FORESIGHT INVESTIGATING TOMORROW'S DEVELOPMENT CHALLENGES TODAY

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INTRODUCTION

Given inevitable constraints of the fiscal year framework for development planning, not to mention the day to day rush of project design and implementation, development policymakers and practitioners often simply lack the time to engage in longer term strategic planning. While there is usually a general sense of what they want to see happen 10 years down the line, there is still a need to think more systematically about what should be done today to best ensure those goals are actually achieved. In other words, we need to increase our resources for thinking over the horizon and strive to better understand how to get to where we really want by acting earlier in a more coordinated fashion. *Foresight* is intended to help meet this need in a novel way, by offering new insights drawn from cutting edge evidence based academic research. Each issue will be dedicated to a single theme, to be defined though a dialogue between academic researchers and the policymaking community. Articles will synthesize current research from the perspective of what we need to think about today in order to achieve our goals 10 years from now. In this way, we hope to create a new nexus between research, policy and practice by disseminating the latest development research in a practical way that is in tune with the priorities of the development community.

THE URBAN REVOLUTION, URBAN GOVERNANCE AND INTERNATIONAL DEVELOPMENT

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As the world enters another millennium, the advent of a new way of living on earth has been widely heralded. The majority of people now live in cities. This shift has justly been seen as a significant revolution in human history, marked as it had been with a scattering of cities – some great, some small – in a landscape dominated by rural settlement patterns and associated livelihoods. As the numbers of urban residents have swelled, cities have come to play an increasingly important role in shaping possibilities for human development and economic well-being. Equally important, 'living gently on the land' has become a pressing reality, as the consequences of resource intensive and waste-generating human activities have wreaked havoc at the local, regional and global scales.

Transforming the new realities of the urban revolution and environmental change into policies and action is paramount. International, regional and local

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efforts have been made to reduce human environmental impacts. Scientific and popular understanding of climate change is increasing, and concerted international research and policy initiatives are leading – at least in initial form – to the identification of alternative means to mitigate, and adapt to, climate change in its varied forms (see *Foresight* issue 2.3). Comparable efforts on the implications of our urban revolution have not been made, despite the attention directed to environmental agendas and, beginning in the 1990s, to cities. In both instances – that of the unparalleled scope of urbanism and primacy of environmental analysis and action – the international development sector has played a relatively minor role. How should international aid grapple with these new realities? Should the new realities supplant traditional geopolitical, developmental and humanitarian priorities? What are the key changes and challenges that need to be addressed, and how?

This issue of *Foresight* argues that international aid should, and indeed must, incorporate approaches that are more attentive to both the specifics of urban areas and to the challenges associated with interactions among human settlements. Emerging approaches to development aid that reward countries on the 'right path' economically must be balanced – or perhaps replaced – with those that prioritise managing our global commons. Emphasis on achieving forms of development that are resource intensive – measured in jumps in the quantity of widgets produced and consumed – have resulted in environmentally unsustainable lifestyles and devastation of both our natural and human communities. We, as a global community, have made great strides in improving the basic conditions for the majority of people (lowered mortality rates, longer lives, more education, etc.) but there are still millions left in poverty and hunger, as the limited progress to many of the Millennium Development Goals (MDGs) tellingly shows (see below). Clearly, we can do more.

If current economic, political and demographic forces produce unsustainable cities that 'short change' possibilities for long-term human development – as we show in this issue – then there is a role for international aid in fostering stable, resilient and just forms of urban development. Questions of politics, conflict, identity and power are, of course, central in such transitions, and cannot be sidelined (see previous *Foresight* issues). The authors contend that our international aid policies need to target urban areas more explicitly, recognise the need for cross-national exchanges of information and innovative practices, and address with the difficult tasks associated with working with local as well as national governments. As Jeb Brugmann (2009, p. 15) observes, "we have refined strategic practices for global agricultural development, industrial economics, intelligence gathering, and global disease control, but the world's best practices in urbanism are barely known and are rarely supported by our institutions."

Urbanisation and Development Challenges for the 21st Century

The developmental and sustainability challenges associated with urbanism include:

1. *The location, pace and spread of urbanization is unprecedented in human history;*
2. *Urbanization is associated with a new geography of economic activity, political alliances, and socio-economic outcomes. More specifically, cities are part of a global urban network in which distinctive forms of development, polarization, instability and environmental stress are emerging both within cities and among them;*
3. *Cities are major resource users and producers of wealth, however not all cities consume nature in the same way or at the same levels. Moreover, as is well known, environmental risks and poor quality environments are unequally distributed;*
4. *The capacity, resources and political will to address urban and environmental problems are, as always, most lacking in the places where they are most needed.*

While each of these observations is fairly commonplace, the implications of these statements – for development, for urban residents, and for global environmental resilience – are profound. Each is discussed below.

