



NATIONAL ROUND TABLE ON THE ENVIRONMENT AND THE ECONOMY
TABLE RONDE NATIONALE SUR L'ENVIRONNEMENT ET L'ÉCONOMIE

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FP15

NRTEE Sustainable Cities Workshop Report
Ottawa, January 29 & 30, 1998.

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Ottawa, January 29 & 30, 1998.

1. Introduction

Participants from a range of relevant fields were invited to the workshop to consider the role of Canada in promoting the concept of Sustainable Cities, and in designing effective public-private sector partnerships to take advantage of this significant opportunity.

As individual Canadian companies seek to market their skills in designing and implementing sustainable solutions, they come across not only each other, but a range of other Canadian activities. There are municipal capacity building initiatives that have been undertaken either as part of well-established "twinning" activities or as part of a broader effort through FCM. There are also a number of Canadian university departments actively engaged in both studying sustainability in the urban context and supplying expertise; plus, there are many other projects funded by senior levels of government in Canada as well as through international aid programs. This workshop was designed as a way of sharing information on the multiplicity of existing initiatives and developing the idea of a more organised approach to public-private sector partnerships.

2. Opening Plenary

2.1 Opening Remarks

In his opening remarks, Michael Harcourt, Chairman of the Round Table's Foreign Policy Committee noted the enormous challenges faced by mega-cities worldwide to make cities more livable in the short and longer term. Referring to the popular cult movie from the seventies, he described "Blade Runner" scenario, in which large cities implode upon their own inability to service their needs, resulting in significant social breakdown.

Referring to the limited resources available in Canada to assist in the development of sustainable cities internationally, he suggested that a good strategy for Canada would be to find a range of suitable market niches in which to pursue public-private partnership development opportunities. One suggestion would be to deal with cities of population < 250,000. Whatever niches were determined to be the most valuable to pursue, he suggested that working in teams would be the most likely vehicle to ensure success. Part of the task of this workshop would be to determine who will be part of these sustainable city teams and what their roles will be in furthering public-private partnership development opportunities. He suggested that Canadians are well served by our government in comparison with other countries in the world.

He suggested that participants resist the temptation of spending time on the definition of the sustainable city, whilst noting that considerable literature exists on the topic and

continues to be generated in academic and policy circles. For purposes of the workshop, he considered the following to be a useful point of reference:- the processes and capital improvements undertaken result in a net improvement in resource utilisation in the cities in question, thus improving their capacity to be sustainable and deliver both economically and environmentally. The criteria should be “greenness” and competitiveness.

He described the phenomenon of the “Urban Tsunami”— where, by the year 2025, over 60% of the world’s population is expected to be living in urban regions. With the possibility of a financial investment of six trillion dollars required in developing countries in the next few decades to accommodate urban systems requirements, there are huge opportunities in global markets for Canadian business; and more importantly for the focus of this workshop, for the activation of public-private partnerships to bring a unique Canadian value-added to the process.

Goals of the workshop would be to:

- define elements of successful teams to tackle urban projects?
- discover where the best opportunities lie.
- develop the elements of a marketing strategy

Ultimately, the goal of the process is to find a formula for a successful Team Canada mission, whereby the Prime Minister can open doors and make contacts in a way that will allow Canadians to bring their expertise to bear on the growing market for sustainable urban solutions.

2.2 Introductions

In order to introduce the participants to each other and focus the group on the importance of key ingredients for the success of team initiatives, each participant was invited to give a word or phrase describing a quality of a successful team. The following items were put forward:-

integration	tenacity
complementary interest	opportunity
task	commitment
defining green	empowerment
leadership (political)	synchronization
community involvement	deep pockets
risk sharing	coordination
method (measurable objectives)	respect
focus	market responsiveness
money/financing	project definition
experience	role definition
planning	competitive niche
self-selection	clients
cooperation	vision
host community	domestic

listening
strong suit
perseverance
preparation
credibility
inspiration
demand tailored
unified vision
humility
pragmatism
patience
knowledge
benefit
build on current
don't reinvent the wheel
respect socio-cultural differences

2.3 Respondents

Three invited respondents offered introductory remarks to the plenary session, summarised below.

2.3.1 Edward Leman (Chreod):

- Urged a better understanding of the urban phenomenon if we are to offer solutions that are meaningful. To start with, we need a clearer definition of the market needs, a sense of just who exactly is the customer, and how they are prepared to pay for the services and capital projects they wish to implement.
- It is evident that many opportunities exist, but it is more difficult to divine just which are the best opportunities to pursue. It is important to act now, as it will take five years to fully mobilize effective teams.
- We would be wrong if we envisage generic solutions for sustainable cities globally. What is required is a considerable degree of customisation in fashioning unique solutions for each country (based upon geographic and cultural realities), and in some situations, individual development processes for each city.
- Financing of projects is a critical potential stumbling block which will require much attention, and the adjustment of existing processes to accommodate the lengthy timeframes involved in extensive urban projects which take many years to design, implement and reach a point of return on investment.
- Ultimately, the marketing strategy must be a function of who the client is; and must address the market needs and opportunities in different geographical areas.

2.3.2 Daniel Hoonweg (World Bank):

- Saw the development of sustainable cities as a two-way street; with both parties able to create benefit. In helping to build capacity overseas, Canadians build and diversify their own economic future, and must get just as much out of it as we give. In his view, there is more than enough business available in the development of more sustainable cities; and that the way we can best help must be based on mutual respect.

- Noted that there are realities about our own situation that bear examination as we go forward. Canada is the least represented G7 country in the Fortune 500; and we are very dependent on trade for our economic success. Cities like Vancouver and Toronto are living examples of the successful integration of diverse populations; and teamworking is a vital part of that success. Generally, Canadians love small business and dislike or distrust big businesses. These factors have implications upon how we can best shape our responses to international challenges.

- We have a huge pool of expertise that we can share with less developed countries and we have among the best research in the world.. Canada is one of the world's most respected countries, and the world wants us to help more. To be effective, we must learn to listen to the people of developing countries, and build real solutions for real problems. In referring to a Zambian water treatment facility that remains unused, he emphasized that we need to be as professional in our overseas activities as we are at home.

- We need to become creative about the ways in which we develop pools of capital to service these kinds of projects that take advantage of Canadian sensibilities — for example financing through RRSPs, or offering a small tax deduction for people that contribute to developing countries.

2.3.3 Jeb Brugmann (ICLEI):

- Asked if there was a need to create a new mechanism. He noted that urbanization provided a large opportunity and thought we could use the form and scale of cities to create new technologies and even greater opportunities. Concluded that we do need new mechanisms as the market is often a hindrance to the creation of efficient settlements.

- Felt that the emphasis should be upon the design of cities for efficiency; suggesting that Canada is not a nation of sustainable cities. In fact we have high levels of water pollution, high water consumption, and that the kind of commitment to environmental excellence that will create effective systems remains low on our current list of priorities.

- Raised questions about whether we actually do have strong and effective local government systems; noting that Canada's integrity in the world as a true honest broker would be influenced by the success of this program.

- Saw potential solutions in the creation of teams with a focus on a number of

possible areas of capability that will encourage sustainable futures. It will be important to try and focus at home first, and build a domestic context for new inspiration that would demonstrate workable solutions in place. Urged that we approach the idea of Sustainable Cities with integrity and not just as a “green spin” for existing projects. Why should people find our technological solutions attractive if we don’t see fit to apply them at home? To do this, a case could be made to create federal engagement in demonstration projects in what has clearly been a provincial responsibility area.

