Transport Canada Transports Canada

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(9/2008)

MOVING ON SUSTAINABLE TRANSPORTATION PROGRAM

ANNUAL REVIEW 2006-MARCH 2007

Canada

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COVER IMAGE CREDITS
Background image collage with pictures from: the Canadian Cycling Association, Grand River CarShare, Green Communities Canada - Active & Safe Routes to School, Toronto Environmental Alliance and UBC Centre for Health & Environment Research

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INTRODUCTION

This document is the fourth review of Moving On Sustainable Transportation (MOST) projects. It details the results of projects that completed final reporting during 2006 and up to March 31, 2007. A profile of each project is provided in which participants share information about the impacts of their projects and the lessons learned – reflecting what worked well and how future or similar efforts could be strengthened. It also identifies any innovative tools or practices that were developed.

Transport Canada commends the leadership and commitment to sustainable transportation demonstrated by all MOST project partners – non-profit and community groups, municipal, provincial and territorial governments, private businesses and foundations, academic institutions, and others. Transport Canada also recognizes the important contribution of the program's external advisory committee. Its members have reviewed and evaluated over 250 projects, made suggestions on how selected projects might improve results, and provided valuable advice on overall program direction. We are grateful for their ongoing efforts.

Readers are encouraged to obtain more information from the MOST website. We also welcome your feedback on any aspect of the MOST program. Please visit the website at www.tc.gc.ca/most or email us at most@tc.gc.ca.

PROGRAM OVERVIEW

Purpose and History

Transport Canada's MOST program works to increase sustainable transportation options for Canadians. The program fulfills a commitment made by Transport Canada's first Sustainable Development Strategy in 1997.

Transport Canada launched MOST in 1999 with a budget of $1 million over three years. The program was then extended to 2007 with an additional $2.5 million in funding to meet demand.

By the end of March 2007, MOST had committed over $3.4 million to 97 innovative projects across Canada involving more than 600 environmental groups, community associations, academic institutions, business groups, and professional associations. With financial support from MOST, these organizations promoted education and awareness, conducted important research and studies, tested new approaches and technology, and developed needed tools. There are large projects with a national scope, but also many smaller projects that address local challenges in regions across the country. Collectively, they are working to improve the sustainability of Canada's transportation systems, educating communities and individuals about transportation options and travel behaviour change, and helping schools, businesses and other community champions lead the way toward healthier, safer, and more sustainable transportation systems.

Program Renewal and Changes

The MOST program was renewed in 2007. This phase of funding will allocate up to $3.2 million through March 31, 2012. Elements of the program have been revised based on a departmental review of the program and feedback received by projects previously funded by the MOST program. These changes are identified and explained on the following page.

OBJECTIVES

With the 2007 renewal of the program, the objectives of the MOST Program have changed slightly. The revised objectives of the MOST program are to:

- Stimulate the development of innovative tools, approaches, and practices for increasing the sustainability of Canada's transportation system and the use of sustainable modes of transportation
- Realize quantifiable environmental and sustainable development results on Transport Canada's sustainable development priorities
- Provide Canadians with practical information, tools, and opportunities for better incorporating sustainable transportation options into their daily lives

ELIGIBILITY

The project categories eligible for funding under the MOST Program have been revised. Projects that focus only on education or awareness are no longer eligible, as the program now aims to promote behaviour change. Replication and expansion of proven initiatives have been added as an eligible category.

The types of projects eligible for funding include:

- Studies, analyses, or plans that make strategic recommendations on sustainable transportation issues and initiatives
- Development of innovative sustainable transportation tools
- Small-scale pilot projects or demonstration projects that test new sustainable transportation approaches or alternatives
- Replication of successful sustainable transportation initiatives in additional communities and customization of project materials to the new locations
- Workshops and conferences that educate stakeholders (professionals employed in the field or managers and staff of sustainable transportation projects) on sustainable transportation

Projects must also target the Canadian public and share the results and program materials.

EVALUATION

Project proposals that meet these initial requirements are reviewed by an independent advisory committee using additional evaluation criteria, including:

- Effectiveness in directly improving the environment through greater understanding and practical applications of sustainable transportation principles
- Degree of innovation
- Ease of transfer and replication within Canada
- Proponent experience and competence

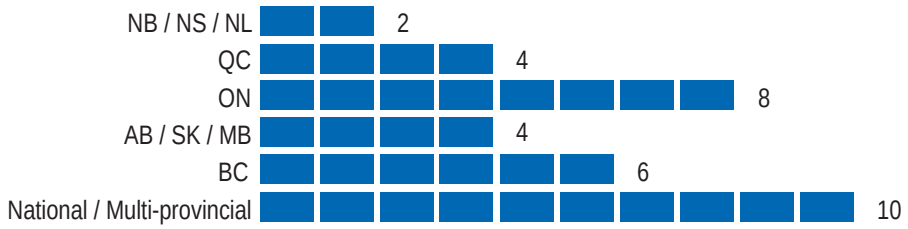
The advisory committee forwards its recommendations to Transport Canada's Director General, Office of Environmental Affairs, who has the final decision-making authority.

Individual projects may receive up to a maximum of $150,000 over three years, an increase from the previous program. In keeping with the Government of Canada's commitment to partnership, applicants must also demonstrate that 50% of their eligible net costs are provided by other sources.

2006 / 2007 IN REVIEW

At the start of 2006, 19 MOST projects were underway. During that year, 16 projects were completed and 15 new projects were started. All remaining projects were completed by March 31, 2007.

MOST has been successful in attracting proposals from across Canada. The regional distribution of projects approved in 2006 and 2007 is shown in the following chart:



The 34 projects completed in 2006 and up to March 31, 2007 received a total of $1,308,568 in MOST contributions. They involved 613 partners including provincial and municipal levels of government, foundations, the private sector, non-profit organizations, community groups, and academic institutions. Transport Canada recognizes these partners as essential contributors that help make the MOST projects a reality. Not only do they often provide expertise, knowledge, and assistance, they also provide 50% of the project costs.

Transport Canada is committed to contributing to a lasting and environmentally friendly transportation system. Through MOST, the Government of Canada is helping to find ways to meet today's transportation needs while protecting the environment for future generations of Canadians.

COMPLETED PROJECTS AND LESSONS LEARNED

The 34 MOST projects that completed final reporting in 2006 and up to March 31, 2007 are summarized on the following pages. They yielded numerous lessons about how to create and deliver a successful project on sustainable transportation. They also represent a list of potential approaches and tools that could be applied to communities across Canada.

Ranging widely from a cycling guide to a telecommuting impact study and from a how to guide for small city transit to a student walking club, these projects offer an abundance of approaches, tools, and practical experiences that others can draw from to create new projects or replicate successful initiatives in their community.

MOBILE BIODIESEL FACILITY

The Mobile Biodiesel Facility was a project of the Environmental Youth Alliance and the University of British Columbia (UBC). As the test site, UBC had the opportunity to showcase this new technology and innovation.

Before constructing the facility, the project team had to determine a number of issues including: any regulatory requirements, whether waste oil feedstock was sufficient in quality and quantity, whether the process would meet ASTM International quality standards, whether the footprint of the project could be reduced to fit on a mobile platform, and whether they could deal appropriately with waste products.

The Environmental Youth Alliance took on navigating the regulatory process at UBC, completed waste oil surveys to determine quantities available in various communities, upgraded the processing equipment to improve quality, and researched and tested new equipment and processes to reduce and/or clean waste outputs. Fuel stability and engine emissions testing were also completed to determine whether waste vegetable oil-based fuel would be as stable as virgin oil-based fuel. The resulting quality of the biodiesel met most but not all ASTM International standards.

Several business plans for various groups interested in pursuing their own community-scale biodiesel facilities were created. To help in this process, a strategy guide on how to overcome the necessary competitive, logistical, and regulatory hurdles to operating a temporary processing facility was created and delivered to interested parties.

EYA Environmental Youth Alliance

This project evaluated the feasibility of a mobile facility capable of processing waste vegetable oil into biodiesel fuel for use in small and isolated communities in British Columbia. The mobile biodiesel facility was intended to be affordable and financially self-sufficient by supplying biodiesel fuel at a competitive rate.

Lead organization:
Environmental Youth Alliance

MOST Contribution: $50,000

www.eya.ca

Reach

- Over 100,000 people were reached through articles and website hits.
- 25 facility tours took place and a workshop held in partnership with BC-Biofleet drew 50 people.
- Over 50 students and youth were involved and trained, with two youth finding subsequent employment in the biodiesel industry.

Partnership Legacy

- 12 project partners were involved until the end of the project, including five UBC departments, various local and city governments, and industry businesses.

Key Lessons

- It is possible to produce biodiesel with a portable plant but production needs to be faster and the quality more consistent. Also, U.S. subsidies make it difficult to be cost competitive.
- Biodiesel fuel quality steadily improved as a function of operator experience and better technologies. For a mobile facility, a dedicated operator needs to be designated to travel with the facility.
- While there is sufficient waste oil in most communities to support a small plant, it would likely require some fresh oil to improve the quality of the base stock.

Innovative Tools and Practices

- Production cost was reduced through the use of Magnesol, which eliminated water disposal costs and a lengthy, capital-intensive washing process.

Quantifiable Impacts

- 7 sub-templates for the calculation of various costs associated with biodiesel production and vegetable waste oil collection were developed and tested.

MOVING TO SUSTAINABILITY : CAR-SHARING IN K-W

The People's Car Co-op became the first legally incorporated car-sharing co-operative in Ontario in April 1998. More residents are now able to join car-sharing than before the project. A 'Transportation Bank' was developed in which low-income earners can access a revolving interest-free loan, similar to a refundable security deposit, to pay for their initial co-op membership.

Introduction of a program to sell debentures allows members to invest in the co-op and support development of local sustainable transportation options. This was accompanied by a new 'non-driving membership' to allow investment by those not interested in access to the cars.

The addition of a wheelchair-accessible van to the car-share fleet was evaluated in consultation with potential users plus their family, friends, agencies, and workers. The study concluded it would not be feasible at this point.

A Bike-Share Network available to co-op members free of charge was set up to help foster the integration of cycling, car-sharing, and public transit. Members also benefited from the development of an online reservation and invoicing system, which now accounts for 70% of bookings and reduced staff time requirements as well as telephone charges.

The People's Car Co-op also launched an initiative to make car-sharing more accessible for ethno-cultural communities. Through this outreach, it was found that many new immigrants are reluctant to 'share' a vehicle, as their perception of being Canadian means owning one or more vehicles.

Public outreach that was timed to coincide with the launch dates of these initiatives, along with a logo redesign, helped to increase awareness of the co-op as well as the concept of car-sharing.

Grand River CarShare

The Moving to Sustainability project worked to increase the prevalence of car-sharing in Kitchener-Waterloo, Ontario. Activities ranged from financial measures, such as interest-free loans for potential members and the sale of debentures, to a feasibility study on adding a wheelchair-accessible van, creation of a bike-share network and an online reservation system, and outreach on car-sharing to ethno-cultural communities.

Lead organization:
People's Car Co-operative Inc.

MOST contribution: $27,909

www.peoplescar.org

Reach

- About 12,500 people heard about car-sharing through a total of 19 presentations and seminars over the two years of the project, while thousands more were reached through ads, articles, busboards, displays, sandwich boards, festivals, media interviews and public service announcements.
- Anecdotal feedback from community members noted an increased awareness of the co-op and concept of car-sharing along with a clearer understanding of the differences between carpooling and car-sharing.