Unprecedented Patterns of Urbanization

It is a much-publicized fact that, as of 2008, more than half of the world's population lives in cities and towns. In Canada, as in most of the developed world, we are at about 80% urban. Change has been swift: until the latter half of the 20th century, the developing world was predominantly rural. At the midpoint of the 1900s, fewer than 20% of the populations of developing nations lived in cities and towns. By the turn of the millennium, that percentage had more than doubled. UN estimates predict that the world's urban population will grow by over 2 billion in the next 30 years, the equivalent of one city the size of Vancouver every week. Between now and then nearly all population growth will be in the cities of the south, where some cities are growing two or three times faster than the country's overall population.

The number of cities with more than a million people is expanding exponentially – the figure now stands at almost four hundred world-wide. The sheer size of cities, particularly in South and East Asia, is mind-boggling. Of the twenty mega-cities, cities with over ten million people, twelve are in South and East Asia, four in Latin

America, two in Africa and two in the United States. Greater Tokyo already has 35 million residents, more than the entire population of Canada. The current geographic spread of mega-cities gives indication of what is to come; by 2030, the majority of people in Asia and Africa will also live in cities. Worldwide, the very largest cities get the greatest attention – and resources – but less than 15 percent of the world's urban population lives in megacities. The smaller cities of 100,000 to one million residents are growing quickly, and have absorbed most urbanites, though they generally can provide fewer services, attract less investment and, especially in developing countries, often lack municipal managerial staff and skills.

City growth has been fueled by the massive rural to urban migration that started with the Industrial Revolution and has continued until today, though the economic downturn has, at least temporarily, slowed the growth of many urban areas, including the largest Chinese cities. Globalization – our increasingly linked networks of trade, information, finance, and people – has also played a part, with flows of investments, remittances, workers and tourists, leisure activities and criminal ones sparking different ensembles of city networks. International aid has also contributed, drawing places (and people) into a world of international specialists, programs, and consultations; programs to promote decentralization, water and health infrastructure, and urban poverty alleviation have been particularly influential in this respect.

Sometime in the mid nineties, cities got back onto political and international agency agendas, both in the developed and developing world. How did this happen? Was it due to the sheer magnitude of growth? Was it the fear of unrest that large concentrations of people might engender? Was it sympathy for the large proportion of urban dwellers who live out their lives in un-serviced informal settlements: sixty or seventy percent in the worst afflicted cities in the developing world? Or was it the recognition that studies were showing that, in virtually every country in the world, cities produce a far greater proportion of national wealth than their proportion of population?

Cities, Economic Growth & Property-led Development

The strength of the correlation between economic growth and urbanization is undisputed. Cities have numerous advantages for economic activity. These are often described in terms of 'economies' – economies of *scale*, *agglomeration*, *association* and, a more recently coined term, *extension*. The cost savings through production (or supply) at increased scale are well-known. The others are specific to spatial dynamics. Economies of agglomeration are realised, for example, via urban density, which brings together and concentrates many businesses, suppliers, potential workers and possible clients in proximity; this makes possible cost savings in design, production, distribution and sales (e.g., local business associations can easily form and advocate in their own interests, or they can benefit from access to a shared and wider pool of skilled labour). Economies of association are the efficiencies realised through shared dependence on common urban infrastructure, whether the international airport and urban transit system, a concentration of local universities, or the fiber-optic systems that underpin all international finance zones and high-tech production areas. And there are possibilities for extension through various economic sectors, nearby areas or social groups – the catalytic economic effects of ripples outwards of the learning, innovation and economic practices that occur in one part of the urban economy.

The forces of global capitalism move towards places where money is to be made, and this seems to be what has happened. The shift of manufacturing industry in search of cheap labour has been enormous. Not only China, but less developed countries as varied as Viet Nam, Thailand, the Philippines and Mexico are benefiting, and their cities are ballooning in size as a result. Some of this manufacturing is footloose, and much of it is highly sensitive to global economic changes. However the dispersal of industrial activity has also entailed a rise of new supplier industries, local market opportunities, and a new workforce (albeit predominately female and subject to strict employer-dictated rules). Export processing zones, industrial estates, and workforce housing compounds have grown in number and size in many of these countries; and state and private sectors have struggled to adapt urban areas to new needs, introducing everything from new regulations, transport routes, and security systems to recreational zones (the latter, at times, with openings off-hours to accommodate workers servicing far-distant time-zones).

Meanwhile, most developed countries have experienced a shift from manufacturing to more service-based economies. This trend also has urban ramifications: the re-development of old industrial sites has become pressing business. Examples include projects such as the Old Port in Quebec City, Parc de la Villette in Paris, and the new Guggenheim at Bilbao. While their variety is endless, they have two characteristics in common: first they usually include a keystone project with some "signature building" by a world renowned architect such as Frank Gehry, Norman Foster, Santiago Calatrava, Daniel Libeskind, Rafael Moneo or Zaha Hadid to attract attention; and second, they are sold to local authorities on the notion that they not merely clean up a derelict area, but also improve attractiveness for footloose global investment and the "creative class." Investment in urban space, rather than a corollary of economic growth, increasingly is used as a catalyst for

economic activity, upgrading of the urban workforce, and attraction of international capital. Nowhere is this more clearly shown than in the Emirates.