- Advocated a dual approach which focuses on a design orientation to develop and build new solutions with the credibility of domestic application and thus create new markets instead of following them.

3. Group Table Tasks

Participants worked in groups at their tables to answer two questions:

- Do we agree that we need a team approach to work effectively with Sustainable Cities?
- What are the success factors for effective teams in this context?

All groups agreed that a Team approach made good sense; but there were differences of opinion about the types of teams that would be the most effective. The following key elements for success were advanced.

3.1 Group A

- Stressed the need for a comprehensive inventory of expertise and experts.
- Saw mutual respect as essential, and felt that a code of ethics would be an important step in building productive relationships.
- Recommended a focus on how to help cities as opposed to helping ourselves, and emphasized the importance of building a business basis for action that would secure funding resources, develop a marketing strategy and integrate projects into a long-term strategic approach.
- Also thought decisions should be made about whether the Team approach would be project responsive or a proactive approach, and recognised a need for coordination.

3.2 Group B

- Thought that the Team approach required was that of facilitation.
- Suggested a world product mandate approach.
- Wanted to see a link between public and private sectors.
- Emphasized technology, design, governance and management capacity.
- Required a domestic element to be able to demonstrate effectiveness.

3.3 Group C

- Favoured a hierarchy of teams — generic for management, smaller teams for specific projects.
- Stressed the need for a capacity building approach and wanted to incorporate both Canadian and local talent.
- Wanted the team to be proactive not reactive.

3.4 Group D

- Felt the Team must not be only Canadian in scope, but international.
- Favoured a flexible team approach — different teams for different needs.
- Provide coordination, money, governance.
- Recommended a three step approach:
 - Recognize opportunity.
 - Find out who is willing to participate.
 - Separate participants into “experienced” and “potentials” and (initially) go for the winners.
- Created a model:

Trade/Financing Liability

BANKS
RISK ANALYSIS
INSURANCE
IMPLEMENTING AGENCIES
(DOMESTIC/INTERNATIONAL)

Infrastructure

WATER SUPPLY/TREATMENT
TRANSPORTATION
ENERGY FACILITIES
CONSTRUCTION
(RESIDENTIAL/COMMERCIAL)

*KNOWLEDGE
COORDINATION
MONEY
MARKETING*

Ecoefficiency.

HARD/SOFT TECHNOLOGIES
POLLUTION PREVENTION
ENERGY SAVINGS
GREENING OF INDUSTRY/GOVERNMENT

Capacity Building/ Expertise

POLICY
LEGISLATION
COMMUNITY-BASED PROGRAMS
PUBLIC INFORMATION
BEHAVIOUR

3.5 Group E

- Favoured a “Team City” rather than a “Team Canada” approach that can emphasize specific team visions rather than a generic approach.
- This is a more Canadian approach — we don’t have all answers but joint effort is effective.
- Identify and concentrate upon smaller more realistic centres, rather than megacities.
- Bring in the right people at the right time, accept that roles and goals change over time.

3.6 Group F

- Wondered if the objective was to build structure or support projects.
- Agreed that to lead a project overseas you must be able to finance, create vision, and extend leadership, experience, and market credibility.
- Favoured building on what already exists.
- Said that we need experience at home first to ensure credibility.
- Considered information and the knowledge base to be a two way street.
- Felt that the technology must fit the culture and role.
- Emphasized that we must feel comfortable with the human element
- Stressed that we must benefit from sharing the risks.

3.7 Group G

- Favoured a strategic approach that stressed policy. We need to market policy and create a demand for policy, then seize opportunities as they occur.
- Felt that selling a Canadian philosophy will result in expanded opportunities — and that must include a prospect of enhanced responsibility for sustainable solutions in client countries.
- Wanted to see roles and responsibilities fleshed out. Fundamentals are required, but what is the responsibility of the players?
- Noted that we lack international experience, and that to get it will require government support for our companies internationally in the developmental stage.
- Encouraged more investment in younger people.
- Noted that these developments must solve fundamental local problems.

3.8 Group H

- Preferred the emphasis on process involving a variety of teams.
- Felt the Team should involve people on the design end of project.
- Should aim to influence tender specifications to improve sustainability and build relationships with local partners before tender begins.
- Should participate in competitive bidding.
- Must work on how teams will be supported for design phase and set clear criteria.
- Place emphasis on sustainable outcomes.
- Develop secretariat to handle upcoming projects before details set in stone.

3.9 Summary

In summarising, the facilitator noted some common elements in the views of the groups:

- A preference for smaller more nimble teams rather than a “mega-team”.
- The need for an enabling structure to allow formation of region-specific or topic-specific teams.
- The advantage of developing early relationships to understand other cultures, with an emphasis upon the ethical and the sustainable.
- The requirement to understand the cultures we plan to do business with.
- The need for government support to overcome initial barriers.
- The context of Canadian expertise as part of interactive international partnerships
- A preference for marketing a process rather than selling projects.

4. Case Studies from Kuala Lumpur

Three aspects of a transportation and commercial infrastructure project in Kuala Lumpur were described by Kathryn Nickerson of Bombardier, Ken Walker from SNC Lavalin and Allan Hart of Baker McGarva Hart.

4.1 Kathryn Nickerson - Bombardier:

- A \$940 million project to design, construct and maintain a fully-automated train system, extending over 29 km.
- Manufactured in Kingston, Ontario.
- There were many energy saving and environmental benefits to the city:- lower cost of elevated gateway, low operations cost, lower noise, no gear boxes, lower wheel rail wear, lightweight, low vibration, reduced waste and contaminants captured before entering water system.
- British Columbia co-hosted tours of their train system..
- Government support for pre-bidding process, coordinated with Malaysian government to address our requirements.
- Post contract award activities, including press releases with client and an event for delivery of first train.

4.2 Ken Walker-SNC-Lavalin

- Environmental policy — committed to respect use of natural resources to:
 - Prevent pollution.
 - Comply with environmental laws.
 - Strengthen awareness among project managers (they must make reports).
 - External policy - to all its employees.
 - Share awareness with all outside consultants.
- Coordination between transportation, industry and power sectors.
- Close to 500 employees involved in project, locally.
- Used project to generate more projects in Malaysia, contract for cut and cover tunnel system (\$50 million), two underground stations (\$75 million), walkway and

cabletray (\$15 million).

- These projects have high initial costs and low return on costs, government should assist in the successful export of Canadian expertise and business development.
- Link to Kyoto initiative useful.

4.3 Allan Hart-Baker McGarva Hart

- A small architectural and planning firm with no aspirations to grow larger, will join ventures (if needed) for large contracts .
- Staff on projects from beginning to end.
- Pursue international work to broaden skills, provide economic stability.
- Urban planning and design can add value not quantity to projects.
- Value-added approach — architect as subconsultant. Lower risk, less time, money, and resources.
- Arrangements:-set up local office or make association with local architect.
- Focus on standards developed at home. Consider what work should be done where. Video conference and e-mail make it possible for the project to continue on a twenty-four hour basis through the virtual office.

5. Breakout Sessions

At this point, the participants broke out into five teams to address two tasks:-

1. Compile an inventory of the knowledge base, areas of competency and geographical experience of the breakout team.
2. Working with a prepared case study, based upon one (of five) countries in which Canada has been a significant player in developmental activities, create the road map for an effective project over a decade from conception to successful conclusion.

The results of the inventory process are recorded in Appendix 1.

