: it moves 13.3 percent. Buses are the only possible means to reach all sectors of a city with public transport. Buses come much cheaper than rail systems: USD 2 billion buys 10 kilometres of underground subway – or 400 kilometres of high quality Bus Rapid Transit (BRT) with exclusive bus routes and special stops. BRT can have similar capacities and speeds as metro systems, at much lower costs. And buses can be environmentally friendly as well. The *Transmilenio* network reduces Bogotá's carbon dioxide emissions by 250,000 tonnes a year and was the first transport system to be accredited under Kyoto's Clean Development Plan.

Beyond mobility BRT's exclusive lanes are powerful symbols of equality, showing public transport has a priority in the use of road space

over private cars. As a bus passes by a traffic jam of private cars, a society gains legitimacy.

Many cities in the developing world stand to double or treble their built areas over the next few decades. The paradox, as they face this challenge, is that the constraints on their financial resources can give them a unique opportunity to develop a more humane urban model than the one presented by 'advanced', car-dominated American cities.

Developing countries' income per capita will equal that of advanced countries for hundreds of years. Yet lagging behind in economic development may provide an opportunity to profit from advanced cities' successes and failures as well as creating different, better urban environments. Quality of urban life is an end in itself but it would also attract and retain highly qualified and creative young people and thus foster economic growth. Latin America has been involved in the most recent urbanization process, occurring mostly between 1950 and 2000.

Urbanizing Asian and African countries would do well to study Latin America's experience, not so much for the good examples it has to offer, but for all the mistakes to be avoided.

In thus bridging these urban divides, an organization like UN-HABITAT can offer invaluable technical expertise in several crucial areas. One is the administrative fragmentation and multi-municipality management of cities, where research and advice are in short supply just as new urban configurations are emerging.

UN-HABITAT should also draw up a detailed catalogue of the best available options for urban transport, in order to help municipal authorities make adequate, cost-efficient decisions. ♦

**Enrique Peñalosa is a leading thinker in the urban field, whose vision and proposals have significantly influenced policies throughout the world. He is currently President of the Board of the Institute for Transportation and Development Policy of New York and member of the experts' team of the Urban Age of the London School of Economics and the Deutsche Bank. He recently won the Göteborg Award for Sustainable Development. Widely known as the "Nobel Prize for the Environment", he shared the 2009 prize with Mrs. Tibaijuka and Sören Hermansen, of Samsö, Denmark. (See story page 60)*

Unequal cities means unequal lives

Cities seeking to present themselves as world-class destinations for political and sporting events must not forget the rights of low-income citizens. By **Miloon Kothari and Shivani Chaudhry***.



At times the brightest spotlights cast the longest shadows. Cities today compete to host worldwide sports and other large events in a bid to enhance their global profiles. They vie to attract foreign investment and high-profile expatriates. They also attempt to transform themselves to meet superficial world class standards. This stands in sharp contrast to the exclusionary and repressive treatment these cities mete out to the poorest of their own residents, including those pejoratively categorized as the homeless, squatters, beggars, immigrants and refugees. The two symbols of this contemporary urbanization bias combine to give the urban divide its most dramatic and unethical visual dimension – one that is best reversed with a human rights approach.

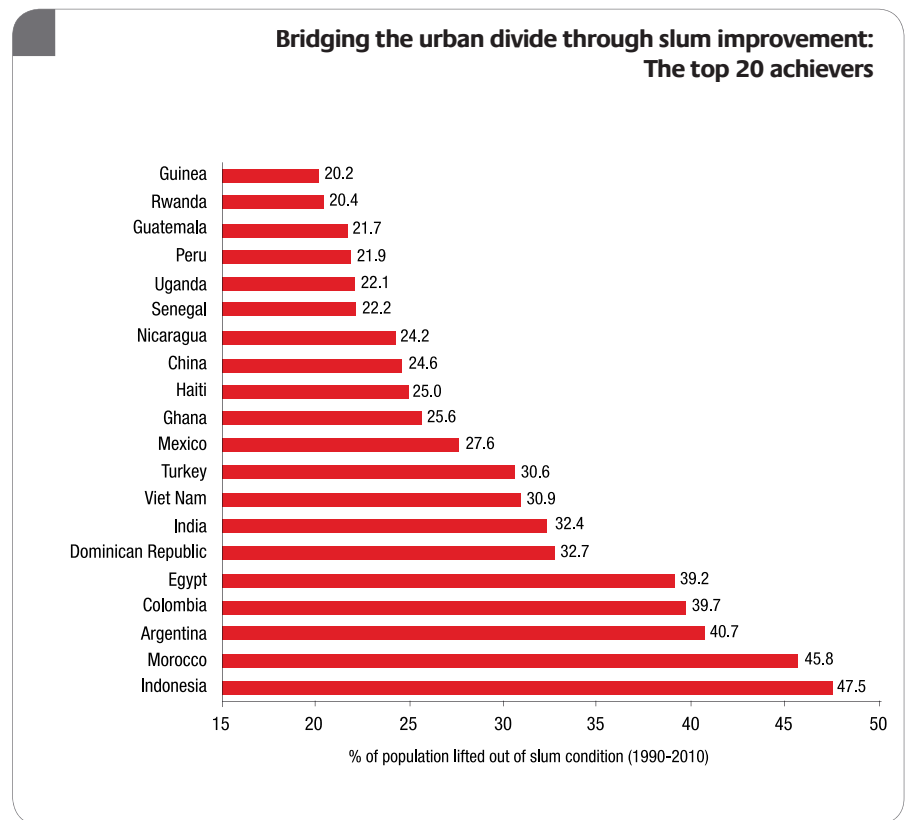
Most cities, unfortunately, do not recognize everyone equally. Neither do they make their services, benefits or opportunities available to all. The most marginalized and the poorest are the ones who suffer most. The onset of economic globalization and the institutionalization of neo-liberal policies, including through privatization of civic services, has led to deepening inequalities of income and opportunity between and within cities.

Popular international sports events act as powerful symbols for cities vying for the global tag. Via the media, they focus the attention of hundreds of millions around the world on lavish displays of infrastructure that epitomize the dynamism and prosperity of the host city, but are generally built at the cost of homes and livelihoods of the urban poor. Since most of these amenities require extensive stretches of land in prime locations, they cause significant displacement of local, generally low-income communities, especially those living in informal settlements.

Negative trends

Intense land speculation associated with the upcoming 2012 Olympics is uprooting low-income working class and migrant communities in north London. Gentrification initiated by wealthy expatriate bankers has created a cultural uniformity while destroying a historic cosmopolitan social mix, often with the complicity of local authorities.

The 1988 Olympic Games affected as many as 720,000 local residents in Seoul while the 2008 Olympics affected 350,000 in Beijing. The New Delhi Commonwealth Games and



Vancouver Winter Olympics, both scheduled for 2010, have already resulted in forced evictions of low-income residents, including slum dwellers, and clearing of streets of the homeless and beggars to make way for sanitized cities to benefit visitors.

So-called clean-up programmes associated with the football World Cup led to the displacement of homeless people in Osaka in 2002. Fears have also been expressed on the impact that preparations for the forthcoming 2010 World Cup in South Africa, will have on many families' housing rights in that country.

Will Vancouver use the excuse of extreme cold weather to force more homeless people off the streets during the 2010 winter Olympics? And will Rio de Janeiro, the 2016 summer Olympics host, be any better?.

Land-appropriating events like large exhibitions have similar effects on local low-income residents. In Seville, the bulldozing of low-income homes came as the downside of the 1992 World Expo. According to the Centre on Housing Rights and Evictions (COHRE), the same is happening in Shanghai, as the Chinese

metropolis prepares to host the Expo 2010. As many as 18,000 families have already been evicted from the exhibition site alone, and close to 400,000 people are to be moved to the suburbs under a comprehensive urban development scheme involving market rate commercial and residential development.

Other major international events that trigger little more than beautification efforts could be detrimental to local residents. In Manila, the 1976 annual meetings of the International Monetary Fund and the World Bank saw the forced eviction of 400 slum-dwelling families. Nine years later in Seoul, preparations for the same event involved the eviction of 1,200 families with bulldozers and police, and reportedly with only nominal compensation.

Criminalizing poverty

Apart from such one-off, highly symbolic mega-events, cities look to burnish their global credentials through gentrification, for the sake of wealthy residents, and beautification, for the purposes of tourism. Gentrification and the associated culture of segregation and gated



The 2010 Winter Olympics in Vancouver has already resulted in forced evictions

PHOTO © JASON ANTONY

Privatization of basic civic and social services has a disproportionately adverse impact on the poor

communities that it promotes, serves to destroy multi-cultural and mixed-income neighbourhoods. These twin policies result in various forms of discrimination against the homeless and beggars – those symbols of a society's failure to take care of its more underprivileged citizens.

In an attempt to garner international appeal and to promote a world class image of their cities, public authorities violate universally recognized human rights. This includes, inter alia, the rights to adequate housing, land, water, security of the person and home, health, education, work and livelihood.

Authorities do this through enforcement of discriminatory legislation such as anti-vagrancy and anti-beggary laws, biased use of criminal codes, anti-squatting laws, misuse of anti-terrorism laws, new surveillance strategies, and zero-tolerance policies. In London, even the public benches where the homeless used to sit are wetted down or removed.

Germany, Hungary, Italy, Luxemburg, Slovenia and Sweden are some of the countries where both private and public security services have been accused of violence and harassment against the homeless. Cases of crude violence, rape and even murder have been observed recently in Slovenia, Spain and the Czech Republic. Incidents of violence, including by the police, as well as arbitrary arrests of the homeless and beggars are also occurring in different parts of India.

Shelters for the homeless, where they exist, are generally inadequate and typically located away from the city centre. This social exclusion and segregation adds to the territorial stigmatization and discriminatory practices already in place.

Measures such as explicit prohibition on searching through rubbish (as enforced in many north American cities and recently proposed by the mayor of Rome), or lock-out of waste-dumps effectively deprive the homeless

from what are tragically their basic sources of subsistence.

Other steps involve more or less explicit criminalization of extreme poverty. Canada clamps down on vagrants through back door measures such as fingerprinting welfare recipients, new municipal by-laws, and zero tolerance policing. Since 1995 in Winnipeg, Manitoba, begging in public is punished with USD 1,000 fines or six month jail terms.

In Australia, two States – Queensland and Western Australia – enforce vagrancy laws. Criminalization of the homeless can take other forms. In the year 1999-2000, 2,640 people were arrested for vagrancy in Queensland, of who 282 were charged with begging and 15 with having no visible means of subsistence; 83 were jailed and a further 112 were fined. Defaulting on payment carried an automatic jail sentence. This turns vagrancy into one of the surest pathways to prison.

A destructive path

In the United States, the National Coalition for the Homeless (NCH) showed in 2004, that of 224 cities surveyed, 43 percent prohibit begging in specific public places, 45



Privatization of basic social services has a disproportionately adverse affect on the poor

PHOTO © EVA SCHUSTER

percent prohibit panhandling, and 21 percent enforce general prohibitions on begging.

In a 2008 survey, the United States Conference of Mayors found that criminalizing homelessness appeared to be a growing trend. A survey of 67 cities showed a 12 percent increase in the number of laws prohibiting begging in specific public places, an 18 percent increase in laws against aggressive panhandling, and a 3 percent increase in laws prohibiting loitering, loafing, or vagrancy.

In Switzerland, courts have ruled that begging is not a right and that cantonal prohibitions were permitted in the interest of public safety and tranquillity. As of April 2008, police are authorized to enforce on-the-spot fines directly from a beggar's takings. Swiss law also provides for the deportation of foreigners lacking the means to support themselves.

In India, the Bombay Prevention of Begging Act 1959 is routinely used to round up and take punitive action against beggars and the homeless, even when they are gainfully employed.

Urban infrastructure expansion and other projects such as the construction of highways,

flyovers, shopping malls and ports, often lead to the demolition of informal settlements and the forced eviction of their residents, generally without adequate rehabilitation. This further exacerbates the crisis of housing and living conditions in cities while widening inequalities and deepening poverty.

Privatization of basic civic and social services in cities, coupled with the inability of governments to provide citizens affordable access to human rights such as water and housing, tends to have a disproportionately adverse impact on the poor, the most vulnerable and socially marginalized segments of society.

City Master Plans prepared without due consultation, further promote land use policies that serve the interests of the economically and politically powerful at the cost of the urban poor and working classes.

These violations of universally recognized human rights turn beautified cities into exclusionary zones, into places of discrimination, inequality, and hostility. The failure of urban planning to design and sustain well-integrated and inclusionary spaces for the sake of residents' individual and collective development has created a situation where

the 'beautified' city benefits only those who can afford to live in it.

The victims of this lopsided, inequitable developmental paradigm count among the most discriminated, marginalized and vulnerable groups, including the poor; slum dwellers; migrants; nomads, including the gypsies; religious, sexual and ethnic minorities; groups discriminated on grounds of work and descent; persons with disabilities or living with mental illness or HIV/AIDS; indigenous peoples; sex workers; domestic workers; the elderly; refugees; women, in particular single women, single mothers, ethnic minority women; and children, in particular street children.

Urban life cannot continue on this destructive path. Concerted efforts at rethinking and reforming urban areas and planning processes must ensure that cities are truly accessible to everyone, and that they respect, uphold and fulfil the human rights of all residents without any discrimination.

A human rights-based approach

If they are to make progress in creating a more inclusive city, municipal authorities do not ►



Urban expansion often leads to the demolition of informal settlements

PHOTO © A. LAXMAN

need just a new vision – they need a dramatic ideological, paradigmatic and policy shift.

A human rights-based approach has the merit of including the four major types of urban exclusion – economic, social, political and cultural, and of emphasizing the responsibility and legal obligation of states and local authorities to respect, protect and fulfil the human rights of all, especially of the underprivileged, marginalized, and most vulnerable.

This approach necessitates understanding the features of the right to the city (as set out in the *Global Charter-Agenda on Human Rights in the City*). Far from being a new legal instrument, the right to the city incorporates a wide range of universally recognized human rights into a single claim for enforcement in urban areas with the aim of creating more holistic, equitable, just, and sustainable living spaces. Any violation of human rights amounts to a violation of the right to the city.

The right to the city is grounded in the basic human rights principles of: non-discrimination; indivisibility of human rights; gender equality; progressive realization; non-retrogression; solidarity; and international cooperation. Moreover, it is in the very nature of the concept to suggest priority attention to vulnerable groups and individuals, with responsibility and sustainability as core principles.

As part of the shift to the human rights model, municipal authorities around the world can also take advantage of the best practices developed by cities that have adopted a human rights approach to urban management and planning.

Positive initiatives

The Montreal Charter commits the Canadian municipality to develop a framework for the rights and reciprocal responsibilities of the population and local authorities. The Charter states

that “the city of Montreal is both a territory and a living space in which values of human dignity, tolerance, peace, inclusion and equality must be promoted among all citizens”. As a covenant between the population and the authorities, the Montreal Charter entitles everyone to the full benefits of life in the city.

The Brazil City Statute is revolutionary in that it redefines the concept of land ownership and promotes the social dimension of the right to urban property. The Statute also promotes democratic participation in urban management, and provides for legal instruments to regularize informal settlements and tax vacant under-used land. Particularly valuable from a human rights perspective is the provision in the Statute that makes it mandatory for all municipalities in Brazil to designate special zones of social interest which would especially serve to protect the right to the city for the most marginalized.



Many US cities, like Winnipeg, enforce strict vagrancy laws

PHOTO © BEN YOKITIS

Human rights approaches also facilitate the development of inclusive policies. In Lyon in France, such approaches help reduce spatial disparity. In Eugene, Oregon (USA), the human rights approach enhances participatory decision-making in municipal affairs. Stonington (outside Melbourne, Australia) has adopted a human rights charter, as has Washington DC in the US. The city of Toronto in Canada has adopted a City Charter recognizing the right to housing while Mexico City has set up a human rights directorate.

These examples demonstrate that a human rights-based approach can meet the needs of cities as well as inspire cities of various sizes to achieve a more inclusive, equitable, just, pluralist, progressive, and sustainable urban environment. This approach could also instill a well-shared sense of pride and self respect among both municipal administrators and city residents.

Protection of rights by cities

Cities must guarantee human rights to all those women, men, youth and children who choose to make the city their home – irrespective of their economic status, identity, caste, class, race, gender, religion, sexual affiliation, work, civil status, and regardless of whether they are legal inhabitants or citizens.

Cities must especially protect women's rights to privacy, security, movement, work, and freedom from violence. Effective, democratic and gendered participation in local decision-making and planning is critical to the realization of human rights in a city.

The principle of the social function of property should guide all land use planning to ensure that land is not diverted to meet the interests of the rich at the expense of the poor. Cities must recognize diversity in all its forms and promote a culture of tolerance and mutual respect.

The adoption and implementation of a strong human rights-based approach is the only way to preserve and uphold the dignity of all residents of the city, and to address the multiple violations and problems being faced by millions in cities across the world today. ♦

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Shivani Chaudhry is a human rights activist based in New Delhi. She is the Associate Coordinator of the Habitat International Coalition – Housing and Land Rights Network: South Asia Regional Programme.

Rio looks to sport to bridge the urban divide

Having landed the two greatest sporting prizes on earth—the football World Cup and the Olympics—Rio is determined to lead the 20 percent of its citizens which inhabit slums to a better quality of life. By **Roman Rollnick**.



João Buracão is often seen in a camping chair alongside a large pot hole in the road or sitting by a damaged water or sewerage pipe. No matter that he may be in the middle of a busy road in the heart of downtown Rio de Janeiro, he is prepared to spend hours if necessary just sitting there. Sometimes he lies down on the road as cars whizz by too close for comfort.

He considers it his calling to shame the public and public officials and anyone who will pay any attention at all to the problem, usually a dangerous pot hole that forces drivers to swerve towards oncoming traffic, a broken, stinking pipe that needs fixing, or trash abandoned on the beach or in another open space.

Some drivers deliberately aim straight at him and swerve away at the last second when it is clear he will not flinch. Others stop and get out to remonstrate with him but he just keeps quiet and stares straight ahead. Instead of a camping chair, he will even set a sofa up in the road. His latest antics feature regularly in the Rio newspapers, on television, and always on *YouTube*.

Marcello Gomes, a Rio city reporter who covers mainly the urban crime beat for the popular daily *Extra*, admits that Mr. Buracão can look like a bit of a vagabond in his dirty jacket and jeans especially if you are moving fast, or just strolling on the beach and you see from a distance that he has set himself down alongside your friends. Get a little closer and it is gets uncomfortably clear that he is staring straight at them without averting his gaze.

“He acts as the conscience of our city and his actions are very effective,” explains Gomes. “Few people immediately realize that he is nothing more than a stuffed urban rag doll, and the idea is now being replicated all over town. People call us from everywhere to have João make a point about something that needs fixing in this city.”

As in any big city, there is always something that needs fixing in Rio. But the popularity of the urban rag doll ruse means that people feel more needs to be done in Brazil’s second city.

Like a flawed gem, Rio de Janeiro sparkles as far as the eye can see from atop its highest peak. Blue seas, wonderful bays with white beaches, stretches of excellent highway and cycling and walking tracks fade into a sprawling metropolis blotched with darker patches creeping up the green hillsides.

The breathtaking beauty of Rio de Janeiro and its many hills and mountains is such that it is no wonder that this city was chosen to host the 2014 football World Cup and the 2016 summer Olympics. Brazil, after all, could claim to be called the world’s greatest football country. Get down a little closer and the world famous Copacabana beach with its promenade stretches on and on – a great place for athletes to train.

But the darker parts so visible from the mountain are in fact patchworks of tumble-down houses of corrugated iron, unpainted brick and dangling dreadlocks of stolen electric wiring. These are the slums of Rio, the *favelas*, overcrowded places where the walls are covered in graffiti, many scarred by bullet holes, and where the narrow alleyways are often beyond the reach of cars.

Rio de Janeiro is a city with a population of just over six million in its central urban areas, of which, according to officials, an estimated 20 percent live in the *favelas*. These urban islands of poverty vary enormously in size and character.

Currently about 12 percent of households in Rio de Janeiro lack running water, over 30 percent are without sewerage connections, and formal electricity lines reach only 70 percent of the population. In these slums which constitute the majority of households without basic services, residents use illegal water and electricity connections, while human and household waste is often dumped straight into rivers, drainage ditches or lagoons.

The City of God

Rough men, often armed, hang out in the alleyways keeping an eye on the place, watching the comings and goings from the little shops and makeshift bars that sell beer and *cachaça*, a distilled sugarcane liquor better known as *pinga*, the drink associated with football, the carnival and samba.

