



MUMBAI

In 2005, for the first time in history, the proportion of the world's population living in cities surpassed 50 percent. In more than 20 of these cities, populations have exceeded ten million. No precedent exists for feeding, sheltering, employing, or transporting so many people. No precedent exists for protecting the environment from the pollution and resource consumption required by such multitudes. Urban regions, entire countries, and ultimately, the entire earth could be affected by cities improperly managed.

Within cities, poor citizens face the worst environmental consequences. In low-income settlements, services such as water, sewage, drainage and garbage collection are often nonexistent. Lacking the resources to purchase or rent housing, between one-third and two-thirds of urbanites in developing countries become squatters on dangerously steep hillsides, flood-prone riverbanks and other undesirable lands.

But cities cannot be blamed for global environmental deterioration, despite the magnitude of their environmental and population problems. In reality, dense settlement patterns are necessary to preserve open spaces for other uses. Cities cause environmental problems, but also hold the key to their reduction and ultimate solution.

The Mega-Cities Project works to promote and encourage innovative and successful solutions to these common problems, recognizing that the best ideas are seldom "overnight sensations." Rather, they are ideas, experiments and experiences that evolve into successes over years, sometimes decades. But the critical environmental problems threatening health and well-being for so many urban dwellers around the world compel us to speed the process by which successful innovations are recognized and imitated by other cities.

The two case studies that follow reveal the transformative potential of local solutions. One experience has been extremely successful and has been replicated many times over, while the other had mixed results. Each contains valuable lessons about the promise and pitfalls of implementing environmental innovations and the factors that contribute to their success or failure.

The Zabbaleen Environment and Development Program: Cairo

In Cairo, a partnership formed by local, national, and international actors has successfully transformed a community through the Zabbaleen Environment and Development program (ZEDP). Since the program began, quality of life has improved in a formerly neglected community; thousands of jobs have been created as an improved municipal waste collection and recycling system has been implemented.

Greater Cairo generates thousands of tons of solid waste per day. The municipal sanitation force shares management of the waste with a traditional, private-sector collection system run by two historically poor, marginalized social groups, the Wahis and the Zabbaleen. With more than a century in Cairo's garbage trade, the Wahis control the collection routes and contracts with homeowners. The Zabbaleen pick up waste and transport it to their settlement on the city's fringe, where it is sorted and recycled, or used for animal fodder.

A community with little or no organization or power, the Zabbaleen enjoyed few basic services when the program began, and suffered from environmental devastation, little economic opportunity, lack of education, and a host of other problems endemic to urban slums.

The ZEDP had two primary objectives: to improve the living conditions and build the capacity of the Zabbaleen; and to create a more efficient solid waste management system for Cairo. Today, the most visible transformation is the community's physical appearance, resulting from substantial government improvements in community infrastructure. There are now more than 1500 houses in the settlement, many of which are multistory, concrete-block structures, more than double the some 700 one-story shacks in the area when the project began.

New infrastructure, clean-up projects and the organization of a composting plant are all ZEDP projects which have helped to improve the overall cleanliness of the settlement. In turn, public health has improved, with infant and child mortality decreasing dramatically.

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American Center
Выллетин

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(Monday through Friday)

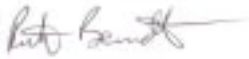
HOLIDAYS
October 2: Gandhi Jayanti/Dassera
October 9: Columbus Day
October 23: Diwali (Balipratipada)
October 24: Diwali (Bhaubeej)
October 25: Ramzan-Id (Id-UI-Fitar)

A WORD FROM THE CENTER

Judging by the number of newspaper ads, Indians share Americans' interest in classes that promise personality development or the fulfillment of individual potential. Nothing could be easier to understand than the desire for self-improvement. But a focus on the self is also only half the story.

For any student of the life sciences, "fitness" – whether physical or mental, animal or human – refers to the relationship between an individual and its habitat. Take the giraffe: the most well-developed specimen, with the tallest and most beautifully reticulated neck, would suddenly find itself the most disadvantaged if a change in habitat ever forced its diet to switch from treetop leaves to ground-level shrubbery.