The second task proved to be more difficult for the groups and resulted in a range of responses. The design of the breakout groups attempted to mix of different sectoral expertise and place an emphasis upon a specific region that would be a focus for discussion. The groups assumed one of five country names (Brazil, Chile, China, Russia, South Africa), and took that country as a focus for the second activity, that of designing a project road map for successful design development and completion in that country. This approach was only partially successful. Three problems emerged:-

- The task was seen as too mechanical and detail oriented. The business people tended to see the activity as a straightforward product of the planning process; and the other participants were more interested in the conceptual application.

- The case study was complex and lengthy, requiring more time to absorb than was available.

- A number of participants found the concentration upon a specific country to be too confining, and preferred to work at a generic level; also, a few participants would have preferred to work with a different country scenario.

Despite the inherent difficulties with the second breakout activity, each group worked diligently on the task as they had redefined it. The product of their discussions was charted and posted during the evening reception, where the information gave additional impetus to the discussions between participants.

5.1 Team Breakout Session - Brazil

Initial group discussions suggested that there were three critical areas to be addressed for the successful organisation of a Sustainable Cities Initiative

:

- 1) Governance Issues
- 2) Community-based Needs
- 3) Operating Infrastructures; Capacity Building

- The team thought there should be a focus upon smaller cities on the same scale as Canadian cities since this strategy would lend credibility and have better chance of success.

- They also thought that Canadian companies, NGOs, and government agencies should:

- get in on the ground level of planning;
- see projects through to the end; and
- work alongside local partners.

This strategy would allow Canada's smaller companies to participate.

- The consensus was that a total integrated approach to what, in essence, are community-based problems is needed.

- A suggestion was put forth that the Municipal Urban Investment Fund from the Inter-American Development Bank was a better financing model than the CIDA Fund.

- The team deemed a focus on one particular sector or a focus on one mechanism would be better to establish the much-needed long-term relationships. The group decided to look at water, its supply, distribution, and sewerage, over a time frame of 5 to 6 years.

Planning stage - general comments

Things to consider in building a clean water infrastructure are the social, financial, environmental, technical, and institutional realms. A process to build and develop needed relationships was thought to be paramount.

In the planning stage of any system, a thorough functional analysis needs to be conducted. The mechanism to conduct this analysis could be a "study tour." Third party country involvement in some capacity was suggested as a selling strategy for Canadian solutions already that have been implemented. Canadians need to get together first.

A debate then ensued about the purpose of the gathering. There was some debate

about the merits of the case study, whether a hypothetical marketing strategy can really be developed from it. It was suggested that Canada first gauge its core competencies. Also, the involvement of the local people is required.

Phase 1 – preplanning

a) Canadians to meet and identify expertise. There should be a sponsor to become the focal point. Issues to consider at this stage:-

- Early financing. Non-profit venture. Accessible to all of Canada including firms of all sizes when relevant and timely (based on skill sets). Input from Brazil at this point. Develop Canada/Brazil databank.
- Two primary questions now are who will lead and what are the objectives? Gather cross section of resources (e.g. CIDA, World Bank, IDB).
- It was mentioned that we, Canada, should identify Canadian “beachheads” in Brazil as a start. Find seed funding for workshops, etc.

b) Relationship building.

- How? Develop activity checklist such as study tour, agreements, workshops.
- Who is the target? Decision makers, “influencers” or lobbyists to the decision makers.
- Another mechanism put forth for relationship building was an internship to assist local governance, industry-sponsored courses, training on how Canadians do business, we have to foster some kind of accountability down there. Ongoing process required for community buy-in.
- On the Canadian side, there was consensus that Canadians have to develop more expertise in international business.
- Group commented relationship building occurs throughout life of project. Can be built into agreement with mechanism for review.

c) Collection of baseline data on Brazil.

- Collect data on
 - Social
 - Financial
 - Environmental
 - Technical
 - Institutional
- Develop process for:
 - Contacts
 - Relationship building (both parties to identify needs)
 - Identify needs of community

- Identify needs

- Effective Demand: can the consumers pay?
- Need to do an inventory of the existing capacity: local expertise, infrastructure, what measuring techniques are in place, agencies to gather information or collect taxes.
- What regulations are in place, standards, guidelines, and their effectiveness.
- Local people (Brazil) need to visit/observe/evaluate us through methods such as a study tour in Canada or in a third party country where Canada was involved.

Phase two --- subsequent steps

a) Review and discuss data report. (by Canada/Brazil Joint Steering Committee)

Report on study tour

Consensus-building within Canada on opportunities within Brazil.

Define needs in terms of actions required in consultation with local resources.

Use tools such as study tour with more focus.

b) Prepare and identify project. Identify team members and their roles. The need to invoke Project Preparation Technical Assistance. Arrange financing, i.e. identify sourcing.

c) Implementation.

d) Lessons learned. Share with Canadians and Brazilians.

5.2 Team Breakout Session - Chile

Discussion of Expertise Areas

- It was agreed that first hand experience is necessary, even of this, the most Westernized culture of South America.

- There are many environmental issues:
 - still using old technology
 - low end technology
 - solid waste infrastructures
 - sewage systems (sewers, filtration and refinery plants)
 - issue of pure water
 - has no hazardous waste policy
 - extreme contamination of soil and water
 - high end technology
 - energy control
 - mapping
 - mining companies
 - regulations for mining and water

- Regulations are now becoming more modern and in control of a variety of situations.

- There is a need to build on experience that already exists in some of the mining cities.

Client's Needs

- basics(housing, transportation)
- clean air/energy
- water pollution/control/treatment
- mining sites clean-up
- waste management
- transportation
- legalistic approach
- pollution control
- sustainable culture for cities
- communication networks
- health care
- sanitation

Opportunities

- export promotions
- explore our technical expertise
- generate employment
- manufacture equipment
- new technology opportunities

Define APEC priorities

Some endeavors are proved to be more economical and not profitable

Smaller companies have the opportunity to share (export) their goods

Challenge

How is Canada able, with small to medium companies, to become big enough to go international and get experience to get bigger projects?

How do we get the advantage over more reputable countries?

Get back to Canada's policies as a nation, and how they should be representing itself

Good will

What sort of problems does Canada pose to get the export technology going?

How to get money for Team Canada and is there money in the government?

Identify opportunities, identify expertise

Enablers

- small loans-small risks
- micro-credits tied to a condition to use Canadian supplies
- from the grass roots
- create demand/market
- opportunities for small 'products'

Messages/Needs

- Financing mechanisms
- Deal with smaller projects, smaller clusters
- Coordination of clusters through a champion
- Private sector driving the 'team'

Through the cluster approach, we are able to fine tune parts and sectors of the substantial city (i.e. transportation, agriculture, education, etc.)

"Although Team Canada has the hardware, it is getting too big and needs to become more focused."

What can Team Canada do today?

Build expertise, export expertise, contribute to sustainable communities

Sustainable Cities

Social Policy Issue

- Create demand at policy level
- Define a champion
- Concessive financing
- Micro-macro (tied)
- Commercial
- ROI
- Create confidence in technology

Economic Opportunities

- Identify needs
- Markets
 - Capacities_synergies
 - niches-multisectoral
- Concessive financing?
- Micro/macro (tied)
- Commercial
- ROI

Jean Sequin's model was discussed and agreed upon:

Identify 'Champion' (shared)

--Roles

--Responsibilities

2a) Clients (cities/implementing agencies)

--Needs (types of technology-hard or soft)

--Area/countries/cities

2b) Identify Sectors (existing studies/new studies)

--Water

--Transportation

--Eco-efficiency

--Etc...