Partnership Legacy

- People's Car Co-op had 11 organizations assisting throughout the project, including municipal governments and non-governmental organizations. The University of Waterloo Bike Centre and University of Waterloo Yellow Bike Programme continue as formal partners.

Quantifiable Impacts

- 53 new members were attracted including 15 as a direct result of the Transportation Bank, far exceeding targets.
- $8,500 was raised through the sale of debentures.
- 18 vehicles were taken off the road resulting in 107,655 fewer kilometres driven and 21 tonnes of greenhouse gas emissions avoided over the two-year project period.
- 51% of new members started to use public transit.
- 25 bicycles were recycled/refurbished for use in the Bike-Share Network.

Innovative Tools and Practices

- The Transportation Bank, modelled on the successful Rent Bank established by Lutherwood, is innovative in its use of revolving interest-free loans.

Key Lessons

- Debentures proved to be a useful method to attract investment but are not well understood by the general public, requiring personal explanation beyond brochures.

BIKE ROOTS

Greenest City is a non-profit, community-based environmental organization in Toronto that is committed to reducing pollution, regenerating urban life, and promoting social equity. In the Bike Roots project, youth volunteers delivered healthy food on the back of a cargo trailer to low income, low mobility individuals and families.

The Bike Roots project was delivered by a hired coordinator, eight youth considered to be at risk, who were recruited as volunteers and provided with an honorarium, and 10 adult volunteers. As part of their involvement, Bike Roots youth helped out at three community gardens and tended their own plots at a community centre.

The volunteers received training on bike safety and maintenance, food security, climate change, sustainable transportation, starting a community garden, and organic gardening. All food delivered by bicycle in the first season – including Meals on 2 Wheels, groceries for organizations and food bank clients, and organic produce from community gardens – was provided as a community service at no charge.

Bike Roots planted many seeds in the community – with youth choosing a sustainable form of transportation, with service agencies considering or trying out bicycle deliveries, and by connecting local food production and climate change in the public's mind. The project was honoured with a "Bike Friendly Business Award" from the City of Toronto in 2006.

Through a youth-powered cargo bike delivery business and community food production, the Bike Roots project engaged young people from Toronto in their community's food security, urban agriculture, and local ecology.

Lead organization: Greenest City

MOST contribution: $35,000

www.greenestcity.net

Reach

- More than 50 people received fresh organic produce delivered by bicycle and 55 new households were reached by Meals on 2 Wheels.
- 252 new clients were reached in the second season of bike deliveries.
- Over 1,000 handbills promoting Bike Roots and the environmental benefits of cycling and local food were distributed at several public events.

Key Lessons

- Approaching Bike Roots as a youth leadership program and providing a full complement of training on sustainable transportation and other topics resulted in a rich experience for the youth volunteers. Exit interviews found that many would look for future work aligned with their newly instilled environmental values.

Partnership Legacy

- Main program partners included community gardens and Meals on Wheels agencies, such as Scadding Court Community Centre, Foodshare, Toronto People with AIDS Foundation, and Fort York Foodbank, with 13 partners in the first season and 11 partners in the second. The Community Bicycle Network provided some of the bicycles used for deliveries.
- All agencies and partners that worked with Bike Roots extended an invitation to continue.

Innovative Tools and Practices

- The effort put into each partnership and the ability to use Bike Roots labour and equipment made it possible for organizations such as Meals on Wheels to try food delivery on bicycle without much risk.

Quantifiable Impacts

- 5,500 kilometres of vehicle travel and 9,952 kgs of CO_2 were avoided by bicycle and trailer use.
- 18 motorized food delivery routes were replaced with bicycle routes.

BIKE TO WORK NETWORK

Unique in Canada, this project is an expansion of the concept of Bike to Work Day/Week and other short-term events such as the week-long Commuter Challenge. More than just an awareness-building program, the project can be characterized as a series of interventions that support individuals who have made a personal commitment to use the bicycle as a means of getting to work. It is a practical application of behaviour-changing strategies drawn from established research.

To become part of the Bike to Work Network, individuals signed a personal contract to bike to work at least once per week for 16 weeks, from June through September, and received support from the network. This ranged from e-bulletins containing information on cycle-commuting issues, toolkits, and workshops at key workplaces, to specific actions that created a favourable environment for cycling to work.

Promotion of the project included direct mail campaigns, media releases, advertisements and posters. The website also played a key role in building awareness of the project. Participants received a free t-shirt for signing up and were eligible to win various prizes at the wrap-up on International Car Free Day on September 22. A series of four e-bulletins helped to reinforce the individual's commitment but also served to create the sense that they were part of a broader community of cycle commuters.

The Bike to Work Network (Réseau Vélo-Boulot) offers support for participants who commit to cycling at least once a week to work over a 16 week period, between the Commuter Challenge in June through International Car Free Day in September.

Lead organization:
Vélo-route trans-Québec

MOST contribution: $15,000

www.reseauveloboulot.ca

Reach

- Almost 500 participants in the Gatineau region committed to cycling to work at least once a week – double the target of 250 participants.
- 10 workplaces registered and two workshops took place.
- 25 participants attended an after-work social event.

Key Lessons

- Personal telephone calls with employers and workplaces is more effective than a mailing.
- Signing a contract was significant in creating personal commitment to behaviour change.
- Many participants indicated that they felt part of something bigger and that they were becoming spokespersons for commuter cyclists.

Quantifiable Impacts

- More than 94% of participants equalled or exceeded their frequency of cycling to work from the previous year, including 40% of those who increased their bicycle use.
- 98% biked to work at least once per week – 7% once per week; 18% two times per week; 17% three times per week; 28% four times per week; and 30% five times per week.
- 99% of participants indicated they planned to participate the next year.
- Participation in the project resulted in an estimated 60,000 kg reduction in CO_2.

Partnership Legacy

- 20 different partners participated, including cycling advocacy groups, bike stores, media, and municipal organizations. Most partners, including new ones, planned to continue their support.
- The success of the project generated interest in other regions of Quebec and information has been shared.

Innovative Tools and Practices

- Building on a program developed in Sweden, this project is unique in Canada in that it provides longer-term support for individual travel behaviour change.
- Linking two key events – Commuter Challenge and International Car Free Day – played an important role in the program's success.

CAN-BIKE COURSE DEVELOPMENT

The Canadian Cycling Association's CAN-BIKE program is a nationally standardized set of cycling proficiency and safety courses that are delivered by certified instructors. The program relies on competent instructors who are sufficiently motivated to create and maintain opportunities for CAN-BIKE to grow and flourish at the local level.

One of the barriers to cycling as a means of transportation is personal safety and the fear of traffic. CAN-BIKE cycling safety courses empower cyclists to ride safely and confidently in the built environment – giving them the skills to ride more often and more enjoyably.

In this project, CAN-BIKE instructors worked to expand the availability of courses across Canada and developed a rural cycling course, new course materials, and a fresh approach to communication.

Capacity across the country was increased through the delivery of courses and workshops, starting with Atlantic Canada and emulating that model's success in Montreal, Toronto, Newmarket, Winnipeg, Saskatoon, Edmonton, and Vancouver. CAN-BIKE committees were formed in each of these related provinces.

Other activities included expanding the website and dividing it into public and instructor zones for easier navigation. A listserv was established to allow instructors to connect and share information. New materials were created, including a CAN-BIKE Rural Cycling course, a "Selected Cycling Laws" publication to help instructors and course participants keep up to date on regulations, and a new CAN-BIKE 2 exam with supporting instructor material.

Canadian Cycling Association
Association cycliste canadienne

This project developed a new and strengthened structure for the delivery of CAN-BIKE cycling safety courses across Canada, taking it from a local volunteer grassroots program to a provincial and national structure and presence, while building new courses, materials, and methods of communication.

Lead organization:
Canadian Cycling Association

MOST contribution: $65,000

www.canbike.net/cca_pages

Reach

- 12 instructor workshops/training were held across the country, resulting in 57 new instructors across the seven targeted provinces. This project represents CAN-BIKE's first foray into Quebec.
- Almost 1,000 Canadians participated in the 196 CAN-BIKE courses offered. Written comments by participants were overwhelmingly positive.

Quantifiable Impacts

- A survey of CAN-BIKE graduates indicated they ride their bicycles more frequently after the course.
- Course graduates are responsible for an estimated reduction of 118,000 km of vehicle travel and 44,500 kg of CO_2 avoided.

Partnership Legacy

- A total of 168 organizations from the areas of health, environment, sport, business, and government partnered with the Canadian Cycling Association on this project, with main partners including the seven provincial cycling organizations and seven provincial CAN-BIKE committees.
- Parents, children, and community groups lauded the pilot of Kids CAN-BIKE Camp, which provided youth who are disadvantaged with new bikes and helmets along with cycling safety instruction. Community partners and sponsors committed to repeat the hugely successful camp.
- New instructors were added to the existing pool and enthusiasm was rekindled among existing instructors to encourage safe cycling and promote CAN-BIKE.

Innovative Tools and Practices

- Strategic marketing ideas were developed by York University students and compiled into a CAN-BIKE social marketing plan.

Key Lessons

- Obtaining insurance for courses and instructors is problematic and needs to be resolved in order to grow CAN-BIKE.

CYCLING IN CITIES

In this project, led by the University of British Columbia's Centre for Health & Environment Research, a population-based survey was developed that characterized route uses and preferences in the 'near market' population for cycling, along with influences on the decision to ride.

The survey was designed to measure the current share of trips made by cycling and other modes, identify and enumerate households with operating bicycles, and measure personal characteristics. It documented past cycling behaviour and reasons for changes, and also gathered opinions on factors that might increase cycling in the future, current cycling infrastructure and suggested improvements, the effectiveness of cycling marketing messages, and public expenditures for cycling infrastructure. Participants were subdivided into potential cyclists, non-regular cyclists, and regular cyclists, to capture differences between these segments.

Perhaps the most important study finding related to bicycle planning was the dramatic disparity between the preferred types of cycling routes and the routes most commonly used. If all types of routes were available, the preferred cycling route types were found to be, in order of preference, off-street paths, followed by cycle paths beside major streets but separated from traffic, and, finally, residential streets. However, the routes most commonly used were (in descending order of use) residential streets, off-street paths, major streets, rural roads and highways, and cycle paths beside major streets but separated from traffic.

This discrepancy between the infrastructure on which people would like to ride and the infrastructure they currently use underscores a lack of cycling infrastructure that would most likely increase cycling levels.

This research project looked at factors that would produce a substantial increase in cycling among the adult 'near market' in the Greater Vancouver Regional District. This target group includes residents who currently cycle or who have access to a bicycle and are willing to consider cycling in the future.

Lead organization: UBC Centre for Health & Environment Research

MOST contribution: $50,000

www.cher.ubc.ca/cyclingincities

Reach

- Over 18,000 individuals were contacted, with 8,780 completing the survey. Of those who completed the survey, 3,551 completed an additional, more detailed survey.

Key Lessons

- To increase bicycle use, efforts need to focus on building the desired infrastructure.
- Among a suite of 73 factors that might impact the decision to cycle, route-related factors proved to be much stronger influences than legislation or education.