Indeed, these and other forms of property-led development have 'gone global'. Property-led development first took off in the UK and the US in the eighties under the prodding of Thatcher and Reagan, and quickly extended into Europe. There were double benefits: if successful, private sector money flowed into re-building cities, and much employment resulted. However, property-led development soon came under criticism because: (1) it was not cost-free to the public sector that had to make many concessions in the way of infrastructure, public and transportation facilities, (2) much of the economic growth was profiting the region rather than the city proper, and (3) in inner cities, development was serving elite groups rather than poorer local residents. While property-led development was calming down in the West and plan-led development returning to the fore in some cities, it has become the major driver of change in the developing world.

In recent years, property-led development has spread to the developing world to become a very significant part of the economy. Redevelopment of the central area or inner city is taking place, resulting in the displacement of long-time, often poor, residents. Their space is being taken up by offices, commerce and condos. Meanwhile grandiose suburban developments are being built in the urban fringe, often with a golf course, and almost always gated.

Stories of bulldozed houses and displacements abound in cities like Beijing and Mumbai, with steady economic growth. Cities like Kuala Lumpur, Bangkok, Jakarta, Manila, Taipei, Hanoi, Lagos and Cairo are all into property-led development, not to mention the extraordinary urban creations of the Gulf States, Bahrain, Dubai, and Abu Dhabi. In these latter countries, property-led development has explicitly targeted both international consumption (malls, leisure) and finance via investment in everything from telecommunications and airports to artificial islands.

Box 1. City of Ghosts

Bangkok's 'ghost towers' are remnants of the 1997 Asian economic crisis, when the Thai economy collapsed and foreign investment drained out of the capital. Afterwards, more than 500 half-finished high-rise developments were left to rot in the tropical heat. Thanks to rising land prices, some are now being fully developed, but others remain an unusual home for poor city workers and stray dogs.

Source: *Geographical,* Vol. 8, No. 5, May 2008, pp. 27-35.

Indeed, skyscrapers and slums, often side by side, are the most compelling image the tourist takes away from a visit to a city in the developing world. Cities are not only the triggers of economic development, they are also the homes of millions of slum dwellers, often living in appalling conditions.

Cities, Consumption and Well-being

Many urban scholars argue that the urban revolution of the past decades has entailed creation of a global urban network characterized by distinctive forms of polarization, instability and environmental stress within cities and among them. International trade and investment are two important arenas of global interaction; ones that, to our current dismay, we often poorly comprehend or document. The economic ripples from the U.S. mortgage fiasco and resulting financial crisis, or the economic meltdown in Indonesia a decade earlier, are felt globally, and attest to the deep linkages among our financial institutions at an international level. Flows of labour, information, technology, foreign aid, illicit goods, and indeed, even consumption patterns are also of key importance to the globalization of our urban areas. Knowledge-based industries have emerged in the last two decades as drivers of economic growth, from Silicon Valley and Bangalore to London and Dubai. Strategic alliances among firms, and cities, and countries, to assure access to key inputs and, equally important, growing markets have led to complex relations among cities, often precisely between cities already tied by historic relations of colonialism, trade, migration and foreign aid.

Such major global forces are behind a multitude of trends that we observe in city after city: the destruction of older, modest and working class neighbourhoods to allow for strategic show-case urban projects; the emphasis on economic growth that is not linked to job creation; resistance of local officials to 'traditional', 'informal' and 'unregulated' ways of using urban space (planting crops in the city, street vending, etc.). Speculative development is also associated with a loss of community and civic space, a lack of public amenities, and the severe environmental degradation of urban areas.

Global linkages also underpin many more generative aspects of the urban realm. Immigrants have helped to forge economic ties between their host and origin communities. Information on urban conditions and effective urban policies are readily available; information sharing via the internet has been coupled with exchanges among and inter-municipal collaborations among leaders in public, private and non-profit realms.

Cities are producers of wealth and, as such, are major resource users. Producing goods, supplying services and providing the material conditions for on-

going growth requires that cities use more resources – and of more varied types – than they can locally produce. William Rees observes that "twentieth century cities are dependent for survival and growth on a vast and increasingly global hinterland of ecologically productive landscapes" that they access via commercial trade. Indeed, urban 'consumption of nature' varies in form and level.

A variety of tools measure how the intensively different geographical areas use resources, the best known of which is ecological footprint analysis (Wackernagel and Rees, 1996). It provides a vivid image of such differences in consumption by calculating the land needed to provide an area's residents with resources (e.g., food, energy, goods) and absorb resulting wastes. A resident of an American city consumes, on average, the equivalent of 5.1 hectares of land annually as compared to 3.0 hectares in European cities, and 0.38 in India. London, for instance, requires about 125 times its surface area – or 19.7 million hectares – to meet its current consumption and waste-absorption requirements. Cities may still supply services more efficiently than non-urban areas; however the concern is that consumption and waste-production (including of greenhouse gases) is increasing throughout the world, with global as well as local effects.