2c) Create Canadian synergy

--Pooling resources (companies, governments, NGO's)

3) Proposals, Packages

--Financing

--Team description

--Cost

--Time plan

4) Visit of 'Team Cluster(s)' to cities (virtual or direct)

5) Follow-up

6) Commitment/Signing/Agreement

--Do we have a deal?

--Are there any significant risks?

7) Project implementation

8) Project evaluation

--What have we learned?

The governmental & NGO sectors will create demand for the policy level
Business will handle the implementation.

There is merit in a governmental approach to opening doors for the private sectors to make deals.

5.3 Team Breakout Session - China

The group was fortunate to have a member who had with him a presentation on developmental issues in China prepared for a client . It was decided that this information would give a sound information base to the discussion.

Brief Review of China:

(done by Edward Leeman)

- Population of China will be greater than that of all Asia.
- Poverty mostly in inland provinces. Coastal economies are much better economically.
- 241 cities within the Yangtze river basin.
- 35 cities will have populations greater than 1 million.
- Thee gorges dam will be flooding a large part of China. Ships will be able to reach the inland after.
- Cities are exploding. Shanghai has mushroomed in the last 10 years. From 1971-1991 rapid development.
- Presents a challenge to developing the inland.
- Starting to see contiguous areas of development.
- Coal accounts for 70% of china's power.
- 80 % of children were tested for lead. 80 % exceeded limits.
- Environmental agencies have very little clout in dealing with it.
- Three billion from the World Bank went to urban development, waste water management, urban development and housing.

A brainstorming session began to identify areas for further discussion:

- | | |
|--------------------------|-------------------------------|
| - TRANSIT | IDENTIFY GOVT PRIORITY TO FIX |
| - WATER SUPPLY | |
| - WASTE WATER MANAGEMENT | COMPREHENSIVE SOLUTION |
| - SOLID WASTE MANAGEMENT | |
| - LAND MANAGEMENT | |
| - TARIFF STRUCTURES | |

The group felt that we could be most effective if we were to select a specific city from the 20-25 possibilities in the Yangtze Basin. We would need to identify the government priority location to be "fixed"; and arrive at a comprehensive solution.

The situation with air and water quality is important to understand, as is the energy supply system; but the socio-cultural context is the most difficult to comprehend. We need to understand issues like:

- Equity access
- Ability to transform
- Systems ability to withstand
- Shock stresses

-Also manage change (interdependency)

In thinking about the situation the continuation of a certain trend line leads to an unsustainable situation. Some analytical effort was spent identifying problem areas.

Problems:

- The population is too large for the current infrastructure.
- Insufficient Water quality and supply.
- Air pollution compromises health.
 - fuel mix
 - Cogeneration
 - Transit and traffic management
 - Industry retrofit
- Financing the solutions

Filter:

We should look at public / private partnerships.

Need for:

- engineering services.
- Enviromental services.
- Waste water.
- Transit

Masterplan:

Front end planning is essential, and requires a considerable amount of general expertise.

A prefeasability study is necessary to determine which other more specific studies are required.

Funding strategies must be employed at all stages of the research.

Specific project areas require relevant expertise, and the sources of this expertise must be identified.

SUSTAINABLE CITY PROJECT:

Problem: Existing situation and continuation of current trend line is not sustainable.

Key Points:

- Population too large for infrastructure.
- Insufficient water quality and quantity.
- Air pollution compromising health.
- No obvious source of funds to solve problems.

Action:

(1)

Master Plan commissioned to analysis issues and make recommendations.

Governance Issues:

- CIDA
- Planners
- Developpers.
- Builders.
- Operators.
- Financiers.
- Restructuring of tarif system to achieve demand management.

Four stages of project definition were identified:

- Define
- Plan
- Comprehend
- Explain

Municipal Government expertise is required from public and private sectors, and Federal Government support systems can enable the project.

Investment Planning is of great importance in the process and can be the critical difference in success over the full length of the project.

Approval processes and the culture of decision-making must be well understood and may need to be changed in order to make a project viable.

Human resources need to be developed at various levels to ensure the capacity to implement with a local capability to deliver the service into the project's useful lifespan.

Canada China Movement, The China Council and CIDA all have important roles to play in this activity.

Procurement may need to be carried out in a completely new way to the host culture, and represents an opportunity to build in the sustainable benefits.

- **INVESTMENT: STRATEGY DEVELOPMENT**

General governance.

- Project prefeasability.
- Project feasibility.
- Planning and design.
- Procurement. + 18 months.
- Mobilization. (finalize financing)
- Delivery (Build).
- Operations (Demonstration ceremonial training)
- System Acceptance
- Relationship and Investment.

Third Dimension:

What does it take to get us there?
What is there but not being used effectively.

5.4 Team Breakout Session - Russia

Initial discussion

Remember that each project is an individual activity to be designed for a specific client city. It will have its own requirements, including a customised approach.

One way to set the stage for every project is to establish a basis of credibility for excellent work abroad by Canadians — to solve complex problems and to bring benefit to the environment as well as the economy.

Every project needs a very good system for planning. We can build on these systems by targeting those areas where we have demonstrated strength already. We could start the planning with one city. This would require agreement at the National Level in host countries to establish a target city. All efforts in that city would need to be coordinated, integrating closely the industrial plans and the social and environmental realities. This would require a significant “cleaning up” of the legal system and the legal structure to get a pilot code for the alteration of a whole city.

We need to change the current expectations people have, for example, in the field of housing, condominiums could well be a better solution.

Financial planning is a key building block for success, and it must be in place from the beginning of the project if success is to be guaranteed.

Perhaps more urgent is the need for funding for the development of a better technology for managing programs in different countries around the world. We need to know what we are looking for when we are going to a country; and organize our approach and analysis from this point of view.

The C2000 project (a program for industrial building) is a useful model for reaching the best results through the design process.

There have been some important processes that have “turned things around”, and we might look to these situations to gain understanding about implementation. Examples would be: Expo Montreal, some projects to redesign whole areas of Mexico City, the rebuilding of Germany taking place as a result of the reunification and in Ukraine. Many of these projects faced similar challenges: lack of financial market assistance, expanding populations and the need to bring together existing skills and innovation. Implementation—build an effective demand in east Asia

We need some Canadian models of North America integrated city plans. An example might be integrated land planning in Manitoba.

Canada was invited to Russia to offer assistance and mistakes were made in that process. We took Canadian housing technology to Russia, but we didn't have architects and the work force required for implementation. The lessons learned were

the importance of an active role in design for the problems presented in the overseas location; and the necessity of either bringing a suitable workforce or investing heavily in the kind of training and capacity building that can ensure success. For Russia, the predefined housing approach was only a short term solution; what was needed was a strategic plan for development.