In Providência, which lies behind the central station, the houses creep all the way up the *morro* (the hillside) far above the waterside convention centre which will host UN-HABITAT’s World Urban Forum and the views of the city below are some of the best in Rio. Indeed, there are few better ways to take in the magnificent Rio-Niteroi Bridge, which at 13 kilometres is the longest in the southern hemisphere and the sixth longest in the world.

The humid air smells of raw sewerage and damp household waste and no one seems to

notice. Welcome to what is also called the City of God. This was the world’s first *favela*, a name which comes from a fast growing and unpleasant smelling weed. The slum came into being soon after the abolition of slavery in Brazil in 1888 when freed slaves with nowhere to go started building shacks on the steep hill-sides or partially drained mangrove swamps. They were joined by unemployed former soldiers, who went to claim land the government had promised them before the Canudos War.

Today those coming in are the jobless, many of them ‘climate refugees’ unable to make a living inland because of drought.

“To get a visitor in here, one always has to negotiate with the drug dealers,” explains Noelle Resende, a young lawyer who runs a human rights centre for the local residents. “Every week there is a police raid and shootings and the place resounds with gunfire.”

Rio and its *favelas* are synonyms for violence. In a pattern common all over the city, Providência’s inhabitants live under the de facto authority of a private army called the *Comando Vermelho* (CV) which runs the drug trade. It is also in conflict with other such groups, the *Terceiro Comando* (Third Command) and the *Amigos dos Amigos* (Friends of the Friends). For many residents it is better to make do here even if they have to live in fear.

Operating from one of the highest houses, which was purchased and renovated by a secretive British benefactor known only by the initials JR, Resende and her group assist people with all kinds of problems. “Sometimes it is a birth certificate or an ID that we help them obtain, other times there are family issues, divorces, etc. But it is the children who face lots of problems.” Resende’s colleagues provide extra classes for children who attend class in either morning or afternoon shifts.

On the walls are photographs by Mauricio Hora, today a prize-winning photographer but by his own admission, the son of a 1970s drug dealer. He teaches photography to the children and youth as a way of building peace and curbing violence.

Pedro Stronzenberg, a lawyer and human rights activist who works with Resende, says: “We all know the problems, and we have the solutions and we have to put these in place, and we need gun control. So long as there is a perception that the state cannot protect them, people will have guns.”



"In most Brazilian cities the poverty is not in your face but in Rio it is," Jorge Bittar, Rio de Janeiro's Municipal Secretary

PHOTO © MAURICIO HORA

Homicide rates

Brazil tops the list for fear of insecurity in the 2007 UN-HABITAT *Global Report on Human Settlements*. According to a 2008 survey published by *Rio Como Vamos* (Rio How We Are Doing), 75 percent of respondents cited violence and safety as being the worst aspects of living in Rio, while 65 percent said they did not trust the police.

The biggest problems in the slums are homicides and attacks against the person, rather than against property – quite the opposite when it comes to the formal part of the city

But the International Olympic Committee, which looked hard and critically at Rio, is satisfied that the city's USD 14.4 billion Olympic budget will produce a great summer Olympic fest, and that it will also give a boost to the city with ambitious infrastructure projects that can be used long after the games.

IOC officials praised Brazil for reducing crime. They noted that the city's homicide rate had dropped to 33 per 100,000 people last year from 39 per 100,000 the year before and officials have said that they expect the rate to continue falling despite a rise between April and June 2009.

Although that was much higher than the homicide rates in competing cities, last year's

homicide rate in Rio de Janeiro was the lowest in 17 years. And even though it is not uncommon for the main highways connecting the city to the airport to be closed off because of shoot-outs, the IOC also praised the city for introducing new community policing programmes in selected *favelas*, which it expects to replicate throughout the poorer neighbourhoods.

In greater Rio de Janeiro, there are about 1,000 *favelas* that stretch all the way into Ilha do Governador, the biggest island in a huge inland bay called Guanabara, which was named after a colonial era Portuguese governor. The island is linked to the mainland and downtown by a series of modern bridges and highways. But commuters complain that bus services into town are poor, as is the metro rail system, which does not in their view serve greater Rio properly.

The Ilha is also the home of the Galeão-Antonio Carlos Jobim International Airport, aptly named in honour of the father of Brazil's very special *bossa nova* music.

Doing the fixes

Jorge Bittar, Rio de Janeiro's Municipal Secretary, explains that the city, like all urban areas in Brazil, has seen a considerable influx from the countryside over the past decade.

"In most Brazilian cities the poverty is not in your face but in Rio it is – because of our topography," explains Bittar citing new plans for slum upgrading and large-scale housing construction on unused urban lands.

"The prospects of improvements are much better for us because the Brazilian economy is now forging ahead and is quite robust," he says. "Brazil has a huge divide between the poor and those better off and among the measures we are taking to redress this are the *Bolsa Família*, the cash assistance plan for 11 million families living below the poverty line."

Bittar said Rio city authorities were also in partnership with the government to build 100,000 new homes for low-income people over the next four years. With the major global sports events coming up, he said considerable investment is going into the improving the environment and developing better public transport and new housing.

However it goes, João Buracão is sure to be watching. ♦

Additional reporting: **Manuel Manrique**, Regional Information Officer for Latin America, UN-HABITAT.

City of Cape Town - Innovative Interventions Planning for a low-carbon city



CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

THIS CITY WORKS FOR YOU

Cape Town is a vibrant and growing city. Economic growth which creates and sustains jobs is vital. This same growth can however also mean increased demand for resources, including land, water, transport and energy, unless this is managed effectively.

The region where Cape Town is situated will, in 40 years' time, experience a significantly drier climate, which will further adversely impact on resource demands and food insecurity. Cape Town's high carbon footprint and lack of energy security, together with the additional threat of a rising sea level, render the city extremely vulnerable. Cape Town is situated in the smallest and most unique of the world's six floral kingdoms; yet, insensitive development in the past has already led to several species losses.

It is clear that we need innovative interventions to address these pressing challenges.

The City of Cape Town is taking a leading role in changing and managing its energy future, and addressing the potential impacts of climate change: It has made 'Energy for a sustainable city' one of its eight Integrated Development Plan (IDP) strategic focus areas. This focus area is driven by an **Energy and Climate Change Committee** of councillors, a high-level management team, as well as three cross-Council work streams addressing energy security and carbon mitigation, adaptation, and education and communication. To date, Cape Town is the only city in South Africa to introduce such far-reaching institutional changes to address these critical issues.

The City is currently also preparing its **Spatial Development Framework** (City SDF). The intention of the City SDF is to guide and manage urban growth, balance competing land use demands, and guide the city towards more energy-efficient spatial relations. The City has pioneered the alignment of spatial and environmental planning by integrating district-level **Environmental Management Frameworks** (EMFs) with the District Spatial Development Plans (SDPs). The EMFs clearly identify district-level environmental management priorities. This process will result in more sustainable and resilient development and growth in Cape Town.

The City of Cape Town has recently reviewed and revised its Integrated Metropolitan Environmental Policy (IMEP), and has produced an **Environmental Agenda** which allocates goals, responsibilities and performance targets across City line functions. This innovative approach to environmental policy implementation will mainstream environmental management in all the City's operational functions.

For more information, please visit
www.capetown.gov.za,
or send an e-mail to
futurecapetown@capetown.gov.za



New report highlights progress on Millennium Development Goals

At the Millennium Summit in 2000, world leaders agreed to seven Millennium Development Goals aimed at reducing global poverty by the year 2015. The goals focusing on water and sanitation, and on slums, are of direct relevance to UN-HABITAT's mandate. **Nick Michell** reveals the latest figures produced by UN-HABITAT and the UN Statistics Division in the *Millennium Development Goals Report 2009* and outlines the strategy to combat urban poverty.



Member states pledged to achieve significant improvement in the lives of 100 million slum dwellers by 2020

PHOTO © MILLENNIUM DEVELOPMENT GOALS REPORT 2009

Since world leaders adopted the Millennium Development Goals (MDGs) in 2000, there has been significant progress in reducing poverty and hunger, providing universal access to education, promoting gender equality, improving health conditions and ensuring environmental sustainability.

In the countdown to 2015, amidst a global economic crisis that originated in the developed countries and threatens to reverse all the hard-fought gains, the need to accelerate delivery of the Goals has now become an emergency rather than simply a matter of urgency.

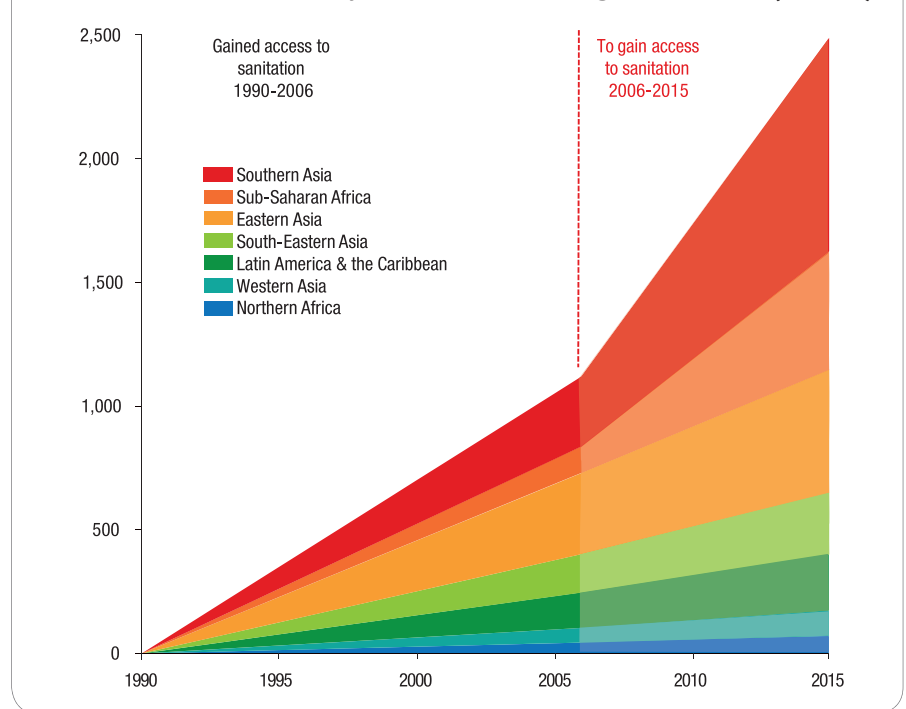
In his introduction to the *Millennium Development Goals Report 2009* United Nations Secretary General Ban Ki-moon states that despite the progress reported, the world and its leaders cannot afford to turn their backs on the poor.

“Nine years ago, world leaders set far-sighted goals to free a major portion of humanity from the shackles of extreme poverty, hunger, illiteracy and disease and established targets for achieving gender equality and the empowerment of women, environmental sustainability and a global partnership for development,” says Ban. “In short, they adopted a blueprint for a better world – and pledged to spare no effort in fulfilling that vision. We have made important progress in this effort, and have many successes on which to build. But we have been moving too slowly to meet our goals. And today, we face a global economic crisis whose full repercussions have yet to be felt. At the very least, it will throw us off course in a number of key areas, particularly in the developing countries. At worst, it could prevent us from keeping our promises, plunging millions more into poverty and posing a risk of social and political unrest. That is an outcome we must avoid at all costs.

“We cannot allow an unfavourable economic climate to undermine the commitments made in 2000. On the contrary, our efforts to restore economic growth should be seen as an opportunity to take some of the hard decisions needed to create a more equitable and sustainable future.”

The pledge of member states to achieve significant improvement in the lives of at least 100 million slum dwellers by the year 2020 and to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation showed a

Population that gained access to an improved sanitation facility 1990-2006 (millions) and population that needs to gain access to an improved sanitation facility to meet the MDG target, 2006-2015 (millions)



Source: UN Statistics Division, UNICEF, UNDP, UN-HABITAT.

new political commitment of direct relevance to UN-HABITAT’s mandate of promoting socially and environmentally sustainable human settlement and the achievement of adequate shelter for all.

Steep challenges remain in meeting sanitation targets

From 1990 to 2006, 1.1 billion people in the developing world gained access to toilets, latrines and other forms of improved sanitation. An additional 1.4 billion people will require such facilities if the 2015 target is to be met. In 2006, 2.5 billion people worldwide were still unserved. The greatest challenge is in southern Asia, where 580 million people are without improved sanitation. From 2006 to 2015, the region will have to more than double the number of people currently using an improved facility. Sub-Saharan Africa also faces steep challenges. The target is to provide improved sanitation to 63 percent of the region’s population. That is about 370 million more than the estimated 242 million people that were using such facilities in 2006. Despite having the lowest sanitation coverage in 1990,

southern Asia and sub-Saharan Africa have made notable progress. In southern Asia, the population that uses an improved sanitation facility has more than doubled since 1990; in sub-Saharan Africa, it increased by over 80 percent.

Defecating in open, often publicly accessible spaces, is the last recourse for people without any form of sanitation. The practice not only jeopardizes one’s own health and that of his or her family, but those who live nearby – even if they themselves use improved facilities. In addition, seeking private areas in which to defecate can put the safety of girls and women at risk. Eighteen percent of the world’s population – 1.2 billion people – practise open defecation. The vast majority of them (87 percent) live in rural areas. In developing regions, more than one in three rural dwellers defecate in the open. The one exception is eastern Asia, where the practice is less common in rural than in urban areas.

Drinking water target in reach

The world is ahead of schedule in meeting the 2015 drinking water target. Yet a number of



Millions of people still get their drinking water from unimproved sources such as lakes, dams and rivers

PHOTO © UNICEF/NYHQ-2006-2701/NOORANI

countries face an uphill battle: 884 million people worldwide still rely on unimproved water sources for their drinking, cooking, bathing and other domestic activities. Of these, 84 percent (746 million people) live in rural areas.

Worldwide, only 27 percent of the rural population enjoyed the convenience and substantial health benefits of having water piped into their homes or onto their premises in 2006. Fifty percent of rural dwellers relied on other improved drinking water sources, such as public taps, hand pumps, improved dug wells or springs (a small proportion of this population relied on rainwater). And nearly one quarter (24 percent) of the rural population obtained their drinking water from 'unimproved' sources: surface water such as lakes, rivers, dams or from unprotected dug wells or springs. But even using an improved water source is no guarantee that the water is safe: when tested, the drinking water obtained from many improved sources has not met the microbiological standards set by the World Health Organization.

A person living in an urban area of the developing world is more than twice as likely to have a piped drinking water supply on premises than a person living in a rural area. Disparities are especially evident in Latin America and the Caribbean, the region with the second lowest coverage of improved drinking water in rural areas. Only 73 percent of rural populations in that region use an improved water source, compared to 97 percent of urban dwellers.

Action on slums

In 1990, almost half the urban population in developing regions was living in slums. By 2005, that proportion had been reduced to 36 percent. Slum conditions are defined as lacking at least one of four basic amenities: clean water, improved sanitation, durable housing and adequate living space.

The lives of slum dwellers have improved in almost all regions. In eastern Asia, the sharp reduction in the proportion of slum dwellers is largely due to increased use of improved water supplies and sanitation in China. Similarly, expanded access to water and sanitation in India has lifted progress in the southern Asia region as a whole.

Despite some advances, sub-Saharan Africa remains the region with the highest prevalence of slums. Both slums and urban

areas in the region appear to be growing at an equally rapid pace, and the living conditions among impoverished populations are severe, often involving multiple deprivations. Improvements in the lives of slum dwellers in most sub-Saharan African countries will therefore require large multi-sector investments. In all other regions, where the majority of slum dwellers suffer from only one shelter deprivation, simple, low-cost interventions could significantly improve living conditions.

Western Asia is the only region where the proportion of slums among urban populations has increased slightly, largely due to deteriorating living conditions in Iraq and Lebanon after nearly a decade of conflict and political instability.

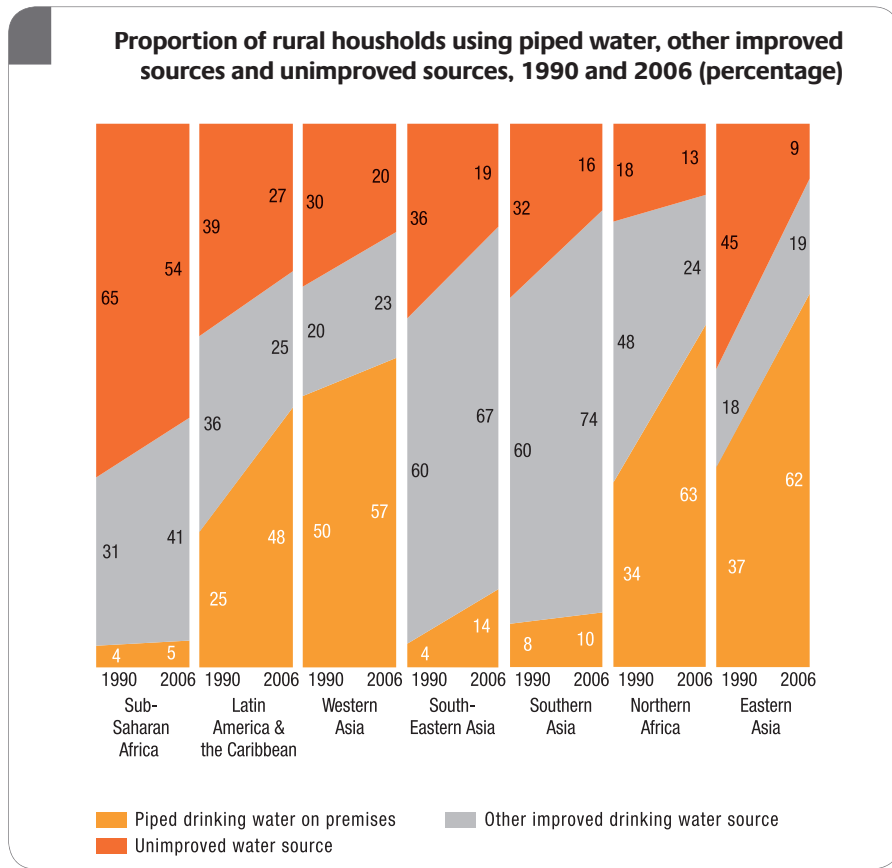
Though general improvements have been made in slums worldwide, the current housing and energy crisis may slow progress in the developing regions, and in some cases, reverse positive trends.

The Millennium Declaration set 2015 as the target date for achieving most of the *Millennium Development Goals*, which established quantitative benchmarks to halve extreme poverty in all its forms. As the date approaches the world finds itself mired in an economic crisis that is unprecedented in its severity and global dimensions.

Progress towards the Goals is now threatened by slow, or even negative, economic growth, diminished resources, fewer trade opportunities for the developing countries, and possible reductions in aid flows from donor nations. At the same time, the effects of climate change are becoming increasingly apparent, with a potentially devastating impact on countries rich and poor.

“This report presents an annual assessment of progress towards the MDGs. Although data is not yet available to reveal the full impact of the recent economic downturn, they point to areas where progress towards the eight goals has slowed or reversed,” says UN Under-Secretary-General Sha Zukang in his overview of the *Millennium Development Goals Report 2009*.

“Major advances in the fight against extreme poverty from 1990 to 2005, for example, are likely to have stalled. During that period, the number of people living on less than USD 1.25 a day decreased from 1.8 billion to 1.4 billion. In 2009, an estimated 55



Source: UN Statistics Division, UNICEF, UNDP, UN-HABITAT

million to 90 million more people will be living in extreme poverty than anticipated before the crisis.”

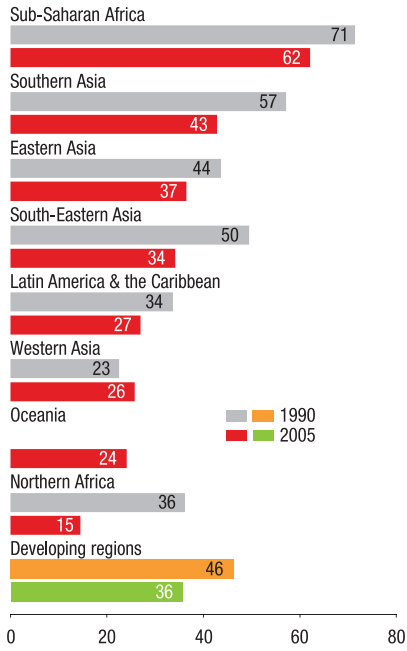
While the report does portray the remarkable advances that many countries and regions have made before the economic landscape changed so radically in 2008, efforts to improve the living conditions of the urban poor must pick up speed and extend even further. Those living in extreme poverty in the developing regions accounted for slightly more than a quarter of the developing world’s population in 2005, compared to almost half in 1990, with every region except one making progress in this area. However slum improvements are barely keeping pace with the rapid growth of cities in developing countries.