More troubling still, the intensive consumption of resources and generation of waste has, in addition to causing environmental damage, failed to assure the well-being of urban residents. The Vancouver World Urban Forum in 2006 estimated that 30% of city dwellers live in abject poverty, and that if present trends continue, by 2020 they will number about 1.6 billion people. The Millennium Development Goals were of course designed to combat these extremes of deprivation (see Box 2, for the 2015 targets see www.un.org/millenniumgoals/). While progress has been made towards some of the goals, those related to shelter, maternal health and children's education remain far from achieved. And the rise in food prices in 2008 (see *Foresight* issue 2.1), coupled with the global economic downturn that continues through 2009, has "slowed or reversed" progress towards all eight goals (United Nations, 2009).

Box 2. Millennium Development Goals

1. Eradicate extreme hunger and poverty;
2. Achieve universal primary education;
3. Promote gender equality and empower women;
4. Reduce child mortality;
5. Improve maternal health;
6. Combat HIV/AIDS, Malaria and other diseases;
7. Ensure environmental sustainability;
8. Develop a global partnership for development

Urban residents also lack decent employment, and the numbers of unemployed and underemployed have swelled with the recent economic crises. The Millennium Goals and associated scholarly literature are extraordinarily silent on the question of job creation. The worst part of being poor is having no money. While there is plenty of comment on the poor being provided with the means to "generate income," a favourite catch phrase in discussing subjects such as micro-credit and urban agriculture, there is astonishingly little on employment.

The booming cities of the developing world do of course provide work for the unskilled in the construction industries, sweat shops, as domestic and cleaning help, in warehouse and dock loading and unloading, garbage handling and low-end MacJobs. The problem with all these is that they are not secure – many workers have to line up each morning to see if they have a job for that day, with associated physical and mental costs. Further, there are no fringe benefits, no insurance in case of accident, no protective gear, low wages, and incontestable deductions for low productivity, or to have a job the next day. If a worker is ill, too bad, there are plenty of others to do the job.

Cities – and the lifestyles of those who live, produce, and recreate in them – will need to radically shift towards more sustainable forms. Some observers believe that it is in the cities that the decisive action to mitigate climate change must occur. Certainly many cities will need to adapt to rising water levels, changing weather patterns, and the like, especially in coastal areas. "It is particularly ironic that the battle to save the world's remaining healthy ecosystems will be won or lost, not in tropical forests or coral reefs that are threatened, but on the streets of the most unnatural landscapes on the planet" (Worldwatch Institute, 2007, p. xxiv).

Three Development Challenges

The urban revolution presents three inter-related challenges for development:

- *Environmental:* past patterns of urbanism in developed countries were characterised by high levels of resource consumption and waste generation, and now unsustainable practices are gaining hold in developing countries, replacing the more modest patterns of previous generations.
- *Livelihoods, employment & wealth generation:* The polarisation of previous eras continues to characterise urban areas, and in many cases gaps have become more accentuated. There is insufficient 'productive and decent' employment for urban residents, with numerous implications for human welfare and service provision. There is an equally pressing need to invent new forms of wealth generation that can assure decent employment and

contribute to more resilient and stable urban economies.

- *Governance:* Cities are complex sites of governance, where the political process of allotting resources and 'steering' the collective life of the political community are determined. They act as key linchpins or nodes that connect national space with the international sphere; they are both repositories an generators of scientific, cultural and everyday know-how; they are arenas for social pressure, democratic and reactionary movement; they provide the urban infrastructure that enables productive innovative capacity to flourish, and a reasonable quality of life to be sustained in ways that protect the most vulnerable… In sum, they are the places where societal regulation for the nation is worked out, or not.

Good City Governance for Good City Outcomes

How can cities avoid calamity and make the most of their opportunities? Increasingly, it is hoped that improved urban governance will be the answer. If so, development aid will have a role to play.

Given the numerous and inter-related urban challenges, urban planners often find it important to outline, as a starting point, what would make cities better. The great urban scholar, John Friedmann, outlines criteria for a 'good city' as follows:

Box 3. Criteria for the Good City

Criteria of Good City Governance	Criteria of Good City Management	Criteria of Good City Outcomes
• Inspired political leadership • Public accountability • Inclusiveness • Responsiveness • Non-violent conflict resolution	• Accessibility, transparency, responsiveness • Effectiveness • Efficiency • Honesty	• A productive city • A sustainable city • A liveable city • An actively tolerant city • A caring city

Source: Friedmann, J., 1998. "The Common Good: Assessing the Performance of Cities", p.20 in H. Dandekar, ed., *City Space & Globalization.* Ann Arbour: University of Michigan. pp 15-22.