Canada has a very good system planning approach and partnering with a city in Canada may well be the best idea for delivering on that capacity building approach. Aim to form a partnership with a small city (in the resources area) and develop a model which includes:

- integration with industry
- long range planning
- municipal strategies
- infrastructure
- financial structure

Inventory of Opportunity

- *Building
- *Housing
- *Transit
- *Base data
- *Infrastructure
- *Pollution control
- *Carbon dioxide reduction
- *Site clean up
- *Banking/finance
- *Real estate
- *Energy
- *Technology Transfer
- *Communication
- *Licensing of products
- *Rental building. code
- *Strengthen professional association
- *Municipal management (land registration)

List of Steps

- | | |
|--|---------------|
| 1) Establish target city - not Moscow
at the national level—first stage alone—building analysis | 1 year |
| 2) Preliminary work (goodwill project) | 6 to 9 months |
| 3) Establish Sustainable City Framework (see diagram) | 6 to 9 months |
| 4) Establishing priorities & time framing (getting public) | 6 to 9 |

months

[NOTE: 2,3,4 should be considered together]

- 5) Resources analysis-local/Canadian/third party
 - retain expertize 0 to 6 months
 - refine baseline data 6 months to 1 year
 - 6) Execution (see diagram) 7 to 8 years
 - 7) Evaluation/monitoring continuing
- Sustainable Cities Solution
 Russia sustainable City
 Demonstration Project
 (mid sized city)

-Sustainable Cities Solution

- Russia sustainable City
 Demonstration Project
 (Mid sized city)

Time	Expertise					
Year Q	<u>Establish Target City</u>	<u>Preliminary Work</u>	<u>Resource Analysis/ Refine Data</u>	Agreement	Execution	Evaluation/ Monitoring
1 2 3 4	*Competitive Process at National Level *Not Moscow or St.Petersburg					
2000		*Info gathering relationship building and analysis *Identify and	*Local Canadian 3rdParty *Retain Expertise *Refine		*Execution of the project	Both -project and process
- 1 2 3 4				Agreement on 5 to 10 year project		

2002						
2003						
2004						
2005						
2006						
2007						
2008						

5.5 Team Breakout Session - South Africa

Initial Discussion

- Proposed task-agenda; work with prepared case study, create the road map for an effective project over a decade from conception to successful completion.
- Project targeting
Yr1-1 project. Criteria.
- Goal:- firmly entrenched Canadian capability, good track record, credibility, linking municipal expertise, emerging opportunities (job opportunities in the long run for Canadians), replicable projects.
- Goal for South Africa...-how will it benefit?
Universities, win win situation, use it as leverage for other African countries, emerging opportunities for South Africans, mutual relationships.
- Goal:-to develop and implement a 10 year strategy between Canada and South Africa for sustainable cities in South Africa.
- Sequence of events
Step1-time line.
Step2-who does what.

Case study-South Africa:

Table Sustainable Cities-Solutions

YEAR	2001 SOLUTIONS
1998	Assumption-Team Canada sustainable cities in place market analysis and assessment-program preparation Research country and development assistance strategies South Africa capacity on municipal infrastructure South Africa-embassy, trade, aid Ministries, private sector, engineers, banks AFDB + WB reps. CDA C or C Focus mission Project outline cherry pick projects in various pipelines

1999	<p>Incoming South Africa mission Structured mission-“Team Canada” Identify prospective local and international partners Water project (new project) Memorandum of mutual support Team Canada-international cities Select specific cities City specified in MOU Research South Africa capacity on water management Develop management plan Can South Africa prepare management team? Communication strategy Governance (new project): Local governance Research and document models of governance Research South African capacity on local governance South African mission to observe Canadian models on governance</p>
2000	<p>Feasibility Project design Pre-line design and detailed design (6 months) Bidding, finance (bilateral, domestic, multilateral, boot) Governance-rates, OLM Governance-democratic structure, define boundaries, legislation-bylaws, define roles and responsibilities and jurisdiction, finance mechanics, management structure, agree on service standards, training South African in Canadian cities. Extension to other markets</p>

Table 2. Continued

2001	<p>Alert possible Canadian suppliers to opportunities Capital projects-tendering Water management program-municipal water mgt. and water experts, supply program, conservation, source management, supply, unaccountable water, treatment, legislative framework, groundwater, commercial relations, wastewater, MSWM, EIA, finance.</p>
2002	<p>Capture 10% of the South African market on municipal infrastructure projects Capital projects-groundbreaking Training</p>
2003	<p>Capital projects-commissioning</p>
2004	
2005	<p>Evaluation</p>
2006	

6.2 Plenary Discussion

There followed a lively discussion in plenary raising a number of issues and some questions and answers exploring the role of the federal government in the pursuit of opportunities in the field of sustainable cities. Comments included:

- Our approach for South Africa was a targeting exercise and our plan is both valuable and workable.
- We noted that in dealing with Russia, the legal system is a major barrier. The solution involves the capacity of the federal government to organize the program, the possibility of subsidies, and ways to connect the public and the private sector.
- Brazil has very big cities but we should concentrate about the small cities -build up an interactive knowledge about both the country (study tourism) and training courses in the country
- The National Team (16 people) develops a national plan every year. There are 103 activities in the international sector. The Government wants to succeed in the environment business. The people in the team use the information system and 170 countries look to Canada for help; but Canada chose 12-15 to cultivate opportunities. China is the first country in the vision, the next target-Central and East Europe.
- It is important to build on the existing activities and to work within the established structures.
- We must focus on private sector expertise and create a new list of priorities. There is a need for integration of Government efforts and to look again at financing.
- It is the city which provides the opportunity we should put together a long list of cities with strategic importance
- One of the big issue is sustainable cities in America
- Does the current federal system contemplate this kind of teaming?
If you want to change something you have to come to government with solutions.
- Two types of approach:
 - How can the Government of Canada help the business enterprises penetrate these countries in the pursuit of sustainable cities opportunities particularly in affecting counterproductive social policies?

How can the Government of Canada help create the demand for what we have in Canada to offer?

Focus on the environment and match the public sector with the activities of the private sector.

- Let's be pragmatic and realize the barriers (e.g. all of the municipalities to deliver services and to collect taxes). FCM has been training for capacity building overseas for 14 years. We have established a goodwill, how can we use that effectively?

It was agreed that the most productive use of the time available would be to identify the barriers to success and to have each group create a series of recommendations for the consideration of the National Round Table.

7. Breakout Sessions

TASK FOR DAY TWO BREAKOUT

- What are the barriers to success in bringing together Canadian initiatives for opportunities in “sustainable cities” outside Canada?
- Recommendations

7.1 Brazil

BARRIERS

- 1) Lack of information and knowledge of programs available; no “clearing house” exists.
- 2) Existing inventory of resources, e.g. people, companies, existing relationships, interests of various parties, is not sufficient.

Everyone agreed that there is no focus to this information; no one is responsible for collecting the above information. Some entity needs to take the initiative.

- 3) No national approach on sustainable cities or urban development.

Overall, there is a lack of focus in the approach. What geographic area should be selected? Companies that want to be involved? Who will take lead role: private sector, industry, or federal government?

- 4) The concept, itself, of sustainable cities is a barrier: it encompasses much, which actually may be a positive, and is an amorphous notion.
- 5) There is a lack of independence of initiatives. People operate from different premises. How do we get our act together? On top of all this, there is no mechanism to pull the various interests together. Priorities between government departments are not the same.
- 6) How do Canadian companies tap existing Canadian resources? How to mobilize? How can small companies break into foreign markets? The entry points are not identified/coordinated.
- 7) We have a lack of credibility internationally. We are not able to offer “one stop shopping.” Who’s encouraging continued relationships? What are they doing?
- 8) Money is a big barrier. What’s the role of government, the international banks, private sector?
- 9) Issues surrounding knowledge of countries: what institutions are already in place and what players would be involved?
- 10) Issues related to systems and governance.

