



Spurring Sustainable Urban Development Effecting Lasting Change in the Millennium Cities

Millennium Cities Initiative
Progress Report

March 2012

Table of Contents

Director’s Message: A Letter from Dr. Susan M. Blaustein.....3

Spurring Sustainable Urban Development: MCI’s First Six Years.....4

Key Accomplishments

- Research and Analysis.....5
- Public Heath.....7
- Education and Gender Equality.....9
- Water, Sanitation and Other Urban Infrastructure.....11
- Investment.....13

Phase II: Effecting Lasting Change in the Millennium Cities15

MCI Partners.....16

Thank You!.....18



Director's Message

Greetings to all, on this sixth anniversary of the founding of the Millennium Cities Initiative! This occasion offers an opportunity to review our many accomplishments to-date and to share with our dedicated partners our plans going forward.

At such a moment, it is surely worth celebrating some of our thrilling successes and tremendously rewarding partnerships, including in Kumasi, Ghana, in the areas of neonatal survival, early childhood education, girls' clubs for literacy, school connectivity¹ and our groundbreaking collaboration with the Earth Institute's Urban Design Programme to upgrade impoverished communities both in Kumasi and in Ghana's capital, Accra.

It is also an excellent time to update you regarding such exciting ongoing activities as our three-city Regional Partnership to Promote Trade and Investment in sub-Saharan Africa (Regional Partnership) for Kumasi, Mekelle, Ethiopia, and Tabora, Tanzania, and our online development of a Millennium City Toolkit, so that others might learn "how to become a Millennium City." And, of course, we are eager to apprise you of some of our plans for the immediate future, including our joint effort with esteemed partners Physicians for Peace, American Red Cross, Safe Blood For Africa, the MDG Centre for West and Central Africa and the National Blood-banking Authority of the Mali Ministry of Health, to develop a regional blood bank for Segou, Mali, which would be the first of its kind and would serve as a model of safe blood-banking for the region.

Another exciting experiment this year, begun together with grassroots, regional and international women's organizations and in partnership with the Urban Design Programme, Kumasi Metropolitan Assembly and Kwame Nkrumah University of Science and Technology, will be to design, build and help create a downtown resource center in one Millennium City, where women and girls can safely access a multitude of services aimed at strengthening their reproductive health, education, resilience, and job, banking, computer, leadership and community-building skills, thereby (we hypothesize!) empowering the community as a whole.

None of these undertakings, past, present or planned, would be possible without MCI's expert, dedicated team. With regret, we say farewell here to our founding Co-Director, Dr. Karl P. Sauvant, who has stepped down from his MCI obligations to devote himself more fully to research, writing and teaching, as a Senior Fellow at the Vale Columbia Center on Sustainable International Investment, which he founded, also in 2006. Karl and his close colleague for decades at the United Nations, MCI's Senior Investment Analyst Joerg Simon, coined and developed MCI's entire investment strategy, initiated and shepherded through to fruition many studies and publications, with an abundance of partners, and are responsible for all the accomplishments in the investment arena that you will read about on the pages to come. We bid farewell as well to Mamadou Diarra, our regional investment specialist for Mali and Senegal, who brought the single largest investment to Bamako, in the form of a promising waste-to-energy plant, and we salute Mary Okpe, our social sector specialist for Kaduna, Nigeria, who also left MCI last year. In 2011 we also said goodbye to MCI regional coordinator for East and Southern Africa Dennis Haraszko, as well as MCI research coordinator Ahmed Salim.

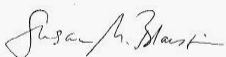
All of these dedicated professionals have contributed immeasurably to the remarkable progress MCI has made, highlights of which are described here. We are sorry to see them go, as colleagues from whom we have learned and continue to learn so much. We trust, though, that their paths will lead them to rich professional satisfactions and personal fulfillment, and we send all our departing colleagues our warmest wishes.

Along with our farewells, we are honored to offer a warm welcome to our wonderful new MCI staff and advisors. Joy Morabu, a treasured veteran of the MDG Center in Nairobi, began as MCI's Regional MCI Coordinator as of January 1. We have been extremely fortunate this year to have Dr. Karin Millett, former director with the World Bank, join our Regional Partnership as MCI Senior Researcher/Advisor, Investment Promotion and Export Development Policy. Also through the Regional Partnership, we are delighted to welcome Anthony Owusu, Deo Msilu and Moges Mesfin as our MCI Investment Promotion Experts in Kumasi, Tabora and Mekelle, respectively, and targeting expert Rene Samek. In Kisumu, Kenya, we salute Lois Owiti as our new MCI Education Coordinator, and we are delighted to welcome Hannah Adom-Ameyaw, our new Social Sector Advisor in Kumasi and Kathy Kurtak, our urban designer and GIS specialist, who is working with us on our mapping, urban planning and design work in Accra.

We are tremendously grateful that Sophie Kalimba and Aberash Abay, Social Sector Specialists for Blantyre and Mekelle, respectively; Beldina Opiyo-Omolo, Public Health Specialist for Kisumu; and Abenaa Akuamo-Boateng, MCI Regional Coordinator for West and Central Africa and Kumasi Project Manager, will continue with MCI. We are thankful, too, for the ongoing, superlative service of Accra Project Manager Joe Melara, and Kumasi-New York School2School Connectivity Project Manager Elizabeth Kubis. Together with this unparalleled talent representing MCI in the field, we are thrilled at the continuation at MCI headquarters of Research Manager Dr. Moumié Maoulidi, Project Manager Paulo Cunha, Special Assistant Alessandra Radicati and Communications Specialist Mary Everette Cann. We are especially grateful for the support from Earth Institute Director Jeffrey Sachs and his office, and from our two MDG Center Directors, Drs. Amadou Niang, in Bamako, and Belay Begashaw, in Nairobi, and their supremely qualified teams of sector specialists who continue to give MCI so much support.