Swift acceleration of progress is needed to bring improved sanitation to the 1.4 billion people who were living without adequate facilities in 2006, with all its attendant consequences for the health of communities and the local environment. At the present rate of

Defining a slum household

A slum household lacks one or more of the following five amenities: (1) durable housing (a permanent structure providing protection from extreme weather); (2) sufficient living area (no more than three people sharing a room); (3) access to improved water (water that is sufficient, affordable and can be obtained without extreme effort); (4) access to improved sanitation (a private toilet, or a public one shared with a reasonable number of people); and (5) secure tenure and protection against forced evictions. Since information on secure tenure is not available for most countries included in the UN-HABITAT database, only the first four indicators are used to define slum households, and then to estimate the proportion of urban population living in slums.

Proportion of urban population living with shelter deprivations, 1990 and 2005 (percentage)



Source: UN-HABITAT

progress, the 2015 sanitation target will be missed.

According to UN-HABITAT's new flagship report, the *State of the World's Cities 2009-2010*, the data suggests that the goal of reducing absolute poverty by half can be achieved, although higher food prices in the last year may push 100 million people deeper into poverty. When governments pledged to significantly improve the lives of at least 100 million slum dwellers by 2020, they could not have known that the target would be achieved 10 years ahead of schedule.

The slum target has been achieved, improving the lives of 227 million people, but only because it was set too low. The 100 million target was only 10 percent of the global slum population. China and India alone achieved the global slum target by improving the lives of 125 million slum dwellers.

While the world has reason to celebrate, there is no room for complacency. The absolute number of slum dwellers in the developing world has grown from 766.7 million in the year 2000 to an estimated 827.6 million in 2010. This means that 55 million new slum dwellers have been added to the global urban population since the year 2000.

Current UN-HABITAT estimates confirm that the progress made on the slum target has not been sufficient to counter the growth of informal settlements in the developing world. Thus efforts to reduce the number of slum dwellers are neither satisfactory nor adequate, especially when considering that 50.6 percent of the world's population — or 3.49 billion — now live in urban areas. In the next two generations, two thirds of humanity will be living in towns and cities.

The *Millennium Development Goals Report 2009* illustrates that the right policies and actions, backed by adequate funding and strong political commitment, can yield results. However, the report also notes that many challenges remain and are likely to become even more difficult in the current economic climate.

United Nations Under-Secretary-General Sha Zukang reiterates the previous concerns of Secretary-General Ban Ki-moon by insisting that the global community must not turn its back on the poor and the vulnerable: "The MDGs must continue to provide a focus for our efforts, and the vision of a world without poverty must not be lost, even in these difficult times." ♦



Fifty-five million new slum dwellers have been added since 2000

PHOTO © JOHN ISAAC



urban WORLD



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UN HABITAT
FOR A BETTER URBAN FUTURE

How we must learn to live within our means

Ecological footprinting allows us to compare the availability of naturally renewing resources with our rate of consumption of these resources – our ecological footprint. Here **Pooran Desai**, International Director of BioRegional One Planet Communities and Sustainability Director of BioRegional Quintain, warns that our level of consumption is becoming too much for our planet.



Each year the Global Footprint Network produces figures comparing the available biocapacity of the planet with our consumption. This analysis suggests that we exceeded the carrying capacity of the planet in the mid-1970s and we are now consuming naturally renewing resources at a rate of 30 percent more than the planet can sustain into the long term. We are literally eating into the natural reserves of the planet.

For example, the *Global Environment Outlook* report by the United Nations Environment Programme in 2007 suggested that 70 percent of all the world's fisheries are fully exploited or over exploited. As a global average we need 25 hectares of fishing grounds for each tonne of fish we consume each year. We need 1.3 hectares of forest to provide us with each cubic metre of wood per year. From satellites we know we have a total of 12.6 billion hectares of biologically productive land and sea on the planet. This is about a quarter of the planet's surface area.

If we divide the available biocapacity of the planet by its global population approaching 6.7 billion people – we get a fairshare ecological footprint of around 1.8 hectares per person. The average western European has a footprint of between five to six hectares. In other words if everyone on earth consumed as many resources as the average European, we would need three planets to support us.

Europeans must find ways of living, where they can increase their quality of life but reduce consumption of virgin materials and fossil fuels by two-thirds to adopt a one planet lifestyle.

If we all lived with the average footprint of an Australian, we would need four planets; or if we adopted American lifestyles we would need five planets. Low footprint countries like Eritrea, Mozambique and Afghanistan have a one-third planet lifestyle or less.

A London trail blazer

The Beddington Zero fossil Energy Development (BedZED) in south London is one example of a pioneering attempt to create a sustainable community where it is easy for people to reduce their footprint and enjoy a good quality of life.

The 100 home complex, with offices and community centre, was developed by the Peabody Trust in partnership with BioRe-

gional and designed with Bill Dunster Architects. This is where I live and work. We have thought systematically how to make it easy for our residents to reduce the environmental impact in every part of their lives.

The buildings were designed to be energy efficient, and monitoring has shown that they consume 45 percent less electricity and need 81 percent less heating. We fitted a total of 777 square metres of photovoltaic (PV) panels generating about 10 percent of the overall energy for the development. With well insulated homes we are also increasing quality of life by increasing comfort levels.

Where residents also modify behaviour and save energy by switching off lights and appliances when not using them, a further 30 percent reduction in energy consumption is possible. This can give us an overall reduction in ecological footprint associated with energy in buildings by 90 to 95 percent. Therefore in particular aspects of our lives, where we combine technology with simple behaviour change, we can make big footprint reductions.

Car clubs

At BedZED we reduced the parking provision from 160 spaces to 100 and teamed up with a car club provider to introduce the first car club to London. Cars can be booked over the internet or the telephone for as little as one hour at a time. A smart card lets users in and out of the serviced cars. The great advantage of car clubs is that you have access to a car when you really need one, but you are free to walk, cycle and use public transport for most journeys. We have seen a 64 percent decrease in private car use bringing the largest single carbon saving at BedZED.

Local food

The land and energy required for growing and processing food is one of the biggest contributors to our ecological footprint. Large amounts of arable land are needed for crops and pasture. Energy is required for cultivation and fertilizer.

Opting for locally produced food gives us the opportunity to link our communities to the local productive hinterland – what we call bioregional development – helping create more diverse, vibrant, local, stable economies.

As residents moved in to BedZED, we organized introductory evenings where we

asked suppliers of weekly local vegetable boxes to come and talk to our residents. In future developments we are taking the idea of sustainable food a lot further.

Making recycling easy

Thirteen percent of our ecological footprint in the United Kingdom is associated with consumer goods and waste – all the things which we end up throwing away, and of which, still over 70 percent ends up in landfill in the UK.

At BedZED we started to make recycling easy. Each home is fitted with segregated bins linked to collection points around the estate. When one of my neighbours was interviewed for the radio and asked: "Are you an eco-warrior?" His reply was: "No, I am a fireman, but I have started recycling because it just as easy for me to put the rubbish in the segregated bins as it is for me to put it in one bin". Creating 'closed loops', where products are recycled for re-use, preferably locally, can greatly reduce ecological footprint. For example, at BedZED we have promoted recycling and re-use of office paper through BioRegional's *Local Paper for London* scheme. Bins are provided for white office paper sent for recycling and returned. Using locally recycled paper decreases the ecological footprint in this case by 85 percent.

It is seven years since the first residents moved in and other such communities are developing elsewhere. Not everything has worked. But most residents report a better quality of life and we are delivering large carbon savings. ♦



Solar panels provide 10 percent of residents' power needs
PHOTO © BIOREGIONAL

New housing offers hope to Ugandan teachers

After two decades of conflict that displaced up to two million people, the people of northern Uganda are making the transition back to normal life. Just as conflict caused waves of people to flee from their homes into transit camps, peace has also spurred migration and rapid urbanization. **Emily Wong**, a freelance journalist and communications consultant working with UN-HABITAT on projects promoting gender equality, reports back from the danger zone.



Female teachers are helping to convince girls of the importance of schooling

PHOTO © EMILY WONG

Every morning, 29-year-old Molly Awidi, hops on her blue, gearless bicycle to cycle 12 kilometres on bumpy dirt roads, past fields of millet and beans, to teach English at Igony Primary School. She used to cycle double that distance to her old school. When it rains, the roads turn into an obstacle course of mud and puddles. Still, she is glad to be back at school.

It has now been three years since the rebel Lord's Resistance Army (LRA) and the Ugandan government agreed to a ceasefire. Awidi cycles on roads that used to be deserted when gunshots rang through the air. Teachers were among the many people who abandoned their houses and crops to flee to transit camps, and village schools stood empty, except when taken over as rebel training camps.

The LRA continue to be in the world headlines for massacring, torturing and kidnapping civilians in the neighbouring Democratic Republic of Congo and Sudan. Their notorious leader, Joseph Kony, and several of his top commanders, are still at large, despite arrest warrants issued by the International Criminal Court.

But for the people of northern Uganda, the worst seems to be over. As Awidi's community tries to return to normal life, she is hopeful that new homes, built near local schools, will enable teachers to spend more time and energy teaching instead of commuting.

"Riding is so difficult that when I reach school, sometimes I have to sit for some thirty minutes before I enter class," she says.

An unknown but significant number of displaced people have settled in the major urban centres, particularly around the towns of Gulu, Kitgum and Lira. Some areas around large, disbanded camps have evolved into trading centres, with families choosing to stay, instead of moving back to their mostly rural places of origin.

Rapid urbanization brings with it the challenges, as well as the opportunities, for improving housing, roads and infrastructure, and basic services, including public transportation. UN-HABITAT's work in northern Uganda responds to the needs of both rural and urban areas.

The focus is on helping communities meet the huge demand for new housing, to recover from the scars of conflict, and to help populations adapt to urbanization in environmen-

tally sustainable, economically productive and socially inclusive ways.

Earlier this year, UN-HABITAT constructed 64 teachers' houses at 16 rural schools in the District of Lira with the aim of eliminating long commutes for teachers, many of whom cycle long distances from the towns and trading centres where they have resettled in rented accommodation, after leaving the camps. Altogether the schools serve a total of about 10,000 students.

Lira's district education office has agreed that a quota of at least 25 percent of the houses are allocated to female teachers – partly because some find the cycling more physically demanding than men, and also because many women are reluctant to leave their children, families and domestic duties behind to spend long days away. The 25 percent figure reflects the current percentage of female teachers available in the whole district. In the rural areas where the new teachers' houses have been built, the proportion of female teachers is even lower.

One of the reasons behind the housing quota is the desire to increase female role models for children. According to the United Nations Children's Fund (UNICEF), which funded the teachers' housing project, only 43 percent of children in Lira finish primary school, and the percentage is lower for girls than boys. During the conflict, rape and sexual enslavement of women and girls was common. Although peace has returned, early marriage, early

pregnancies and domestic violence still put girls at a gender disadvantage.

Empowering and protecting girls

Liberata Omachi, a district school inspector, says communities in Lira need positive female role models to champion education and career development for girls. She says that many girls start dropping out of school from the ages of nine to thirteen. "They're prepared right from the beginning to be future housewives," she says. "When they're old enough to begin taking care of the home, they're just left at home, not sent to school."

But female teachers can help convince girls and their parents of the importance of schooling, says Omachi, and they can also have a positive social impact on boys. "Female teachers are mothers to all the children – the way they advise them, the way they counsel them. Children feel more comfortable talking to the females than to the male teachers," she says.

Anne Attard, Chief of Operations at UNICEF's Uganda office, agrees that female teachers have a strong role to play in life skills training for children. She adds that having a good gender balance of staff in schools helps to make them safer too.

"In a school with all-male teachers, girls are often subject to all sorts of pressures and abuse," says Attard. "One of the key elements of creating a safe environment in the school is to have a balance between female and male teachers." ▶

A humble but promising start

School enrolment has soared since peace returned to northern Uganda. Although the government has successfully built hundreds of new classrooms, it is struggling to find enough teachers for them. The Ugandan government estimates it still needs 2,300 more teachers houses to attract enough teachers to schools, especially in rural posts, which are unattractive to the large proportion of teachers that have moved to urban areas. UN-HABITAT's 2009 housing projects for teachers and vulnerable displaced people reached out to a relatively small number of households, but the agency is working with the Government of Uganda, other UN agencies, and civil society partners to try to develop similar projects on a larger scale. The building cost for each of the two-bedroom teachers' houses was modest at about USD 3,000. Significant cost-savings were possible because interlocking stabilized soil blocks were used. These can be made onsite, and because they do not have to be fired, the building method saves trees that would have been used to heat kilns. UN-HABITAT, the World Food Programme and several non-governmental organizations, including the Good Earth Trust, have worked together to promote the eco-friendly technology and to train community groups, including young men and women, in construction.



A lower percentage of girls finish school in Lira than boys

PHOTO © UN-HABITAT/CAYLEE HONG

Mending Lira's social infrastructure

Tom Ojok, the head teacher at Alik Pot Primary School, says that education in Lira suffered tremendously during the conflict, since survival was the only priority. "Teachers were on the run. Pupils were also running. Their parents had lost almost all their possessions," he says. "A lot of scholastic materials were lost. Text books were burnt by the rebels. Desks were burnt for firewood."

Even when schools were not deliberately burnt or destroyed by rebels, many of the residential mud and thatch homes, where teachers once lived with their families, became dilapidated from years without maintenance. Some teachers returned to their homes to find the roofs eaten by termites.

At Ojok's school, there are only eight teachers, who are responsible for 761 students, with a slightly higher number of boys than girls. School enrolment in the region has soared after peace returned to northern Uganda, putting more pressure on teachers.

But both Ojok and Omachi point out that teacher absenteeism and poor punctuality among teachers is making the quality of education even worse. However, they argue that teacher performance will improve if they are able to live with dignity, in decent accommodation, and at a reasonable distance from the schools.

"Instead of travelling as they're doing now – 20 kilometres – to go and work, they're able to plan their lessons and prepare their teaching aids on time," says Omachi. She hopes the increase in residential accommodation for teachers will lessen the risk of injuries and fatalities of teachers travelling along the roads.

"We lost many teachers riding along the way," she says. Teachers used to fear ambush from rebels on the roads, but now their greatest threats come from big four-wheel drive vehicles and lorries that rush past at high speeds down the narrow roads, leaving cyclists and pedestrians in a trail of dust, even if they get home unscathed.

According to the World Health Organisation, more than 90 percent of the world's road deaths occur in low-income and middle-income countries, even though these countries only have 48 percent of the world's vehicles. Lira has no bus system and few residents can afford private vehicles. For most people, the bicycle is the only option to cover longer distances.

"We cannot expect teachers to travel long hours daily and still provide the quality of education they aspire to," said UN-HABITAT Executive Director Anna Tibaijuka when she went to Lira for the handover ceremony for the new teachers' homes in July 2009.

As for Molly Awidi, after class, she rushes off, so she can pedal all the way home before dark. There she has the housework to do, meals to prepare, a family to take care of and precious little time to prepare the next day's lessons. ♦

Urbanisation

The Institute of Social Studies is an international postgraduate school of policy-oriented social science whose diverse activities include interdisciplinary research, teaching and advisory work in the field of development studies. Founded in 1952, the Institute is one of the world's leading centres of research and higher education in this field. Over 10,000 students from more than 160 countries have studied at ISS.

- * ISS has a very strong track record in evaluations and advisory work in the fields of urban poverty and urban development generally; examples are capacity building for urban governance in Novosibirsk (Russia), Mumbai and Bangalore (India) and in Hanoi (Vietnam); advisory work in the fields of participatory urban planning, housing, basic services, small enterprise development, and microcredit.
- * ISS has a strong record in urban poverty and urban governance research, for example as regards urban poverty in Manila (the Philippines) and Chennai (India), and in urban governance in Accra (Ghana) and in Indian mega-cities including New Delhi and Mumbai.
- * ISS offers relevant MA programmes such as Local and Regional Development, Public Policy and Management, Governance and Democracy (15.5 months) as well as courses in urban poverty alleviation, municipal governance and local economic development.
- * ISS can offer supervisory capacity for PhDs on urban issues.
- * In 2007 a conference on the theme of Urbanisation and Citizenship entitled 'Cities of Extremes' was held at ISS as part of its 55th anniversary celebrations.

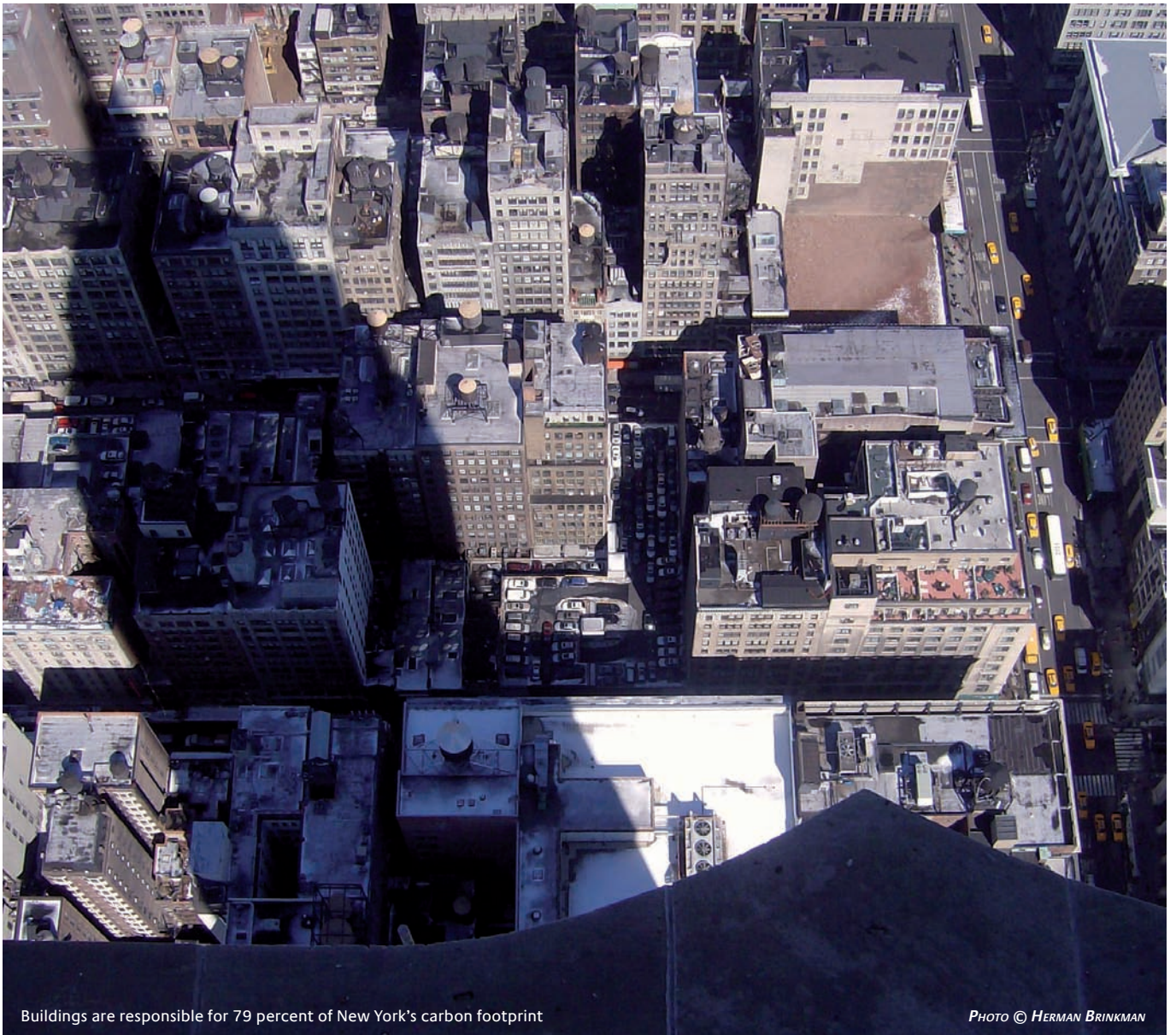


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Smart cities start with smart buildings

Buildings are underplayed in terms of their contribution to emissions with nearly 40 percent of US emissions attributable to buildings compared to just 3 percent for four-wheel drive vehicles. **Ron Dembo** outlines how we must clad buildings to reduce emissions and why changing the occupants' behaviour is key to tackling climate change.



Buildings are responsible for 79 percent of New York's carbon footprint

PHOTO © HERMAN BRINKMAN

The 2009 Copenhagen climate summit has made it clear that we require urgent action on climate change. Scientists calculate that we need to stabilize the concentration of carbon dioxide in the atmosphere at no more than 350 parts per million (ppm) to prevent runaway global warming and its potentially catastrophic impact on our civilization and the natural world as we know it. We are already at 390ppm, and adding to this at roughly two ppm a year.