RECOMMENDATIONS

- 1) A clear statement of intent of national interests on sustainable cities.
- 2) There is a need to build on the existing mechanisms and how they can be improved, e.g. communication? What should be the target cities?
- 3) Set up and publicize a web site of integrated, coordinated information of all the entities involved.
- 4) Examine the need for a national focal point.
- 5) Participants in any project need to take responsibility to actively promote/market their involvement. We need to use existing trade mission network more effectively to improve exchange in information and prevent duplication.
- 6) Key players should identify a "short list" of opportunities that showcase a new approach in dealing with these problems.
- 7) Survey companies to determine the degree of and the areas of interest in establishing long term relationships.
- 8) Set up a Canadian conference with co-sponsors and lead organizer on the subject with all the stakeholders. At such a conference, specific questions have to be raised to identify the needs, inadequacies, areas of consensus and disagreement, experiences. Need a multi-stakeholder commitment with a national and international focus, which is coordinated with relevant international players.
- 9) Social equity must be considered, e.g. community development. The recent report from the task force on aboriginal peoples and issues ("Gathering Strength") was proposed as a model that could be used in this context of sustainable communities.
- 10) Develop & distribute inventory of resources, e.g. people, companies, existing relationships, interests.
- 11) Participants at this conference should be involved in planning process for proposed conference and provide recommendations about its content.
- 12) Post-conference: use conclusions to define role of stakeholders, including financing.

7.2 Chile

The problem has to be reframed in order to make it work. Consider two spheres representing “profitable” and “sustainable”. Where these spheres overlap, the possibilities are opened up for the sustainable cities concept. To make this interface work there will need to be a deliberate effort to expand this frontier through actions on the policy side and through the mechanisms to obtain suitable funding. Consider how the principles of sustainable cities can be folded into Canadian foreign policy.

Recommendations:

- 1) Government continue to promote SC concept (international market / Aid / R&D / climate change)
- 2) Expand existing mandate of NST on environment-use joint ventures, Canadian-client resources and expertise to expand Canadian content
- 3) Expand on NGO working with NST a) establish inventory of who is doing what
b) establish interested target cities
- 4) Based on above, facilitate creation of city working group.
- 5) Develop annual strategies – keep current inventory.
- 6) Renew Canadian environment industry strategies to incorporate S.C. strategies.

7.3 China

Sustainable cities solution ():

Initial discussion

- Planning Infrastructure.
- Community focus.
- Sustainability Factoring.
- Financing.
- Coordination.

Barriers:

- 1) Availability of Information (What is going on?) In order to form partnerships.
- 2) Good quality sectoral expertise in the government.
Insufficient Information linkings and relationships to make sustainable cities possible.
- 3) Effective investigation function not undertaken because of administrative and resource constraints.
- 4) Not a good appreciation of what a “sustainable city” means and the opportunities this concept presents. In a number of funding agencies their criteria and vision place an emphasis on rural development, leading to a bias against funding urban projects.
- 5) Better understanding of existing policy initiatives that designate parts of the world. Opportunity to conflate those lists and reassess priorities. Use filters for priority setting.
- 6) Market assessment of the product “Sustainable City” in demand.
(planning for a watershed for example, do we buy it here in Canada?)
- 7) Willingness to accept public-private partnerships.
There is a privatisation thrust prevalent in a number of Western countries.
- 8) Acceptance by Canadian cities of public / private approach
 - not enough domestic examples.
- 9) There is a potential problem in precluding “megacities” from our framework. There are significant niche opportunities. LR Transit, for example requires a critical mass to be feasible.
- 10) Financing, equity financing is easier than debt financing. Canadian banks are unwilling, international banks are not well known to Canadian business. These resources “cherry pick” projects to fund.
Equity is a problem too especially for small businesses.

Solutions:

Information clearing house.

- Database Internet.

Quiet Exporters.

- How does it stay entrepreneurial? Efficient / reasonable expectations.
- General Level of Information on what various players are doing (not projects).
- Contact capability.
- Relationship / networks.
- Use trade commissions.

Education process to develop Government capacity to share information on sustainable cities.

Change criteria (eg CIDA inc), or allocate new resources or Canada city partnerships.

Targeting exercise – draws funds in.

Create fund with partners (Public / Private). (Include Provinces & NGO's)

Raise Level of Understanding in Government.

Create Focus: China 2 cities. Look at Singapore.

Industry Specific Public / Private partnership opportunities. (Filter)

Focus on expertise and capability.

East Asia Region infrastructure development fund with small equity base brings credibility of national government backing.

Provide a better understanding as to how world financing systems work.

- Develop long term perspective.
- Training and awareness.

As Canadian banks consider mergers, will their ability to operate in a long term framework improve?

CCC / EDC mainstream Canadian urban (sc) projects.

EDC more long term focus. Find a way to have long term focus. Political understanding directive. Five year exit strategy revised extend to a minimum of 10 years.

Inter country cooperation initiatives. Find ways to use those levers to work financial success. What are those levers?

EDC extends exit strategy in equity role to a minimum of ten years.

Who applies pressure?

- Minister Marchi
- Requires PMO or outside pressure.
- Japan is far ahead and understands the way of the future in financing
- Consider third country cooperation.
- Potential Win-win situation; but we think Japan is using us!

Barrier 2 needs to be developed further.

We should be there to educate the demand. Population needs an education.

Wonder if we could combine 7 and 8 barrier.

Number nine is a caution, reassess it.

Government has to be the solution. Partnership in Industry.

We could spend a day on each idea.

Report: Barriers and Recommendations

A: FILTERS

There is a problem with the “smaller city” filter.

- Significant niche opportunities in mega cities.
- Some projects eg. Transit are predicated on solutions for the biggest cities.

Recommendation

- **Reassess the filter to provide the opportunities**
- **Only activate this mechanism to service the partner specific opportunities — not all overseas activities in cities.**
- **Note the willingness to accept public/private partnerships:**
 - overseas
 - in Canada

B: FINANCE

- Equity somewhat easier to obtain than debt financing
- Limitations of Canadian banks.
- Lack of knowledge about worldwide systems.
- Equity still a problem, particularly for small business.

- Lack of knowledge in project financial management.

Recommendation:

- **Provide a better understanding about how world financing systems work.**
 - **Training.**
 - **Awareness.**
 - **Information.**
 - **Networking.**
- **Industry Canada leads in a partnership (EDC CIDA inc. and others).**
- **Explore innovative industry enhancement (equity).**
 - **Such as dedicated infrastructure investment fund (like the other countries).**
 - **Partnership banks, other financial institutions initiated by EDC / FINANCE.**
 - **Significant private sector role.**
- **Canadian Banking Association should report to government of Canada on their willingness to act as financiers for long term infrastructure projects outside Canada.**
- **Directives for longer focus for EDC equity funding. Minimum 10 years.**
- **Information system for understanding the levers that exist in inter country MOU's, so that Canadian business can access opportunities. DFAIT Role.**

C:Information Availability:

- Lack of knowledge about who is doing what, where and when as a basis for forming partnerships. To address opportunities.

Recommendations:

- **Database**
- **Make business aware of existing systems.**
- **Investigate opportunities for integration to promote user friendliness and access of govt. systems. (hot links etc...)**
- **Involve professional associations, universities and NGO's.**
- **Perhaps "Sustainable Cities" website with hotlinks.**
- **Clearing house / Database concept.**
- **Recognize limitations of commercially sensitive information.**

D: Not a good appreciation of necessary linkages to make "Sustainable Cities" happen.