With our stellar team, dedicated partners and compelling mission – to help propel the Millennium Cities, a collection of highly individuated, sub-Saharan urban centers near to the Millennium Villages, further along their respective trajectories toward sustainable economic and social development – we are all looking forward to another fruitful, dynamic and path-breaking year and to tangible advances in each site toward full attainment of the Millennium Development Goals.

Warm regards,



Dr. Susan M. Blaustein
Director, Millennium Cities Initiative
The Earth Institute, Columbia University

¹ MCI's expert partners on these projects include, respectively: Ben Gurion University, Office of International Cooperation (MASHAV) of the Government of Israel, American Academy of Pediatrics, AmeriCares, Ghana School of Public Health, Johnson & Johnson, Kumasi Metropolitan Health Directorate; the NY-based NGO LitWorld, Kumasi Metropolitan Education Directorate; Ericsson, Airtel Ghana, Columbia University Teachers College, selected NYC and Kumasi schools; Kumasi Metropolitan Assembly and Education Directorate.

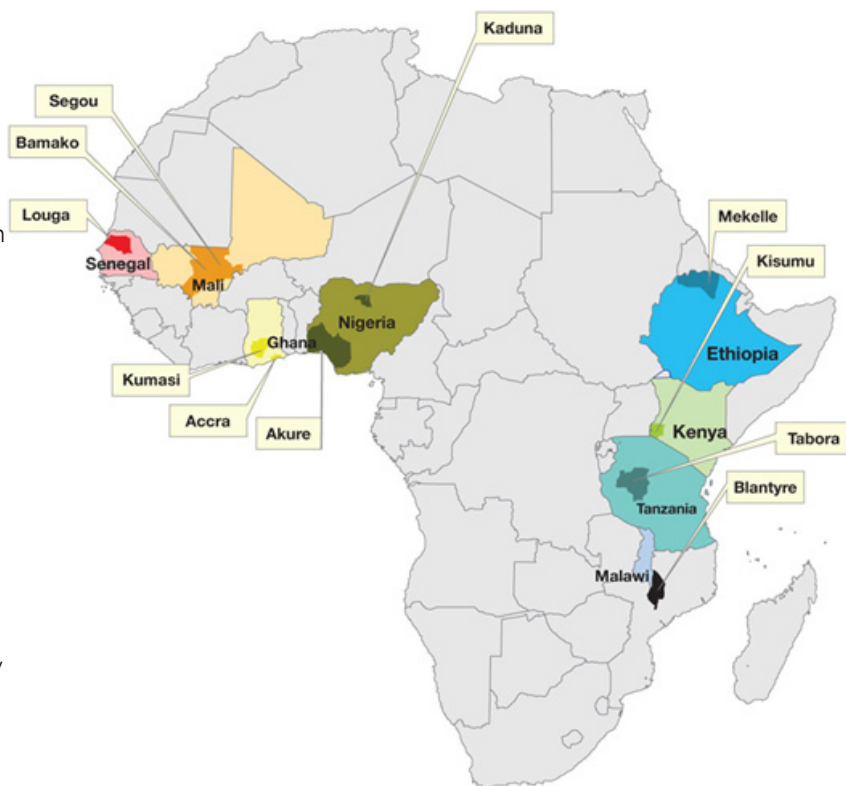
Spurring Sustainable Urban Development: MCI's First Six Years

The world's cities continue to grow dramatically. Across sub-Saharan Africa, cities represent 40 percent of the total population, a number expected to reach 50 percent by 2030.² Some come to the cities seeking refuge – from conflict, ethnic strife, environmental disaster, failed harvests – while others simply seek greater economic opportunity. This surge in urban populations has placed a great strain on many of the sub-Saharan cities – on their infrastructure and on their ability to deliver such critical social services as access to clean water, sanitation and quality education and health care – magnifying the challenge of achieving the Millennium Development Goals (MDGs), including the first and most fundamental, halving extreme poverty, by the target date of 2015.

That's where the Millennium Cities Initiative comes in. A project of the Earth Institute at Columbia University founded by Earth Institute Director and renowned development economist Jeffrey Sachs as the urban counterpart to the Millennium Villages Project and an outgrowth of the national-level policy work carried out by the United Nations Millennium Project, MCI works with 11 under-resourced sub-Saharan cities to help them attain the MDGs and, in the process, set the stage for sustainable social and economic development. MCI accomplishes this through a combination of research, policy analysis and interventions, largely carried out by our vast network of partners – investors, governments, multi-lateral institutions, corporations, academic institutions and non-governmental organizations.

The first phase of our work is nearing completion. In the social sector, detailed MDG-based needs assessments were carried out in many of the Millennium Cities to ascertain how far off track each municipality was in the areas of education, gender equality, public health and water/sanitation and the costs of achieving each related MDG.³ MCI also developed our own comprehensive poverty-related household survey, to capture the specific manifestations of poverty in each city, so that we might better understand the crucial gaps in each site. Investment-related research was undertaken in order to better appreciate the regulatory environment for business and investment at the national, regional and metropolitan levels; the extent and quality of each city's industrial infrastructure; promising sectors for investment; and specific investment opportunities. Once this research is complete for a given Millennium City, MCI convenes a stakeholder workshop, bringing together heads of city agencies as well as representatives from local organizations and the private sector, to reach a consensus as to their city's priority needs and to devise an integrated development strategy aimed at attaining the MDGs. We're now entering the second phase of MCI's work, as we begin to finalize each city's development strategy, assist in the identification of donors and investors to implement the recommended strategies and, together with our wonderful partners, carry out critical interventions capable of improving the quality of life for millions of Millennium City residents.

Many of our remarkable accomplishments to-date – made possible because of the commitment of local and national governments, our partners and donors and local community members themselves – are described in this report. These successes – from MCI's research to our support for new investment opportunities, to our groundbreaking programs in such areas as neonatal survival and early childhood education – have begun to lay a foundation for sustainable urban development. We very much look forward to the next phase of our work, with its even greater impact, as the Millennium Cities are empowered and able to effect lasting change.