Decentralization

The concept of decentralization is ever present in the urban discourse, but through the years it has changed meaning. In the sixties and early seventies, the concept of decentralization was evoked to combat what was then perceived to be the alarming rate of growth of cities, especially primate cities – the largest and most powerful in any country or state. It was proposed that national plans be drawn up to promote the growth and prosperity of secondary and tertiary cities, both to make them more desirable places to live and work thus arresting migration, and to relieve pressure on the central cities. This did not work too well, despite numerous planning projects sponsored by international agencies, except in places rich in resources. Such was the origin of Ciudad Guayana, Venezuela, built as an iron, steel and aluminum manufacturing centre to exploit the hydro power of the Orinoco. Jamshedpur in India is another notable example. But generally, the primate cities continued to be the major magnets for migration and grew and grew.

A second interpretation of decentralization was that of curbing the urban growth of the central city, perhaps by a green belt, and building full-service new towns in a circle around to take the overspill population. This model, derived from the English garden cities movement founded by Ebenezer Howard at the end of the nineteenth century, was applied to London in the rebuilding after WWII. A similar concept was adopted in Paris, though it manifested in a different way, and in many cities across the world. The 1950s plan for Beijing timidly incorporated the same principle: surprisingly it is being re-adopted in the new plan of 2007.

A third interpretation of decentralization is that of building new capital cities, in some cases to relieve congestion in the central, if primate, city, and in some to emphasize the distinctness from colonial rule. Prime examples are Brasilia, built both to escape the congestion of Rio de Janeiro and to open up the interior, and Chandigarh the new capital of the Punjab.

The most recent interpretation is the decentralization of government functions from the centre to smaller more manageable units. Since the late seventies the UN and the international community have promoted decentralization, and this continues to spread gradually across all continents. This usually means administrative activities at first, the devolution of real political decision-making power following slowly. It means the strengthening of local government, and the introduction of own source revenue, usually through property taxes. This evolved from concern about the delivery of urban services: if someone had to get permission from the central government in the capital every time they wanted to spend money to repair a burst water main, days were wasted, people suffered, and industries had to close down.

Decentralization of service management to urban areas, to their component local governments, and then right down to the neighbourhood level was also advocated in Agenda 21 of the UN World Summit on Sustainable Development (WSSD) held in Rio de Janeiro in 1992. Agenda 21, adopted by cities and towns in every continent as a way to conquer environmental problems and to promote sustainable development, is couched

largely in pragmatic terms. It is argued that local environments are most ably managed by the people that inhabit them, the subsidiarity principle. (Subsidiarity is the principle that matters ought to be handled by the smallest or, the lowest competent authority, and was adopted by the European Union in the Treaty of Maastricht in1992). If communities are not involved, both in the clean-up process and in lobbying upper levels of government, attempts to achieve sustainability will fail.

The notion of stakeholders, people from all levels of government, the business sector and civil society was invoked. This goes along with today's global commitment to supporting democratic government as discussed in *Foresight* 1.1 *in* June 2007, along with the need for international donors to support civil society and local institutions. The Campaign for Good Governance is one of UN Habitat's four major thrusts. Even though decentralization takes on various forms, ranging from administrative devolution to a true delegation of powers, local authorities are expected to become major development actors in the south as they have been in Canada since the early days of European settlement. They are expected to consult with local residents, seek out those who have been historically without voice, and be transparent in decision-making, administration and financial management.

Meanwhile, central governments are faced with growing responsibilities in their organizational, international and financial operations. While devolution may have been viewed cautiously at the start, as local government becomes stronger, there is a tendency to download more responsibilities to the lower levels, particularly in the social sectors. Downloading is not a uniquely Canadian phenomenon as we tend to think! This in turn means that local authorities in the south will become much more important actors on the development scene and players in international financial markets. For instance, Ahmedabad was the first Indian city to launch bonds to finance infrastructure works, and this was as recently as 1996. It now has its own international credit rating, and some other cities have followed suit.

Many national governments historically have resisted permitting local governments to borrow directly or to issue bonds, because they know that they will be held responsible if things go badly. Further they feel that if default should occur, their own credit rating would suffer. Instead they have borrowed themselves and re-lent to cities. This is changing rapidly as cities from Shanghai to Kolkata borrow on international markets.

What does all this mean for the international donor community? First, it means working much more directly with local governments, and entrusting them with the management of urban development projects. The French aid agency (AFD) has this as a basic policy for some years, a legacy of working with former colonies in Africa. Since local government is in transition, and often very new, it cannot be expected that the local civil service possesses all the experience, qualifications and know-how to implement programs and handle finances adequately. Projects must be designed as a learning exercise on each side.

Local Government

While Canada has a huge experience of working with NGOs, working with local government is not exactly the same thing. Local governments are political. Their organizational structure is hierarchical rather than horizontal. They often have a huge number of blue-collar workers, sometimes unionized. They are not single purpose, but have a wide range of responsibilities (in India, urban local bodies are responsible for urban planning and land use, social and economic infrastructure, urban infrastructure and services, but also for urban forestry, the social welfare of 'weaker sections of society', slum improvement, urban poverty, prevention of cruelty to animals, and regulation of tanneries and slaughterhouses). Their decisions may be monitored by a higher level of government: they are certainly subject to oversight in some of their activities.