Partnership Legacy

- 13 partners helped to deliver the project including a cycling group, a research group, a charitable health organization, a transportation agency, and several municipal governments.

Innovative Tools and Practices

- The new survey instruments that were developed can be adapted for use elsewhere in Canada. More than 400 articles, reports, abstracts, and surveys were collected and reviewed in preparation of the survey.

Quantifiable Impacts

- If the cycling infrastructure recommendations were adopted, an increase in the modal share of cycling would result in a reduction of greenhouse gases.

LOWER MAINLAND CYCLING GUIDE

Better Environmentally Sound Transportation (BEST) is a non-profit, charitable organization that promotes sustainable transportation and land use planning, and supports pedestrian, cycling, and transit-oriented neighbourhoods in communities throughout British Columbia.

The Freewheelin' Cycling Guide was distributed to households in Burnaby, New Westminster, Richmond, Vancouver, Langley Township, North Vancouver, Maple Ridge, Pitt Meadows, and Surrey. Customized editions of the guide and maps of local cycling routes were made possible through additional funding from TransLink and municipalities.

The magazine style meant a relatively large amount of information could be included in an easy-to-read format. Maps of local cycling routes proved to be the most popular aspect of the guides. To encourage readership and help evaluate the impact of the entire guide, a cycling safety quiz was included in which the answers were spread throughout the pages. Readers who completed and submitted the quiz with the correct answers were eligible to win prizes including a bicycle donated by local bike shops. Almost 700 people participated in the contest.

Launch of the guides was supported by a series of 30-second radio spots and resulted in a significant increase in website page visits for BEST.

BETTER ENVIRONMENTALLY SOUND TRANSPORTATION

B E S T

This project produced a comprehensive guide on cycling in the Lower Mainland Region of British Columbia as a cost effective means of distributing cycling information to a wide audience. The Freewheelin' Cycling Guide included safety information, cycling tips and a map of local cycling routes, and was distributed directly to households in nine communities.

Lead organization:
Better Environmentally Sound Transportation

MOST contribution: $58,000

www.best.bc.ca

Partnership Legacy

- 18 project partners included government, business, and non-governmental organizations. All partners plan to continue, with additional organizations expressing interest in working on similar cycling guide projects.

Key Lessons

- Cycling guides and maps are most effective in areas with existing high-quality bicycle facilities and infrastructure.
- Colour bicycle route maps are critical.

Reach

- 500,000 copies of the Freewheelin' Cycling Guide were produced with 430,000 distributed to households and the remaining 70,000 through libraries, community centres, shops, cafés, and at community events.
- The guide was distributed to single-family households (326,000) through community newspapers and to multi-family dwellings (104,000) through Canada Post, with financial support from the BC Ministry of Transportation.
- Website page visits jumped to almost 70,000 in May when the guide was launched.

Innovative Tools and Practices

- Customization of the guides and maps for each municipality increased their relevance.
- Use of home-delivery and direct mail provided access to households that might otherwise be difficult to reach.

Quantifiable Impacts

- Of the 430,000 households that received the guide, over 65% recalled seeing it and 14,000 reported that their cycling increased as a result of reading the guide.

PEDAL BIKE DEPOT

Pedal Energy Development ALternatives (PEDAL) is a Vancouver-based non-profit organization that develops and promotes the use of pedal-powered technology and works to recycle and refurbish bicycles. The organization helps people learn how to maintain and fix their own bicycles, provides free bicycles to low income individuals, and promotes the use of bicycles and pedal-powered technologies as a sustainable approach to transportation.

Once the location for the Bike Depot was secured and the space constructed, project participants got to work building bikes, setting up office processes, hiring staff, coordinating volunteers, and starting bicycle donations. A partnership with Katimavik helped to secure additional volunteers. The resulting Bike Depot served multiple purposes – a dedicated workshop, classroom, and storage space for donated bicycles.

In the Youth-Earn-A-Bike Program, Vancouver youth build their own bicycle that they keep at the end of a free, five-week workshop. The Free Bike Program matches bicycles with people in need of affordable transportation. Recipients are identified through referrals from a range of community organizations such as the Salvation Army and Vancouver Coastal Health.

PEDAL's flyers and website were redesigned to feature information on the Bike Depot and the new Free Bike and Youth Earn-A-Bike programs. Presentations also helped to increase awareness, all of which resulted in demand for the Free Bike program that outstripped PEDAL's capacity to process and store bicycle donations. Youth interest in the Earn-A-Bike program was lower than expected, leading PEDAL to consider networking with other organizations for ideas.

PEDAL
(Pedal Energy Development Alternatives)

PEDAL takes bicycles out of the waste stream, offers affordable bikes for sale, and encourages cycling as a sustainable, healthy transportation choice. In this project, a bike depot was created in Vancouver to provide non-retail bicycle education and a recycling workshop. Two new activities were added: the Youth Earn-A-Bike and the Free Bike programs.

Lead organization:
Pedal Energy Development Alternatives

MOST contribution: $38,000

www.pedalpower.org/?q=the_bike_depot

Reach

- During the project timeframe, 18 participants graduated from the Earn-A-Bike program and 269 refurbished bicycles were given away through the Free Bike program.
- 40 volunteers became involved in a range of programs and activities through PEDAL.

Key Lessons

- A mix of staff and volunteers provided a higher quantity and quality of refurbished bicycles, and more rigorous and effective instruction to both volunteers and new staff.
- Self-sufficiency through the sale of refurbished bicycles has been challenged by the cost of labour and new parts.

Partnership Legacy

- Partners included youth and environmental organizations, community centres, youth centres, day program centres, and secondary schools. Most partnerships consisted of free consultations on the Bike Depot and program set-up, and the use of tools and stands.
- Relationships were formed with over 15 community organizations during the project, largely in relation to the Free Bike program.
- Trips for Kids Vancouver partnered with PEDAL to run the Youth Earn-A-Bike program and plan to continue for the long-term.

Innovative Tools and Practices

- Bike Depot staff developed a prototype bicycle trailer that, in conjunction with an electric bicycle, allows transport of up to four bicycles.

Quantifiable Impacts

- Of the 900 bikes that were brought to the Bike Depot, approximately 500 were refurbished or recycled.

VÉLO SAINT-LO

Working with five schools and a summer camp through the YMCA, vélo saint-lo used different approaches to build awareness about the advantages of using a bicycle as transportation. Youth from the Vélogik program, another program of Carrefour jeunesse emploi Saint-Laurent that helps young people who have had difficulty with school or the employment market, and the larger community were involved in the creation and implementation of these activities.

Examples include a survey of current modes of transportation within the community and counts of bicycles on school grounds. On Earth Day, students could visit an information booth on cycling and take part in a fun race in which they could earn a smoothie and be eligible for prizes. Booths were set up at track and field days, and a "spin-athon" using stationary bikes promoted physical fitness. Presentations were provided on climate change and sustainable transportation, and a petition requesting cycling paths was initiated.

In conjunction with Vélogik, young people could take a bike maintenance workshop or sign up for the Earn-a-Bike program where those who cannot afford to buy a bike can obtain one in exchange for hours worked in the workshop.

The project was successful in increasing the visibility of bicycles at the various educational institutions and engaging the partners in taking steps to promote bicycle use by students. It also engaged youth from the community and from the Vélogik program in steps that validated their creativity and made them champions among their peers.

Carrefour jeunesse emploi
SAINT-LAURENT

The 'vélo saint-lo' project in Saint-Laurent, Quebec presented cycling to neighbourhood youth as a fun, rewarding, and beneficial activity. In cooperation with young people, as well as schools and community organizations that had shown an interest in sustainable transportation, a wide variety of cycling-related events and awareness activities were undertaken.

Lead organization: Carrefour jeunesse emploi Saint-Laurent

MOST contribution: $25,000

www.cjestlaurent.org

Reach

- Over 1,500 students were engaged through 14 different activities, with 36 students playing a key role.

Innovative Tools and Practices

- Marginalized youth were engaged to reach out to other youth from different cultures.

Key Lessons

- Finding champions among the youth was very successful and an important component of the project.

Quantifiable Impacts

- Students at Le Cégep de Saint-Laurent gathered 2,000 signatures on a petition for cycling paths in their neighbourhood.

Partnership Legacy

- Main partners included the YMCA of Saint-Laurent, Cégep Vanier, Collège Ahuntsic, le Cégep de Saint-Laurent, l'École secondaire Saint-Laurent and l'Université du Québec à Montréal.
- Partnerships developed through the project are creating spin-off benefits, especially for the Vélogik program, which will continue to undertake various activities from this project.

CLEAN AIR ACHIEVERS II

Over 120 active or retired National Team, Olympic, and Paralympic athletes were recruited from across Canada as Clean Air Champions, acting as program educators and motivators. All Champions involved in the program were provided with one-on-one training and program orientation.

The Clean Air Achievers II project aimed to show a measurable shift toward walking, cycling, and other active modes of travel among youth in grades 7-9 by tracking results. This shift would increase the physical activity levels of participants while also reducing greenhouse gas emissions. A final goal was to attract private sponsors to support funding for future project expansion.

To accomplish these goals, an interactive website with TripTracker functions was designed and resource materials were updated. A focus group tested the website's overall functionality as well as the TripTracker. Overall results were positive with the majority saying they liked the program and rated the Champions and games highly. Feedback was used to refine the website and tools in the second year.

Other project activities included the Clean Air Champion classroom visits, creation of a Teacher's Manual, and post-program surveys and phone interviews. Students who took part in Clean Air Achievers II could earn rewards while all participants received certificates of achievement.

CLEAN AIR CHAMPIONS
DE L'AIR PUR

Clean Air Achievers II engaged top Canadian athletes to educate youth in grades 7-9 across the country about the links between air quality, climate change, transportation, and health issues, and to inspire youth to use active modes of transportation to improve their health and benefit the environment.

Lead organization:
Clean Air Champions

MOST contribution: $59,000

www.cleanairachievers.ca

Reach

- 11 schools and 13 classes completed the program, involving a total of 305 youth.
- About 13,000 people beyond the classroom were reached through databases, emails, newsletters, and word of mouth.
- Websites, including the project site as well as those of partners and sponsors, received a combined total of 75,000 hits.

Partnership Legacy

- All 12 community partners and program supporters (including two provincially-based community partners and various school boards) committed to future involvement in the program.
- HSBC Bank Canada was secured as a new funding partner for the following year.

Key Lessons

- Timing of program implementation is recommended for August to October to accommodate school registration.
- Post-program evaluation found that the TripTracker section of the website section needs to allow teachers access to administrative sections, including student passwords and usernames.

Innovative Tools and Practices

- A curriculum expert completed the Teacher's Manual, which provided a focused direction that was critical to the program's success.

Quantifiable Impacts

- Total emissions were reduced by 62%, while physical activity levels increased by 675%.
- Almost 100% of teachers involved expressed commitment to register for the following school year.

INTERNATIONAL YOUTH SUMMIT 2006

The Canadian Urban Transit Association's 2006 International Youth Summit on Sustainable Urban Transportation was held at McGill University in Montreal from July 12-17. The Summit built on the success of the first two youth summits, which took place in 2002 and 2004. To maintain consistency and replicate those earlier successes, youth from the two earlier summits participated on the 2006 taskforce.