From a Darwinian perspective, talking about degree of individual development without reference to ecological niche – no matter how many personality development courses that individual has completed – is meaningless. This approach suggests that the health of our habitat is an inseparable part of our own well-being. For those inhabiting today's six-billion-and-counting populated planet, "self"-improvement rests, in part, on our success in improving the air we breathe, the water we drink, and the space we enjoy. Our planet, ourselves.



Ruth Bennett
Deputy Director

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Health and environmental benefits initiated in the ZEDP have had wider effects in greater Cairo. The Route Extension Project, funded by the NGO, Oxfam, brought 8000 more homes into the Zabbaleen collection system, helping to create a much cleaner city overall. Recycling programs born of ZEDP have significantly reduced the environmental burden of waste disposal. The ZEDP composting plant mentioned above now produces fertilizer that is free of chemicals and harmful contaminants.

The economic benefits are also numerous. Household income has increased twenty times over the past ten years. Recycling activities and projects created a diversified urban economy and additional income. Women and children have been relieved of the long and arduous process of sorting, and are free to engage in various other income-generating, educational and recreational activities.

The ZEDP has served as a model for other cities, notably Manila, Philippines. Payatas is a vast squatter area in the north of the city, and at its heart is a 13-acre open dump site, home to 40 percent of the city's trash, and to 4000 men, women and children who forage daily in search of anything that can be eaten or sold. After consultations with Cairo's ZEDP, the Payatas Environmental Development Program (PEDP) is now working to attack the many problems surrounding the area's waste collection system.

The driving vision behind the PEDP, as with the ZEDP in Cairo, is to create a sustainable community for the waste pickers, while simultaneously integrating them into a more effective waste management process for the city.

Integrated System for the Recycling of Organic Waste (SIRDO): Mexico City

In contrast to the experience above, SIRDO is a striking example of how the over-reliance on technology to solve urban problems can fail when there is insufficient attention to social dynamics and the needs of a community.

In Mexico City, over three million residents lack basic sewerage and drainage infrastructure, and those that are connected to the municipal system suffer from inadequate and outdated service. As for solid waste, the city produces over 10,000 tons of rubbish and 200 tons of industrial toxins every day, most of which are dumped in open pits, landfills and illegal deposits. This vast quantity of mismanaged waste has dire consequences for the city's water supply.

Upon invention in the 1970s, the Integrated System for the Recycling of Organic Waste (or SIRDO, its Spanish acronym) seemed a good alternative for sewage disposal. SIRDO is a technical method for the treatment of organic solid waste and/or black and gray domestic waters through filters and fermentation in solar-heated chambers. (Toilets discharge black water; sinks, showers and laundries discharge gray water). SIRDO essentially collects the sewage from households, allows the waste to decompose in a tank, and creates an organic fertilizer.

Theoretically, a working SIRDO would enable a community to cut its production of waste, lessen its demand on municipal water supplies, and generate income. In practice, SIRDO installations have been beset with technical, institutional, and economic problems and marked by controversy.

El Molino, a neighborhood in the southeast of Mexico City, had no sewage system, so SIRDOs were proposed, and financed through a grant from the National Popular Housing Fund. Technical problems – such as clogged pipes and incomplete decomposition – plagued the project from the outset. After a series of delays and an exchange of accusations of fraud and mismanagement between the community and project managers, the SIRDO was abandoned. The community was eventually connected to the main municipal sewer system.

SIRDOs were implemented in some places with less disastrous results than in El Molino, and success hinged on the degree to which the systems were properly integrated with the needs and capabilities of communities. In Tepepan, another Mexico City neighborhood, the planners and architects were from the community, and were knowledgeable, responsible partners in every aspect of the SIRDO's implementation, adaptation and use. They had the necessary training and resources to make design changes, maintain the SIRDOs, and educate and train their fellow-residents in the system's purposes, functions and requirements. The whole community felt connected to the technology's implementation and responsible for its success.