- **Environmental/ Social /Cultural**
- **Some good information available – pull together interaction essential.**
- **Urban Bias or focus is needed in funding (agencies and departments.)**

- Sectoral linkages crucial.
- "Sustainable Cities" a distinct market opportunity.
- Good sectoral expertise in government.

Recommendations:

- **Create a "node" to coordinate this information sharing and educational development with a "Sustainable Cities" focus and responsibility.**
- **Deal with existing "Rural" and "Inter City" bias to include urban.**
- **Higher level political message supporting "Sustainable Cities".**

E:Mechanism:

No mechanism for identifying SC development and investment strategies. (Pre investment Planning).

Recommendations:

- **Analyse what competing countries are doing in this field.**
- **Reexamine criteria for CIDA Inc. - specific prohibition.**
- **Identify new resources.**
- **Reallocate existing resources.**

7.4 Russia

- There is a need to work with the communities and build the partnership
- Change the perspective, by increasing the capacity of a small business component
- Funding is not sufficient for doing prospective work in the target city
- There needs to be a package for assistance including a funding source
- There is a lack of both of an inventory of sustainable city activities in place or currently in process and the strategic coordination of those activities.
- Consider the “Suite Approach” to Marketing Canadian Capacity
 - Know yourself
 - Know the competition
 - Know the market
- Obtain buy in of sustainable cities marketing strategies from:
 - Government
 - Industry
 - IFIs
- Use existing organizations and resources to get this buy-in eg FCM
- Make sure there is room for small business prospecting financial resources within the marketing strategy
- Examine alternative/Development rights

PRESENTATION

Barriers

- We are spread too thin regarding government coordination
- Government agencies are under-resourced in key areas
- Sectoral thinking leads to fragmented results
- Lack of inventory and strategic coordination of Sustainable City activities
- Funding Sources
 - Concessional pricing
 - Barriers to small Businesses

Recommendations

1. Use a “Suite” Approach (reference Microsoft Office Suite) to Marketing:

Know Yourself

- understand existing capabilities
- know who does what
- learn who knows what

Know Your Market

- learn from prior mistakes
- understand the market in relation to:
 - the culture,
 - the systems,
 - political structure; Mafia, etc.

Know the Competition

- Americans and other countries are trying to capitalize on the same opportunities, we need to know who they are and what they are doing

1. Obtain Buy-in from Key Groups (Government - Industry - IFI's - World Bank, Asian Development Bank)

- get buy-in from key group who have experience already
- utilize the structure which exists already
- develop a feedback/ information sharing loop
- acknowledge that the concept needs a larger initiative (i.e. this is not just a Trade Mission)

3. Strategic Coordination (i.e. FCM and others to serve as Secretariat)

- need to work together with the knowledge base
- need to develop/use an inventory of current city twinings and specific projects on the go
- we need to pick our targets and integrate our efforts

4. Funding Sources

- funding is needed at pre-project stage
- small businesses need more attention/help
- need to understand the role of concessionary financing

7.5 South Africa

The goal was to address emerging opportunities for South Africa through the development of a mutual relationship for the implementation of a 10 year strategy between Canada and South Africa for the enhancement of sustainable cities in South Africa. Along the way we would plan to firmly entrench Canadian capability, and create a good track record.

Categories to be considered as we think through ways of achieving this goal:

- government
- company's size and capability to respond
- mechanism for focus
- rigidity of the banking system
- lack of awareness of the issue across the country

As we develop this mechanism for developing the Teaming process, certain necessary attributes become evident:

- independent body
- buy-in by the involved stakeholders
- a non-threatening process
- an orientation to action
- a timeframe with a mandate of at least a decade
- a commitment to building upon existing structures

This thinking leads to a contemplation of cooperative partnerships with a range of groups like:

- The International Centre for Sustainable Cities
- IISD
- ICLEI
- Pollution Probe
- The Canadian Institute for Environmental Law and Policy
- Universities

The action team should be multistakeholder in composition and interdisciplinary in nature. Its mandate would be to develop a collaborative strategy with international partners.

The goals of the new organisation include:

- improved urban sustainability
- improved municipal government
- increased support from government for capacity building
- increased wealth for Canada through jobs for Canadians

7.6 Summary

In summarising, the facilitator suggested that there were a number of recurring themes.

All group saw the need for a focal point for a sustainable cities initiative in the form of a secretariat that would provide the strategic coordination and linkages for policy development and an action orientation. They also wanted this group to have a mandate of not less than a decade.

This group would preside over the gathering of necessary data and inventory information; but it would be more likely to do so by using the current communications technology of linked web sites of dynamic information than by creating mounds of data which might quickly become stale or redundant.

The secretariat would be sensitive to the large body of work already in progress in different areas inside and outside government which provide a solid foundation for this initiative. It would also develop a sensitivity to the kinds of filters that can identify the areas through which public-private partnerships could provide the optimum benefits to all parties

The secretariat might be located within the Round Table, at a university or as part of an organisation like IISD. It might also be largely virtual, but it would certainly be broad in scope and involvement. There would need to be a strong emphasis upon the development of many different kinds of partnerships

One of the critical tasks to be undertaken would be to understand and promote with funding agencies and with government departments the necessity of a significant planning phase that predates investment. Efforts would need to be made to ensure appropriate involvement from the financial community and the initiation of a dedicated infrastructure investment fund would be an important policy goal.

High level political support was considered by all to be essential to success, and there would need to be clear support for the initiative achieved through an explicit statement of Canada's role and of the link to the national interest.

In order to give the initiative an appropriate profile and to promote public awareness, a national conference of all stakeholders, domestic and international, should be convened to explore the topic in full and share experience, as well as identifying the gaps and seeking areas of consensus.

8. Final comments

Michael Harcourt, Chairman of the National Round Table's Foreign Policy Committee thanked all the participants for their considerable effort to help the Round Table come to grips with an issue that is potentially important to Canada from an economic perspective in an increasingly global economy. Beyond the developmental opportunities for Canadian organisations, though, he saw the real chance to work in a field that has genuine importance for the sustainable future of the planet. The work completed at the conference will be of great help in the formulation of a path forward and the participants' endorsement of teaming processes and of the potential for public-private partnerships was particularly encouraging. The Chairman hoped that this workshop had been a building block in the development of those teams of the future.

Appendix Inventory of Expertise and Experience

BRAZIL

Participants

- 1) **Alan Foy**
V.P. and G.M., International Division
Wardrop Engineering Inc.

Functional Experience: Water, sanitation, roads, waste treatment, bridges, power supply.

Geographic Experience: East Africa, S.E. Asia

International Marketing Strategy: Community Capacity Building; strategic partnering with local organizations including local financing.

- 2) **Jim Thoms**
Commissioner, Regional Environment Department
Regional Municipality of Hamilton-Wentworth

Functional Experience: Solid waste disposal management; manage contracts that operate services such as transfer stations, landfills, blue box program, water, sewer, storm water management in urban areas. Also, region scale planning, development approvals.

Geographic Experience: Sharing relationships in Latin America -> Mexico, Brazil and Chile.

- 3) **Geoff Greenough**
Commissioner of Engineering & Public Works
City of Moncton

Functional Experience/Occupation: Water, sewer, roads, solid waste.

Functional Experience/Personal: Affiliated with professional associations concerned with sustainable development issues, governance in operations and management.

Geographic Expertise/Personal: Affiliated associations have ties in Japan, China, Oceania, Latin America. One of these is the American Public Works Association (Mr. Greenough is Chair). This group has sponsored study exchanges in Japan. Mr. Greenough has led people-to-people expeditions to China. He is also affiliated with Transportation Association of Canada.