A first thorny question is the structure of municipal government itself. An urban area has usually grown beyond its original limits and is often made up of many municipalities, whose operation, particularly for major networked services such as water, sewer and roads, needs to be coordinated. Some countries, or sub-national governments (provinces or states) where local government is their prerogative, either amalgamate contiguous urban units, or create metropolitan or regional governments to fulfill this purpose. We are, of course, aware in Canada of the heat of the debate, rancor and lingering resentment surrounding these issues, having lived through them in the late nineties in Ontario, Quebec and Nova Scotia. An aid project relating to the reform of local government has to tread very warily. Power relationships, not only between regional, metropolitan and local governments but also between these and higher levels of government, may be antagonistic. Local governments have long been (seen as) a good funnel for patronage, and there is often jealousy between them.

CIDA set up an office for democratic governance in 2006. It rightly considers democratic governance at all levels essential for poverty reduction and long-term sustainable development. At the local level, there are special problems of jurisdiction. On the one hand, international agencies advocate metropolitan governance to plan and manage major infrastructure, arrest wasteful sprawl and coordinate development. On the other hand, the implementation of the World Summit on Sustainable Development's recommendations outlined in Agenda 21, emphasize the community level to effect change, where

participatory methods of stimulating action work effectively.

Public Participation

Not surprisingly, extensive public participation and good municipal management (accessible, responsive, transparent, honest, effective and efficient) is both essential and extremely difficult to foster. There is limited commitment to such objectives, whether within local government or among the other stakeholders and wider communities. Local politics and power dynamics, patronage systems, and existing patterns of privilege may all function to keep more powerful people holding tight control over decision-making and resource flows. Whether within local government, NGOs, neighbourhood associations or the slums, resistance to power-sharing can undermine efforts to transform local governance.

Even where there is genuine commitment to more participatory governance, getting it right can be quite difficult; longstanding conflicts, fear of local power-mongers, distrust of local officials, negative experiences with 'participation', and the like must be countered with logistics, staff and practices that build trust in participation and municipal processes. There are no set procedures and answers – as Local Agenda 21 establishes, the approach must fit with local institutions and aspirations. However this is an area in which both development professionals and the NGO community have been working for far more years than most local and municipal governments.

The development world embraced participation, gender equality, and attentiveness to cultural, physical and age differences far earlier than most local governments in countries throughout the world; and has much to share as development focuses on urban areas. Since the challenges of the urban revolution require both an integrated approach and one specific to the locality, innovating and learning must be a part of the assistance approach. Fortunately, in addition to the experience with participation and governance gained in past projects, there are also valuable experiences to be spread from one region of the developing world to others. There are numerous tools to be potentially employed: indicator systems, tools and toolkits, programs for children, the elderly, women, different cultural communities. What is important here is that rather than pursuing participatory governance change within the strict program planning approaches typical of development aid – how many people will participate? how many meetings? what will be produced? – that there is greater flexibility in determining procedures and outputs. Greater on-the-ground knowledge, with the partnering that such knowledge entails, may also be needed.

Infrastructure

The biggest capital outlays an urban government has to make is for infrastructure, especially roads, water and sewers. Infrastructure deficiencies in the developing world are well known. One billion people, almost 20% of the world's population, lack safe drinking water. More than 70% have inadequate sanitation. Many of these are urban dwellers. No wonder that the Millennium Development Goals (MDGs) for safe water and sanitation call on the global community to halve the proportion of people without access to potable drinking water by 2015.

The human misery suffered by lack of access to clean water is costly to society in many ways. The World Health Organization (WHO) has argued that the benefits of clean water and sewage services include, in addition to the obvious, quantifiable parameters which far outweigh the costs of providing services; namely:

- Reduced health sector investment due to avoided illness;
- Patient expenses avoided due to avoided illness;
- Value of time-savings due to access to water and sanitation;
- Value of productive days gained of those with avoided illness;
- Value of days of school attendance gained for children with avoided illness.

The problem is that those who would benefit are not those who make the decisions on public spending.

Poor services also impede economic development. "Inadequate infrastructure" is one of the principal risk factors that companies face while doing business with India, according to the latest annual survey on the international operations of Japanese firms, conducted by the Japan External Trade Organization. It is often mentioned that to set up a business in a city with shaky services costs 35% more than usual because of the need to build in-house services such as water, sewer, and electricity generation.

Infrastructure is the foundation of a modern economy, but are we using the right technology? An Indian engineer has posed the question: "If we were inventing cities from scratch, would we build the heavy duty, capital intensive piped systems we employ today?" The answer is clearly no. The focus would be much more on self-containment: small scale, city block, neighbourhood or industrial park systems for water; nearby treatment and recuperation for sewage, fuelling biogas plants and producing fertilizers; on-site retention and responsible management of storm water; and district heating and cooling systems. This is not science fiction,

although it has been tested in space-travel; all these technologies are at work at various localities in the world. Their other advantage is that if one small scale system breaks down, it does not incapacitate the whole city, or destroy the complete ecology of a lake or river: it is a built in fail-safe mechanism.