In other words, we not only have to halt the increase in global carbon emissions, we have to turn the process around, and fast. We have to reduce global carbon emissions by 80 percent or more.

This will take an enormous effort on many fronts. When we look at the major sources of carbon emissions and where the efforts are currently directed, there is one area where we have scarcely scratched the surface, and that is our buildings.

Buildings are responsible for nearly 40 percent of energy consumption and carbon dioxide emissions in the US. Operating them consumes over 70 percent of all electricity generated in the region. The emissions rate is most intense in cities, with buildings responsible for 79 percent of New York's carbon footprint, 73 percent of Hong Kong's, and 52 percent of London's carbon footprint. To put this in perspective, four-wheel drive vehicles count for just 3 percent of emissions in north America.

This comes as news to many people, including environmentalists. Buildings do not immediately come to mind when people think of carbon villains. The reason is that until recently we never measured things like the carbon emissions of buildings, or if we did we certainly never aggregated the measurements in any meaningful way. But once we know this information we cannot ignore it. If we are serious about tackling climate change, we have to do something about our buildings.

Retrofitting is not enough

So far, the focus has been on new buildings. Hence we have the Leadership in Energy and Environmental Design (LEED) standard in north America, PassivHaus in Germany, Building Research Establishment Environmental Assessment Method (BREEAM) in the United Kingdom and others. These standards are important. They are helping create a new

generation of buildings with the potential for significant energy savings.

I use the word "potential" deliberately, because it turns out that many of these buildings are not delivering the promised carbon reductions. This is because although the infrastructure of the building has been addressed, the culture of use has not – but more on this later.

Only a tiny proportion of our buildings are new and meet modern energy efficiency ratings. Most of our buildings are not only old, they are likely to be with us for a long time yet. For example, over 50 percent of non-residential buildings in England and Wales were built before World War II. Most non-residential buildings built anywhere since then are reinforced concrete structures with an expected life of 60 years or more. This presents us with a massive problem. We have to somehow reduce the carbon emissions of almost our entire building stock. We have to retrofit millions of buildings with energy efficiency measures. You can get a sense of the scale of the challenge if you go to the top of the Rockefeller Centre and look down the avenues of New York. We have to deal with all those buildings, keeping in mind that New York is just one city.

We have some ideas about how we need to tackle the problem. We know we need to insulate and draught proof. We know we need to fit low energy lighting and more efficient heating and cooling systems. A number of such projects are already under way, including a USD 175 million programme in Washington to retrofit 400 government and private buildings. But there are two problems with this approach. The Washington programme is aiming for 25 percent energy efficiency gains. This is a long way from the 80 percent reductions we need. The other issue is that with many of our older buildings it is the structure itself that is the problem.

Re-skin the tower blocks

Many high-rise buildings and tower block apartments were designed and constructed with little thought for energy efficiency and with a fairly rudimentary understanding of building envelopes. Their outer walls and often their inner cores are reinforced concrete. They have no thermal barrier between their interiors and the outside weather. Their concrete structure captures the heat in summer, so the buildings



Dr. Ron Dembo is the founder and CEO of Zero-footprint, an organization dedicated to a mass reduction in global environmental impact

PHOTO © ZEROFOOTPRINT

need air-conditioning, and it radiates away the expensively generated heat in winter. In energy efficiency terms, they are a disaster.

We cannot knock all these old buildings down and rebuild them to LEED specifications. It would cost trillions of dollars and create an environmental nightmare. So we are going to have to thermally isolate them – by attaching a layer of cladding that will provide an insulating barrier between the buildings' interiors and the elements. We need to give them a new skin.

This 'reskinning' can actually have a number of benefits besides insulation. The gap between the new skin and the old walls could be used to carry the piping, ducting and cabling for retrofitting the lighting and air-conditioning. This would make the retrofitting process much quicker and cheaper. The cladding itself could generate energy if it was made of photovoltaic cells. And finally, if we pay attention to the aesthetics of the cladding materials, the new skins could be used to give our cities, and particularly the vast swathes of utilitarian post-war apartment blocks that blight many skylines, a much needed facelift.

Retrofitting on its own can reduce building emissions by around 25 percent, but combined with reskinning it can achieve 70 percent or more. Now we are getting much closer to our target of an 80 percent reduction in carbon. ▶

The ZEROprize

The ZEROprize of USD 10 million, the largest architectural prize in the world, will be awarded to the design team able to take an older concrete high-rise structure and, using re-skinning along with other retrofitting technologies, reduce its carbon, water, and energy footprint to net zero while maintaining the highest architectural design standards. The ZEROprize, like the prizes for spaceflight, genomics and other endeavours, is modelled on the Orteig Prize offered for the first non-stop flight from New York to Paris and won by Charles Lindbergh in 1927. These prizes have proved a highly effective way of unlocking the creative ingenuity of engineers and inventors, and seeding significant investment in the solution of difficult problems. The more recent USD 10 million Ansari X Prize for private spaceflight generated USD 100 million of investment. Zerofootprint hopes that the ZEROprize will generate the interest and investment that will result in cost-effective, replicable, scalable, energy-efficient re-skinning materials and methodologies which can be applied to a large number of buildings across the globe, and which will enable us to begin tackling the huge carbon footprint of buildings.

We already know how to do some of this. A number of reskinning projects have already been carried out, although they usually address only one or two of the issues, such as the aesthetics or protection of deteriorating surfaces. Even where we've done it all, it has just been for single buildings, but we need to apply these methods to whole cities. That is why Zerofootprint launched the ZEROprize (see box).

This is just a first step. We can make the infrastructure of buildings zero carbon, but this will be to no avail unless we simultaneously change the culture of their use.

Don't forget the lights

The Hearst Tower, a 46-storey skyscraper near Columbus Circle in New York completed in 2006, is certified LEED Gold. As its top rating

suggests, its designers went to great lengths to make the building energy efficient and environmentally friendly, including the use of low-emittance glass and high efficiency heating, ventilation and cooling (HVAC) systems.

But when building energy consultant Henry Gifford went by at 2am on July 28 2008 he saw the Hearst Tower lit up like a Christmas tree. For all its good intentions, the building was an energy hog. What is more, when Gifford looked into LEED buildings in general he found that many actually performed worse than comparable buildings with no ratings. This is crazy, and given the urgency of our environmental issues, we just cannot afford it.

The problem, says Gifford, is that standards such as LEED only predict how a building might perform, and do not measure how they actually perform. And this is down to their culture of use.

If we are to cut the emissions from buildings, old or new, by any significant amount we have to change the way people inside them behave. How can we do this? Well, first we have to ask ourselves why the occupants of a building can boast about their LEED certification and then leave the lights on all night? The answer is that the energy we consume and the carbon we produce is invisible.

While the occupants can see the ratings award plaque on the wall as they arrive at the building every morning, they cannot see any measure of the building's actual performance and their own energy use. So the first thing we have to do is make the invisible visible.

Measure energy use and display it

We already have the absolute energy use measure of buildings. It is their monthly utility bills. But very few people see them. And even if we could, the crude figures would not say anything about whether the building was performing well for its type or not.

Therefore, we need to take these measures and convert them into something meaningful. We suggest converting them to kilowatt-hours per square metre per year (kWh/m²/yr). (In fact we suggest three measures: energy as kWh/m²/yr, carbon as kilograms per square metre per year, and water as cubic metres per square metre per year to give the full environmental footprint of the building). Once we convert to a common unit, we can then compare one building with another in a meaningful way.



There is evidence to show that just letting people know their energy consumption in more detail, changes their behaviour. A recent project in North Carolina using smart metre and networking technology demonstrated that just by making energy consumption continuously visible to householders and allowing them to make simple adjustments, consumption fell on average by 15 percent, and up to 40 percent in some cases.

There is also much evidence to show that people respond better to relative measures rather than absolutes. If instead of just knowing I consume XkWh of electricity a year, I know that my consumption is twice that of my neighbours (when converted to a common unit like kWh/m²/yr that takes into account house size and allows the comparison of like for like) I am more likely to do something about my electricity use. The



Retrofitting needs to be combined with a change in human culture to reduce emissions

PHOTO © MARC MOSS

same applies to buildings. If I know that the office block I work in consumes double the energy of its neighbours I might start to think about how I behave with respect to lighting by turning my computer off at night. Or if I walk into my bank and see a display, which shows me that it is an energy hog, I might start asking questions and demanding some action.

We suggest that as well as giving buildings an energy rating plaque, we need to give them an energy performance display. For this we recommend taking a leaf out of the book of the car industry and give them something like the Environmental Protection Agency (EPA) fuel consumption sticker that you see on cars in the United States. If every building had to display an energy performance sticker we could start to develop some benchmarks. We could compare all

similar buildings in a city – say office blocks, or schools or apartment blocks – and identify the most green and the worst performing.

The EPA fuel consumption ratings for cars not only inform car buyers, they also serve as a policy instrument for government. To improve the overall fuel performance of cars, the US government simply resets the average fuel consumption that a manufacturer's fleet of cars must meet, as President Obama did recently when he raised the US fleet average for cars from 9.4 litres per 100 kilometres to 6.7 litres per 100 kilometres by 2016. If buildings had similar energy consumption stickers, governments could set targets for building performance simply by raising the energy consumption benchmarks.

The introduction of EPA fuel consumption ratings in 1974 sparked a revolution in car design. Thirty years later, the Honda Civic,

for example, was 100 times less polluting. Car manufacturers achieved this by making their vehicles smart. They fitted them with sensors, microprocessors and algorithms to optimise their performance. And they feed all the information back to the driver through the dashboard. Most buildings built today are not much more sophisticated than those built 30 years ago. The gap between the old walls and the new skin on retrofitted buildings could carry the wiring to make our buildings smart. If we made our buildings smarter and fed the information back to the building users, as well as improved their thermal performance, we might be able to reduce their pollution one hundred fold as well.

That really would be a revolution in building performance, and would make a significant contribution to the struggle against climate change. ♦

São Paulo launches new urban programme to attract companies

Rio de Janeiro has grabbed all the headlines with the World Cup and Olympics arriving in the next six years to put the city firmly in the public eye at the expense of its traditional rival São Paulo. But, as **Jemima Raman** reveals, São Paulo is determined to push ahead with its own innovative agenda for urban development.



São Paulo is redefining its urban priorities

PHOTO © DIEGO SILVESTRE

Beautiful is definitely not an adjective one associates with São Paulo. The world's seventh largest metropolitan area is a daunting urban sprawl. Overstretched infrastructure, overcrowded public transport, lack of basic amenities and high crime rates characterize the city but what makes São Paulo interesting is its determination to put an end to this urban chaos. The ambition is clearly there – São Paulo was one of the first cities in the world to adopt ambitious carbon reduction targets and it has also pledged its support for the C40 Electric Vehicle Network proposed at the December 2010 Climate Summit for Mayors in Copenhagen.

A good example of São Paulo's ambition is the story of how it got rid of its landfills in Bandeirantes and São Joao. The projects are classic examples of how the public and private sectors can team up to achieve benefits for all city dwellers. Through a public bid, São Paulo City Hall selected the holding company Biogas Co. to build thermoelectric power plants to burn biogases emitted by decaying waste from the landfills and thus to produce clean energy. Not only does the project generate certified emission reductions (CERs), which can be traded under the UN Clean Development Mechanism, but it will also have prevented an estimated 11 million tonnes of CO₂ emissions by 2012. So far, São Paulo has brought in USD 38.5 million in two public auctions trading CERs, which it has invested in creating parks, playgrounds and public spaces in the areas surrounding the landfills.

The success of the landfill projects has certainly given impetus to the São Paulo government. A newly developed framework of concessions will explore the involvement of the private sector in urban development, renovation and re-urbanization.

According to Luiz Francisco Toledo at the Municipal Secretariat for International Relations, the government is busy drawing up plans for various public projects involving the private sector. The public tender for the Celso Garcia Bus Rapid Transit project, for instance, is expected to be announced in July 2010. The project, which connects the Dom Pedro II terminal to Itaim Paulista borough will reduce travel time by 40 minutes. The off shoot of Celso Garcia will be a road project, which will introduce a bus-only lane for the entire route together with additional lanes at bus stops to facili-



The Nova Luz projects will revitalize the city centre

PHOTO © CAIO SILVEIRA/SPTURIS DIVULGAÇÃO

tate overtaking of buses. A monorail project will serve the needs of more than 1.5 million passengers transporting 30,000 people per hour at less than two-minute intervals.

São Paulo has lost tax revenues as many companies moved out citing poor infrastructure. Projects such as Nova Luz, which will revitalize half-a-million square metres area located at the very centre of the city with tax benefits to stimulate companies, are aimed at winning back these lost businesses.

In recent years, São Paulo has also come up with stringent laws to help the environment.

The Municipal Act on Climate Change, based on the polluter-payer principle, has created a legal framework that encourages the use of public transport and renewable energy. The Anti-tobacco Law bans smoking in enclosed public spaces. In addition, the city is working on its aesthetic appeal and the city has banned visual pollution by pulling down hoardings and billboards. ♦

CLIMATE CHANGE

Latin America

According to the World Bank study on climate change in Latin America, the effects of global warming are more evident in Latin American coastal cities. For instance, Cartagena and the rest of the Caribbean coastal zone could see sea levels rising as much as two feet, possibly more, by the end of the century. Other Latin and Caribbean cities especially at risk include Veracruz in Mexico, Georgetown in Guyana and Guayaquil in Ecuador. The authors of the report are also concerned for Colombia's Cienaga Grande, a mangrove marsh covering hundreds of square miles whose eco system could die because of increased salinity from higher tides

DISASTER MANAGEMENT

El Salvador

The United Nations and its partners launched a USD 13 million Flash Appeal for El Salvador to provide immediate aid for six months to 75,000 victims of Hurricane Ida. The aid will provide food, shelter, water and sanitation, education, agriculture and early recovery. The hurricane killed over 190 people and left 80 more reported missing, with 15,000 others still sheltering in camps, schools, churches and other buildings.

PUBLIC RESOURCES

Latin America and Caribbean

The Social Observatory from Maringa, developed by the Ethically Responsible Society (SER), a community organization of people without partisanship that monitors the spending of public resources in the municipality, won first place in the "Experiences in Social Innovation" contest organized by the Economic Commission for Latin America and the Caribbean (ECLAC) with support from the Kellogg Foundation. The SER during its first nine months of supervision saved the municipality USD 5 million.

ECONOMY

Latin America and Caribbean

Economic recovery from the international crisis in Latin America and the Caribbean will be quicker than expected a few months ago, with growth in the region projected at 4.1 percent next year, according to the latest ECLAC estimates. Its annual report Preliminary Overview of the Economies of Latin America and the Caribbean 2009, projects that Brazil will top the list of countries with higher growth in 2010, with expansion estimated at 5.5 percent.

Renewable energy**Mexico targets private sector to launch new energy projects**

The Clean Technology Fund (CTF) – supported by eight governments and managed by the World Bank – has approved the second phase of the Mexico Renewable Energy Program (MREP). The MREP is a comprehensive public/private programme designed to demonstrate renewable energy as a commercially viable and reliable source of power and to stimulate transformation of the energy sector in Mexico.

Project II commits USD 50 million to fund individual private sector renewable energy projects, as well as USD 1.54 million for technical cooperation to support the implementation of the new renewable energy law, assess options for a programmatic Clean Development Mechanism, and design a development plan for local communities impacted by renewable energy projects. The core of the proposal is the funding of a range of private sector projects to generate an established and mature investment environment for the Mexican renewable energy sector.

Mexico has been very proactive in its efforts against climate change. But the renewable energy sector of Mexico remains relatively untapped (at around 14 percent of total supply). According to various studies, including Mexico's Economics of Climate Change Study of 2009, by 2030 renewable energy could result in more than a 72 metric tonne carbon



Mexico is keen to attract investment in the untapped renewable energy sector
PHOTO © IAN MUNROE

dioxide equivalent (Mt CO₂e) per year of abatement from five main sources: hydro-power (both large and small), wind power, geothermal, energy from biomass and solar. Combining such renewable energy investments with smart grids could result in a further 15 Mt CO₂e reduction by 2030. ♦

Environment**Brazil aims for 40 percent reduction in emissions by 2020**

Brazil plans to lower its emissions of the main greenhouse gas carbon dioxide (CO₂) by nearly 40 percent by 2020. The actual target ranges from a CO₂ reduction of at least 36.1 percent up to 38.9 percent. If the target is met, Brazil's emission levels in 2020 would be roughly equivalent to those of 1994, at around 1.7 billion tonnes annually.

Approximately one quarter of the target will be achieved through a drastic reduc-

tion in rainforest deforestation. The South American nation also intends to reduce the rate of deforestation in the Amazon rainforest by 80 percent. Last week the government of Brazil announced that deforestation of the Amazon rainforest was at its lowest level for 21 years. The 12 month data, covering August 2008-July 2009 reveals a reduction of nearly 46 percent compared to August 2007-July 2008. ♦

Sustainable tourism

IDB launches competition to boost Caribbean tourism

The Inter-American Development Bank (IDB) will hold a business plan competition for Caribbean tourism projects involving low-income communities in their value chains. The contest, organized under the IDB's Opportunities for the Majority Initiative, is open to companies based in the Bahamas, Barbados, Guyana, Haiti, Jamaica, Suriname and Trinidad and Tobago.

Eligible business plans must include low-income communities as suppliers or distributors of goods or services, so that both companies and local residents benefit from the development of tourism ventures. Proposals will be judged on criteria such as innovations, economic, social and environmental impact on communities where projects would take place, growth potential, creditworthiness, implementation capacity and whether they could be replicated elsewhere.

Participants will be required to submit a three page summary of their project and a one page outline of their company before April 9, 2010. IDB specialists will review the proposals and select up to 10 entries for further development. After taking part in a workshop, contestants will perfect their business plans for a final round of presentations to be held on July 23, 2010, before a panel of independent jurors.

Winning proposals will receive up to USD 25,000 in consulting services from interna-

tionally recognized firms specialized in tourism development, with the goal of preparing the business plans to become eligible for financing.

Opportunities for the Majority is a special IDB initiative that promotes and finances private-sector business models designed to deliver quality products and services, create employment, and enable low-income communities to join the formal economy in Latin America and the Caribbean. ♦



The IDB is inviting business plans for Caribbean tourism projects involving low-income communities
PHOTO © G. LENIAF



With a drastic reduction of deforestation, Brazil hopes to lower its emission levels

PHOTO © BEN SUTHERLAND

ENVIRONMENT

Jamaica

A major initiative, involving the government and a number of agencies, is being pursued to save the Negril beach at the western tip of Jamaica. The project will involve looking at the reef issues and determining how it can be restored and, more importantly, to develop a programme to re-establish the beach and make it sustainable. The study and the beach enrichment programme is estimated to cost approximately USD 30.5 million.

INFRASTRUCTURE

Panama

Work is in progress to expand the Panama Canal, a vital artery of world trade. The construction of locks, which will be 60 percent wider and 40 percent longer, on the marshy lagoon on the pacific side, will be started in a few months. Panama Canal Authority (ACP) set the ball in motion in August 2007 and the whole project, with an estimated cost of USD 5.25 billion, is expected to be finished in 2014. The channel will be parallel to the existing Miraflores lake, but nine metres higher. The ACP believes that the expansion will boost Panama's growth rate by 1.2 percent.

HERITAGE

Colombia

The Colombian and US governments have launched the Landscape Conservation Programme to protect Colombian diversity and continue with the promise to establish and sustain the protection of marine and terrestrial area systems. Through its Agency for International Development (USAID), the US government will allocate USD 9.5 million to support the implementation of sustainable licit and environmental activities within ecosystems of great biodiversity, such as the Andes mountain range, the Bio geographic Choco, the Amazon foothills and the Sierra Nevada de Santa Marta (Santa Marta Snowy Mountain Range).

ENVIRONMENT

Dominican Republic

The Participating Countries of the Dominican Republic-Central America-United States Free Trade Agreement (DR-CAFTA) Environmental Cooperation Agreement (ECA) has agreed to develop the Environmental Information Systems Regional Strategy, which aims to support citizens' participation in environmental management processes by strengthening the existing information systems of the countries in the region.

A new vision for Sydney

Often criticised for resting on its laurels after the success of the 2000 Olympic Games, Sydney is moving back into the spotlight as it begins building local partnerships to achieve its *Sustainable Sydney 2030* vision. By **Jonathan Andrews**.



Situated in one of the most beautiful natural harbours in the world, with renowned architecture and icons, Sydney could be easily excused if it were to have a 'laid back' approach in its development as a truly international city. This, however, is not the path the local government authority, the City of Sydney, wants to take. It recently launched one of the most ambitious visions for a city, focussing on strengthening Sydney's role as a global city, to expand innovation, boost public transport, promote sustainability and partnership building, and reduce greenhouse gas emissions.