Approximately 250 delegates who attended one of the three International Youth Summits have gone on to become active in sustainable transportation efforts in their communities. A number of past delegates are pursuing or have since completed post-secondary or graduate programs in transportation planning, urban planning, or community development. Others have secured internships and employment in the sustainable transportation industry.

The 2006 International Youth Summit involved keynote speakers, international speakers, a hands-on group activity, technical tours, and networking opportunities, along with 21 sessions and workshops. Examples of session topics include Planning Pedestrian and Cycling Friendly Cities, Planning Transit Friendly Cities, and Youth Action on Sustainable Urban Transportation.

Two examples of delegate initiatives that stemmed from the 2004 youth summit include: creation of an employability program around bicycle promotion and education around climate change, and organizing a national youth climate change conference. Numerous exciting initiatives were expected to stem from the 2006 summit.

CUTA ACTU
CANADIAN URBAN TRANSIT ASSOCIATION
ASSOCIATION CANADIENNE DU TRANSPORT URBAIN

The International Youth Summit 2006 linked youth from Canada and around the world to discuss and discover the role of sustainable transportation in creating more sustainable cities, while building leadership skills through action on diverse sustainable transportation initiatives.

Lead organization:
Canadian Urban Transit Association

MOST contribution: $30,000

www.transitaction.ca/youthsummit

Reach

- Of 155 applications received (8 international), 80 Canadian and 5 international delegates took part in the 2006 Summit.
- 3000 posters were distributed and the website received 500 hits.

Key Lessons

- Recruitment of international delegates proved to be challenging.
- Fundraising needs to begin early in the planning process and consideration should be given to hiring a professional fundraiser for similar events.

Partnership Legacy

- Relationships and alliances were planned to continue with all 18 key partners, which included various transport companies, a not-for-profit organization, and numerous provincial or municipal transit organizations.
- Many local transit systems and community groups involved in pre- and post-summit meetings benefited from the positive impacts of the Summit, with many of these partnerships continuing to grow in individual communities.

Innovative Tools and Practices

- Youth delegates were tasked with including a sustainable transportation project proposal with their application, resulting in the creation of 68 action plans.
- Delegates were encouraged to work with DreamNow.org, a website that assists in managing the mentorship process and tracking delegate action projects.

Quantifiable Impacts

- 100% of Canadian youth delegates have proposed sustainable transportation projects or activities post-summit, and 67% of delegates took action on sustainable transportation issues upon arriving home.

MOBILI.T

The Mobili.T project is directed at employers and employees in the Québec City regional transportation network. This project included both promotional materials and specific strategies.

A logo and graphic elements were developed to distinguish the Mobili.T project from other Vivre en Ville programs and were used in the development of several tools to build awareness and provide information. Key elements included the website and an information package that provided background on the project, information on services available to employers, and a summary of the economic, social, and environmental benefits of switching to sustainable modes of transportation. A set of brochures provided information and concrete suggestions for the five target modes. Tips and ideas were directed to employers and employees as well as the general public.

Linked to Mobili.T were several ancillary projects offering concrete solutions by mode. For Project Vélo-Ville, a bike sharing program at workplaces run by Vivre en Ville, the Mobili.T project developed brochures, posters, and an ad directed at employers. Under the project Le Vélo, ça me travaille! (Biking – that works for me!), four training sessions were held. Mobili.T team members also collaborated on the creation of tools for two carpooling projects led by l'Université Laval and the Parc technologique du Québec métropolitain. Public transit was promoted through the employee bus pass program.

VIVRE EN VILLE

This program presents sustainable transportation alternatives, such as walking, cycling, carpooling and car-sharing, for commuters who are currently enrolled in or could potentially be involved in the employee bus pass program in Québec City.

Lead organization: Vivre en Ville

MOST contribution: $30,000

www.mobili-t.com/sedeplacer.html

Reach

- About 250,000 people were made aware of the project through significant media exposure in a concentrated timeframe.
- More than 100 employers were contacted and over 3,000 employees informed about Mobili.T.

Key Lessons

- Building and maintaining an attractive and practical website is important.

Partnership Legacy

- Seven partners participated, including non-profit and semi-public organizations along with the City of Québec. Over 20 other partners expressed interest in future participation.

Innovative Tools and Practices

- Extensive and creative use of diverse media proved very effective, including a cocktail party in addition to the standard mix of a press conference and releases sent to radio, TV, print, and Internet media.

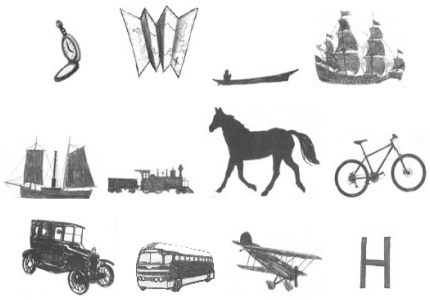
Quantifiable Impacts

- The bike share program had 2,635 loans by 1,000 users.
- 750 people registered for carpooling, which resulted in 150 matches.
- 200 new employees subscribed to the employee bus pass program.

NORTH SHORE MOVES: TRANSPORTATION AND YOU

In this program, the West Vancouver Museum & Archives traces the story of transportation on the North Shore from the canoes of the Squamish people to today's recreational playground with mountain bikes and kayaks used as transport and new energy sources such as fuel cells that are currently being developed. These elements are combined in a variety of activities to help students and families make healthy, sustainable transportation choices.

An Alternative Energy Fair and transportation-themed exhibition were the primary methods used to promote the benefits of sustainable transportation to the general public. Other activities included an electric-assist bicycle demonstration at community events such as Earth Day.



Students were reached through the Museum's education/school program, which is available to schools across several municipalities. A program activity guide that allowed students to track their own methods of transportation was combined with in-class visits and active learning opportunities around sustainable modes of transportation. A North Shore Moves activity book included work booklets, colouring books, and paper bus and SkyTrain models along with links to sustainability-related websites.

The North Shore Moves program was also built into the Museum's day camps, reaching an even larger audience of school-aged children. Building a Squamish canoe model to encourage a wider appreciation of the contributions of Aboriginal peoples to the environmental and cultural wellbeing of the area proved to be popular with both teachers and camp instructors.

WEST VANCOUVER MUSEUM & ARCHIVES

Through the North Shore Moves program, the West Vancouver Museum & Archives helped raise public awareness of the benefits of sustainable modes of transportation using an exhibition, website, alternative energy fair, education program, and mentoring opportunities for students.

Lead organization:
West Vancouver Museum & Archives

MOST contribution: $25,000

www.wvma.net/NorthShoreMoves

Reach

- Over 2,500 people were reach through North Shore Moves activities.
- The educational component was delivered over two years to 41 classes and at spring and summer camps.

Partnership Legacy

- 18 partner organizations ranged from school districts, First Nations, transportation authorities, and a historical society to a number of corporations or associations. The two school districts and Squamish Nation will continue to be involved as the program is offered on an ongoing basis.

Key Lessons

- Reliance on the school system as the sole venue for program delivery created vulnerability in the event of a labour dispute. A flexible program geared towards a larger audience would help avoid situations where classroom visits cannot happen.
- Through feedback from teachers, the educational activities were streamlined and linked to school curriculum.

Innovative Tools and Practices

- Demonstrations and use of the electric-assist bicycle created interest.

Quantifiable Impacts

- The program resulted in a 50% increase in Museum visitor and public program attendance.

OFF-HIGHWAY VEHICLE PROJECT

Nature Canada, a member-based, non-profit conservation organization, developed the Off-Highway Vehicle (OHV) project to bring stakeholder groups together to share perspectives and develop a common vision for sustainable OHV use. As the secretariat to the Canadian Nature Network, which represents over 360 local and provincial nature groups and more than 100,000 individuals, Nature Canada is ideally positioned to draw together diverse organizations with potentially conflicting views.

The array of participants included naturalists, off-highway vehicle users/user groups, private landowners, and OHV manufacturers among others. Discussions took place at a workshop organized in Corner Brook, Newfoundland, and consultation sessions held in Kamloops, British Columbia, and Cochrane, Alberta. Telephone consultations also took place with experts in provincial OHV policy development and key national and provincial stakeholder groups.

External stakeholder consultations focused on provincial and national policy development. The Canadian Nature Network committee focused on developing a common vision called a "National Naturalist Vision for the Responsible Use of OHVs" along with a review of relevant provincial legislation and policy across the country.

A bilingual website created for the project provided a discussion forum and resource centre. Preparations by the Canadian Nature Network committee in advance of the consultations created a methodology for soliciting input from external stakeholders.

In the Off-Highway Vehicle project, Nature Canada gathered input from a variety of stakeholders with widely different perspectives to develop a common vision for sustainable off-highway vehicle use. The process helped to build relationships and resulted in creation of both a vision and recommendations for provincial and national policy development.

Lead organization: Nature Canada

MOST contribution: $37,500

www.naturecanada.ca

Reach

- Face-to-face consultations and conference calls involved approximately 36 representatives, including naturalist affiliate organizations and external stakeholders, which represent thousands of individuals and members.

Partnership Legacy

- 22 partners included off-highway vehicle organizations, government departments, and conservation groups as well as the nine members of the Canadian Nature Network. Nature Canada will maintain ongoing partnerships with 12 of the organizations.

Key Lessons

- While relationships with national level stakeholders have reached the point where positions and controversial issues can be discussed, constructive relationships need to be developed with other stakeholders to build consensus on how to advance policy and legislative change in support of sustainable off-highway vehicle use.

Innovative Tools and Practices

- "National Naturalist Vision for the Responsible Use of OHVs" developed along with website that serves as a forum for a wide variety of OHV interests.

Quantifiable Impacts

- Significant strides were made through the stakeholder consultations yet much is still to be accomplished to reach the goal of sustainable OHV use.

ON TWO WHEELS

The Otesha Project's performances help audiences focus on re-evaluating their daily choices to reflect the kind of future they would like to see. The On Two Wheels program trained 11 project staff and 62 team members to become effective advocates for sustainable transportation and role models. These advocates then took their show on the road as four travelling bike tours.

Activities during the bike tours included theatre presentations and CO2zilla Workshops on climate change and sustainable transportation. A follow-up tool called The Otesha Book was created to provide information and action recipes in a youth-friendly resource.

'Sustainability joy rides' and bike repair/biodiesel/hybrid information sessions helped to promote different options and lend a 'cool' image to sustainable modes of travel, as well as engage community youth with the project team members. The action plan workshops inspired local youth to think out concrete, relevant steps they could take and helped catalyze or support youth-led projects that were already underway.

All of these activities were used to promote or were supported by The Otesha Project website and online resources. Learnings from the On Two Wheels project were posted on the site.

Each of the project targets for presentations, youth involvement, training of advocates, and media coverage were met or exceeded. The one exception was the action plan workshops, which proved difficult to set up in some schools and which were replaced by alternative sessions or, in the case of the BC tour, a weekend conference.

On Two Wheels by The Otesha Project combined bicycle tours and theatre presentations, multimedia and storytelling to educate and engage young people across Canada on the issues of climate change and sustainable transportation.

Lead organization: The Otesha Project

MOST contribution: $40,000

www.otesha.ca

Reach

- Over 26,000 people in 172 communities across Canada were reached through theatre presentations, workshops, and information sessions.
- 222 audience members submitted postcards telling actions they had taken in their lives.
- Just over 1,900 Otesha Books were selectively distributed and the website received 81,242 hits.