Moreover, technological advances may allow 'leap-frogging' in infrastructure provision increasing both productivity and public health. The possibilities have become most apparent in the communications field where the most astonishing changes are being wrought by the introduction of the mobile phone and the internet. Mobile phones have enabled communications access in countries where traditional telecommunications infrastructure was out of reach of the majority of the population: Brazil, South Africa, China, Iran... The day-to-day lives of people are being completely re-orientated.

International agencies have a huge role in infrastructure provision, through lending, giving technical advice and supplying equipment. Infrastructure debt is enormous, acquired through a myriad of "City Improvement Programs" provided through the various development banks. Infrastructure maintenance – which should average out to about 3% of capital cost per year – can be deferred, as we have now found to our cost in Canada (out of sight, out of mind), and must also be weighed.

Somehow, future international participation in proposed infrastructure projects through CIDA and its partners must evaluate a range of options, not just conventional nineteenth century Western heavy-duty engineering solutions. Not only that, they must also ensure that life-time costing and budgeting is built into the whole process of design, construction and operation. The use of alternative appropriate technology should equally be extended to power: the promotion of renewable resources.

Sustainable Urban Development

Sustainable urban development is not an oxymoron. Good city planning can have far- reaching consequences, if appropriate ways and means can be found for implementation. There is resistance to planning, but it is often rooted in a misunderstanding of the contributions that planning makes. Planning is not against property development *per se*: it is for property development in appropriate locations and in absorbable quantities. What it aims to do is mediate competing claims, avoid dispossession of the poor, build with the minimum dislocation of natural systems, mitigate climate change and improve the quality of life for all citizens. These aims are, of course, all interdependent. Urban planning for sustainability means reconciling the needs of the economy, the environment and people well into the future. The types of action to be undertaken in land use planning are summarized below (see Box 5). Would the adoption of this type of land use planning contribute to a sustainable city? We certainly think so.

Box 4. Overall Land Use Policies for Sustainable Urban Development

POLICY FIELD	JUSTIFICATION
Densities	Increased density in residential, commercial and industrial sectors reduces transportation demand, and thus automobile use, the consumption of fossil fuels, and the production of GHG. Compact cities are more sustainable.
Proximity planning	Mixed uses. Siting housing, local shopping and community facilities together, and close to centres of employment reduces journeys to work and trips for daily needs
Transportation alternatives	Increased safe opportunities for walking and cycling, improved public transportation, with employment centres, community facilities and housing built over and around transit stops all reduce motorized vehicle use, reducing fumes, noise and GHG.
Infrastructure	Life-time costing establishes the true cost of infrastructure. Promotion of innovative water and sewage treatment facilities may reduce costs and chemical wastes. Treating and reusing wastewater at the community level reduces the need for large costly regional systems: system failure is less destructive to the environment with small plants. Storm-water management should be on-site (green roofs) to avoid flooding, loss or system over-loading. Composting and grey-water re-use should be promoted and regulatory restrictions lifted. Re-use and recycling must become part of the economy. Landfill sites must be chosen long before they are needed: they must be built and managed scientifically to avoid contamination of soil, air and water.
Economic development	Employment centres (industrial parks and businesses) should be sprinkled throughout the urban area to reduce the time traveled to work. Emissions standards should be strictly enforced to reduce GHG. "Eco-industrial parks"

	where the residue from one process (steam, heat, sawdust, chemicals, plastics) becomes an input for another should be promoted, to avoid waste and its disposal. Community economic development should be fostered to promote inclusion. Campaigns for "decent work" must be initiated to protect workers.
Agricultural land protection	Food security, quality and freshness, assured by the reduction of the distance food travels to market; Rural sustainability; Urban growth containment.
Urban agriculture	Promotion of small-scale production, including home lots, designation of land for urban production of food, technical support. Removal of restrictions. Marketing facilities.
Natural environments	Ecosystem protection. Protection of water sources, aquifers, unstable slopes, & flood plains from development reduces vulnerability to natural hazards, & fosters biodiversity. Tree cover reduces CO2. Wetlands filter and renew surface waters.
Infill and brownfield sites	The re-use of vacant lands and the remediation of abandoned industrial sites for development saves farmland and makes use of costly existing infrastructure
Affordable housing	Affordable housing must be incorporated as social policy because good housing provides not only shelter: research shows it benefits health, educational performance, family solidarity, immigrant integration, employment opportunities and stability. Slum regularization is essential. Without an address, it is hard to be a member of the electorate, borrow from a bank, communicate with authorities, or in fact be a citizen.
Social facilities	Schools, health centres, clinics and playgrounds must be located within the neighbourhoods they serve so that they are within walking distance for residents.
Building design standards	Improved building codes reduce energy use (heating and cooling), as do alternative energy sources (solar, wind and geothermal), reduced storm-water run-off (green roofs).
Crime & security	Design to reduce exposure to risks by businesses, residents and those in transit; creation of convivial spaces with neighbourhood 'eyes on the street'; proximity of services (schools, transit nodes, social services to residential areas). Education of police and security staff on human, children's, prisoner's rights, and gender equality have had success, as have community policing programs.
Buy-in by all sectors of society	Sustainable development needs stewardship by all members of society. One place to start is within local government itself: choice of technologies and vehicles, sustainable buildings and their maintenance, park and playground care (no chemical fertilizers or herbicides, only compost), good street cleaning and drainage ditch maintenance. The education of all city workers, from managers to office clerks and day labourers in day-to-day sustainable practices has enormous influence on the community at large, because it cuts across all levels of society. Outreach programs and public education are necessities.