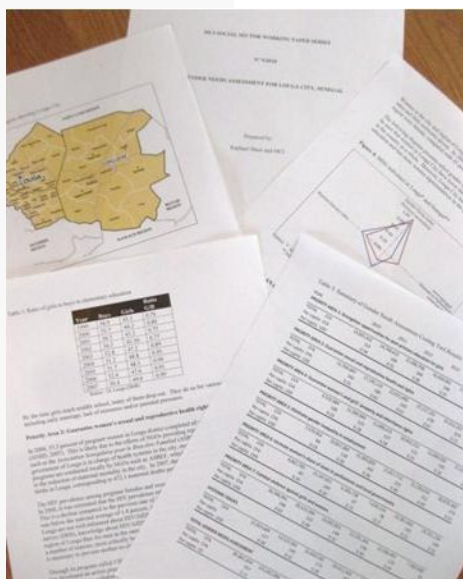
² UN-HABITAT (2010). "The State of African Cities 2010" (Nairobi, Kenya: United Nations Human Settlements Programme), p. 1.

³ These unique MDG-based assessment and costing instruments, developed by lead scientists as part of the United Nations Millennium Project for use by developing countries in economic planning at the national level, have been applied by MCI for the first time in sub-national settings. These assessments and costing tools are now administered by the Poverty Unit of the MDG Support Group, United Nations Development Programme (UNDP).

Key Accomplishments

Research and Analysis

MCI is committed to helping the Millennium Cities solve their most difficult challenges and create the conditions for sustainable urban development. Much of this is accomplished through our extensive research: MDG-based needs assessments and household surveys, investment guides, a working paper series and reports on our own interventions, to better understand their effectiveness and their capacity for scale-up. Our research achievements are summarized here.



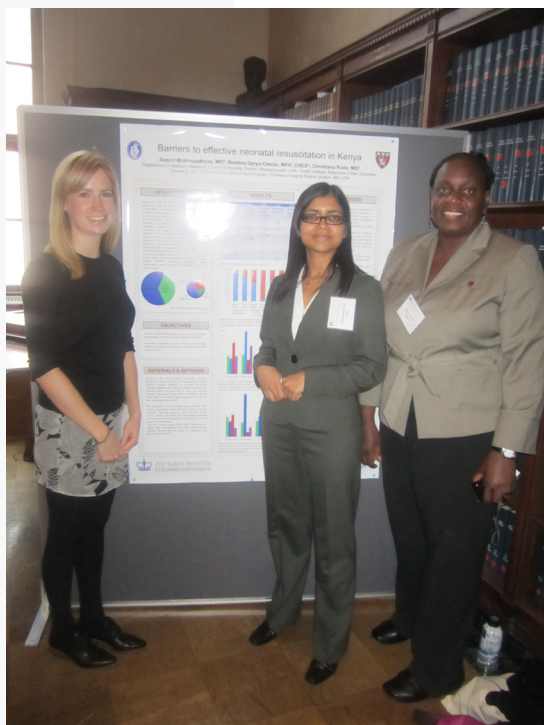
Research Highlights

- **Assessing Millennium City Needs:** The UN Millennium Project's MDG-based needs assessments have served as the foundation for our social sector research in many of the Millennium Cities, identifying those cities' gaps in attaining the MDGs, quantifying the costs of addressing those gaps and proposing interventions that can help do so.⁴ MCI has published 24 needs assessments across the health, education, gender and water/sanitation sectors, with three more to be published in 2012.

- **Identifying Investment Opportunities:** MCI has identified a number of promising investment opportunities as well as promising sectors for investment in the Millennium Cities, all of which will help create jobs for city residents. Our investment guides, with their detailed analyses of potential investment opportunities, have been published for Kisumu, Kenya, Kumasi, Ghana, and Blantyre, Malawi. MCI's global partner KPMG has also produced its own guides for six of the Millennium Cities, and the United Nations Industrial Development Organization (UNIDO), another global partner, has also profiled small- and medium-sized enterprises in five. In addition, MCI has published numerous working papers, both on our own and in partnership with UNIDO and KPMG, on a variety of investment topics and regarding specific opportunities, such as solar lanterns, bamboo bikes, sugar and tourism.

- **Taking Deeper Dives:** MCI's own comprehensive poverty-related household survey was recently piloted in Kisumu, Kenya, with a final report to be published in early 2012 and a second pilot, in Blantyre, Malawi, to take place in the first half of the year. In addition, our needs assessments often identify specific challenges that warrant further research. Through our working paper series we have explored a number of important topics, including neonatal health, environmental degradation and microfinance opportunities available in the Millennium Cities.

- **Monitoring and Evaluation:** MCI routinely evaluates the effectiveness and potential for scaling up our MCI-led or -facilitated programs on the ground. We're currently engaged in detailed reviews of our neonatal survival, early childhood education, School2School Partnership and Girls' LitClubs programs, as well as of our Regional Investment Initiative.



⁴ See footnote 2, above.

• **Designing Research to Meet a City's Needs:** MCI's research in Accra, Ghana's capital of nearly four million people, has centered on addressing the city's most pressing concerns. Together with our partners across the Earth Institute and in the international arena, we have carried out detailed GIS mapping, and suggested ways of improving emergency access in specific underserved communities as well as solid and liquid waste management. We have also begun to assess the impacts of environmental degradation and climate change and have designed upgrades of some of the city's vibrant open-air markets and impoverished residential communities.

• **Consulting with City Stakeholders:** MCI has thus far hosted four citywide stakeholders' workshops, in Mekelle, Ethiopia, Kumasi, Ghana, and Bamako and Segou, Mali, where we shared our research findings and assisted a broad array of constituents in ranking their own top MDG-based priorities and devising an integrated development strategy aimed at realizing these by 2015.