Titled *Sustainable Sydney 2030*, the City of Sydney believes that Sydney has an important role as caretaker of Australia's best known city. Thus the *Sustainable Sydney 2030* vision was developed in consultation with the communities, urban planners and architects. "The City of Sydney has a special role," says Lord Mayor Clover Moore. "It is a small but critical participant. It does not have the legislative capacity, resources or expertise to go it alone in relation to all initiatives. It is generally much more effective to work within networks and to build partnerships with business, government agencies and community stakeholders."

The *Sustainable Sydney 2030* vision will aim to tackle this problem of a fragmented governance structure, through increases in working relationships and memorandums of understanding with other government bodies.

"Partnerships across community, government and business will be needed to implement the *Sustainable Sydney 2030* vision and projects over the next 20 years," explains Moore. "It provides the strategic framework – the architecture – for the City of Sydney's priorities when it comes to partnership arrangements."

Inner City Mayors Forum

One initiative from the vision that has already started includes the Inner City Mayors Forum, which incorporates a forum with 10 surrounding local governments that have shared interests.

"We develop solutions and proposals together to then advocate the state and federal governments where issues cannot be addressed by local governments alone," says Moore.



The Inner City Mayors Forum tackles the problem of a fragmented governance structure

PHOTO © CITY OF SYDNEY

This programme dubbed 'partners for prosperity' not only focuses on the Sydney basin but with Australia's six other state capital cities. The Capital City Council of Lord Mayors (CCCLM) incorporates 78 percent of Australia's growth and 64 percent of the total population.

Driven by the City of Sydney, this forum has helped put on track one of the vision's main goals of increasing its self-sufficiency of low-carbon energy and sustainable water supplies to and beyond 2030.

It announced recently that through shared knowledge and approaches, they would all aim to work together to cut emissions by 57 mega tonnes over the next ten years (see page 46).

"We already know that cities are a major contributor to emissions," says Moore. "This research shows that through a series of ac-

tions cities can reduce emissions. CCCLM's commitment is ambitious, but we can achieve these targets if government and industry partner with us. The actions involve changing and improving our workplaces and homes and how we move around our cities."

Affordable housing is another prominent part of the 2030 initiative (see box). It aims to continue the strong growth for a diverse and socially cohesive community in the central business district. Once a ghost town when office workers left at 5pm, the centre now holds 160,000 residents, a growth of more than 50 percent in the past 10 years.

"A dynamic and healthy city contains a mix of accommodation types," says Moore. "There is an urgent need for more affordable housing close to the city, to ensure people employed in essential services can afford to live close to where they work."



Lord Mayor, Clover Moore MP launching Sydney's 2030 vision

PHOTO © UNITED STATES STUDIES CENTRE

Ten targets towards achieving 'Sustainable Sydney 2030'

- The city will reduce greenhouse gas emissions by 50 percent compared to 1990 levels.
- The city will have the capacity to meet up to 100 percent of its energy demand and 10 percent of its water supply.
- There will be at least 132,000 dwellings (48,000) additional dwellings in the city catering for an increased diversity of household types, including a greater share of families.
- Of all housing in the city 7.5 percent will be social housing and 7.5 percent affordable housing delivered by not-for-profit or other providers.
- The city will contain at least 465,000 jobs with an increased share in sectors that reflect the city's specializations, namely finance, advanced business services, education, creative industries and tourism.
- The use of public transport for travel to work by city centre workers will increase to 80 percent and the use of non-private vehicles by city residents for work trips will increase to 80 percent.
- At least 10 percent of trips made in the city will be by cycling and 50 percent of trips will be made by walking.
- Every resident will be within a 10 minute (800 metre) walk to a main street with fresh food markets, childcare, health services and leisure, social, learning and cultural infrastructure.
- Every resident in the City of Sydney will be within a three minute walk (250 metres) of continuous green links that connect to the harbour foreshore, harbour parklands, Moore and Centennial Parks or Sydney Park.
- The level of community cohesion and social capital will have increased as measured by more than 45 percent of people believing that most people can be trusted.

A polarized city of very high-income earners and very low-income earners is something the council is keen to avoid. By creating more affordable housing in the centre it believes that pressure will be reduced on suburban public transport.

Sydney is increasing its bilateral and multilateral relationships not only within Australia but also internationally. Already a leading member of C40 Climate Change Leadership Group and International Local Governments for Sustainability, Sydney was also represented at the recent COP15 meeting in Copenhagen. Lord Mayor Moore's interest went so far as to include a personal diary and included twitter updates to connect directly with Sydney residents interested in the day-to-day developments of the meetings.

"Sharing knowledge and understandings in relation to common challenges will be both necessary and beneficial in addressing challenges," says Moore. "Building partnerships with other global or globalizing cities is important in strengthening opportunities for knowledge and cultural exchange, to achieve the 2030 goals." ♦



Housing Development & Management

combines research and education to improve housing
and fight urban poverty

Housing Development & Management offers education, research, capacity development and institutional consultancy in housing and urban development. Our goal is to increase knowledge on how to conduct and improve participatory processes leading to good housing and sustainable development – especially for the poor.

International Training Programmes

HDM offers international training programmes in Shelter Design and Development and in Conservation and Management of Historic Buildings. Grants for these programmes are offered by the Swedish International Development Cooperation Agency – Sida. HDM also offers tailor made training (seminars, workshops, courses, studies and research) to strengthen the capacity of an institution or a sector.

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HDM offers a PhD education with a normal period for completion being 4 years of full time studies conducted in Sweden or combined with studies in your home country (sandwich arrangement).

Capacity Development

HDM conducts PROMESHA (Programa de Capacitación para el Mejoramiento Socio Habitacional), a regional capacity development programme in Latin America. The different national, regional and international training activities aim to improve the living and housing conditions of the poor by strengthening the competence, skills and capacities of decision makers and professionals. Since the beginning of the programme in 1995 its activities have attracted thousands of professionals and decision makers.

For more information see www.hdm.lth.se

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URBAN DEVELOPMENT

India

The Asian Development Bank and the UK Department for International Development have signed a new five-year strategic partnership to fight poverty in India. This will be supported by a GBP 14 million grant from the UK government. Infrastructure projects have been identified for grant co-financing, including road-building in Madhya Pradesh and Jharkhand, power sector capacity development in Bihar, preparing an investment plan for urban development in Himachal Pradesh, land transport management in Sikkim and improved irrigation management in Chhattisgarh.

DISASTER MANAGEMENT

Samoa

The International Monetary Fund will provide a USD 9.3 million lifeline to Samoa to help the country recover from the September 2009 earthquake and tsunami disaster. Villages and resorts in Samoa and the neighbouring Pacific islands of American Samoa and northern Tonga were flattened by the giant waves generated by a massive 8.0-magnitude earthquake, the strongest in a nearly a century. The tsunami killed 186 people.

SUSTAINABLE TOURISM

South Asia

Nepal, India and Bangladesh will receive USD 57.5 million in grants and loans from the Asian Development Bank for the South Asia Tourism Infrastructure Development Project. It will develop and improve infrastructure and services for key tourism sites in the three countries. It will also help increase the capacity of sector agencies to sustainably manage and protect sites and will target increased involvement by local communities in tourism.

URBAN STRATEGY

China

China is moving to develop secondary towns and cities to help stem the flow of rural migrants into larger centres, which has caused a sharp urban-rural income gap and put pressure on the environment. A USD 100 million demonstration project aims to improve infrastructure and urban services in about 10 small cities and towns, providing an environmentally sustainable development model that can be replicated elsewhere.

Energy

Australian cities unite to slash emissions

Australia's state capital cities have committed to slash greenhouse gas emissions following new findings that reveal cities can lower greenhouse gas emissions by a collective 57 megatonnes (million tonnes) a year by 2020.

Equal to 41 percent reductions on projected pollution figures without action being taken, the savings would mean cities would contribute significantly to meeting the Australian government's emissions reduction targets, which range from a low of 5 percent to a high of 25 percent over the next 20 years.

Emissions relate to those from commercial and retail floor areas, residential property and public and private transport. It excludes activities outside the direct control of city managers, such as freight, industry, food production and consumption.

The Lord Mayor of Sydney, Clover Moore MP, and the Lord Mayor of Melbourne, Robert Doyle, were invited to be Australia's delegates at the associated Climate Summit for Mayors organized by the C40 Cities Climate Leadership Group and the International Local Governments for Sustainability.

"We already know that cities are a major contributor to emissions, but equally provide a significant opportunity to avert dangerous climate change," says Moore. "If these bold commitments can encourage government and industry to follow suit, Australia will be well on the way to meeting sustainable targets." ♦

The actions include:

- Residential and commercial building retrofits;
- District combined cooling heat and power and the use of natural gas to generate electricity and harvest waste heat;
- Waste to energy technology with the diversion of 50 percent of the non-recycled residential and non-residential waste stream from landfill by 2015 to produce methane for electric generation;
- Converting street and traffic lights to LED lights;
- Transport improvements;
- Employee density/residential density through a reduction in the commercial floor area per employee by 20 percent by 2020, thereby reducing the energy requirements to accommodate employment growth; and
- Renewable energy: building hot water systems with solar power.



Converting street and traffic lights to LED lights is one part of the Australian action plan

PHOTO © TED PERCIVAL

Waste management

BASF spearheads organic waste collection in Thailand

German industrial product manufacturer BASF is launching a pilot project in Thailand to highlight the potential of composting as a feasible and effective waste management tool. The project will demonstrate the use of biodegradable plastic bags to collect household organic waste efficiently, as well as the potential to produce organic matter or fertilizer from such organic waste.

The project follows on from the recommendations of the bioplastics environmental policy to build composting facilities in Thailand. The potential production capacity of high quality organic fertilizer is 6 million tonnes annually, which could be exported.

“The pilot project is a key initiative towards the development of the bioplastics industry as one of Thailand’s new wave industries,” says Dr. Suchinda Chotipanich, Permanent Secretary, Ministry of Science and Technology and Chairman of the Bioplastics Industry Development Subcommittee. “In evaluating and developing sustainable options for end-of-life product waste management, we have to remember that landfilling of organic, biodegradable waste generates methane – a greenhouse gas 23 times more potent than carbon dioxide – and composting helps to reduce emission levels of harmful greenhouse gases.”



Visiting the project site, where organic waste in biodegradable bags is placed into a bio-digester
PHOTO © BASF

As part of the launch, held at the pilot plant site in the Samut Songkhram Province, a community outreach group consisting of community leaders and students promoted the use of biodegradable plastic bags to 730 households.

The biodegradable plastic bags will be made of cassava starch and calcium carbonate compounded with BASF’s Ecoflex product, a fully-biodegradable, compostable polyester which is tear-resistant, puncture-resistant, waterproof, printable and elastic. Ecoflex significantly improves the functionality of raw materials based on renewable resources and as such has been used in the production of the biodegradable bags to provide the demanding mechanical properties. ♦

Sanitation

School sanitation project launched in India

The Indian state of Himachal Pradesh has launched the ‘School Sanitation Reward Scheme’, to end the traditional practice of open defecation and adopt safe sanitation through implementation of the Total Sanitation Campaign (TSC).

Hygiene education is one of the key components of the TSC and offers opportunities to create functional sanitation facilities in schools with the adoption of safe sanitation practices by students.

State Development Minister Thakur said at the launch that, “improvement in the school sanitation facilities is also important as these provide an enabling facility for adopting safe sanitation practices by the children, while in school.”

There are six prizes, worth INR 160,000 (USD 3,400), under the scheme to stimulate improvement in school sanitary facilities. To



The plan encourages improvements in school sanitary facilities
PHOTO © IGNAS KUKENYS

be eligible, co-educational schools with 40 or less students must provide at least one toilet unit and those schools with between 40 and 80 students must have two toilets and one urinal. Larger schools with between 80 and 120 students should have an extra urinal.

Hand washing facilities must also be provided near the toilets in adequate numbers, using stored water for hand washing and toilet use. The school must also provide safe drinking water for children. ♦

WATER

Nepal

Students at Bentley University in Boston, have raised funds amounting to more than USD 10,000 for UN-HABITAT. The money is being used for a rainwater conservation project in Nepal. UN-HABITAT has allotted the fund to a rainwater conservation project launched in Lalitpur Municipality, Nepal, as part of the agency’s Water for Asian Cities programme. The idea is to demonstrate rain and groundwater conservation at the community level.

WATER

China

China says that over the next two to three years it will invest more than CNY 90 billion (USD 13.18 billion) on wastewater treatment to ensure drinking water safety. Wu Xiaoping, the vice minister of China’s Ministry of Environmental Protection, stated at a recent conference that China had made dramatic achievements in wastewater treatment in the past three decades but the quality of water in the country’s major water sources is still unsatisfactory. Wu said that the funds would be spent on the construction of wastewater disposal systems to ensure that drinking water is safe.

DISPLACEMENT

Sri Lanka

The United Nations High Commission for Refugees, together with other UN agencies, is distributing relief items such as sleeping mats, bed sheets and hurricane lamps to Sri Lanka’s internally displaced peoples in the north and east. It will also carry out protection monitoring in the return areas, verifying the return conditions and providing the returning families with a shelter grant of LKR 25,000 (approximately USD 250), as a first step towards helping them rebuild their homes.

INFRASTRUCTURE

Timor-Leste

Timor-Leste is targeting a USD 49 million overhaul of its badly degraded road network to accelerate new economic opportunities and poverty reduction. Funds from the Asian Development Bank and the Japanese government will ensure that the social and economic benefits of the project are delivered to urban and rural communities. Up to 230 kilometres of national and cross border roads with Indonesia will be rehabilitated and maintained.

Cape Town rises to the World Cup challenge

With South Africa hosting the World Cup in June 2010, cities like Cape Town can use the opportunity to benefit from long-term development rather than just being a temporary home for the world's most watched sporting event.



The urban divide between rich and poor in the host cities for next year's World Cup is unfortunately all too evident. But it seems to be lost on FIFA whose World Cup will arrive in the African continent for the first time in summer 2010.

"Our main focus is sport, we are about tournaments, not other things," says a FIFA spokesperson. "The decisions made by the FIFA executive committee are made by football experts, not environmentalists."

Compared to the International Olympic Committee's commitment to lessen the human and environmental impact of the Games and to make sustainable development part of the bidding cities' agenda, FIFA would seem to fall short. While football's governing body sees football as an instrument of social development through its Football For Hope centres, which will be built in South African cities, it seems to be missing a trick in understanding how the World Cup could be used to leverage and promote sustainable development.

Luckily South Africa's nine host cities have taken it upon themselves to combine respect for the environment in terms of the infrastructure with the opportunity to improve access to facilities for all citizens.

Green Goal is an internal South African project coordinated at a national level by the Local Organising Committee and the Ministry for Environmental Affairs. Each host city has developed Green Goal programmes within the national umbrella, some more comprehensive and autonomous than others. "The project builds on a similar programme established for the 2006 World Cup in Germany, although the South African version has responded to the very different contexts of the host nation and cities," says Stephen Granger, Manager of Major Programmes and Projects for Green Goals 2010.

The approach followed by Green Goal 2010 is significantly different from that of Germany 2006. In Germany, the Öko Institute, an independent environmental consulting firm appointed by the government, played a leading role in the greening of 2006. In South Africa, the host cities play a far greater role, with the Local Organising Committee being responsible for the coordination of greening efforts, supported by the Department of Environmental Affairs. While the World Cup differs from the Olympics in that it will not result in new housing developments, the pioneering Green Goal scheme aims to make the World Cup more



Cape Town is focused on inclusive development to benefit all citizens

PHOTO © CITY OF CAPE TOWN

environmentally sustainable beyond 2010 in the areas of water, waste, energy, tourism and mobility (see box).

One element is access for all and Cape Town is blazing a trail in inclusive development. A stand out example is the redevelopment of the Green Point Common which is the site of the new Cape Town Stadium, occupying approximately 18 hectares of the total 98. "The remainder of the common was previously allocated to a golf course and a multitude of sports clubs, a large area of green space on the doorstep of the Central Business District, to which the public did not have access unless they belonged to one of the clubs," says Lorraine Gerrans, FIFA Green Goal Manager for Cape Town 2010. Not only is the Common being reconfigured and its facilities upgraded, but also a new 12.5 hectare public park, the Green Point Park, is being constructed in the northwestern corner of the Common. It will be open to all residents and visitors of Cape Town, free of charge, seven days a week.

"We have planned a biodiversity showcase garden within the Green Point Urban Park," says Gerrans. "The garden will re-establish elements of four vegetation types associated with the area and highlight the importance of conserving rare and endangered species. It is an important partnership project, as it represents one of Cape Town's five Local Action for Biodiversity projects under the auspices of, Local Governments for Sustainability (ICLEI), and also we are working with the International Union for the Conservation of Nature on aspects of the project."

One of the project's focuses is South Africa's carbon emissions problem, which is expected to be twice that of the Beijing Olympics. "The estimate that we have at the moment for this World Cup's emissions is 2.75 million tonnes of CO₂ equivalent. You can compare that to the Beijing Olympic Games where there were 1.18 million tonnes," says Theodore Oben, a UN Environment Programme spokesperson. Gerrans responds: "It is now commonly accepted that large international sporting events such as the Olympic Games and World Cups impact on the environments of host cities and countries. The many thousands of fans who travel to these events use scarce resources such as energy and water, produce waste and contribute to climate change through the emissions from their air and land transport. Our challenge is to minimize the negative environmental impacts and maximize the positive environmental legacy."

Tackling transport is central to greening the World Cup, as emissions generated by the international travel of teams and spectators to South Africa will make up more than 67 percent of the event's total greenhouse gas emissions, which is projected to be nine times higher than in Germany in 2006. In total, including teams and fans, the UN estimates that USD 33 million will be needed to compensate for the CO₂ emissions caused by international flights to South Africa. "The upgrade of Cape Town's transportation links – mostly roads – represents the biggest infrastructural change," says Granger. "This includes the planning and development of



The long-term legacy of the tournament is a priority for the organizers

PHOTO © CITY OF CAPE TOWN

an Integrated Rapid Transport System, the first phase of which is currently under construction.” However, since the inception of the project, there has been opposition to this system and challenges to contain the project cost. The most notable objections came from taxi drivers, who protested against plans for a Bus Rapid Transit system, fearing that improved public transport would take business away from them. “But the city is dealing with these challenges in transparent and innovative ways and we are confident that as a result, public transport will dramatically improve,” says Gerrans. Detailed in the Cape Town government’s promise is a ‘vastly improved transport system’, which includes

rail upgrades, Bus Rapid Transit, airport-city links, Intelligent Transport Systems, improved passenger safety and road infrastructure. This means adding a fleet of 2,035 luxury and standard buses, 60 trains and 1,000 coaches, all of which will be used for communities once the event is over.

Despite the pride and eager anticipation felt in advance of the tournament arriving on the African continent for the first time, the organizers acknowledge the challenges posed by crime as well as infrastructure. In a public opinion tracking study carried out by international research company SPORT+MARKT, after the FIFA Confederations Cup in June, 66 percent of residents believe crime will be an

issue for visitors to the tournament (up from 58 percent in December 2008). South Africa remains confident that their FIFA-endorsed plan will work. “We are well advanced in the implementation of plans for a safe and secure 2010 FIFA World Cup,” says South African Police Minister, Nathi Mthethwa. “We will not allow criminals to act as distractions and victimize both our society and international visitors. Our plan, which has been shared with FIFA as well as the Organizing Committee, is a multi-pronged one. It encompasses a comprehensive security plan, which includes our approach to addressing terror threats, hooliganism and crime.”

The South African Police Service is spending ZAR 640 million (USD 90 million) on the deployment of 41,000 officers specifically for the event. This includes 31,000 permanent members and 10,000 police reservists. “The vast majority of the police deployed for the World Cup will be trained officers with experience in major events. In addition, countries competing in the event will send their own specially trained police officers to assist with language and cultural differences, and to support the local police,” says Mthethwa.