4) Delilah Panio

**Business Development Affairs, Environment
Calgary Economic Development Authority**

Functional Expertise: Identify opportunities for environmental companies from Calgary. Two objectives: promote environment in Calgary, and establish partnerships globally.

Geographic Experience: Six "sister" city relationships in: Mexico, China, Korea, India, and United States. Focus will soon be on Brazil.

5) Richard Stren

**University of Toronto
Director of Centre for Urban and Community Studies, Global Urban
Research Initiative**

Functional Expertise: Research, planning, governance, social networks, sustainable cities.

Geographic Expertise: Scope is 50 countries, main country is Canada, specifically and principally Toronto; Latin America, most of Africa, S.E. Asia, Europe. Principal mandate is to provide relevant solutions to local problems. Sponsoring agencies are Ford Foundation (local governance issue), UNESCO, CIDA, and CMHC.

6) Pierre Lundahl

**Pres.
SNC-Lavalin Group Inc.**

Functional Expertise: Three areas: i) project management, financing, ii) project planning, design, construction, operation, and iii) water supply, waste water treatment, solid waste management projects, transport projects which include rail and road, and power projects specifically dealing with distribution.

Geographic Expertise: Asia, parts of Europe, Africa, South America, Indonesia.

7) Sherrill Owen

**Senior Environmental Officer
Industry Canada**

Functional Expertise: Run environmental programs, strategic alliances, trade relations with local governments. Promote competitiveness. (Industry Canada's definition of a strategic alliance is the integration of at least five incorporated companies with a long-term focus. Industry Canada matches shareholder investment.)

Geographic Expertise: Korea, S.E. Asia, Brazil. Priority is Brazil.

CHILE

Brian Morrisey

- < Economic and Trade Policy

Jean Sequin

- < Technology transfer projects
- < Project management/marketing of technology transfer projects

Richard Whitty

- < Export Development Corporation
- < Exp. finance, insurance, guarantees
- < Trading, project financing

Micheal Morgolick

- < Energy planning, policy & economics
- < Climate change

Jeb Brugmann

- < Training and project support
- < Environmental systems
- < Designing programs municipality sectors

David Crenna

- < Urban political scientist-risk management
- < Environmental policy-making S.D Real
- < International Project Mgt. -World Bank Housing

Micheal Day

- < Commercialization of new energy devices
- < Energy management
- < Co-generation expertise

Paul Antle

- < Environmental contracting
- < Technology development/commercialization
- < Hazardous Waste Mgt.

CHINA

Sustainable Cities Solutions:

Name	Functional Expertise	Geographic Expertise
Kathryn Nickerson Bombardier	Transit / Transportational systems Operations Maintenance Equipment Design Build Install Engineering Project management	S.E. Asia N. America Europe N. Africa
Jeff Olson B/MCG/Hart	Planning and Design - Mass Transit Land use and architecture	US. Malaysia China
Edward Leeman Ch REOD	Economists / Financial Markets Supplier Dept: Information Market studies	China Yangtze Basin Tianjin
Industry Canada Allan Doherty	Sourcing / Making linkages to markets Supplier Dept. Information market studies.	Target Countries Sector S. America Chile Argentina Brazil Asia China Malaysia Philipines, Indonesia, signapore india Columbia Peru
John Wiebe Globe	Market Analyst / Facilitations Sellers, Consultans Incorp Enviro Techs To improve bottom line project managing Municipal Emphasis	Canada Mexico China Us Romania

Marjorey Loveys
PMO

Knowledge of Canadian
Govt
Policies and
programmes.
Blending Public Policy
and private sector
perspectives.

Tom Hutton

Urban research and
planning fundamental
Drivers of change, field
work on implementation.
Adjusting urban policy to
sustainable situation.

China Asia Pacific
Vietnam Yangtze Delta
Japan Aus Hong Kong
Pearl Delta Beijing

RUSSIA—The group:

Michael Harcourt

-Chair, Foreign policy Committee, National Round Table on the Environment and the Economy

Dan Ciuriak

-Coordinator Asia Pacific Research (PGR)

Rasheda Nawaz

-Policy and Strategy Planner-City of Ottawa

Jeff Weir

-Principal- Rose Technology Group Inc.

Alan Hart

-Principal -Baker McGarva Hart

Gordon Thompson

- Vice President- Newcourt Credit Group

Nils Larsson

-Secretary, Green Building Information Council

Brock Carlton

-Deputy Director

Name	Functional Expertise	Geographic Expertise	
	*Lawyer	Prov. of BC	MRTEE
	*Councilor Mayor	Asia Pacific	Sustainable City
	*Premier	Globe	Issues
	*DFAIL	Asia Pacific	DFAIT:Trade
	*Economist(Financial sector, Fiscal's Monetary policy, Economic Framework Policies)	Europe-Germany, Ukraine	Promotion, International Environment Commitment
	*MCIP, RPP Master Plan for City of Ottawa Urban Planning	Integration of sustainable city	Bangladesh Jamaica Indonesia Australia
	*Development in the environmental Management growth of a city		

*Rose Technology	Project Mgmt.	
*Project	Active in Canada	
Constr.mgmt	and USA	
Improving funct.		
and efficiency of		
building engineering		
*Master Planning	KL	Video Conferencing
*Architecture-	California	Capability
Transit and	Moscow	
International Design	Arizona	
	Tianjiu	
*Housing Study-	Russia	
Russia, Poland,	Poland	
Hungary	Hungary	
*Pres. Conf Home		
Builders Assoc.		
*Home Building		
*Finance		
*Architect	Languages- Swedish	Distinct Heating
*High Performance	-French	Program Mgmt
Builder Design	Visits-Russia, China	Small Hydro Tech.
*Progr. Mgmt.		
*Municipal Mgmt	China	
Capacity Develop.	Canada	
*Policy Devmt.	The Czech Republic	
*Service Delivery	Dev. World-Africa,	
*Municipal Gov.	SE Asia	
*Structures Process	Latin America	

South Africa

Table 1. Sustainable Cities-Solutions

NAME	FUNCTIONAL EXP	GEOGRAPHICAL EXP	RELATED SKILLS
Dan Hoomweg	Engineer (env.), city management, municipal solid waste management, world bank task manager	Ontario, Bermuda, Southern Africa, Pacific Islands, Indonesia, Asia	project management, IFI knowledge
Ed Gorn	int'l business development, IFI diplomatic service, networking, int'l marketing, business planning	USA, South Africa, London, Sweden, Africa, Southeast Asia, Mexico, Guatemala	multilateral capital projects
Roy Woodbridge	business planning, market development, policy analysis re. business and environ., govt relations (Canada and int'l)	East Africa, US, Canada, Asia, East Asia, Southern America and America	networking, teambuil ding, project management, facilitation
YC Pan	ecological development and strategy and program planning, project development and implementation, int'l project negotiation and financing	China and Japan, India, Sri Lanka, Asia	multilingual, trade development
David Marshall	env. engineer, env. impact, integrated resource mgt, watershed mgt, sustainable tourism strategy.	Canada-Ontario and BC, China, South Korea, Thailand, Caribbean, Indonesia, Philippines	policy analysis, strategic planning, public participation, facilitation, project mgt.
Martin Crilly	brokering sustainable urban demo. projects, urban regeneration	Canada-BC, Poland, Thailand, East Africa	strategic planning, logistics, project mgt.