Partnership Legacy

- This ambitious cross-country project involved 61 community organizations, 11 government organizations, three private foundations, and six businesses. Active partnerships were planned to continue with at least five of the organizations.
- Team members expressed a high level of interest to remain connected and involved in Otesha programs after their tour and to replicate programs in their own communities.

Quantifiable Impacts

- 77% of the 19,019 participants at theatre presentations said they would take action in their own lives, while 66% of workshop participants said they would take specific action on climate change.
- 90% of team members felt they had gained the skills and experience to be effective sustainable transportation advocates and 91% listed a sustainable mode of transportation as their primary means of travel post-tour.
- 215,676 vehicle kilometres were avoided as a result of team members travelling by bike.

Innovative Tools and Practices

- The Otesha Jam! weekend conference in B.C. provided intensive capacity and skill building workshops, and bringing together keen students and giving them additional skills that they could take back to their communities.
- The Otesha Book acted as a springboard for many students who were seeking more in-depth information and actions.

Key Lessons

- It is difficult to book presentations in high schools during the best cycling months from June to August.
- A bike tour schedule needs to provide enough time for tour members to rest and adequately prepare for presentations.

PLANNING ACTIVE TRANSPORTATION COMMUNITIES

Go For Green is a former national charitable organization that encouraged Canadians to pursue healthy, outdoor physical activity. In this project, communities looked at how they could change travel behaviour by examining the barriers that keep people from walking or cycling to work, school or other utilitarian destinations in their area. Primarily aimed at community leaders, the project was structured to enable them to make informed decisions about active transportation in their municipality.

An online survey tool helped residents, community leaders, and municipal staff learn about local attitudes towards active transportation and compare these findings to national results. In the workshops, participants assessed current conditions for walking and cycling in their community and arrived at a common understanding of the strengths, weaknesses, and priorities. From this information, action plans were developed.

Communities in five provinces – New Brunswick, Prince Edward Island, Saskatchewan, Alberta, and Quebec – participated by hosting presentations or holding multi-day workshops. Walkability and Bikeability self-assessments were conducted in seven small to mid-sized municipalities, after which each community created a vision statement for active transportation and short-term, achievable action plans.

Go For Green provincial board members assisted in the project, while some provincial associations also took an active role in organizing the workshops and/or the public presentations. In addition, 10 local groups helped conduct the workshops.

Planning Active Transportation Communities promoted the improvement of physical activity among Canadians by engaging communities in a process to evaluate and improve their active transportation environment.

Lead organization: Go For Green

MOST contribution: $12,500

Reach

- 14 workshops and information sessions engaged 230 participants.
- 375 survey responses were received from 8 target communities.

Key Lessons

- The community self-assessment received the strongest ratings and praise from participants.
- Workshops should be kept to a maximum of one day due to time pressures placed on municipal staff and political leaders.

Partnership Legacy

- Workshop participants in four communities each formed a local group to continue work on active transportation issues.
- A provincial coalition was created in Prince Edward Island with representation from both of the communities that conducted workshops and the provincial government.

Innovative Tools and Practices

- The Active Transportation Quotient (ATQ) proved to be an effective tool in focusing discussions but the scoring system requires simplification.

Quantifiable Impacts

- 7 action plans and report cards were created, one of each per community.
- 100% of community contacts indicated that they had used the resources in the Active Transportation Toolkit in the six months following their workshop.

TAKING ADAPT ON THE ROAD

On this project, the Association of Doctors for the Advancement of Physically-active Transportation (ADAPT) partnered with TRAX, the sustainable transportation component of the Ecology Action Centre, a community-based environmental organization based in Halifax.

This partnership between doctors and active transportation advocates created a natural bridge between public health issues, land use, and transportation planning. Prior to the project, ADAPT and TRAX both primarily focused on the Halifax Regional Municipality. Taking ADAPT on the Road extended that reach to the communities of Sydney, Pictou, and Bridgewater.

In these communities, the project team worked to partner with physicians and public health and environmental organizations to deliver presentations on active transportation to physicians and the general public. They also worked to facilitate the implementation of actions to improve active transportation in the communities and to increase ADAPT's province-wide membership.

The project revealed an untapped potential for creating networks with both public health professionals and sustainable transportation advocates to promote active transportation and build environments that facilitate active transportation – working together makes the message more credible and helps both groups achieve their mutual goal faster and more efficiently.

For future projects, the partners determined that a narrower approach would be more effective, such as focusing on one or two communities only, establishing one community partner group, and directing efforts towards physicians and health professionals rather than the general public.

Ecology Action Centre

Doctors partnered with an environmental organization in Nova Scotia on this project to help health professionals and the general public make the connection between car dependency and health problems and to learn how active transportation can prevent these health issues. The project also assisted organizations outside of the Halifax Regional Municipality in promoting active transportation.

Lead organization:
Ecology Action Centre

MOST contribution: $24,364

www.ecologyaction.ca/trax

Reach

- 260 individuals and organizations were reached through the project.
- Moderate increases were achieved in awareness among active transportation advocates about health problems related to land use and transportation planning, and among physicians and health professionals about the impacts of proper land-use and transportation planning on public health.

Innovative Tools and Practices

- The Glace Bay Youth Action Committee learned how to assess the walkability and bikeability of their community and thus gained skills to critically assess its level of pedestrian/bicycle friendliness. Using photo-mapping, they visually documented infrastructure in their community, which impacts the ability of youth to move safely on foot or on bicycle. This inspired the youth to write a letter to Council requesting better active transportation infrastructure in the Cape Breton Regional Municipality.

Partnership Legacy

- A total of 13 organizations were involved, including volunteer committees, non-profit organizations, and municipal and provincial organizations. ADAPT planned to continue to actively build their partnerships with six of these organizations.
- The need for the TRAX/ADAPT partnership was confirmed by physicians who were unaware of the research that identifies planning and transportation as public health issues and, as a result, did not see how it related to their work with patients.
- TRAX outreach and interest in networking and partnering was appreciated by local organizations working to promote active transportation in their communities.

Key Lessons

- Most of the health professionals and some physicians who were receptive to the message were generally those who are active in their own lives and cycle or walk to work.
- Arranging presentations for physicians is challenging due to their busy work schedules.

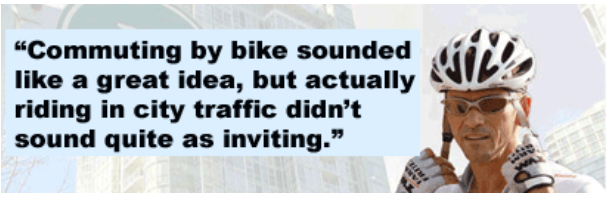
Quantifiable Impacts

- ADAPT attracted 16 new physicians as members during the project timeframe, 11 of whom are from small towns and rural areas.

BEST PRACTICES, BETTER POLICIES

The project, led by Better Environmentally Sound Transportation (BEST), a non-profit organization based in Vancouver, involved researching, assessing, and outlining the most efficient transportation solutions that have been adopted in urban regions across Canada, the United States, and Europe. The research process brought together stakeholders to determine and outline transportation improvements that show particular promise, and secured broad and direct collaboration and input from professionals and transportation experts in BC and across the country.

BEST collaborated with the Greater Vancouver Regional District, TransLink, Langara College, and the Simon Fraser University City Program on this study. Student researchers from the Langara College Applied Planning program were recruited to assist with a detailed analysis of road and congestion-pricing TDM measures. An interactive two-round Delphi survey tool, personal meetings, and interviews were used to tap into the vast reservoir of professional TDM policy expertise.



A summary report on best practices from various jurisdictions was prepared during the project timeframe and a second report summarizing findings from the survey and interviews carried out with a select group of transportation professionals, business people, and academics. At project end, the research had not yet been disseminated, with a public lecture and invitation-only workshop on road pricing scheduled to take place.

BETTER ENVIRONMENTALLY SOUND TRANSPORTATION

This research project reviewed best practices in Transportation Demand Management (TDM), from urban planning and design to programs that encourage walking, cycling, and transit, and highlighted policies that could successfully contribute to sustainable transportation in Canadian cities.

Lead organization:
Better Environmentally Sound Transportation

MOST contribution: $50,000

www.best.bc.ca

Reach

- The study involved input from 12 experts and included a detailed survey of nine experts and expert practitioners for information to complete 10 case studies on Practices & Policies and 15 case studies on TDM.

Key Lessons

- Many TDM program providers, from transportation management associations, car-sharing operations, youth-based active transportation programs, rideshare services, and cycling educators to transit agencies, lack secure core funding in spite of demonstrated results.

Partnership Legacy

- Main project partners included the Greater Vancouver Regional District, TransLink, Langara College, and the Simon Fraser University City Program, with involvement from the Victoria Transport Policy Institute.

Innovative Tools and Practices

- The two-way, two-part Delphi survey provided an opportunity to examine common thoughts and theories about a number of issues relating to TDM implementation.

Quantifiable Impacts

- Application of the information and ideas gathered in this research study, such as a congestion charging program, would create direct environmental benefits.

BYWARD MARKET TMA FEASIBILITY STUDY

EnviroCentre is a non-profit organization that works with the City of Ottawa to deliver programs related to energy efficiency and sustainability. Promoting the use of sustainable modes of transportation is a key element of their activities, which includes helping the City of Ottawa achieve the goals set out in its Transportation Master Plan.

Ottawa's Byward Market is a mixed commercial district with significant traffic congestion and parking issues. One approach to resolve these issues is the creation of a Transportation Management Association (TMA), which is typically a partnership of businesses in the area with government support.

Participants in the study were clearly aware of the transportation issues facing Byward Market and welcomed the intended results. This was complicated by the wide variety of interests at the table, many of them in conflict with each other and with Transportation Demand Management principles. For example, concern was expressed that reducing vehicle traffic in the area would have a negative impact on business. Scepticism around the availability of long-term support and funding also challenged the potential for creation of a TMA in the area.

The project did create awareness of alternative strategies to address traffic congestion and parking issues in the Byward Market and resulted in development of an implementation plan. EnviroCentre's involvement with the Byward Market Business Improvement Area helped increase recognition of the inherent risks and short-term nature of solving these problems through the addition of new and expensive parking facilities, and the need to think in terms of environmentally sustainable solutions.

envirocentre

This feasibility study evaluated potential opportunities and obstacles to the creation of a Transportation Management Association (TMA) in Ottawa's Byward Market to help resolve traffic congestion and parking issues.

Lead organization: EnviroCentre

MOST contribution: $20,000

www.envirocentre.ca

Reach

- Several dozen business leaders in the Byward Market, City of Ottawa staff, and members of the Road and Cycling Advisory Committee were made aware of the project.
- 12 members sat on the project steering committee.

Partnership Legacy

- The Byward Market Business Improvement Area, City of Ottawa, and the Road and Cycling Advisory Committee partnered with EnviroCentre on this study.

Innovative Tools and Practices

- Participation of the EnviroCentre on the Byward Market Business Improvement Area's parking committee introduced alternative solutions and perspectives to the discussions around parking and traffic congestion.

Quantifiable Impacts

- 100 information packages on the feasibility study were created and distributed.
- Two solutions/potential projects were identified.