SUMMARY OF POLICY RECOMMENDATIONS

The types of urban challenges and governance responses examined here – only some among the many that could have been addressed – imply consideration of several shifts in aid policy. The sectoral approaches so often favoured in aid disbursements – mirroring the structure of national ministries – are poorly suited to the task. Yet it is important to explore possible implications of taking the urban revolution seriously in aid policy. Five policies are recommended here, as part of a platform of 'good city governance' and 'good city management' for improved urban development.

- Addressing urban aspects of other sectoral or geographical areas is not resulting in adequate understanding or urban dynamics or management tools. Development aid in Canada needs *an urban agenda and policy framework.*
- Past CIDA experience with participatory processes, gender, rights, conflict and environmental assessment should now encompass local and municipal government officials, with whom CIDA could begin to work on urban governance and management elements.
- Policies could easily be adopted – at relatively low cost – to promote exchange of knowledge and practice among municipal authorities in countries where CIDA and its Canadian partners operate.
- Multi-sectoral approaches to urban neighbourhoods, municipalities and urban regions become increasing important as the triple challenges of environmental pressures, socio-economic needs, and weak governance are tackled. Budgets must be linked to plans (CIDA is good at this), and plans to objectives. Integrated planning is needed.
- Programming should, where possible and appropriate, promote urban sustainability. The land use policies for sustainable urban development, listed in Box 5 above, should be promoted wherever possible. Gender and environment are aims that already cross-cut many policy areas; similar priority should be given to urban sustainability and climate change adaptation. The creation of employment needs policy attention. Forms of development that use less resources, generate less waste or incorporate closed-loop systems to reuse resources should be promoted. (Aid procedures can also prioritize reductions in resource use and waste.) Development should include investments in the types of urban infrastructure – physical, economic, human, knowledge-based and associational – required for a sustainable future.

The urban revolution demands an equally profound change in the way we approach cities, the urban environment and their management. The triple-bottom line of greater environment, economic and social sustainability underpins that future, and cities, and the urban revolution of which they are a part, must be steered towards those ends.

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Lisa Bornstein is an associate professor in the School of Urban Planning at McGill University where she teaches planning studios and courses on comparative urbanisation, the 21st century city, and planning institutions and politics. She supervises students in urban planning and development studies. Her work at McGill builds upon prior work as a planner, academic researcher and development consultant in Latin America and Southern Africa. During 6 years at the School of Development Studies at the University of KwaZulu-Natal, Durban, she researched local dynamics of donor-funding, and links among institutional change, planning practice and poverty in South Africa and Mozambique. She continues to publish on these themes with new research in Honduras and Nicaragua. She has also developed research projects in the Montreal area, with a community-university alliance currently researching community engagement with large-scale urban developments in Montreal.

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The research and teaching of development issues has long been a major strength of the Arts Faculty, and of McGill University more generally. The creation of the Institute for the Study of International Development (ISID) in December 2008 will allow McGill to take advantage of the presence of literally dozens of faculty members and hundreds of graduate and undergraduate students working directly on development related issues to become a leading interface between the worlds of academia and development practice. In particular, we will build on our strong relations with donor agencies such as the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC) and the World Bank, as well as with individuals with direct experience in promoting international development through the appointment of Professors of Practice for Public-Private Sector Partnerships, such as the Rt. Honourable Joe Clark. ISID also works closely with the Faculty of Agricultural and Environmental Sciences and with the McGill School of the Environment

ISID will also be integral to the Arts Faculty's ability to address the three academic priorities identified by the University: internationalization, interdisciplinarity and inquiry-based learning. Indeed, it is the most logical place from which to spearhead them. Development studies and research is inherently both international and interdisciplinary. Through ISID, new networks for attracting international attention to McGill, including the appointment of a Fulbright Visiting Research Chair in Development Studies in September 2010, and for creating new opportunities for McGill students and faculty members to study and research abroad will be established, while ISID will also help consolidate access to existing networks. Ultimately, ISID's goal is to help ensure that more cutting edge research makes its way into the classroom where students can become active participants by helping to bring together, under one organizational umbrella, various research and teaching activities now scattered throughout the Faculty and the University.

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