These conditions are rarely, if ever, replicable on a large scale in poor urban communities lacking the resources and the sophisticated knowledge necessary to meet the SIRDO's installation and maintenance needs. Technology and human beings interact. If this human element is not taken into account, if people are forced to adapt to technology rather than control it, then technology is likely to fail. Technological solutions must be responsive to that community's needs, capabilities, limitations and existing conditions. Putting communities at the center of a technical innovation is critical to making that innovation sustainable.

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Conclusion

Based on the research and analysis of the hundreds of environmental and other types of innovations which the Mega-Cities Project has identified since its inception, we have drawn six basic lessons.

- Urban environmental, social, and economic sustainability is essential for global sustainability. Concentrating human populations in cities is an environmental necessity to create economies of scale and resource efficiencies. Dense populations leave open space for either agriculture or natural wilderness areas. Creating circular systems that recycle water and waste of these concentrated populations is the key to reversing our global environmental deterioration.
- Alleviating urban poverty is essential to ensuring urban environmental regeneration. The urban poor tend to occupy the most ecologically fragile and service-deprived areas of our cities. Without alternative locations to settle and sufficient income to cook and keep warm, their survival will increasingly be pitted against environmental needs.
- A strong civil society and grass-roots initiatives are essential for lasting solutions to poverty and environmental degradation. The most creative and resource-efficient solutions to urban problems tend to emerge at the grass-roots level, closest to the problems being solved. Without local participation, even the best ideas are doomed to failure.
- To reach scale, it is essential to transform “micro” solutions into “macro” impact. While small may be beautiful, it’s still small.
- Urban transformation cannot take place without changing the old incentive systems and “rules of the game.” Local innovations can never achieve scale without cross-sectoral partnerships involving government, business, NGOs, academia, media, and grass-roots groups. We need to create a climate conducive to experimentation, mutual learning, and collaboration.
- The sustainable city of the 21st century must have social justice, political participation, economic vitality, and ecological regeneration. Only with all these social elements in place can our cities be truly sustainable for the 21st century and beyond.

It is our hope that by putting these innovations in the hands of urban citizens worldwide, we can facilitate their replication and adaptation in new contexts, as well as inspire breakthrough thinking in urban environmental problem-solving.

Janice E. Perlman is the Founder and President of The Mega-Cities Project (www.megacitiesproject.org) and Professor of Comparative Urban Studies at Trinity College, Hartford, Connecticut. This article is excerpted from a U.S. Department of State e-Journal (usinfo.state.gov/journals/journals.htm).

NOTES FROM THE AIRC

A Select Weblibliography on “Green Buildings”

<http://www.builderswithoutborders.org/>

Builders Without Borders

<http://www.ciwmb.ca.gov/GreenBuilding/>

California – Green Building Design and Construction

<http://www.earthpledge.org/GreenRoof.html>

Earth Pledge Green Roofs Initiative

<http://www.ecocitybuilders.org/>

Ecocity Builders

<http://www.gbapgh.org/>

Green Building Alliance

<http://www.habitat.org/>

Habitat for Humanity

<http://www.nrdc.org/cities/default.asp>

Natural Resources Defense Council – Cities & Green Living

<http://www.ic.org/nica/>

Northwest Intentional Communities Association

<http://www.greenbuilder.com/sourcebook/>

A Sourcebook for Green and Sustainable Building

<http://www.sbicouncil.org/>

Sustainable Buildings Industry Council

<http://www.aiasdr.org/>

The Sustainable Design Resource Guide

<http://www.unhabitat.org/>

UN Habitat – Shelter For All

http://www.eere.energy.gov/buildings/program_areas/

U.S. Department of Energy – Building Technologies Program

<http://www.epa.gov/greenbuilding/>

U.S. Environmental Protection Agency – Green Buildings

<http://www.usgbc.org/>

U.S. Green Building Council

<http://www.wbdg.org/>

Whole Building Design Guide

<http://www.worldgbc.org/default.asp?id=1>

World Green Building Council

Note: Internet sites included in this listing, other than those of the U.S. Government, should not be construed as an endorsement of the views contained therein.

MUMBAI MONDAYS

A Discussion on
Themes in American Jazz
led by William Klein

Monday, October 16

American Center Auditorium

6:00 p.m.