Key Lessons

- Typical Transportation Management Association (TMA) programs would require significant modification to apply in the Byward Market setting.
- The TMA would need to collaborate closely with the local transit system OC Transpo and the City of Ottawa to develop services and incentives that could accommodate a wide variety of stakeholders.

REDUCING FUEL CONSUMPTION, EMISSIONS OF GHG AND TRANSPORTATION COSTS BY THE IMPLEMENTATION OF PARTIAL OFF-HIGHWAY HAULS IN FOREST OPERATIONS

One of the keys to reducing transport costs is minimizing fuel consumption of haul trucks, as transport costs represent the largest component of delivered wood costs in Canadian forest operations. Often 50% or more of the total costs, fuel costs are either the largest or second largest cost component of transport costs (after labour costs). The key to improving productivity is to maximize the payload hauled on each truck trip.

This project, led by the Forest Engineering Research Institute of Canada (FERIC), examined the factors that influence the cost of implementing a dual mode transport system and its impact on fuel consumption and greenhouse gas (GHG) emissions. Factors examined included the capital and operating costs for off-highway trucks, increased log-handling costs at the transfer yard, transfer-yard costs, forest upgrade costs to handle larger trucks, and construction and maintenance costs for forest roads.

Information from present off-highway haul operations, as well as two operations already operating dual mode systems, was compiled and analyzed. A costing model and a decision-support tool were developed for use by forestry companies to determine whether implementation of such a system would be economically viable. The model summarized reductions in fuel consumption and GHG emissions, potential fleet reduction, and implementation costs. Interface Map, a program that automatically finds the best path for each product in a harvest block to its destination, be it a mill or transfer yard, was also used in this project.

FPInnovations FERIC

This project evaluated the impact on fuel consumption and greenhouse gas emissions of a dual mode transport system in forest operations that would include large off-highway trucks. Combining the use of these vehicles, which are more energy efficient and can haul more wood than their highway counterparts, resulted in less fuel consumed per tonnes transported.

Lead organization:
Forest Engineering Research Institute of Canada

MOST contribution: $79,180

www.feric.ca

Reach

- Two workshops were held to present the project and its results: one in Thunder Bay with a total of 38 attendees, including 21 forest company representatives and five log transport contractors, and one in Quebec with a total of 95 attendees, including 16 forest company representatives and 10 log transport companies.

Innovative Tools and Practices

- The costing model and decision-support tool help take away some of the uncertainty and risks in implementing an off-highway modal system.
- This type of project approach could be transferred to other forest operations.

Partnership Legacy

- Three partners joined to deliver this project, including two forest company industry partners (Kruger and Boisaco) and one trucking contractor (Transport Janifer).
- Kruger Inc. hired FERIC on a contract basis to investigate the possibility of implementing an off-highway modal system and another two companies are considering doing the same.

Key Lessons

- Under suitable conditions and with proper management, the use of off-highway trucking can reduce greenhouse gases and fuel consumption while also reducing transport costs.

Quantifiable Impacts

- A pilot project at Boisaco resulted in an estimated 9% (64,000 L) reduction in fuel consumption, 173 tonne reduction of greenhouse gases, and 17% reduction in distance travelled.

ROSS INDUSTRIAL PARK BASELINE STUDY

In the Ross Industrial Park Baseline Study, led by the Regina Eco-Industrial Networking Association (REINA), data was collected from the local municipality, a national online industrial database, provincial utilities, and directly from businesses in Ross Industrial Park. A set of 16 performance indicators were established to allow meaningful benchmarking with other sites or businesses.

The resulting database is designed to organize and manage data, facilitate analysis, and track business survey responses. The database is also linked to a Geographic Information System (GIS), which enables unique land/resource use analysis and images. Creating the baseline was important to ensure that future investments can be strategically targeted to maximize benefits and progress can be quantitatively measured.

Surveys distributed to 256 of the 553 businesses located in Ross Industrial Park were supplemented by follow-up calls and a series of interviews were planned. Fleet Smart workshops helped businesses in the park become aware of actions they can take to increase the fuel efficiency of their operations.

Through the work completed, REINA identified several solutions that will help move transportation-related businesses in the industrial park towards sustainability. One example is addressing the heat loss that occurs from shipping and receiving doors being left open at warehouses and distribution centres.

REGINA ECO-INDUSTRIAL NETWORK ASSOCIATION

This baseline study produced a custom database summarizing consumption of electricity, natural gas, and water, along with corresponding CO_2 emissions for businesses located in the Ross Industrial Park in Regina. It resulted in one of the most detailed resource use baselines ever completed for an industrial area.

Lead organization:
Regina Eco-Industrial Networking Association

MOST contribution: $30,000

www.reina.ca

Reach

- Awareness generated through newspaper articles and presentations at national and international conferences resulted in a near doubling of interest in eco-industrial networking.
- The survey and outreach process opened the door to engage more businesses in the industrial park.

Key Lessons

- When combining different datasets, it is important to maintain a 'unique identifier' to relate the various data to a particular business, site, or person.

Partnership Legacy

- To accomplish this intensive baseline study, six main partners assisted including the municipal and provincial governments, a university, an environmental organization, and the private sector. The partnership between REINA, the City of Regina, and businesses in Ross Industrial Park will build into the future.

Innovative Tools and Practices

- This approach is transferable and was to be applied by the City of Greater Sudbury in Ontario and is being considered by the Tilbury Eco-Industrial Partnership in Delta, BC.

Quantifiable Impacts

- The resource use database created by this project provides a baseline for greenhouse gas emissions against which future reductions can be measured.

MAKING TRACKS: PHASES I AND II

The Ecology Action Centre is a non-profit organization based in Halifax that works to build a healthier and more sustainable Nova Scotia. The Making Tracks project augments their work as the provincial organization delivering the Active & Safe Routes to School program. Phase I of Making Tracks involved research on barriers and benefits, while Phase II involved pilot programs in schools.

Phase I began with a literature review, which was used to inform the design of focus groups. The data collected from the focus groups formed the basis of a survey tool to probe deeper into the barriers and benefits of using active transportation to school. Parents and students were drawn from six study schools for both the focus groups and the survey.

Program materials were developed and refined for use with the pilot schools starting in September and continuing through March. Five schools were used for the pilot phase with another four schools acting as controls. A few examples of the educational materials and programs included the Think First Safety Education Presentation, Bike Rodeo, Elmer the Safety Elephant, Bicycling for Fitness and Recreation, and Blazing Trails. Fun prizes included stickers, jump ropes, balls, and compasses.

As a result of this project, the Active & Safe Routes to School program in Nova Scotia was revamped and new components tested, ultimately improving the program's application across the province.

The Making Tracks project researched the barriers and benefits of active transportation for children getting to school. This research resulted in adjustments to the Active & Safe Routes School program in Nova Scotia to overcome the barriers that were uncovered. This was followed by work with pilot schools to refine the support provided.

Lead organization:
Ecology Action Centre

MOST contribution: $50,000

www.ecologyaction.ca/asrts

Reach

- 13 focus groups (six with parents, three with community stakeholders, and four with children) were conducted with a total of 75 participants.
- Of the 500 surveys distributed to rural, suburban, and urban areas, a total of 437 were returned (87.4% response rate).
- Over 1,800 students were exposed to the project within the pilot schools.

Key Lessons

- A school champion is required to provide coordination and make it easier for staff to get involved.
- Working with families on behaviour change is crucial to success. Clear and specific curriculum linkages are important, but less so than the need for parental involvement.

Partnership Legacy

- Partners included the schools, along with at least 18 others such as school boards, government departments, police departments, recreation, safety and environmental organizations, health boards, and a university.
- Continued partnership was confirmed with 10 of the 18 initial partners, with potential remaining to develop others.

Innovative Tools and Practices

- The Pace Car Program, a unique program adapted for use at the pilot schools in partnership with the Insurance Bureau of Canada, put community-based social marketing theory into practice and targeted driver behaviour and speeding, in particular.

Quantifiable Impacts

- Two out of three schools found that traffic congestion improved over the course of the project.
- Participation in Active & Safe Routes to School was shown to prevent decline in active modes during months when weather conditions were more challenging.

MANITOBA STUDENT TRANSPORTATION NETWORK

The Manitoba Student Transportation Network (MSTN) is a collaborative, trip-reduction program directed by Resource Conservation Manitoba, a non-profit centre for environmental education and sustainable living based in Winnipeg.

This project assisted students at the secondary school level to learn the skills and access the resources needed to organize programs and campaigns around sustainable transportation. Specific tools used included cycling workshops, school presentations, talks by elite-level athletes, and student conferences on climate change and alternative transportation.

Cycling is an area of strong student interest – it is something they can do personally and is 'cool' to do. The workshops focused on bike maintenance and barriers around safe cycling. School presentations, including some by elite athletes under the former Champions for the One Tonne Challenge program, also helped gain profile for the issues.

Three student conferences organized in partnership with Climate Change Connection proved to be among the most concretely useful initiatives. In addition to raising awareness around the issues of climate change and sustainable transportation, they also provided skill-building resources for students and the chance to practice team planning, with the goal of catalyzing the establishment of committees and activities at participating schools.

On a broad level, the student conferences helped to engage students, identify prospective student activists, extend the reach of the project to different schools, and resulted in ongoing action by students on climate change and sustainable transportation.

The Manitoba Student Transportation Network encouraged students at participating secondary schools to choose environmentally friendly modes of commuting to and from school. Events were organized to educate student participants, identify key activists, develop a network, and build the capacity and skills for continued activities by students.

Lead organization:
Resource Conservation Manitoba

MOST contribution: $25,000

www.resourceconservation.mb.ca/gci/MSTN

Reach

- A total of 20 events directly involved 1,140 students from 16 schools.
- At least 6,600 people heard the message through outreach, promotion, events, and the website, with another 39,500 reached through partner organizations and media coverage.

Quantifiable Impacts

- Potentially six schools will continue work in the area of climate change and sustainable transportation.
- 90% of students reported changes in their planned travel behaviour through the student conference survey.

Partnership Legacy

- Partnerships with Climate Change Connection and Natural Cycle, a bike shop and courier service involved in Car Free Day, grew even stronger.
- Success of the program and the potential for work with post-secondary level student groups led the provincial government to continue to fund the MSTN program.

Innovative Tools and Practices

- This project filled a gap in existing programming in Manitoba by engaging young people at an age when lifelong transportation habits are being formed.

Key Lessons

- Secondary students require a high degree of close and sustained support to organize activities and campaigns around transportation.

PERSONALIZED TRANSPORTATION PLANS

Équiterre is a non-profit, non-governmental organization that focuses on ecological agriculture, fair trade, energy efficiency, and sustainable transportation. Based in Montreal, they develop projects that encourage individuals to take concrete actions to bring about positive change.

Key elements of the Personalized Transportation Plans projects involved developing, testing, and administering a survey. This questionnaire helped to determine the specific needs of students and to create a bank of solutions and resources to draw from when developing personalized transportation plans. To raise awareness of the program, on-campus information booths were set up and the website was updated and expanded to include a practical tips section along with testimonials. Posters, web banner ads, active transportation maps, brochures, and copies of the Transportation Cocktail Kit all helped to get the message out. Other project activities included recruiting members for Équiterre's Transportation Cocktail Club and training volunteers for the project and on environmental issues in general. Initial plans were modified when university students in Quebec went on strike, shortening the length of time the on-campus information booths were accessible.