Looking Ahead

Three more stakeholders' workshops will take place in the course of 2012, in Louga, Senegal, Kisumu, Kenya, and Blantyre, Malawi. MCI will work closely with Millennium City officials and stakeholders to complete each city's comprehensive development strategy and to support the identification of and outreach to donors and implementation partners. MCI will also continue our efforts to implement, monitor and evaluate our existing and planned social sector programs and to pilot our poverty-related household survey in Blantyre, affording us a better understanding of the specific factors endemic to Malawi's economic capital that keep people in poverty there.



MCI's Research at a Glance

- **24 MDG-based needs assessments** in 8 Millennium Cities published through February 2012, assessing the distance remaining in order to attain the MDGs in the areas of education, public health, gender and water/sanitation
- **3 needs assessments forthcoming** in 2012
- **2 social sector working papers**, on environmental health-related issues in Kisumu and Mekelle
- **3 social sector working papers** forthcoming, on MCI's comprehensive household survey in Kisumu, neonatal survival project in Accra and Kumasi and the Kumasi-NY School2School Connectivity Partnership
- **3 detailed city investment guides**, focused respectively on Kisumu, Kumasi and Blantyre
- **11 investment-related working papers**, covering specific investment opportunities in the Millennium Cities
- **11 investment-related working papers**, published in conjunction with KPMG or the United Nations Industrial Development Organization (UNIDO), addressing specific prospects and profiling small- and medium-sized enterprises, respectively.
- **13 social sector papers about Accra**, covering such general topics as the city's economy, health care and land use regulation policies, and such study as solid waste management and composition, composting, public transport, environmental hazards, GIS mapping of specific neighborhoods and urban design work to upgrade and revive those communities
- **An "implementation toolkit,"** a full volume of architectural solutions to community-based infrastructure and quality-of-life issues, together with the Earth Institute's Urban Design Programme

Key Accomplishments

Public Health

The concentration of much of sub-Saharan Africa's population in urban areas has aggravated the already substantial strain on many of the Millennium Cities' capacity to provide essential health care to residents. With support from our many partners, MCI has strived to improve this access by conducting numerous training workshops for medical practitioners, facilitating the delivery of medical supplies and medicines, advocating at the local, domestic and international levels for improved access to safe blood and devising lifesaving programs for mothers and newborns.

Public Health Highlights

- **Helping Medical Professionals Save Babies' Lives:** MCI's groundbreaking Neonatal Survival Program, funded by Johnson & Johnson with support from AmeriCares, the American Academy of Pediatrics, the Ghana Health Service and the Accra and Kumasi Metropolitan Health Directorates, centered around a train-the-trainer model for medical professionals in neonatal survival and infant care. The pilot, conducted in Accra and Kumasi, Ghana's two largest cities, utilized the American Academy of Pediatrics' Helping Babies Breathe™ protocol and other infant care techniques in the training of 120 health-care professionals and shared vital family health information with the nearly 1,500 participating mothers. Sixty-eight newborns out of 2,004 live births were successfully resuscitated as part of this project, increasing neonatal survival by an impressive 3.4 percent among participants.

- **Training Urban Health Workers:** MCI facilitated the first-ever comprehensive training for Community Health Workers (CHWs) in Manyatta, a large informal settlement in Kisumu, Kenya. Initiated and led by MCI's public health specialist in Kisumu, Ms. Beldina Opiyo-Omolo, this training was sponsored by Cordaid, the Dutch development agency and developed with support from the Municipal Council of Kisumu's Health Department. One hundred-twenty CHWs and associates were trained to provide essential care to 20 households each, including the collection and analysis of household-level data, prevention and monitoring of infectious disease outbreaks, performing basic life-saving techniques and providing referrals as needed.

Making a Difference: A Mother and Her Baby

Yaa Pokuaa, resident of a Kumasi suburb, gave birth in September 2010 to a baby girl named Saviour who wasn't breathing. Fortunately, through MCI's Neonatal Survival Program, the hospital staff had been trained in neonatal resuscitation, including in the American Academy of Pediatrics' Helping Babies Breathe™ protocol. Saviour survived and is now a healthy, happy baby. Yaa Pokuaa went on to participate in MCI's six-month education and outreach program that provided her with basics on newborn care, how to recognize symptoms of common newborn illnesses and when to seek help. The program also monitored Saviour's growth and ensured she received her early vaccinations.

Saviour was one of 68 babies who were successfully resuscitated through this life-saving program. We're excited this year to bring the Helping Babies Breathe™ training to Mekelle, Ethiopia, and the nearby Millennium Villages, thereby enabling local health staff to assist more families like Yaa Pokuaa's.





• **Building Capacity Across the Millennium Cities:** MCI works closely with a number of partners to introduce training programs that equip medical professionals and community members with essential, life-saving skills. These have included surgical rotations for advanced surgical residents from Columbia University College of Physicians and Surgeons; urological missions and trainings conducted by United Therapies and the Knock Foundation; training in the obstetric and gynecological uses of ultrasound technology, taught by the International Society for Ultrasound in Obstetrics and Gynecology; and fistula repair surgeries and training, carried out by Physicians for Peace. The Himalayan Cataract Project, a long-time MCI partner, has helped restore vision for thousands of Millennium City residents, trained ophthalmologists in multiple Millennium Cities and has led and secured USAID financing for building and training for two Centers for Excellence in Eye Care in both Mekelle, Ethiopia, and Kumasi, Ghana. Doctors from Ben Gurion University, with support from Israel's Office of International Cooperation (MASHAV), have performed countless training workshops in neonatal health, emergency and trauma care, HIV/AIDS and nutrition and infectious diseases in several Millennium Cities and have built and trained professionals to operate the first emergency unit at a Kisumu hospital. Several other partners, including AmeriCares, Siemens, International Surgical Mission Support and Becton-Dickinson have provided much-needed medical equipment, supplies and medicine.



• **Creating a Model for Safe Regional Blood Banking:** MCI and partners Physicians for Peace, American Red Cross, Safe Blood for Africa, Centers for Disease Control and the MDG Centre in Bamako, Mali, are working together with the National Blood Banking Authority of the Mali Ministry of Health to develop a pilot for regional blood banking in the Millennium City of Segou.