The long-term urban legacy of the tournament is a priority for all involved. The additional investment in infrastructure will have a catalytic effect to attract further investment and tourism to the city. For example, the eight new hotels that are being constructed in Cape Town, its new road infrastructure and better airport and rail facilities will contribute positively to make the city a preferred destination for business and tourists alike. The investment in environmental legacy projects such as the Green Point Park, Smart Living Centre, biodiversity showcase garden, city beautification projects, carbon mitigation initiatives and non-motorized transport infrastructure will leave behind a more sustainable and resilient city that meets the needs of its present residents without compromising the needs of the next generation. But maybe most significant is the unifying effect that the hosting of major events such as the 2010 FIFA World Cup will have on South African residents. Gerrans agrees: “The Rugby World Cup in 1995 unified the nation and the recent Final Draw festivities in Cape Town showed that the people of this city, no matter their race or socio-economic standing, are united in their enthusiasm to welcome the world in 2010.” ♦

Green Goal projects for Cape Town

- The Kuyasa Energy Efficiency Project is a thermal efficiency upgrade project that aims to retrofit existing low-income houses in Kuyasa with solar water heaters and improved insulation measures.
- The Solar Water Heater Advancement Programme aims to encourage and facilitate the adoption of solar water heater use in Cape Town.
- The Blue Flag Beach Programme aims to award the ‘Blue Flag’ to beaches that meet a range of stringent social, educational and environmental standards.
- The False Bay Ecology Park provides vital ecosystem services, treatment and disposal services for waste, a green lung in the city and opportunities for recreation, ecotourism, social and economic upliftment.
- The Local Action for Biodiversity Project is a three year pilot project that aims to involve approximately 15 cities from across the globe to explore the best ways for local governments to engage in effective biodiversity protection, management and utilization.
- The Women Orchid Legacy Project provides skills and employment for women from disadvantaged areas to farm orchid plants and create beadwork, embroidery and needlework with an orchid theme.

Happy Anniversary!



On the 10th Anniversary of the International Trachoma Initiative, we are inspired by the efforts of our partners and others around the world working tirelessly to bring blinding trachoma under control. The World Health Organization recommended **SAFE** strategy – **S**urgery, **A**ntibiotics, **F**acial cleanliness, and **E**nvironmental improvements – has proven effective in breaking the devastating cycle of blindness and poverty that trachoma imposes on millions of people.

Pfizer looks forward to continuing our support and working through the International Trachoma Initiative at the Task Force for Global Health with the goal of eliminating blinding trachoma by 2020. We are pleased to provide Zithromax[®], an Antibiotic used in the **SAFE** strategy and are honored to be working with a host of partners to help restore the health and well-being of families now and for generations to come.

Please visit

www.pfizerglobalhealth.com

to learn more.



TRANSPORT

Cameroon

The World Bank Board of Executive Directors has approved an additional financing of USD 217 million to help ensure the completion and expansion of critical rail and road links in Cameroon and the Central African Republic under the Central Africa Economic and Monetary Community Transport and Trade Facilitation Project. The additional financing will secure the project objective of funding the financing gap for upgrading the crucial road links on the Bangui-Douala corridor in Cameroon.

WATER

Africa

City managers from 18 cities across Africa have held a meeting in Johannesburg to review progress of UN-HABITAT's Water for African Cities' Programme. The programme aims to reduce the urban water crisis in African cities through efficient and effective delivery. Through its collaboration with the African Development Bank, among other partners, the programme has so far contributed USD 21.5 million to improving access to more reliable and sustainable supplies of safe drinking water and basic sanitation for 400,000 persons.

ENERGY

South Africa

The Clean Technology Fund endorses South Africa's plan to scale up grid connected renewable energy and solar water heaters for half a million South African households. The Fund, totalling USD 500 million, granted by developing and developed countries alike, paves the way for South Africa to move closer to its vision of generating 4 percent of its electricity from renewable sources by 2013, improving energy efficiency by 12 percent by 2015, and providing 1 million households with solar water heating over the next five years.

TOURISM

Africa

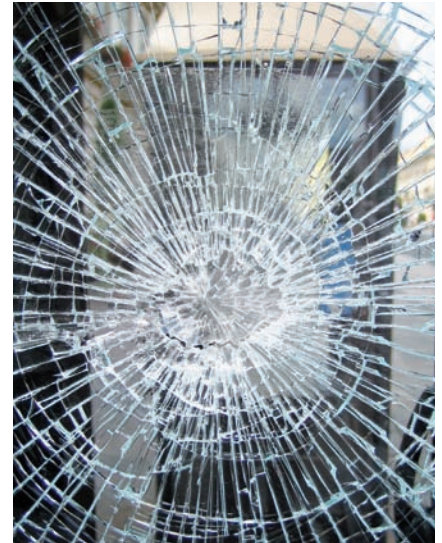
Tourism in Africa is experiencing a revival largely thanks to US President Barack Obama, according to the *World Travel Market Global Trends Report 2009*. The report reveals that the election of a President with an African heritage has encouraged many Afro-Americans to trace their routes. Despite the global economic recession, inbound arrivals to Africa increased more than 3 percent in 2008. Increased government investment and improved quality of travel services has helped fuel the surge. The report predicts that 42 million international tourists will visit Africa by the end of 2010.

Security**Academics to tackle growing urban violence**

A three-year research programme funded by the Volkswagen Foundation has been launched to examine violence and crime rates in sub-Saharan urban centres. *Urban Violence in sub-Saharan Africa: Its impacts, Coping Strategies and Peace Building (U-Care)* is a joint programme between The University of Yaoundé I in Cameroon, the University of Nairobi in Kenya, the University of Witwatersrand in South Africa and the Technical University of Darmstadt in Germany.

The overall focus of the U-Care programme is to examine the integration of violence prevention in urban planning and governance strategies. The research will be based on field studies conducted in Johannesburg (South Africa), Nairobi (Kenya) and Douala (Cameroon). A comparative analysis will be done through the joint team of researchers from these cities. Research results will be disseminated worldwide through the UN-HABITAT Safer Cities Programme and made available in print and digital form to partners and the scientific community.

Academic capacity building in sub-Saharan Africa is a secondary goal of the programme in order to increase the sustainability of the research project. Particular emphasis will



The programme focuses on Johannesburg, Nairobi and Douala
PHOTO © BRANO HUDAK

be directed towards fostering the academic qualification of young scholars who are completing their PhD and introducing them to the international scientific community. In addition, the initiative will build a strong academic network capable of addressing the problems of rising violence in sub-Saharan cities. ♦

Energy**Eskom decides against energy hikes**

South Africa's biggest energy supplier, Eskom, has announced that it will not go ahead with proposed tariff increases, after a plan to triple rates over three years sparked a public outcry and fears of inflation.

Eskom had proposed raising rates by 45 percent over each of the next three years, but its new request to energy regulators calls for a 35 percent annual increase. The original request would have tripled the electricity price from around ZAR 0.33 (USD 0.04) per kilowatt hour to ZAR 0.99. The new proposal would still double the price to ZAR 0.7.

Mpho Makwana, Eskom's Acting Chairman says: "Revising our tariff application by 10 percent or ZAR 0.1 per kilowatt hour down in real terms is a reflection of our sensitivity and responsiveness to the social and economic needs of the country. We have taken a decision to ask for a tariff increase that would take the country closer to security of supply and economic success, while keeping Eskom sustainable."

Eskom's planned increases had raised concerns over the possibility of increased inflation, in a country that, since the beginning of the year, has brought down inflation rates

Climate Change

Africa sees big rise in green projects

New figures released by the UN Environmental Programme (UNEP) have revealed a rising number of green energy and climate-friendly projects which are up and running or being planned across Africa. The projects ranging from renewable energy to tree planting are emerging as part of the Clean Development Mechanism (CDM) of the Kyoto Protocol, the United Nation's emission reduction treaty.

The latest figures indicate that 112 projects are at 'validation, requesting registration or registered' stage worth a total of USD 303 million. This is up from 78 projects in 2008 and just two in 2004. While the figures are cause for optimism, the continent is still lagging far behind Asia and Latin America, where there are 3,700 and 820 projects respectively in operation or awaiting approval.

The projects give developed countries the opportunity to reduce emissions by investing in carbon reduction projects in developing countries. Just under 80 percent are in sub-Saharan Africa with South Africa having 28 projects operating or in the pipeline, followed by Kenya with 14 percent; Uganda, 10 percent and Nigeria, 6 percent.



112 projects are approved or pending in 2009 compared to two in 2004 PHOTO © KYLE BAPTISTA

Generating electricity from landfills, using the waste methane gas, tops the list with 20 projects representing 18 percent of the total Continent-wide. There are also eight wind power, three solar and two geothermal projects representing 12 percent of all African CDM projects. By 2012, a total of 260 Africa CDM projects could be operating or under approval. ♦

from double digits to 5.9 percent in October. The African National Congress have also been highly critical of the proposals, stating that it would hurt consumers and the economy overall.

As a compromise, the power supplier has been granted two tariff hikes that average 59 percent since last year, to finance the building of new power stations in order to meet the increasing demand for electricity. Countrywide blackouts last January showed the strains on the ageing electricity infrastructure, forcing some key industries to shut down. The boom period after apartheid has put much pressure on the Republic's amenities. The lower increase would leave the company with a ZAR 14 billion shortfall, which it says it would meet by borrowing and introducing private equity. ♦



Proposed price increases angered many consumers PHOTO © MARK HARRIS

ENERGY

South Africa

A memorandum of understanding has been signed in the Eastern Cape, South Africa, between partners hoping to develop the Tsitsikamma Community Wind Farm project. The project would aim to generate 40 MW of wind power by 2013, and would be worth ZAR 1 billion (USD 13.6 million). The Wind Farm consortium consists of a number of key partners: the Tsitsikamma Development Trust, which operates on behalf of the community that owns the land, together with other South African stakeholders.

TOURISM

Africa

A new report has highlighted Ghana, Namibia and South Africa as the most ethical tourist destinations. The report by Ethical Traveller magazine identifies the countries in the developing world that are best protecting their natural environments, promoting responsible travel and building a tourism industry which provides real benefits to local communities.

AGRICULTURE

Rwanda

Rwanda's government is working with two foreign companies to begin producing 20 million litres of biofuel annually from *jatropha* plants by 2013. The UK-based Eco Positive and Eco-fuel Global from the United States have agreed to invest USD 250 million in the growth of *jatropha curcas*, whose seeds yield oil. Rwanda imports 160 million litres of fuel annually and the biofuel project will produce about 13 percent of total fuel consumed.

DISASTER MANAGEMENT

Sudan

The United Nations today appealed for more than USD 7.1 billion over the coming year to assist 48 million people across 25 countries whose lives have been wrecked by conflict and natural disasters, with the largest amount – over USD 1 billion – sought for Sudan. Launched in Geneva by Under Secretary-General for Humanitarian Affairs, John Holmes, the appeal covers 12 of the world's most severe, prolonged crises: Afghanistan, the Central African Republic, Chad, the Democratic Republic of the Congo (DRC), Kenya, the occupied Palestinian territory, Somalia, Sudan, Uganda, West Africa, Yemen and Zimbabwe.

CONSTRUCTION

UAE

The Australian architecture firm, LAVA, Laboratory for Visionary Architecture, has been selected to design the city centre for the United Arab Emirates' Abu Dhabi Masdar project, previously featured in *Urban World* magazine. LAVA's winning design features a central plaza, five-star hotel, convention centre, entertainment complex and shops. The design also includes a number of integrated sustainable design features like solar 'umbrellas' that are modeled after flowers that open up during the day and close up at night to keep the plaza cool.

TRANSPORT

Iran

A 14-person team of students and graduates from Tehran's Khaje Nasir Toosi University of Technology have developed the country's first electric vehicle, a mini two-seater called 'Qasedak-e Nasir', or 'The Dandelion of Nasir'. The steel car, with a top speed of 80 kmh, was built in just 10 months and was originally constructed for a competition at Sharif University. The students then decided that it was worth designing it for use on city streets.

WATER

Egypt

Egypt's biggest listed builder, Orascom Construction Industries, has won part of a USD 393 million contract to build piping and other infrastructure for a water treatment plant near Cairo. The contract will be split equally with the Egyptian company, Hassan Allam Sons. Once complete, it will feed the 1.6 million square metre-per-day 6th October City Water Treatment Plant with raw water using an intake and booster station with 12 pumps of 1.5 MW capacity each. The piping will span 118.5 kilometres between El Badrashain and Dahshour. Construction will take approximately 36 months to complete.

DISASTER MANAGEMENT

Afghanistan

The United Nations refugee agency has begun distributing relief items in Kabul as part of a nationwide programme to help 200,000 vulnerable Afghans survive the upcoming winter. Blankets, warm clothes, charcoal and other winter supplies have been provided to 1,500 returnees and internally displaced people in the capital, where temperatures can plummet to minus 20 degrees Celsius in January, the coldest month. In other regions, such as the central highlands area, winter temperatures are as low as minus 30 degrees.

Energy

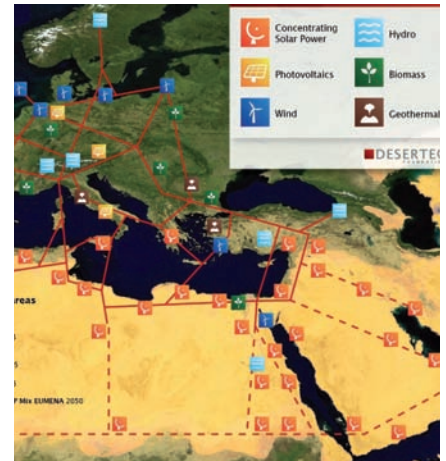
European initiative launched to tap Middle East deserts for energy

Twelve companies have signed a memorandum of understanding in Munich to establish the DESERTEC Industrial Initiative to develop a reliable, sustainable and climate-friendly energy supply from the deserts in the Middle East and north Africa.

The objective of this initiative is to analyse and develop the technical, economic, political, social and ecological framework for carbon-free power generation in the deserts of north Africa. Among the founder companies of the initiative are Deutsche Bank, HSH Nordbank and SCHOTT Solar. Around 80 percent of power generated by the project will be consumed domestically and 20 percent will be for export to Europe.

"The founding of the Initiative is a milestone in the DESERTEC Foundation's concept for global energy, water and climate security," says Gerhard Knies, Chairman of the Supervisory Board of the DESERTEC Foundation.

All of the Initiative's activities will be aimed at developing viable investment plans within three years of its establishment. Besides the business opportunities for the companies, there are other economic, ecological and so-



The initiative could promote growth, safeguard water supply, provide clean energy and vastly reduce carbon emissions PHOTO © DESERTEC

cial potentials such as greater energy security for all European, Middle Eastern and north African countries, substantial growth and development as a result of the increased investment in the region, safeguarding water supply by using excess energy in desalination plants and dramatically reducing carbon dioxide emissions. ♦

Tourism

Sustainable housing to be built for Abu Dhabi hotel workers

Tourism Development and Investment Company (TDIC), a developer of cultural, residential and tourism destinations in Abu Dhabi, has announced it has commenced work on the 'Deyar Al Mafraq', a sustainable accommodation development for all hotel staff in the UAE capital.

The new development, which will open in phases starting from 2011, is the first in Abu Dhabi to have been specifically designed to provide accommodation options for all levels of employees working in the hospitality sector

– from top management to junior level staff.

With the substantial growth of hotels in Abu Dhabi due to increasing visitor demand, the designated accommodation facilities will provide affordable and quality housing options that will be comprised of individual and family accommodation. The facilities will have a capacity to house more than 35,000 people that mainly work in the hospitality industry and their family members who reside in the UAE. The development comprises a total area of 712,000 square metres, with a total gross floor area of 1,670,000 square metres.

"Deyar Al Mafraq is an integral development in TDIC's diverse project portfolio," says Lee Tabler, CEO of the tourism development company. "The new facility is an ideal solution to the increasing demand of residential

Transport

Jerusalem to introduce electric cars

World-leading electric vehicle provider, Better Place, has signed an agreement with Jerusalem Mayor, Nir Barkat, to begin the deployment of a charging infrastructure for electric cars in Jerusalem.

Several charge spots have already been placed at the entrance to the city as part of the pilot that will take place next year. "The charging infrastructure that will be deployed in Jerusalem, will provide a cleaner, safer driving experience for Jerusalem residents and the thousands of people who visit the city every day," says Moshe Kaplinsky, CEO of Better Place Israel.

According to the agreement, the infrastructure will be deployed first on major city streets and public sites. The company has already begun installing several charging spots throughout the city including near the central post office where 20 charging spots have been installed. A total of 100 charging spots will be deployed during this initial stage.

"The shift to green transportation will guarantee that Jerusalem continues to enjoy clear mountain air for future generations," says the Mayor.

Over the next 18 months, Better Place and the City of Jerusalem will conduct a com-



Jerusalem residents now have wide access to charging infrastructure for electric cars
PHOTO © BETTER PLACE

prehensive test of the charging infrastructure, including charging spots, battery switch stations and the energy management system.

The founder and CEO of Better Place, Shai Agassi says: "Jerusalem, like other world capitals, is taking strong action to reduce urban air pollution and to prepare the city for a sustainable future." ♦

properties in Abu Dhabi. It will offer more opportunities within the local hotel industry, as well as ease the pressure on hotel management chains that are dedicated to managing their operations."

The site for the development is located in Al Mafraq area of the city. The company will remain the master developer for the area and specific plots will be available to various hotel owners to manage the accommodation of their staff, as part of the master plan, which has been finalized and approved by the Urban Planning Council. The master plan for the development has been designed in response to the Abu Dhabi Urban Plan 2030 and with a commitment to the implementation of sustainable principles which enhances the environmental, economic and social performance of the development.



Sustainable housing is now available for hotel workers in Abu Dhabi
PHOTO © TDIC

While TDIC is developing the first phase which includes two plots, it will also lease out the remaining plots to investors from the private sector. ♦

TOURISM

Middle East

Jinan Hotels & Resorts, the first company to specialize in the running of sustainable hotels, has been honoured with the Best Tourism Initiative Award during the Middle East Hotel Expansion Congress Excellence in Hospitality Awards. Jinan's CEO, Noel Massoud, spoke about how responsible tourism can be a positive force for sustainable development, conservation and environmental protection. He also touched on the impact of human development on the environment, and on the importance of keeping this impact to a minimum through sustainable development and eco-friendly practices.

AGRICULTURE

Libya

The United Nations Food and Agriculture Organization and Libya have agreed on a USD 71 million programme to boost cooperation over the next five years to strengthen food security and sustainable development in the country. As part of the agreement signed in Rome, the agency will provide technical assistance and support for 18 projects covering a range of areas, including pesticide management, protection of natural resources, development of seeds, prevention and control of transboundary animal diseases and sustainable water resource management.

HOUSING

Palestine

The top United Nations envoy to the Middle East has reiterated Secretary-General Ban Ki-moon's call for an immediate end to demolitions, evictions and the installment of Israeli settlers in Palestinian neighbourhoods. Mr. Ban has issued a series of statements recently calling for a halt to Israeli settlement activity and the demolition of Palestinian homes and evictions in East Jerusalem. In October, he stated that Jerusalem must be the capital of two States – Israel and Palestine – with arrangements for the holy sites acceptable to all, if peace in the Middle East is to be achieved.

RENEWABLE ENERGY

Pakistan

The European Investment Bank is providing EUR 100 million to the Islamic Republic of Pakistan to part-finance investments in the renewable energy sector. The operation will be co-financed with the Asian Development Bank. The European bank will support a series of investments in the renewable energy sector in Pakistan, thereby contributing to the mitigation of climate change. The loan is only part of much larger financial plan set up by the Pakistani government, involving USD 2.2 billion and is the fifth lending operation between the Bank and Pakistan – the first happened in 1993.

RENEWABLE ENERGY

Ukraine

The World Bank is to provide additional financing for Ukraine's Hydropower Rehabilitation Project (in support of the Energy Reform and Development Program). The funding will enable the improvement of operational stability and reliability of the power supply by increasing regulating capacity, efficiency, and safety of hydroelectric plants. The results will facilitate unimpeded operation and opening up of the electricity market in Ukraine. The loan will help cover the costs of rehabilitation of the Kremenchuk hydropower plant and two in Dniprovsk.

POVERTY AWARENESS

Poland

UN-HABITAT's Executive Director has been awarded an honorary doctorate by the Warsaw School of Economics at a glittering ceremony marking the first time that the university has bestowed such an award upon a woman in over 100 years of its existence. Anna Tibajuka was highly commended for her achievements in increasing global awareness of poverty and social injustice especially among the world's one billion slum dwellers and others living in sub-standard housing. Her commitment to improving the lives of disadvantaged youth was also emphasized.

WASTE MANAGEMENT

Montenegro

The European Investment Bank and Montenegro have signed a EUR 27 million loan in favour of the solid waste management sector. The loan will be implemented through the Ministry of Spatial Planning and Protection of the Environment and will co-finance the first phase of the creation of a national sustainable solid waste management system in line with European Union standards and directives. The project, with an estimated investment cost of EUR 54 million, involves the implementation of the first disposal cells of five inter-municipality sanitary landfills, transfer stations, recycling facilities and the rehabilitation of 30 dumpsites.