The impact of the personalized transportation plans was evaluated based on the number of individuals who put into practice the recommendations outlined in their plan and what percentage of those recommendations were implemented.

Preparing personalized transportation plans provided an opportunity to address, on a one-on-one basis, many myths and obstacles about reducing private vehicle use. The plans appear to have successfully modified behaviour by increasing the use of walking, cycling, carpooling, and public transit, including for shopping and getting to work.

This project worked to reduce the use of private vehicles by post-secondary students in the Montreal region, particularly those at l'Université de Montréal, by developing an approach and tools specific to students that break down the barriers to changing transportation behaviour.

Lead organization: Équiterre

MOST contribution: $50,000

www.equiterre.org

Reach

- 40 volunteers, five interns, and 68 sponsors were recruited.
- 8,100 people were reached through the various activities and 450 new members were generated for the Transportation Cocktail Club.
- Over 5,000 people visited the webpages on personalized transportation plans.

Key Lessons

- Champions are important in extending the reach of the project and play an influential role in convincing those close to them to change their behaviour and explaining how to do so.
- Personalized transportation plans are effective and well received, but are extremely labour intensive and required more time than anticipated to develop.

Partnership Legacy

- More than 24 partners were involved in this project, including Montreal area universities and colleges, environmental organizations, media, cycling advocacy groups, and transportation and municipal agencies.
- Continued contact with student groups and the university or college administration will sustain their interest in sustainable transportation projects.
- Through the work of interns, personalized transportation plans along with relevant resources continue to be offered through the website.

Innovative Tools and Practices

- The Transportation Cocktail Club and online resources help young people evaluate their need for a personal vehicle, including implications and alternatives.

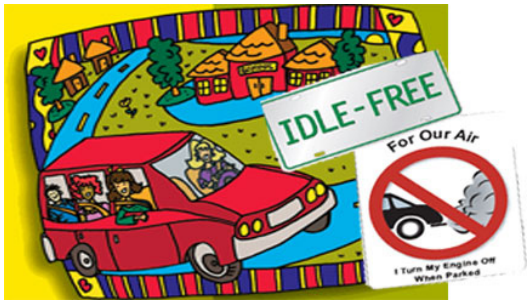
Quantifiable Impacts

- 695 personalized transportation plans were created for individuals with 85% of the recommendations put into practice – 10% applied all of the recommendations, 25% put most to use, and 50% put some of the recommendations to use.

SCHOOL POOL

The Sierra Club of Canada is a non-governmental organization that works on a range of environmental issues including climate change. The Prairie Chapter is located in Edmonton, Alberta.

SchoolPool.ca offers Alberta teachers, parents, and students a new sustainable transportation alternative. Modelled after, and in partnership with, the successful Carpool.ca, this online ride-matching service connects parents with other families who are interested in carpooling their children to school. External coordination of the program alleviates the burden on school administration while helping to address traffic congestion at school drop-off and pick-up locations. For parents, it saves time in the morning rush and allows them to help reduce greenhouse gas emissions due to fewer motorized trips to school. Fewer cars travelling to and from the school also benefits neighbours bothered by school traffic congestion.



Launched with a major mailing, letters and promotional materials were sent to every public, Catholic, and private school in Edmonton, and every private school in Calgary. A second round of intensive outreach within Alberta focused on the community of St. Albert, the Red Deer area, and again in Calgary.

Support materials provided to registered schools in the form of "Take Action – SchoolPool.ca" kits, which included leaflets, bookmarks, posters, school supply inserts, and back-to-school notices. Ads were included in school newsletters, and SchoolPool.ca graphics were placed on school websites.

Sierra Club Prairie

SchoolPool.ca is an online ride-matching program in Alberta that encourages the creation of carpools among parents of elementary school-aged children, thereby reducing greenhouse gas emissions and school-based traffic congestion.

Lead organization:
Sierra Club – Prairie Chapter

MOST contribution: $25,000

www.schoolpool.ca

Reach

- 6,000 parents were reached through newsletter inserts.
- About 6,400 leaflets, 5,000 bookmarks, 1,000 letters and 100 posters were distributed.
- 97 schools were contacted through personal outreach, and 15 meetings were held with interested schools.
- 50 schools across Alberta received presentations.

Partnership Legacy

- Core partnerships among Sierra Club, Alberta Motor Association, and Carpool.ca were planned to continue; however, Sustainable Alberta had to withdraw due to capacity constraints.

Key Lessons

- One year proved insufficient for program set up and implementation.
- Anticipate and be prepared to address school concerns about insurance coverage and liability risks.
- Try engaging parent groups rather than school administrations, which are often over-burdened and unable to review or participate in new projects.

Innovative Tools and Practices

- The easy-to-use online registration process and easy-to-navigate website contains bright colours and engaging text.

Quantifiable Impacts

- 16 schools signed up for the program and 91 parents registered.
- 40 matches were created.

SCHOOL TRAVEL PLANS

The skyrocketing trend of children being driven to and from school, while walking and other active forms of transportation plummet, has created serious and growing concerns about the related health and environmental impacts. In Canada, the Active & Safe Routes to School program is working to reverse this trend and is recognized internationally as a leader. As the next step in this process, School Travel Planning would introduce a comprehensive national program that helps to maximize active transportation and its benefits, one school at a time.

School Travel Planning brings together community stakeholders to identify barriers to active transportation for each school and develop a written action plan. A flexible framework allows communities to customize their approach to fit local circumstances. The end result is fewer cars around schools, cleaner air, safer streets, and more alert and healthy students.

In preparation for the introduction of School Travel Planning, Green Communities Canada conducted research and prepared two reports: "Review of International School Travel Planning Best Practices" and "School Travel Planning Review and Recommendations". These reports are available electronically on the organization's website.

The project also included development of a Canadian School Travel Plan pilot model along with an evaluation strategy. Four pilot provinces (Ontario, British Columbia, Alberta, and Nova Scotia) were selected and confirmed.

Green Communities CANADA

School Travel Plans build on the strong work completed by non-profit organizations across Canada through Active & Safe Routes to School. These programs help make it safer for children to walk, bike, inline skate, and skateboard to and from school. In this research project, best practices and recommendations for School Travel Planning were compiled.

Lead organization:
Green Communities Canada

MOST contribution: $20,000

www.saferoutestoschool.ca/relatedresearch.asp

Reach

- Six international contacts were identified to assist in the best practices research and 14 interviews in total were conducted in the U.K., New Zealand, U.S., Australia, and Canada.

Partnership Legacy

- 15 partners joined to deliver the project, including the contractor who conducted the research and report writing, along with the six international contacts and the seven members of the Canadian School Travel Plan Development Team.

Key Lessons

- Lessons learned from experiences in other countries will allow Canada to avoid some of the pitfalls when introducing School Travel Planning. Examples include keeping the process simple, providing sufficient funding for both infrastructure and non-infrastructure elements, and allowing a realistic timeframe for development and implementation. A plan for measurement of the program's success at a national level should be included, an element missing for most of the existing programs in the world.

Innovative Tools and Practices

- The reports produced by this project were eagerly anticipated internationally, as they represent the first time this kind of information has been summarized.

Quantifiable Impacts

- Environmental and sustainable transportation impacts of School Travel Planning will be available at the end of the second phase of the project, which involves pilots in four provinces.

STEP IT OUT (IWALK CLUB)

The IWALK Club makes walking fun for students, as they foot it across the country or around the world. Modelled after an award-winning program in England, the walking club was initiated by Green Communities Canada, a non-profit organization that delivers the Active & Safe Routes to School program in Ontario.

Upon registering, schools receive an informational package that is available in English or French and gives them everything needed to get students walking. The kit contains the IWALK Club student card, golden sneaker sticker, world poster, student certificate, an activity package linked to Ontario curriculum, instructions, and a copy of the Walking School Bus CD.

Students at participating schools earn certificates of accomplishment for completing their IWALK Club cards and receiving five 'golden shoe' stickers. Many schools also offer additional incentives. Examples of simple, innovative rewards include an extra recess for winning classes, golden sneaker or boot awards, house league points, or school announcements highlighting achievements. Celebrations have included spirit assemblies to launch the club, meet and greets for moms and dads, and a Walk of Fame with names chalked on sidewalks leading to the school.

Through a variety of voluntary in-school activities during recess or the lunch hour, all students can participate, including those who arrive by bus or for other reasons are unable to walk to school. Many schools found the IWALK Club a useful way to encourage an additional 20 minutes of daily physical activity for their students.

The IWALK Club was created as part of the Active & Safe Routes to School in Ontario. The program helps to reduce car trips to school, encourages walking and other active travel, reduces pollution and climate change emissions, and promotes healthier lifestyle choices for students and their families.

Lead organization:
Green Communities Canada

MOST contribution: $98,115

www.saferoutestoschool.ca/iwalkclub.asp

Reach

- 19 communities and almost 155,000 students at 292 schools participated with at least 2 teachers and up to 3 parents involved at each school.
- IWALK Club resources were distributed to 95% of Ontario's 4,000 schools.

Partnership Legacy

- 22 communities committed to continue promoting the Active & Safe Routes to School program, with many developing local programming to support the IWALK Club.

Key Lessons

- Working through local community partners or stakeholders, such as public health units, school boards, and police and transportation departments, was found to be an effective way to reach schools and also allows the program to be translated into local issues.

Innovative Tools and Practices

- The results of three evaluations were compiled into one document and circulated to all project partners, Ontario Active & Safe Routes to School communities, and to national and international contacts.

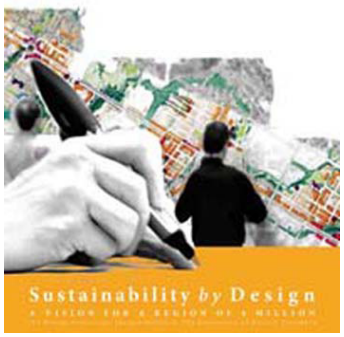
Quantifiable Impacts

- Among participating schools that provided feedback, 75% reported significant increases in the number of students walking to school.
- Through the IWALK Club, 420 tonnes of CO_2 were avoided by eliminating nearly 11 million vehicle kilometres.

SUSTAINABILITY BY DESIGN (SxD 1.0)

The SxD 1.0 project, led by UBC's Design Centre for Sustainability, used charrettes to bring together various stakeholder groups in a collaborative planning process and incorporate the disparate viewpoints into a blended solution.

At the neighbourhood level, three case study charrettes focused on developing viable sustainable development strategies from prototypical urban conditions. On the regional scale, stakeholders and urbanists in the Vancouver area spent a one-day charrette addressing how to sustainably accommodate a doubled and aging population. The resulting 50-metre map was displayed at the United Nations' World Urban Forum.



Case study charrette teams included one representative from each of the following: TransLink, Greater Vancouver Regional District, government, one community member (minimum), city staff, and representatives from community groups. At the workshops, all members of the charrette team contributed further to the development of the design brief through lively debate. The design briefs offered participants some guidelines and structure towards creating the vision and were based on input generated from workshops and research prior to the charrette.

The six principles of a sustainable community were identified as: good and plentiful jobs close to home, mixed-use corridors accessible to all, five-minute walking distance to transit, access to natural areas and parks, lighter, greener, cheaper, and smarter infrastructure, and different housing types.