Looking Ahead

MCI plans to expand the Neonatal Survival Program to Mekelle, Ethiopia, and the nearby Koraro Millennium Villages cluster. A Knock Foundation delegation will deliver more surgical supplies to Kisumu this spring and will go as well to Mekelle, to perform urological procedures, deliver surgical equipment and support local NGOs in other activities. We will continue to advocate for safe blood banking at the international level, while working closely with our partners to ensure the efficient construction, training and implementation of the proposed blood bank in Segou, Mali.

Key Accomplishments

Education and Gender Equality

In the area of education, MCI has helped fill some existing gaps within the Millennium Cities' public school systems, in accordance with the top unfunded national-level education priorities. We have facilitated trainings for educators, developed clubs for girls to encourage literacy, learning and to boost self-confidence, encouraged and organized partnerships between schools in the Millennium Cities and American schools and advocated for more and better educational opportunities at all levels for girls and boys.



Education and Gender Equality Highlights

- **Educating our Youngest Learners:** MCI's partner, Mount Carmel Training Center in Haifa, Israel, supported by Israel's Office of International Cooperation (MASHAV), has been instrumental in establishing a program in Kumasi, Ghana, in response to a Ministry of Education mandate to provide early childhood education and to attach kindergartens to all primary schools. The program has completed training for 75 educators and has given initial training to 323 more. Seventeen model preschools now serve nearly 3,000 students through an interactive, curiosity-driven curriculum that will now be replicated in Accra.
- **Creating "Girls' LitClubs" for Learning:** MCI's partnership with the literacy organization LitWorld has led to the creation in two Millennium Cities of Girls' LitClubs, safe and welcoming spaces where adolescent girls can cultivate literacy skills, obtain life-saving information regarding their own health, develop mentors and connect with their peers, in-person and virtually. MCI and LitWorld have thus far trained six female educators to lead four Girls' LitClubs in Kisumu, Kenya, and 30 in Kumasi, Ghana, in association, respectively, with the Kisumu Municipal Council Department of Education and the Ghana Education Service and Kumasi Metropolitan Education Directorate's "Girl Child" program. Last September, MCI, LitWorld and all the Girls' LitClubs organized celebrations of the International Day of the Girl, making their respective Millennium Cities aware of the transformational potential for whole communities of educating their girls and women.

A Pledge for Girls

we promise on our honour
to be respectful and loyal to all girls
we pledge to hold on to their decisions
and make sure their dreams come to a reality
we promise to educate them in all areas of life
and we pledge to uphold to their rights
and fight for their freedom
so help us god

- authored by a student at Boundary Road Cluster of Schools (Accra, Ghana), one of MCI's School2School partners, in celebration of International Day of the Girl in September 2011.

- **School2School Connectivity:** MCI has helped initiate partnerships between schools in the Millennium Cities and in the United States. Our signature program includes a three-year study exploring the uses of the Internet in teaching science, mathematics and technology to junior high school students in Kumasi, Ghana and New York City. In the first year of the program, which is supported by Ericsson, Airtel Ghana, Columbia Teachers College and the City of Kumasi, 45 7th grade teachers from 15 junior high schools were trained in basic IT and the Internet. The junior highs were then partnered with New York City schools and began an online collaboration focusing on the Millennium Development Goals and how they are connected to the study of math, science and technology. The success of the program has created a great deal of excitement among the participating schools as well as the Kumasi Metro Education Department (KMED), so much so that in September 2011, the KMED director is expanded the program to include 12 more Kumasi schools, with 36 participating math, science and IT teachers.



• **Encouraging an Interactive Approach in Applying New Technologies:** Teachers in three middle schools in Louga, Senegal, and in six schools in the nearby Millennium Villages, learned how to use a student-centered approach in their instruction, incorporating technologies such as SmartPens and interactive whiteboards. MCI's partner in this initiative, CyberSmart Africa, is actively monitoring teacher and student progress and hopes to expand the pilot to schools across Louga.

What Can a Water Bottle Teach Us About the MDGs?

A lot, actually. Nana, a junior high school teacher participating in MCI's Kumasi-NYC School2School Partnership program, has begun to apply his learning to the classroom, lessons he received from a series of trainings developed by MCI to help him incorporate technology into instruction on the so-called STEM subjects. His class recently studied the respiratory system and its relation to MDGs 4, 5 and 6 (reducing child mortality, improving maternal health and combatting HIV/AIDS, malaria and other diseases, respectively). Students studied the respiratory system with the help of materials found on the Internet, and then, under Nana's guidance, they studied it on a water bottle. His innovative approach encouraged students to develop model respiratory systems using water bottles and other materials and to work together to design an educational campaign about the dangers to the respiratory system of biomass fuels.

MCI has confidence that our School2School Partnerships and other education initiatives, such as the Girls' LitClubs and early childhood education program, will continue to inspire teachers such as Nana to create unique and fun learning experiences for students who otherwise might not have these opportunities.



• **Taking a Stand and Advocating for Change:** MCI has participated in a number of events designed to increase awareness and advocate for enhanced learning opportunities, girls' right to an education and women's empowerment. This will be the third consecutive year we have proudly connected Millennium City and American schools to support World Read Aloud Day, an annual celebration of literacy, and we helped organize rallies and educational events across numerous Millennium Cities on 10.10.10, a day set aside to raise awareness of climate change, the International Day of the Girl (as described briefly above) and International Women's Day. We are committed to advocating for change and promoting access to education for everyone.

Looking Ahead

MCI will continue to partner with Israel's Mount Carmel Training Center to train preschool teachers and is actively advocating at the national level to scale the early childhood education program nationwide. We will also continue to support and encourage the growth of our School2School Partnership program, seeking opportunities for additional schools with which to partner, while enhancing the curriculum as needed to raise awareness of the importance of attaining the MDGs. MCI is working closely in 2012 with LitWorld to strengthen the existing Girls' LitClubs and create many more, while developing an exciting new online platform that will connect all girls' clubs in the Millennium Cities and beyond, as well as new ways of using mobile phones as learning and curricular tools. We're also excited at the prospect of launching Mothers' Clubs, which will be focused on literacy, financial literacy and job skills training, family health and hygiene, and by our plans to build a path-breaking, multi-purpose women's and girls' center in Kumasi that will provide a meeting, exhibition, training and recreation space for women and Girls' Clubs, including reproductive health services and counseling, job skills, literacy, mobile banking and IT training, Internet services and urban gardening.