CLIMATE CHANGE

Russia

Russia announced a new target for reducing its greenhouse gas emissions at a summit with the European Union in Stockholm. Russia's ambassador to the European Union, Vladimir Chizhov, confirmed that President Dmitry Medvedev had set a target of reducing harmful emissions by 22-25 percent below 1990 levels by 2020, compared with the previous aim of a 10-15 percent decrease. Russia is third behind China and the United States as the world's leading emitting countries for greenhouse gases and its commitment to make further reductions brings overall cuts by developed countries to between 13 and 17 percent below the 1990 levels.

Infrastructure**Poland granted EUR 825 million loan for the development of transport infrastructure**

The European Investment Bank (EIB) is providing a USD 1.2 billion loan to help Poland develop and upgrade its road transport infrastructure. The loan will be allocated for the construction of a 91 kilometre section of the A2 Motorway in central Poland and the rehabilitation of the country's national and local road network.

The funding will be split into two separate loans with the first instalment of EUR 500 million financing the A2 Motorway section between Stryków on the outskirts of Łódź and Konotopa close to Warsaw. The new motorway follows Poland's major east-west transport axis on the priority trans-European transport corridor linking Warsaw and Berlin. The bank has already financed several parts of the A2 Motorway. This loan will increase the Bank's loan commitment towards the completion of this motorway to around EUR 2.1 billion.

The second instalment of EUR 325 million will support the ongoing rehabilitation of the Polish local road network, covering road pavements, bridges and other structures located all over the country. The funds will help to increase transport quality and capacity to manage the growing traffic demand and bring the road network in line with European Union standards.

Mrs Marta Gajęcka, European Investment Bank Vice-President, responsible for lending in central Europe, including Poland, says: "EIB funds will facilitate Poland's efforts to



Poland's development of road infrastructure has been heavily financed by the EIB

PHOTO © MICHAŁ ZACHARZEWSKI

double the length of the country's motorways within the period 2007-2013 and to upgrade the existing national road network. This is important to strengthen the competitiveness of Poland and increase people's quality of life and transport safety."

The Polish transport sector is the major beneficiary of the EIB loans in the country. Since 1990 the EIB's co-financing of transport projects has reached EUR 9.5 billion, including the current loans, or 43 percent of the EIB's lending commitments in Poland over this period. The Bank has so far financially supported various projects related to the construction of new sections of the A1, A2, A4 and A6 Motorways and major national roads along Pan-European Corridors II, III and VI. ♦

Energy**Bulgaria set to become eastern Europe's leader in solar energy**

With Spain and Germany, the global leaders in the industry of photovoltaics (the process of turning sunlight into energy), either cutting or planning to curtail incentives, investors are scouring central and southeastern Europe for new opportunities.

So far the Czech Republic has attracted the majority of investment in eastern Europe as a result of generous financial state assistance.

However, from 2010, the Czech government plans to reduce the feed-in tariffs, the system designed as an incentive for energy producers to move away from conventional fossil fuels to renewable energy sources, a step that could make Bulgaria a more attractive market. Due to its incentives and natural conditions, Bulgaria has already received applications for 1,000-megawatts of new solar parks. Germany's Phoenix Solar, Italy's Petrolvilla, Austrian EVN are among those who have already tabled projects.

Former communist European Union member states mostly rely on nuclear power and coal to meet energy consumption requirements, while their renewable energy comes

Environment

Japan to help Bosnia and Herzegovina reduce sulphur dioxide emissions

Japan will provide Bosnia and Herzegovina with a EUR 93 million loan for a desulphurization project in one of the country's leading thermal power plants in a bid to help reduce its greenhouse gas emissions. Japan International Cooperation Agency are to provide the 30-year loan, which under the agreement signed by the two countries is to be used for installation of the flue gas desulphurization plant and related equipment for the Ugljevik Thermal Power Plant as well as consulting services for detailed designs, assistance with tendering and supervision of construction works.

This will be the first flue gas desulphurization plant in Bosnia and Herzegovina to reduce sulphur dioxide and coarse particulates that pollute the air. In addition to improving the environment, it will contribute toward achieving the environmental standards required for joining the European Union.

The Ugljevik Power Plant accounts for approximately 23 percent of the power generation capacity of the Republic of Srpska, one of the two political-territorial divisions that comprise Bosnia and Herzegovina. While the power plant is essential for stable power supply to the Republic of Srpska, the level of its sulphur dioxide (SO₂) emissions is the worst of all the thermal power plants within Bosnia and Herzegovina. The facilities are old, they use coal with high sulphur content and a low



The Ugljevik Power Plant generates more than 60 times the EU emission standard for sulphur dioxide
PHOTO © FREDRIK RUNQVIST

heat generation. The plant generates more than 60 times the EU emission standard of sulphur dioxide. Prompt measures are needed for these reasons as well as for concerns about the harm that the air pollution has on the health of nearby residents.

In addition to markedly improving the level of air pollution, the construction of the flue gas desulphurization plant will serve as a model for the transfer of expertise in sulphur dioxide reduction and environmental monitoring across the country. ♦

primarily from hydropower plants. The desire to increase the green energy share to 16 to 20 percent by 2020 to meet EU targets on reducing emissions has encouraged some governments in the region to offer support systems to attract investment in wind, solar and biomass energy. Greater incentives and lower technology outlays than the ones for solar energy have already created a substantial expansion in wind power in Bulgaria and Romania.

For solar energy to match the success of wind power in Bulgaria, amendments must be made to the current feed-in tariff system for previously installed solar parks, which allows an annual five percent decrease in prices for both old and new installations. The previous socialist-

led government doubled the duration of guaranteed preferential power purchase costs to 25 years but the varying prices in these times of financial uncertainty have made investors hesitant. Bulgaria's new cabinet, which came into power in July 2009, has pledged to revise laws to advance green energy. ♦



Companies are eyeing Bulgaria's solar energy potential
PHOTO © PATRICK MOORE

HEALTH

Montenegro

The World Bank will supply an additional loan to the Montenegro Health System Improvement Project. The funds will assist the expansion of activities previously started under the Montenegro Health System Improvement Project. These activities will support health reform through the development of institutional capacity and policies in the areas of health finance, pharmaceutical policy, health policy and planning as well as to provide further support for the phased implementation of the primary health care reform.

TRANSPORT

Georgia

The European Bank for Reconstruction and Development is set to grant a loan of up to EUR 125 million to co-finance the construction of a new railway route avoiding the central area of the Georgian city Tbilisi. The objective of the project is to improve the safety and efficiency of rail operations within the city, facilitating the relocation and consolidation of the existing rail facilities located in the centre of the urban region. This project will also provide momentum for the redevelopment of freed up territories and reintegration of the city.

SECURITY

Serbia

Mayors of 13 municipalities in the Pèinja and Jablanica districts of south Serbia have agreed to implement a peace building programme funded by the Spanish Millennium Development Goals Achievement Fund. The Promoting Peace Building in south Serbia is a joint United Nations programme backed by the governments of Spain, Switzerland, Sweden and Norway, the main supporters of UN joint activities in south Serbia. Bringing together several specialized UN agencies, the programme will be implemented jointly by UN-HABITAT, the UN Development Programme, the UN Children's Fund, the International Office of Migration and the UN High Commissioner for Refugees.

CLIMATE CHANGE

Poland and Spain

Poland and Spain have agreed a EUR 25 million emissions trading contract, the first transaction of this kind for Poland under the Kyoto Protocol. Ministers from Poland and Spain, along with representatives of the European Bank for Reconstruction and Development and the European Investment Bank were present for the signature of the agreement facilitated by the EBRD-EIB's Multilateral Carbon Credit Fund. The agreement will target significant greenhouse gas emissions reductions through the associated greening programme, known as the Green Investment Scheme.

Gender equality

UN launches new website to fight for gender equality

To mark the 30th anniversary of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), UN-HABITAT has helped launch a new inter-agency web feature on gender equality and sustainable urbanization in New York.

WomenWatch, a joint effort of the UN Inter-Agency Network on Women and Gender Equality, will highlight some of the major issues around the gender debate. The new web feature provides evidence from a wide variety of United Nations sources on the economic and social costs of gender inequalities in cities. It also draws attention to the positive impact of better governance and targeted interventions to tackle ongoing discrimination in various aspects of urban life.

UN-HABITAT Executive Director Mrs. Anna Tibaijuka stresses the importance of incorporating urban dwellers in the fight for gender equality: "Since the adoption of the Convention in 1979, the women's movement has mostly focused on the plight of poor, rural women. But today, slightly more than half the world's people live in urban areas. Rapid urbanization and slum growth is affecting many parts of the developing world. The fight for



The UN is using the internet in its fight for women's rights

PHOTO © ARIEL DA SILVA PARREIRA

gender equality must be intensified in urban areas to reflect demographic shifts."

An immediate objective of the WomenWatch project is to consolidate the involvement of all UN entities in the management and maintenance of the website. WomenWatch gives direct access to all websites of members of the interagency network. Some UN entities have large websites, or multiple websites, whereas others have limited web pages or individual documents posted.

Recent developments include the introduction of a directory of resources to

provide access to specific information on selected topics – such as the Critical Areas of Concern from the Platform for Action or other cross-cutting or topical issues, including gender mainstreaming. The directory, which will be further expanded, provides links to web pages of UN entities and/or to individual documents.

Currently, 185 countries – over 90 percent of the members of the United Nations – have ratified the Convention, which is often described as an international bill of rights for women. ♦

See www.un.org/womenwatch.

Water

Recyclable plastic bottle set to reduce landfill waste

Canada-based Naya Spring Water has announced that it will be the first bottled water company in the world to use 100 percent recycled plastic.

In many cities plastic bottled water is the only method of drinking safe water but discarded bottles often lead to polluted streets and overflowing landfills. After seven years of research and development, the rPET bottle sets a new standard for the industry to reduce waste.

"We're proud to be the first major spring water brand to introduce 100 percent recycled

plastic bottles, which is a win for the environment as well as for consumers who enjoy bottled water and want to reduce their impact," says Daniel Cotte, president of Naya Waters.

While turning a used plastic bottle into a clean, reusable bottle requires energy and emits carbon, using 100 percent rPET versus virgin plastic significantly reduces both. Specifically, Naya reduces the full lifecycle carbon



The new 100 percent recycled plastic bottle

PHOTO © NAYA WATERS INC

footprint of its 1.5 litre bottle by 30 percent when using 100 percent rPET versus the same bottle made with virgin plastic, as certified by the Carbon Trust.

The company estimates that if just 10 percent of the US beverage industry adopted 100 percent rPET for its plastic bottles, the reduced use of virgin plastic would save 715,000 barrels of oil per year. ♦

Energy

Norway opens world's first osmotic power plant

Norwegian renewable energy company, Statkraft, has opened the world's first osmotic power plant, which generates power by exploiting the energy available when fresh water and seawater are mixed.

Osmotic power is produced through the process of osmosis, which naturally draws fresh water towards seawater across a membrane thin enough to allow small fresh water molecules through but not the larger seawater molecules that are laden with salt. The pressure of the fresh water driving through the membrane to dilute the seawater drives a turbine that in turn generates electricity.

Osmotic power is a renewable and emissions-free energy source that Statkraft has been researching for 10 years and could be capable of making a substantial global contribution to environmentally friendly power production.

"This new technology generates electricity simply by mixing water," says Statkraft CEO and President, Bård Mikkelsen. "New solutions to meet the climate challenges might be closer than we expect."

The prototype, on the Oslo fjord about 60 kilometres south of the Norwegian capital,



The osmotic power plant generates energy by mixing fresh water and seawater

PHOTO © STATKRAFT

will have a limited production capacity and is intended primarily for testing and development purposes. The aim is to construct a commercial osmotic power plant by 2015.

The global potential of osmotic power is estimated to be 1,600-1,700-terawatt hours each year, equivalent to 50 percent of the European Union's total power production. Osmotic power plants can, in principle, be located wherever fresh water runs into the sea;

they produce no noise or polluting emissions and they can be integrated into existing industrial zones, for example, in the basements of industrial buildings.

"Innovative energy solutions are essential to meet the climate challenges, and I am pleased that a Norwegian company is a front runner in developing these technologies," says Terje Riis-Johansen, Norwegian Minister of Petroleum and Energy. ♦

Energy

Cows to provide energy for Dutch homes

Around 1,100 homes, in the rural region of De Zuidlanden, the Netherlands, will be provided with sustainable electricity and heat generated solely from cow manure. Following last year's launch, in the Netherlands of the world's largest biomass plant running on chicken faeces, Dutch energy company Essent has unveiled another innovative biomass project.

The fuel for the new thermal power plant is supplied via a special 5.5 kilometre biogas pipeline from the Nij Bosma Zathe experimental dairy cattle farm. At this farm the manure from cows is fermented, together with grass and residual flows from the food indus-

try. Biogas is released during the fermentation process and this is used as fuel for the gas turbines of the thermal power plant. The heat generated by the power plant is supplied through a heat distribution network to the homes and organizations in the area. The result is a sustainable local solution for local energy demand.

The municipality of Leeuwarden's goal to no longer be dependent on fossil fuels gave rise to the construction of this thermal power plant. For the De Zuidlanden area, the municipality laid down the requirement of a 50 percent reduction in CO₂ emissions. In cooperation with GEM De Zuidlanden and Nij Bosma Zathe, Essent developed an innovative sustainable energy system for De Zuidlanden that contributes significantly to the municipality of Leeuwarden's energy goal.

This thermal power plant is a classic example of what Essent calls 'neighbourhood energy': using sources in the immediate surroundings to generate energy for local use, and these experiments with biomass plants could open new possibilities for farmers that are interested in profiting from the conversion of agricultural residues into energy. ♦



Cows' manure will help heat 1,000 homes in the region of De Zuidlanden PHOTO © G & A SCHOLIER

Executive Director wins top environment award

UN-HABITAT's Executive Director Anna Tibaijuka has won the coveted Gothenburg Award for Sustainable Development. Widely known as the 'Nobel Prize for the

Environment', she shares the 2009 award with Enrique Peñalosa, the former mayor of Bogotá, Colombia (see cover story page 8), and Sören Hermansen, of Samsö, Denmark, the world-renowned campaigner for the environment.

The ceremony on November 24 2009 marked the 10th anniversary of the award, which this year stressed the urban dimension of climate change and environment debate.

"We are thrilled to award our jubilee prize to these brilliant visionaries, strategists and system transformers," says the jury chairman Stefan Edman.

The jury cited Anna Tibaijuka for raising the profile of UN-HABITAT and the importance of urban sustainability as a key to a bet-

The citations

Dr. Anna Kajumulo Tibaijuka is Under-Secretary-General of the United Nations and since 2000 has been the Executive Director of UN-HABITAT, the world organization's human settlements programme with a mandate to promote socially and environmentally sustainable cities and towns. Under her watch the importance of UN-HABITAT's active role has grown tremendously. Based on the Millennium Declaration's Goal 2020 to lift 100 million slum inhabitants out of poverty, Dr. Tibaijuka – pugnacious, aggressive and with a prominent African and third world perspective – is leading a successful global undertaking that includes water supplies and empowering women to improve their surroundings. As one of the initiators of Cities in Climate Change, Anna Kajumulo Tibaijuka is also advancing the practical climate work being carried out in major cities.

Enrique Peñalosa, Mayor of Bogotá 1998-2001, successfully transformed Colombia's capital – one of the planet's most chaotic urban environments with its slums and smog – into a model of sustainable, democratic city planning. Enrique Peñalosa reformed mass transit, primarily through TransMilenio, a modern, efficient bus-based transit system. He also initiated the construction of the world's longest bicycle path system and further developed the popular *ciclovía*, which shuts off vehicles from long stretches of roads every Sunday between 7am and 2pm. Both projects are aimed at promoting pedestrian and bicycle traffic. Peñalosa is a charismatic and driven person, who travels worldwide holding lectures on his visions and strategies on how to create good and liveable cities.

Sören Hermansen is the primus motor and focal point of the so-called Samsö Project, in which Samsö, with its 4,000 inhabitants, won the competition between Danish islands on which one would first become self-sufficient through renewable energy within 10 years. Under civic-minded Hermansen's enthusiastic leadership – founded on a grass-roots perspective – the work has resulted so far in 11 land-based, and 11 ocean-based, wind generators as well as a number of district heating power plants driven by burning hay or wood chips. Replacing fossil-fuelled cars and tractors with biogas, raps oil and electric car technology is already in the pipeline. Sören Hermansen was named one of *Time Magazine's* 2008 *Heroes of the Environment*, and is now in the process of spreading his ideas around the world.

The jury

Chairman: Stefan Edman, biologist and author; Russel Johnson, former Environmental Manager IKEA; Lars Hallén, Life Academy, Lotta Göthe, Ecoplan; Johan Trouvé, West Sweden Chamber of Commerce and Industry; Yvonne Wallin, Pejling Marketing, and Elin Eriksson, IVL Swedish Environmental Research Institute.

About the award

The Gothenburg Award for Sustainable Development celebrated its 10 year jubilee in 2009. It is funded by the City together with the Second Swedish National Pension Fund, Carl Bernet AB, Elanders AB, Eldan Recycling, Folksam, Götaverken Miljö, Handelsbanken, Nordea, Peab, Schenker AB and SKF.

The Jury's motivation:

The jubilee prize, SEK one million, (USD 138,000) is shared equally between Anna Tibaijuka, Enrique Peñalosa and Sören Hermansen. Each comes from a separate continent and they are, locally and globally, knowledgeable, engaged and impatient doers. They are ambassadors for one of the most decisive factors for humanity – the battle for sustainable development in the cities and towns around the globe. These urban environments are already home to half the people in the world, they represent 75 percent of all energy consumption and generate 80 percent of all greenhouse gases. The problems are extremely complex and require urgent but long-term stable solutions.



Anna Tibajuka flanked by Enrique Peñalosa (left) and Sören Hermansen

PHOTO © UN-HABITAT / EDLAM YEMERU

ter future. In her acceptance speech the Executive Director said she felt “honoured and humbled” at the great recognition conferred upon her and the agency.

“I accept this award not only for myself but also for my colleagues at UN-HABITAT who have stood at my side in our campaign for sustainable urbanization,” she said. “We con-

tinue to seek an end to homelessness, urban poverty, deprivation, social exclusion and suffering throughout the world. If we cannot secure the human habitat, we shall not be able to secure the environment.”

Enrique Peñalosa stressed the importance of cities that accommodate all their citizens, making them feel that they all belong, so that,

for example, “a person who cycles to work has as much right to get around safely as someone who drives a USD 30,000 car”. Sören Hermansen says it should always be remembered that climate change and the environment are not matters of science alone, but are all about people, and that people in the world have to learn how to share better. ♦

ISOCARP unveils winners of awards for urban excellence

To coincide with World Town Planning Day, on November 8, the International Society of City and Regional Planners (ISOCARP) presented three cities with awards for excellence in urban design and planning.

At a ceremony held in Gdansk, Poland, which is no stranger to renewal and re-building after its almost complete destruction in the Second World War, ISOCARP revealed its winners to be from Beijing and Wuhan in China and Al Ain, in the historical quarter of Abu Dhabi (see box).

A jury of nine, coming from all continents, selected the awards for excellence and innovation in urban and regional initiatives that best express the theme of this year's ISOCARP congress – low carbon cities.

Presenting the awards, ISOCARP vice-president Dirk Engelke said that even though there were quite a lot of entries from Europe and north America the jury felt that “the most exciting, the most excellent ones, are going to be planned and realized in Asia and the Middle East”.

The awards criteria were directly based on the ISOCARP triple perspective that aims to gain and share the knowledge of members from practice, academia and policy. “An ISOCARP project of excellence has to be excellent in all these three perspectives, and these three cities have excelled in this,” commented Engelke.

Speaking after the ceremony ISOCARP president, Ismael Fernandez Mejia, argued that cities in the developed world need to help less developed cities and in the process change themselves. “The economic crisis is the perfect opportunity to change the way we live in cities and in making them low carbon cities. People are more willing to make changes. We have to think of cities primarily as a place for the per-

Award for district planning/urban design

Beijing Changxindian Low Carbon Community Concept Plan
Joint Submission by Arup and Beijing Municipal Institute of City Planning and Design.

Jury verdict: “The Concept Plan is a well-developed and presented project which utilizes several technical parameters and design criteria to plan and evaluate the overall project objectives. The notion of ‘low carbon zoning codes’ highlights a traditional tool for planning as a means for obtaining current and future sustainability initiatives and goals. The jury considered it an excellent example in district planning/ urban design in response to the global climate change concern and urbanization pressure.



The ISOCARP president, Ismael Fernández Mejia with Beijing/Arup award winners
PHOTO © ISOCARP

son. We lost this in the 1960s when cities were built for the car.”