Jazz emerged in the American south in the early 20th century and is now played and enjoyed worldwide. Using specific musical examples, Mr. Klein will highlight several key themes in the aesthetic development of American jazz over the past century and discuss how this very American art form has evolved in tandem with some of the deeper social and economic changes in American society.

William (Bill) Klein is Consul for Political and Economic Affairs at the U.S. Consulate General in Mumbai. Mr. Klein joined the U.S. diplomatic corps in 2000. Before coming to India in October 2004, he had served at U.S. diplomatic missions in Jerusalem, Tel Aviv, Doha, and Kiev. From 1993-1999, Mr. Klein was Managing Director and Head of Capital Markets at the Landesbank of Saxony in Leipzig, Germany, a bank established in the former East Germany following German reunification. Between 1987 and 1992, he was Deputy Manager and Head of the Derivative Products Group at Schroeder, Muenchmeyer, Hengst & Co. in Frankfurt, Germany.

A native of North Ogden, Utah, Mr. Klein holds Bachelor's and Master's degrees in Economics from the Free University of Berlin, Germany, and a Bachelor's degree in History and Journalism from the University of Utah. He speaks German, Russian and Hebrew.

FILMS THIS MONTH

HABITAT: AMERICAN CITIES IN FILM

Friday, October 13 *Manhattan* (1979, b/w, 96 mins)

Friday, October 20 *Midnight in the Garden of Good and Evil*
(1997, color, 155 mins)

American Center Auditorium

3:30 and 6:30 p.m. each day



Woody Allen's hilarious and poignant look at modern relationships, set against Gershwin music and the splendid backdrop of the Big Apple. He is a TV writer, divorced from his lesbian ex-wife (Meryl Streep), dating a teenage girl (Mariel Hemingway), and in love with his married best friend's wife (Diane Keaton).

New York magazine writer John Cusack is sent to picturesque Savannah, Georgia, to cover a lavish Christmas party hosted by local antiques merchant Kevin Spacey, but he gets more of a story than he imagined when Spacey is charged with shooting his male lover and the subsequent trial exposes the private lives of many of the quirky town's citizens. Director Clint Eastwood's adaptation of the John Berendt bestseller also stars Jack Thompson and Jude Law.



U.S. AMBASSADOR DAVID MULFORD PLEDGES TO PARTNER WITH INDIA IN FIGHTING GLOBAL TERROR



U.S. Ambassador David C. Mulford paying homage to victims of terror attacks in the U.S. and other parts of the world at a ceremony held at the U.S. Consulate General in Mumbai on Monday, September 11, 2006. Joining the ceremony are (L to R) Maharashtra State Chief Secretary D.K.Sankaran and U.S. Consul General Michael Owen.

U.S. Ambassador David C. Mulford paid homage to victims of terror attacks in the U.S. and other parts of the world at a ceremony held at the U.S. Consulate General in Mumbai on Monday, September 11, 2006, to commemorate the fifth anniversary of the 9/11 terrorist attacks in the U.S. Joining the Ambassador in offering remarks on the occasion were the Chief Secretary of Maharashtra State, D. K. Sankaran; Member of Indian Parliament (Mumbai North-West) Priya Dutt; and Consul General Michael Owen. Maharashtra State Director General of Police Dr. P. S. Pasricha and Mumbai Commissioner of Police A. N. Roy also attended the ceremony held on the Consulate lawn. In his remarks on the occasion, the Ambassador recalled that victims of the 9/11 attacks in the U.S. were citizens of more than 90 different countries and adherents of many different faiths. He acknowledged that India, too, had suffered repeated terror attacks, and said the Americans shared India's pain. The Ambassador reiterated the U.S. Government's commitment to fight global terror, and said the U.S. and India were rapidly expanding their anti-terror cooperation. While the American national flag was lowered to half mast, the special guests, invited NGO, youth, media and intellectual circle leaders, and Consulate employees joined the Ambassador in paying homage to victims of terror.

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Admission to all American Center programs, restricted to persons over 16, will be on a first-come, first-served basis. Please bring the envelope containing this issue of the bulletin for admission (maximum two persons). The auditorium doors will open 30 minutes before the start of the program.