Key Accomplishments

Water, Sanitation and Other Urban Infrastructure

Every Millennium City suffers from inadequate water and sanitation services, roads and public transport, access to energy and other civil infrastructure. Since its inception, MCI has conducted extensive research to understand the gaps that exist in the “wat/san” sector across the Millennium Cities and has engaged with Earth Institute colleagues, local and national government agencies, international organizations and the private sector to improve emergency access, evacuation routes and other essential services. Together with these partners, over the past two years in Accra, Ghana, MCI has undertaken extensive neighborhood mapping and planning exercises, as well as the re-design, upgrade and connection of impoverished downtown communities to the city’s economic heart. Through these exercises, we are developing a repertoire of smart, cost-effective solutions for dramatically improving the access of ordinary residents to essential infrastructure.

Water, Sanitation and Other Urban Infrastructure Highlights

- **Assessing Environmental Challenges:** Kisumu, Kenya, has been beset by environmental challenges and flooding, some of which have resulted in outbreaks of waterborne diseases. To better assess these issues, MCI conducted research on Kisumu’s Lake Victorian shores. The study, published on our website, proposes a number of interventions in water and sanitation capable of significantly improving the city’s public health.

- **Designing and Planning an Improved Urban Environment:** MCI has partnered with the Earth Institute’s Center for Sustainable Urban Development and Urban Design Lab to work in two of Accra’s sub-metro areas, Nima and Ga Mashie, to produce detailed GIS maps that have enabled us to reconfigure some of the key commercial, residential and public spaces and devise solutions to market and community infrastructure challenges. We examined as well the historic coastal neighborhood of Korle Gonno, where we focused on market redesign and community upgrading issues, with an emphasis on strengthening economic opportunity. This work, newly available on MCI’s website, will contribute not only a set of innovative, ready-to-use design tools, but also a roadmap for approaching similarly complex urban planning and design issues.

- **Improving Water and Sanitation in an Informal Settlement:** MCI facilitated work conducted by Cordaid, a Dutch NGO, in Kisumu, Kenya, to address water and sanitation issues facing Manyatta, one of the city’s largest informal settlements. This program, part of a larger Dutch government-financed Cordaid initiative entitled “Urban Matters,” was based on a common action plan developed by Cordaid staff and Kisumu officials that focused as well on improving access to public transportation.



Involving the Community in Solving its own Development Challenges

Accra faces a number of extraordinary problems, from environmental degradation and poor infrastructure to limited access to social services and a lack of economic opportunity. MCI is working with numerous partners to address some of these issues. One marvelous partnership, with the Earth Institute's Urban Design Lab, has focused on the structural planning and design issues facing Accra, to improve the delivery of social services and the availability of livelihood opportunities there. The work has concentrated on several sub-metro areas, each with its own assets and concerns. MCI has consulted widely with community groups, as well as local and international NGOs, regarding local needs and how best to upgrade housing and markets, improve access to safe water, sanitation and transport and enhance economic opportunity.

What's distinctive about this work is not only the scope of the project, but the approach. The urban design and planning work has worked in a collaborative, bottom-up fashion, seeking advice from local officials and local residents. We have now brought this approach to Kumasi, where we anticipate that this work will also have a significant impact, not only on the specific neighborhoods where we will be working, but also on the methods employed by groups such as MCI, and the importance of fully engaging communities in identifying their most pressing challenges, proposing their own wise solutions and determining their own future.



- **Upgrading Infrastructure:** MCI facilitated initial assessment work in Kisumu, Kenya, for the French aid agency, l'Agence française de développement, which has now undertaken a large-scale project focused on city planning, waste and water infrastructure and management, community upgrades and local government capacity-building.

- **Getting Latrines into Schools:** MCI facilitated the construction in Mekelle, Ethiopia, by the Government of Israel's Office of International Cooperation (MASHAV) of several dozen latrines in Mekelle schools, a proven intervention to help keep girls in school.

Looking Ahead

MCI is working this year with the Urban Design Lab in Kumasi to upgrade a sprawling informal settlement and design a women's and girls' center that can serve as a multi-purpose facility to train, treat and empower women and girls in a vibrant downtown community. We are also working with lawyers, human rights and environmental advocates on developing a pilot project to promote the protection of human rights and strengthen the voice of the people in addressing environmental issues that affect their lives and families, from the potentially catastrophic impacts of climate change to proposed land grabs by corporations. In addition, MCI is planning, together with Earth Institute colleagues in the School of Engineering and Applied Sciences, to pilot a "smart metering" project in one of the Millennium Cities, to lower the costs to the urban poor of essential utilities.

Key Accomplishments

Investment

MCI's work in investment complements our work in the social sector, recognizing that only job-generating investment and vigorous enterprise development can create the conditions for economic growth and the sustainable delivery of social services. Together with the Vale Columbia Center on Sustainable International Investment and our lead global partners, KPMG and the United Nations Industrial Development Organization (UNIDO), MCI has focused on helping cities increase both domestic and foreign investment, with a special emphasis on farm-to-market linkages that can enable smallholder farmers participating in MCI's sister Millennium Villages Project to add value to their agricultural production and to begin to penetrate local, regional and international markets. MCI is following an investment strategy, proven in a number of cities, consisting of:

1. Identifying commercially viable investment opportunities. This includes a thorough evaluation of industrial sectors and concrete projects in which the Millennium Cities, possibly in concert with the nearby Millennium Villages, have a comparative advantage, whether in local, regional or international markets. This effort also includes undertaking analyses for prospective investors of the legal and administrative framework for investment.
2. Targeting of investors and dissemination of materials to potential investors. Following the completion of our research, MCI identifies prospective investors and seeks ways to promote investment opportunities in the Millennium Cities, e.g., through investor missions and roundtables, special Millennium Cities Days in strategic locations and materials such as our Millennium City Investors' Guides.
3. Strengthening the cities' capacity to identify investment opportunities. Our aim is to help the cities identify and promote investment opportunities on their own. We do this by hosting workshops to train local officials to promote investment capable of maximizing benefits in the host community and by fostering public-private sector dialogue and partnerships.