The importance of mayors was highlighted as an area that is somewhat overlooked. “They [mayors] are the frontline fighters who sometimes lack the information to make changes,”

said Fernandez. “ISOCARP wants to see this change so that planners and mayors can mix and interchange their ideas and experiences. The gathering here this evening and the presentation of these awards, is one way we can improve this.”

Award for urban/city planning

New Comprehensive Planning of Wuhan

Wuhan Planning and Design Institute, People's Republic of China.

Jury verdict: "The 'New Comprehensive Planning of Wuhan' is setting the ecological framework for the sustainable metropolis region. The entry shows an advanced technology in problem iden-

tification, analysis and presentation. By linking green infrastructures and transportation to skilled strategies, the microclimate aspects, as a local, however internationally important, factor in urban/city planning, are key elements of sustainable comprehensive planning in Wuhan."



The ISOCARP president, Ismael Fernández Mejía, with Wuhan award winners

PHOTO © ISOCARP

Award for strategic regional planning

Plan Al Ain 2030: Urban Structure Framework Plan

Abu Dhabi Urban Planning Council, United Arab Emirates.

Jury verdict: "The 'Plan Al Ain 2030' is an ambitious plan for an extremely ecologically fragile region. It carefully balances between facing globalization on the one hand and local/ethnical

identities on the other by focussing on physical development and environmental concerns. Using a traditional approach the plan combines a strategic consideration based on local identity with a structural framework. The 'Plan Al Ain 2030' is considered an excellent example of strategic/regional planning."



The ISOCARP president, Ismael Fernández Mejía, with Abu Dhabi award winners

PHOTO © ISOCARP

State of the World's Cities 2010-2011 – Bridging the Urban Divide

Every two years, UN-HABITAT publishes its flagship report, *The State of the World's Cities*. The new 2010 report on the theme *Bridging the Urban Divide*, carries much innovative research, packed with the latest facts and figures on the world's cities.

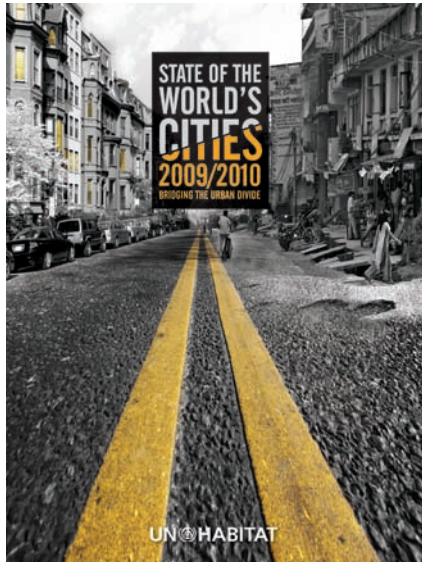
With the majority of the world's population already living in cities and their numbers growing daily, the report says that the 'shock' of rapid, irreversible urbanization catches many cities very unprepared, especially in the developing world.

As new urban dwellers claim their right to the city, they unwittingly challenge the visible and less visible barriers that make so many cities divisive in the early 21st century and divisive means bad for health, bad for safety and bad for business.

Nowhere does this urban divide appear at its more visually dramatic than in the larger cities of the world. If anything, the contrast between skyscrapers and nearby slums seems to epitomize the elusive nature of any automatic trickle-down effect between the prosperity of a few at the top, and the abject poverty of so many at grassroots level. These differences are especially stark in the developing world.

In the developing countries, medium-size to small towns, with populations ranging from under 10,000 in Africa to under half a million in Latin America, urban areas are often devoid of adequate policies or basic services. Growing numbers of people simply have no choice but to set up in slums without power, water, sanitation, health access or other basic services.

The broad dynamics is fourfold – economic, social, political and cultural – the report says.



It offers some interesting wisdom too: that the dynamics among the four dimensions is what makes cities more inclusive and sustainable at the same time.

For instance, in the poorer urban areas, improved water distribution networks would release girls and women from water-related chores – not just collection but also caring for relatives of all ages stricken by water-related diseases. This would relieve tight private household and public hospital budgets, and also free up time for individual education, gainful employment and other types of self-development, all of which, as far as females are concerned, act as major sources of intergenerational and collective gains well into the future.

For such opportunities to become real, however, cities must also, on top of utilities, provide schools, decent jobs, social and cultural facilities that young women will need to fulfil their potential and aspirations.

Indeed, *The State of the World's Cities 2010-2011 – Bridging the Urban Divide* offers both a fresh set of urban development policy recommendations as well as a new paradigm – an integrated, rights-based approach to make our cities less divisive and more inclusive. It is compelling reading for all those who feel they have a right to the city, whether or not they are experts.

For the first time, this UN-HABITAT flagship report will carry a special supplement – *The State of Urban Youth 2010/2011* – covering the theme, *Inequality of Youth Opportunity*.

This cross-regional and cross city survey of five cities examines the historical and generational determinants of youth opportunity and inequality across our urbanizing world. It found that the process of inequality begins in childhood and continues into youth and adulthood (in income, employment, housing access). This deprives young people of their rights to the city, equal access to shelter, education, services and employment.

This is important reading for anyone in a municipality, or government, as well as ordinary citizens concerned about the young people in their lives. ♦

UN-HABITAT, *The State of the World's Cities 2010-2011 – Bridging the Urban Divide*, Earthscan, 2009

Building Prosperity – Housing and Economic Development

This book is important reading for anyone interested in the role of housing in economic growth and development by an author in a unique position to understand its importance and the practical measures for delivering that growth.

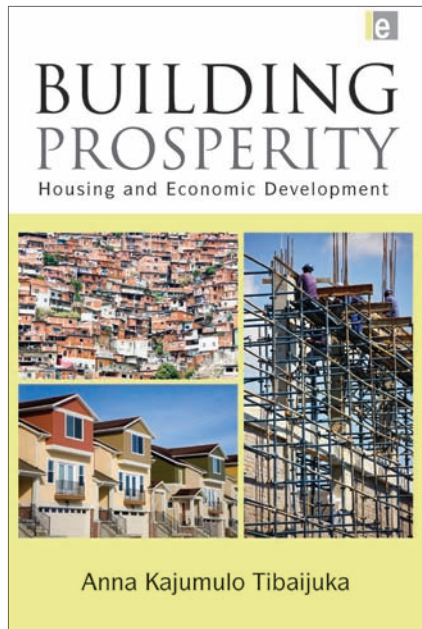
The author, Anna Tibaijuka, has not only served two terms in her role as Executive Director of UN-HABITAT at the level of Under-Secretary-General of the United Nations, but she is also a co-winner of the world's top environment award, *The 2009 Göteborg Award for Sustainable Development*.

Her book, published as she prepares to leave office in 2010, takes the reader on an interesting tour of modern urban reality: that today, for the first time in history, more than half of the world's population is living in towns and cities.

In this new urban age, it is generally recognized that the provision of adequate shelter to rapidly increasing urban populations poses one of the greatest social challenges for humanity. Today, one out of every three urban dwellers – one billion people – lives in slums and other sub-standard housing.

It explains how urban progress is curbed by inadequate attention to the central role of housing – particularly urban housing – in national economic development. Furthermore, while the linkages between housing and economic growth in developed countries are better understood, little is known about these linkages in developing countries and those economies in transition.

"This path-breaking book goes a long way towards filling this gap," says UN Secretary-General Ban Ki-moon in his foreword. "With the support of detailed case studies and examples of



best practices, it shows clearly that both the supply and consumption of housing interact closely with economic growth, notably through their impact on employment, income generation, investment and savings."

The book says that the recent sub-prime lending crisis in the US and the consequent ripple effects at all levels of society show clearly how central housing is to society and the potential it holds for countries at lower levels of development. Income generation is closely associated with housing; it includes payments to construction workers and construction suppliers, as well as home-based activities, some of which are linked to the global chain of production, such as garment production,

telephone services and information technology.

The book shows that housing also makes a considerable contribution to national economic development in a variety of ways, including increases in capital stock, fixed investment and savings. In addition, there are significant interactions with financial systems, through housing banks, mortgage schemes, interest rates and consumption of housing services.

National development plans and policies need to incorporate a broader vision for the housing sector that goes beyond the traditional argument of social need and towards an enhanced contribution of housing to accelerated economic growth.

This book identifies concrete policies and institutions to enable governments achieve that ultimate goal. In the process, it makes an important contribution to the international debate on the role of housing in economic development.

"With a deep understanding of the contextualizing pressures associated with rapid urbanization, and the wisdom to see that housing is more than shelter, this book is an essential read for anyone who wants to know what mistakes have been made, what opportunities might still be available, and how best to advise the global commitment to housing as a human right while also laying the foundation for sustained economic growth," says Diane E. Davis, Head, International Development Group, Department of Urban Studies and Planning, Massachusetts Institute of Technology. ♦

Anna Kajumulo Tibaijuka, *Building Prosperity – Housing and Economic Development*. Earthscan, 2009.

A route map towards low carbon cities

By Chris Gossop

ISOCARP's recent congress, titled Low Carbon Cities, held in Porto, Portugal attracted 350 delegates, drawn from 57 countries from all over the world. Its particular aim was to focus attention on the potential role of spatial planning in addressing the causes and effects of rising greenhouse gas emissions, now established as the principal cause of climate change. The congress concentrated on the world's cities, and city regions, which are known to place a particular burden upon energy and other resources. Moreover, as UN-HABITAT's Paul Taylor reminded the congress, they tend to be the places that have attracted the poor and the most vulnerable, and whose settlements often lie directly on the land that is most susceptible to flash flooding and the effects of sea level rise.

At the same time, the world's cities are a major potential contributor to an overall action plan on climate change, although the strategies that are likely to succeed will differ greatly between the cities of any one world region and those of another. A clear outcome of the congress debate is that spatial planning, a form of planning that seeks to influence the distribution of, and investment in, activities such as housing, transport and water management, can contribute significantly to the achievement of climate-proof cities and a carbon neutral built environment. Integrated planning on these lines will help secure a better quality of life for those who live and work in these centres.

Through its keynote papers, its technical seminars and its five parallel workshops, the congress generated many rich ideas. As General Rapporteur of the conference, I cited seven ingredients which together form a possible route map towards the low carbon cities of the future. This mental map commences with a recognition of the need for urgency, leadership and vision, starting at the level of heads of government and cascading down to all levels of



Porto welcomed 350 delegates from 57 countries

PHOTO © ISOCARP

decision making, and that the move towards a low carbon future will have to endure for decades, even generations, requiring a long term vision. Related to that, we should formulate strategies that are tailored to reflect the particular responsibilities and needs of countries in the developed and the developing world, with an appropriate mix of mitigation and adaptation measures.

Integrated, inclusive planning is another vital ingredient. This means spatial planning strategies that seek to secure reductions in greenhouse gas emissions, and that also embrace adaptation measures appropriate to the local needs and circumstances. There should be a general emphasis on the compact city, embracing higher densities (but not necessarily high rise), mixed uses, a structure suitable for efficient, integrated public transport, a properly protected network of open space, and a defined urban edge to prevent sprawl. In parallel, we need through design, to foster en-

ergy efficient, resource conscious cities, neighbourhoods and individual buildings. This will often involve climatic design that borrows, where appropriate, from regional and local traditions, in terms of historic urban patterns, traditional architecture and the focus on making use of trees in public spaces.

One of the most valuable things about international gatherings such as the Porto Congress is that practitioners can share their ideas about approaches that have worked, as well as about those that have been less successful. If the world's planners and urban designers are to play their full part in combating climate change, we need to build upon the successful low carbon schemes of today, turning such approaches into the mainstream for the low carbon cities of tomorrow. ♦

For further information see www.isocarp.org.

3rd ACWUA Best Practice Conference and Exhibition: Non-Revenue Water Management

20-21 January 2010
Rabat, Morocco
<http://www.acwua.org>

The conference is an opportunity for leading personnel to delve deeply into the main aspects related to Non-Revenue Water Management in the Arab Region. The objective of the conference is to gather applicable knowledge of: possible strategies, techniques and applications, clear concepts of the dimensions of integrated management, in order to apply the best available technical and managerial solutions in improving the control of Non-Revenue Water Management usage and in reducing water losses for utilities in Arab countries.

Natural Resource Management for Sustainable Development

1-2 February 2010
Jalgaon, Maharashtra, India
<http://www.nmu.ac.in>

The Natural Resource Management for Sustainable Development conference is being organized to encourage awareness regarding the environmental management and sustainable utilization of natural resources among students, academics, industrial personnel and representatives of Non-Governmental Organizations. The conference will focus on the problems and challenges of achieving sustainability of natural resources and conservation.

The Third Annual Sustainability Summit

25 February 2010
London, England
<http://www.thesustainabilitysummit.com>

The Third Annual Sustainability Summit provides fresh thinking and thought-provoking commentary from top thinkers and policymakers. It will bring together up to 150 business leaders to discuss the real implications of climate change on their business. Sustainability leaders urgently need to build workable strategies for climate change while continuing to satisfy customers, shareholders and the wider community.

International Conference on Sustainable Architecture & Urban Design 2010

3-4 March 2010
Penang, Malaysia
www.hbp.usm.my

The objectives of the conference are to give an opportunity to academics, researchers, urban planners, architects, engineers, post-graduates, and those involved in housing, building and planning industries to discuss issues relating to the global energy crisis in architecture and urban design. The recent issues in global energy crisis cause overwhelming impacts on the global economy.

Gender Equality Action Assembly of World Urban Forum 5

19-20 March 2010
Rio de Janeiro, Brazil
www.unhabitat.org

During World Urban Forum 5, UN-HABITAT will host the Gender Equality Action Assembly to bring together partners to discuss progress and challenges on the implementation of the Gender Equality Action Plan (GEAP). The two-day discussions will focus on the challenges, progress, strategies for action and policy implications of the GEAP. On the first day, there will be discussions with UN-HABITAT programme managers and partners. The second day, which is a high level meeting, will bring together UN-HABITAT staff, partners, and women ministers of gender, housing or local development.

World Urban Youth Assembly

19-20 March 2010
Rio de Janeiro, Brazil
www.unhabitat.org

The World Urban Youth Assembly will be held three days prior to the main Forum and will continue the momentum brought about by UN-HABITAT and its partners' work in the area of youth led development. The Assembly will focus on strategic goals including: becoming the platform for youth to discuss lessons learned from UN-HABITAT and partners' programs in the area of urban youth led development; profiling and disseminating models of urban youth led development developed by UN-HABITAT and its partners; and, becoming a platform for experts and practitioners to deliberate on research, policy and practice as well as lessons learnt on urban youth issues.

World Urban Forum 5

The Right to the City-Bridging the Urban Divide
22-26 March 2010
Rio de Janeiro, Brazil
www.unhabitat.org

The Forum is one of the most open and inclusive gatherings of its kind on the international stage and brings together government leaders, ministers, mayors, diplomats, members of national, regional and international associations of local governments, non-governmental and community organizations, professionals, academics, grassroots women's organizations, youth and slum dwellers groups as partners working for better cities. Concepts that will drive the discussions in Rio include the right to the city, bridging urban income gaps, reducing inequality and poverty, participatory democracy, cultural diversity in cities, women-friendly cities, sustainable urban development equal access to shelter, health, water, sanitation and infrastructure services. The fifth session in Rio builds on the lessons and successes of the previous four events.



WORLD CITIES SUMMIT

World Cities Summit 2010 Liveable & Sustainable Cities for the Future

28 – 30 June 2010

Singapore
www.worldcities.com.sg

World Cities Summit is a premier event that brings together practitioners and policy makers with leading experts in their field to identify innovative solutions to the most pressing challenges facing cities today. The inaugural Summit in June 2008 brought together 800 senior delegates including leaders, mayors, policy makers and the civil society. To build on its success, the next Summit in 2010 will offer a strategic platform comprising a high-level summit, plenary sessions and technical workshops.

The theme for the second Summit is **Liveable and Sustainable Cities for the Future**. World Cities Summit 2010 will be a three-day event focusing on leadership and governance, eco-friendly and liveable cities, and harmonious and sustainable communities. Through the exchange of ideas and knowledge, cities can learn from each other to identify practical, scalable and replicable solutions to challenges faced by cities today.

Highlights of World Cities Summit 2010

The conference will commence with high-level plenary sessions by world-renowned leaders, policy makers, visionaries, practitioners and futurists. They will deal with cross-cutting issues around the interplay of people, technologies and markets facing world cities today, with specific emphasis on the three broad themes of **Leader-**



ship and Governance for Vibrant and Liveable Cities, Building Sustainable and Eco-friendly Cities and Fostering Harmonious and Sustainable Communities. Complemented by expert panel discussions, delegates would be able to review today's achievements as well as explore tomorrow's possibilities.

The **Lee Kuan Yew World City Prize** is a biennial international award to recognise individuals and organisations that have made outstanding contributions to the cre-



ation of vibrant, liveable and sustainable urban communities around the world. It seeks to recognise individuals and organisations responsible for urban initiatives that display foresight, good governance or innovation in tackling the many urban challenges faced by cities.

The **World Mayors Forum** is a gathering of mayors to discuss solutions to the common urban challenges. The Forum will pro-



vide practical recommendations for joint actions where Mayors and city officials can work together to make their cities a better

place – more liveable, with healthier citizens, better housing and better education.

The **World Cities Summit Expo**, from 28 June to 1 July 2010 is a new platform to showcase model cities and innovative urban solutions that enhance economic



value whilst addressing environmental challenges. Over 2,000 trade visitors are expected to attend the cities expo which is a global marketplace for urban solutions.

Learning Journeys are interesting site visits that highlight in-depth perspectives on how policies and ideas can be implemented successfully. Hosted by diverse public sector agencies in Singapore, these visits will give a behind-the-scenes look at specific issues while providing unique, practical learning experiences for delegates.

Networking Forums are country-led forums with eminent speakers from across the globe. Speakers comprise representatives from government, trade and research organisations, key technology providers, financial institutions and urban authorities. They will discuss a myriad of topics including city management, development projects and opportunities in the global urban sector.

World Cities Summit 2010 is co-located with the **Singapore International Water Week 2010** that runs from 28 June to 2 July 2010 and the **2nd World Urban Transport Leaders Summit** that runs from 29 June to 1 July 2010.

Sponsored statement

Who Will Attend

We are expecting more than 2,000 participants from around the world, with a good proportion from the Asia Pacific and the Middle East.

Based on the turnout in 2008 you can expect to meet:

- Leaders, Ministers and Government Policy Makers
- Mayors and Senior City Officials
- Urban Leaders and Planning Professionals
- International Organisation Representatives
- Business Leaders and Industry Professionals

For more information on World Cities Summit 2010 conference and exhibitions, please visit

www.worldcities.com.sg

or email

info@worldcities.com.sg

or call

+65 3106 7168 /

+65 3106 7268 /

+65 3106 7152.

Why You Should Attend

World Cities Summit will provide the city administrator, environmental executive and policy maker with practical and pragmatic solutions. It will also introduce you to the vast network of public and private sector players who can inform or support your execution of these solutions from design of green spaces, solid waste management to transforming public transport. You will be kept up-to-date with the latest trends and innovative approaches in city-making.

About the Centre for Liveable Cities

The Centre for Liveable Cities (CLC) is a thought centre on urban governance and management jointly established by the Ministry of National Development and the Ministry of the Environment and Water Resources.

The CLC brings together Singapore's expertise on sustainable urban development in the area of good governance, urban planning, effective resource management, quality living environment, affordable housing and sustainable transport solutions. The CLC adopts an inter-disciplinary approach and focuses on cross-cutting issues of interest to its stakeholders. The Centre facilitates the sharing of knowledge, best practices and learning among cities in the region and globally through conferences, forums, seminars and workshops. The World Cities Summit, the Centre's flagship event, is one such international platform.

The CLC works with the public and private sectors and develops strategic partnerships with key regional and international organizations to promote networking and capacity building. The Centre also collaborates with other international and local think tanks and research institutions to undertake policy-oriented research that is timely, practical and relevant.

About the Civil Service College

Civil Service College (CSC) is a statutory board under the Public Service Division, Prime Minister's Office, Singapore. Its mission is to develop people for a first-class Public Service.


Through creating a service-wide environment for dialogue, knowledge-sharing and learning, CSC enables public officers from diverse backgrounds to share perspectives and build a common ethos. CSC offers practitioner-focused programmes and services to help the Singapore Public Service grow its policy-making, leadership and management, and public administration capacity.

On the global front, CSC's engagements with a series of international partners make it a one-stop learning institution for overseas participants interested in the Singapore governance model, with customised training programmes and workshops conducted both in Singapore and abroad.

Organisers:

CENTRE for
LiveableCities
SINGAPORE





Learning from nature to be present,
we turn everyday things into
something great.

being there.

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