Investment Highlights

- **Identifying Investment Opportunities:** MCI has conducted extensive research to identify commercially viable investment opportunities in which the Millennium Cities have a comparative advantage, including with regard to our close linkages to the nearby Millennium Villages. MCI's findings, disseminated in our investment guides and working paper series, have uncovered tremendous opportunities in many of the Millennium Cities and Villages in a wide array of areas, including shea butter, sunflower and palm oil, rice, honey and poultry production, the construction of a waste-to-energy power plant, student dormitory and children's park and the manufacture of bamboo bikes.

- **Targeting Investors:** MCI ensures that its research reaches potential investors through a targeted outreach approach that includes investment fora, investor missions to the Millennium Cities and special Millennium City Days designed to bring together Millennium City officials and business leaders with prospective investors.

- **Strengthening Millennium Cities' Capacity to Promote Investment:** MCI has long encouraged and helped facilitate public-private sector dialogue in the Millennium Cities and continues to work closely with local officials to train investment specialists to attract domestic and foreign investors and promote local investment opportunities.

- **Establishing a Regional Partnership to Promote Trade and Investment in sub-Saharan Africa (Regional Partnership):**

The importance of capacity-building to MCI's investment program is particularly highlighted in the Regional Partnership, funded by the Government of Finland together with the Millennium Cities of Kumasi, Ghana; Mekelle, Ethiopia; and Tabora, Tanzania. It is aimed at developing local capacity in targeting, investment promotion and follow-on care of prospective and active investors. Numerous training programs, workshops and investment days are underway. These activities are being undertaken in cooperation with national investment promotion agencies and other national-level institutions. MCI has taken care to establish a network of potential domestic and international investors and other helpful contacts, thereby helping each city develop its profile as a welcoming venue for prospective investment. A peer-reviewed paper on attracting and retaining sustainable foreign direct investment (FDI) is integral to this initiative, as is the development of a "how-to" guide for bringing investment to heretofore under-invested municipalities worldwide.



Bamboo Bikes: Offering Reliable Transportation and Creating Jobs

The Bamboo Bike Project (BBP) was established as an Earth Institute initiative, led by a multi-disciplinary team of scientists and engineers, using native bamboo to design and build a bike suitable for African conditions that can be built locally, thereby creating jobs.

MCI partnered with the BBP to help it assess the opportunities and attract investment. In January 2011, the BBP joined Ghana-based Bamboo Bikes Limited (BBL) in launching a bamboo bike training program to begin production of 750 bikes for a test run in Kumasi, Ghana. The training program, led by the Bamboo Bike Studio in Brooklyn, culminated in the creation of the first large-scale bamboo bike production factory in the world, with ambitions of producing up to 20,000 affordable bikes a year to serve the transportation needs of Ghana's rural poor. BBL currently employs 12 workers and is expected to hire several more over the next year.

Bamboo bikes have proven themselves through this initiative as an affordable and sustainable mode of local transport, as well as a mechanism for economic growth and job creation. MCI hopes that BBL continues to enjoy much success in Kumasi and that bamboo bike production can lead to growth and development in additional Millennium Cities.



Looking Ahead

The Regional Partnership continues in Tabora, Mekelle and Kumasi, and as part of the capacity-building of this effort, MCI is working with the World Bank to develop a toolkit that will serve as a detailed, practical reference guide and training tool for staff in the Millennium Cities and other municipalities eager to attract increased inflows of FDI as well as domestic investment. MCI's Field Guide, developed at the Earth Institute as an overall guide to becoming a Millennium City, will also cover how to begin to identify promising sectors and investment opportunities, assess industrial infrastructure, develop an investment guide, engage in basic investment promotion and targeting, welcome prospective investors and service existing ones. MCI will also continue to work closely with a number of other Millennium Cities to build capacity, promote viable opportunities and attract sustainable, job-generating investment.



Phase II: Effecting Lasting Change in the Millennium Cities

We're proud of MCI's many accomplishments since our founding in early 2006, from our research and analysis to our efforts to identify investment opportunities to our interventions across public health, education and gender equality, water and sanitation, and urban planning and design. This work has already begun to make a difference in the lives of countless Millennium City residents.

With the support of former Co-Director Karl Sauvart and the many talented members of our able MCI team, we have largely completed the initial phase of our work and are now engaging with each Millennium City, to apprise stakeholders of our research findings, support their ranking of their own top development priorities and help draft an integrated, MDG-based urban strategy that reflects those priorities and sets a timetable for realizing them. MCI will assist in identifying and preparing the approach to existing and potential investors and development partners to finance the strategy's implementation. We are eager for the opportunity, as Millennium Cities deem it appropriate, to replicate one or more of our most effective interventions, such as our programs in neonatal survival, early childhood education, girls' literacy and empowerment, School2School connectivity and urban design and planning. And we will continue to advocate for change and to engage partners at the international level to support such vital global issues as girls' and women's education and empowerment, improved sanitation, environmental stewardship and safe birth, blood and water, each of which can have a transformative impact on the life and health of any city anywhere.

We hope our efforts to effect lasting change in the Millennium Cities can serve as models to help other cities across the developing world reduce the incidence and impact of extreme poverty and become safe, viable and sustainable urban centers, capable of fostering the boundless human growth, creativity and productivity to which they all aspire.



MCI Partners

MCI's extensive network of partners around the world are crucial in our efforts to help the Millennium Cities achieve the Millennium Development Goals and eradicate extreme poverty .

We work with investors, philanthropists, entrepreneurs, non-profits, corporations and governmental and multilateral institutions to conduct critical field research and to design targeted interventions that will have a significant impact on the quality of life in the Millennium Cities. Our alliances pool expertise and resources to conduct assessments of needs and opportunities, advocate for policy change and carry out programs aimed at improving the delivery and quality of social services – enhancing education, increasing access to health care, empowering girls and women and upgrading cities' water, sanitation and other infrastructure. Our partners have joined MCI in laying the groundwork for sustainable social and economic development. Together, we will effect lasting change in the Millennium Cities.

Leading In-Kind Donors:

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Government of Israel, Office of International Cooperation (MASHAV), Ministry of Foreign Affairs
Kohn Pederson Fox Associates
KPMG
LitWorld
Physicians for Peace

Government Partners:

MCI works with municipal, regional and national governments to inform MCI of each city's pressing needs, provide relevant data and background information, facilitate studies and new initiatives, support the sustainability of programs and increase the likelihood of scalability to other Millennium Cities and within each country.

The Municipal Governments of the Millennium Cities:

Mekelle, Ethiopia
Accra, Ghana
Kumasi, Ghana
Kisumu, Kenya
Blantyre, Malawi
Bamako, Mali
Segou, Mali
Akure, Nigeria
Kaduna, Nigeria
Louga, Senegal
Tabora, Tanzania



The Regional Governments including the Millennium Cities

The National Governments of:

Ethiopia
Ghana
Kenya
Malawi
Mali
Nigeria
Senegal
Tanzania

Multilateral Institutions:

Cities Alliance
United Nations Development Programme (UNDP),
and the Poverty Unit of the MDG Support Group
United Nations Environment Programme (UNEP), Agenda 21
United Nations Human Settlements Programme
(UN-HABITAT)
United Nations Children's Fund (UNICEF)
United Nations Industrial Development Organization (UNIDO)
The World Bank

Columbia University and Earth Institute Affiliations:

Center for Global Health and Economic Development
Center for Sustainable Urban Development
Columbia University Medical Center: Departments of
Anesthesiology, Disease Pathology & Surgery
Graduate School of Architecture, Planning and Preservation
Mailman School of Public Health
Millennium Villages Project
School of Engineering and Applied Science
School of International and Public Affairs
Teachers College
Urban Design Programme
Vale Columbia Center on Sustainable International
Investment

Other Key Partners and Supporters:

The African Community Development Foundation (UK)
African Women's Development Fund
The American Academy of Pediatrics
The American College of Surgeons
Alston & Bird LLP
The Associated: Jewish Community Federation of Baltimore
Anonymous (5)
Mr. Japhet Arikyu
Baltimore Community Foundation
Ben Gurion University (Israel)
Mrs. Nancy P. Blaustein
Boulder, CO, Sister Cities Project (Sister City with Kisumu,
Kenya)
Mr. and Mrs. Charles Bowlus
Center for National Health Development in Ethiopia
CHF International (Accra, Ghana)
Mr. Gary M. Cohen
Community Lab
ConnectToLearn
Cordaid (The Netherlands)

CyberSmart Africa
Mr. Douglas Durst
The Economist Intelligence Unit
F. Bruce Cohen
Government of Finland
Government of France, l'Agence francaise de
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Kwame Nkrumah University of Science and Technology
(Kumasi, Ghana)
Mr. and Mrs. Kase Lawal
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MDG Centre, East and Southern Africa (Nairobi, Kenya)
MDG Centre, West and Central Africa (Bamako, Mali)
Millennium Promise (New York)
Mount Carmel Training Center (Haifa, Israel)
Ms. Stacy Moscow
Mums for Mums (Mekelle, Ethiopia)
Government of the Netherlands, SNV
Ms. Cathy Neuman
Aharon Ofri International Training Center (Jerusalem, Israel)
One World Youth Project
People's Dialogue (Slum Dwellers International affiliate, Accra,
Ghana)
Sackler Institute (Tel Aviv, Israel)
Save the Children Ghana
Stevens Institute of Technology
Tides Foundation
University of Ghana – Legon campus (Accra, Ghana)
The Weitz Center for Development Studies (Israel)
Mr. and Mrs. Gregory and Jacquelyn Zehner

School2School Partnerships including the following US schools, as well as numerous Millennium City schools:

Arts & Technology Academy (Washington, DC)
Cushing Academy (Ashburnham, MA)
Los Gatos High School (Los Gatos, CA)
MS 406 Global Technology Preparatory (New York, NY)
MS 104 Simon Baruch Middle School (New York, NY)
MS 250 West Side Collaborative (New York, NY)
New Heights Academy (New York, NY)
New York City Lab Charter High School (New York, NY)
The Park School (Brooklandville, MD)
Theodore Roosevelt High School (Washington, DC)
The School at Columbia University (New York, NY)
Sidwell Friends School (Washington, DC)
UN Association of the National Capital Area (Wash., DC)
Wilmington Friends School (Wilmington, DE)

Thank You!



We would like to express a heartfelt thank-you to all our wonderful supporters – our staff, our partners and funders, and especially those in the Millennium Cities. We want to thank in particular all the medical practitioners striving to make health care more accessible, the educators, for giving students new learning tools to help them succeed, the many talented researchers in the Millennium Cities, for sagely assessing existing constraints and devising systems to ensure the delivery of clean water, sanitation and transport, and the municipal administrators pushing for community infrastructure upgrades and opening up their cities to prospective investors. Our work would not be possible without you.

We eagerly look forward to embarking on this next chapter with all of you. We will remain steadfast in our support for the Millennium Cities, helping them achieve the Millennium Development Goals and thereby bettering the quality of life for millions of deserving citizens across this magical continent.

Together, we can

Achieve an urban transformation
Accelerate opportunities for Africa's residents
Advance social and economic growth across the continent

Please continue to support MCI

www.mci.ei.columbia.edu



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