The activities and results provided the first iteration of the multi-interest 50-year vision for a sustainable region of four million and the foundation for the next four years of the project.

Design Centre for Sustainability
The University of British Columbia

The Sustainability By Design or SxD 1.0 project represents a collaborative effort to produce a compelling visual representation of what the Greater Vancouver Regional District might look like in 2050 at neighbourhood, district, and region-wide scales.

Lead organization:
University of British Columbia Design, Centre for Sustainability

MOST contribution: $50,000

www.dcs.sala.ubc.ca/projects_sustxdesign.html

Reach

- 13 events, including public presentations, workshops, charrettes, and a final presentation, directly engaged over 550 people.
- At least 1,000 visitors viewed the SxD map at the World Urban Forum, which drew approximately 10,000 participants from over 100 countries.

Key Lessons

- Participants viewed the design briefs as a key guiding tool in structuring the time-limited charrette.
- The application of population and demographic research was a key element in supporting the context and target for the regional charrette, and is recommended as a research and design method for similar projects.

Partnership Legacy

- SxD, as a collaborative project, involved hundreds of participants, including communities, elected officials, non-governmental organizations, design professionals, and members of the real estate and development sectors. In particular, three communities were the most involved: the Township of Langley, Municipality of Delta, and the City of Burnaby.
- Numerous funding partners allowed for the success of the project and most partnerships will continue into the future.

Innovative Tools and Practices

- The charrette process helped build the capacity of participants to successfully advocate for sustainable design in future planning endeavours in their communities.

Quantifiable Impacts

- With implementation of the 50-year Sustainability Visions, significant reductions in greenhouse gas emissions would be realized due to increased walkability, transit use, and other multimodal transportation, among many other environmental benefits.

SITE PLAN REVIEW GUIDELINES FOR PROMOTION OF ALTERNATIVE TRANSPORTATION MODES

The Canadian Institute of Transportation Engineers, a non-profit organization of individuals practicing in the field of transportation planning and engineering, acted as project manager for the preparation of the site plan review guidelines.

Incorporating best practices in site planning, these guidelines maximize the accessibility of walking, cycling, and transit in the design of non-residential developments. Examples of these would include offices, retail, recreational, industrial, and institutional land uses.

The project clearly demonstrated that reduction in automobile use begins with municipalities, since they set policies and practices within their communities. A municipality can influence transportation choice by designing new development sites to promote the use of sustainable modes. Through the municipal review process, design elements that favour or enhance access by alternative modes can be included and given priority.

Workshops held across Canada with practitioners helped spread the word about the new site design guidelines and how to apply them. Cities visited included Vancouver, Calgary, Edmonton, Saskatoon, Winnipeg, Oakville, Toronto, Ottawa, Montreal, and Moncton.

The final guidelines, "Promoting Sustainable Transportation Through Site Design: An ITE Proposed Recommended Practice", are available online. Their significance was recognized through a Sustainability in Transportation Award from the Transportation Association of Canada.

The Canadian Institute of Transportation Engineers led this project to develop guidelines for site plan review to assist municipalities, provincial governments, planners, engineers, and architects across Canada in design developments that promote the use of sustainable modes of transportation, such as walking, cycling, and transit.

Lead organization:
Canadian Institute of Transportation Engineers

MOST contribution: $20,000

www.cite7.org/Technical_Projects/sitedesignreview.htm

Reach

- 10 workshops held across Canada included representatives from 41 municipalities along with over 250 professionals.
- About 5,000 people heard about the new guidelines through website announcements, workshops, presentations, and newsletter articles.

Partnership Legacy

- The Institute of Transportation Engineers (ITE International) and the Canadian Urban Transit Association partnered with CITE on this project. Three other organizations lent support, including the Federation of Canadian Municipalities, Transportation Association of Canada, and Canadian Institute of Planners. These partnerships will continue to grow.

Key Lessons

- It will take a number of years for complete adoption of the guidelines.
- Formal partnerships are needed with other organizations to enhance and broaden results, and support a wide distribution of the outcomes.

Innovative Tools and Practices

- Recognizing the specific challenges faced by many smaller municipalities, the site design guidelines were developed for application in municipalities of any size.

Quantifiable Impacts

- By implementing these guidelines, municipalities can have a direct impact on how residents choose to travel and reduce transportation emissions by developing sites that promote the use of sustainable modes.

BARRIE TELECOMMUTING PROJECT

Environmental Action Barrie (Living Green) partnered with SuiteWorks (Canada) Inc. and the City of Barrie to assess the overall sustainability of telecommuting, and to help individuals and businesses create a variety of working alternatives to the daily commute. SuiteWorks is a distributed work centre that provides office space, meeting rooms, and a full range of business support services to enable a company's employees to work away from the main office location and closer to home.

The first half of the project involved establishing benchmarks, developing a brochure, and delivering information to the public through an open house, public information sessions, and presentations to Toronto employers. The second half of the project focused on a commuter behaviour survey placed online at www.icommute.ca to gain insight into workers commuting from the Barrie Region to the Greater Toronto Area (GTA).

Full results of the commuting survey are included in the final report, but a few highlights follow. The majority of respondents spend between two and three hours per day commuting. About half believe they are tied to their workplaces by a need for face-to-face interaction, specialized equipment, telephone landlines, or employer attitude. Most felt that research showing increased productivity and cost savings, combined with government encouragement and support, would help convince employers that telecommuting is a viable option.

The Barrie Telecommuting Project studied the economic, environmental, and social impacts of commuting and worked to build awareness of telecommuting and distributed work options. These alternatives would help individuals from the Barrie region avoid long commutes to the Greater Toronto Area by working closer to home.

Lead organization: Environmental Action Barrie (Living Green)

MOST contribution: $50,000

www.icommute.ca

Reach

- 3,000 brochures on commuting and telecommuting were distributed.
- 231 commuters completed the online survey.
- 33 media outlets featured articles on the project resulting in an estimated exposure to well over 1 million individuals and organizations.

Key Lessons

- Nearly two-thirds of survey respondents felt they could telecommute with no work modifications and still be effective.
- Two-thirds of existing commuter respondents said they would change their jobs due to stress from the commute and life-work balance issues.

Partnership Legacy

- At project completion, Living Green was considering hiring a part-time paid coordinator to continue the work of this project.
- SuiteWorks continues to offer commuters an alternative working environment. Since the beginning of the project, occupancy at the SuiteWorks centre increased from 10 to 70 workspaces, with another 50 in development.
- All three project partners expect to continue an informal working relationship.

Innovative Tools and Practices

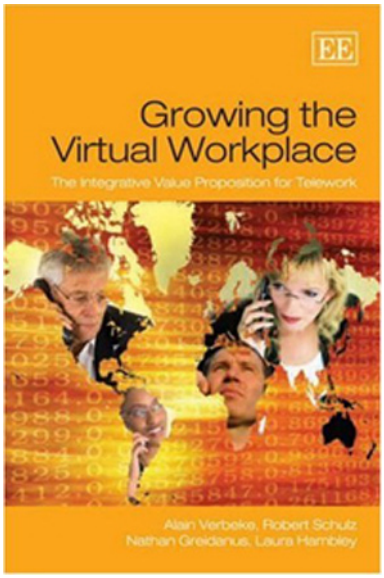
- The social, environmental, and economic impacts of commuting, as well as commuting patterns and attitudes, were compiled in a report entitled "GTA Commuter Behaviour 2006: Highway 400 Corridor".

Quantifiable Impacts

- Based on the net increase of 60 users at SuiteWorks, these new users represent an estimated reduction of 2.5 million tonnes of greenhouse gas emissions over a 50-week work year.

SUSTAINABLE TRANSPORTATION IN CALGARY: CURRENT AND FUTURE CONTRIBUTIONS OF TELEWORK

Adoption of telework, the substitution of communication technology for work-related travel, requires a relatively low volume of resources as compared to other transport policy measures. In this project, the Haskayne School of Business determined current levels of telework in Calgary and how the penetration level might change in the future. Techniques used included employer/employee surveys, workshops, and presentations.



The information collected was compiled into a book directed at politicians and human resources managers. Its goal is to increase awareness of the potential economic, environmental, and societal benefits of telework and encourage increased telework adoption. Complimentary copies of the book, "Growing a Virtual Workplace: The Integrative Value Proposition for Telework" were distributed to 150 Calgary employers and 15 municipal governments.

While IBM and Sun Microsystems have been leading the way with telework arrangements in Calgary, this project increased awareness with other companies and resulted in the launch of a telework arrangement at Telus. Many other current or planned initiatives can also be related back to presentations made over the course of the project.

Stemming from this research, three academic papers were released: one on the desired psychological traits of successful teleworkers, another on the perceptual differences between telework adopters and non-adopters, and a third on telework from multiple-level analysis.

HASKAYNE School of Business | UNIVERSITY OF CALGARY
A Better Place to Think About Business

In this research project, the Haskayne School of Business at the University of Calgary developed an integrative approach to telework that looks at adoption, implementation, tracking, and impacts from the distinct perspectives of employees, organizations, and society.

Lead organization:
Haskayne School of Business, University of Calgary

MOST contribution: $50,000

www.haskayne.ucalgary.ca

Reach

- 284 employee and 14 organizational level surveys were collected plus telework tracking by Teletrips for Shell Canada and the City of Calgary that involved about 200 employees.
- 14 workshops attracted around 800 attendees and an electronic brochure online received 100-200 hits per month.

Partnership Legacy

- Teletrips Management Services, an organization that provides support to employers in establishing trip reduction programs, will remain involved. Of the other 15 initial partner organizations, Shell Canada, the City of Calgary, Sun Microsystems, and Telus have committed to continue tracking telework.

Key Lessons

- The main impediments to telework are no longer technological, but perceptual and social in nature.
- While many employees express interest in telework, implementation at the firm level is still lacking.
- Organizations perceive telework as a positive influence on retaining, developing, and attracting employees, but as a negative influence on the operational functioning of employees.

Innovative Tools and Practices

- Creation of an integrative model that looks at telework from the aspect of adoption, implementation, and tracking, and from different perspectives.

Quantifiable Impacts

- 75% of workshop attendees felt better prepared to implement telework and 50% planned to implement telework in the near future.

HOW TO GUIDE FOR SMALL CITY TRANSIT

Bathurst Sustainable Development, a non-profit community organization, conducted a feasibility study on public transit in 2004-05 and piloted a prototype of the new service the following year. These experiences were compiled into a booklet to help increase local understanding and support for transit in Bathurst, and to benefit other small cities that are considering transit options and opportunities.

Residents of the community helped create a look and title for the new service through a Name the Bus and Logo Contest. The winning entry was "Bay Transit". Weekly draws for transit incentives served to increase awareness of the new service and build ridership, with 193 sheets of tickets and 10 free one-month passes given away. An employer-subsidized transit pass program was offered but did not get off the ground due to a number of reasons, including the sense that, as a test project, it would not necessarily be around for the long term.

Project staff assisted over 10,000 residents, office groups, and students to learn to read the transit schedule through personal assistance while on the bus or at a bus stop, or orientations held at workplaces and schools.

The City of Bathurst voted to suspend transit service until the issue of funding was settled, which resulted in a rally by citizens who urged Council to restart the service and pressure from store owners who experienced a decline in daily customer and service counts after the service stopped.

"FOR A BETTER FUTURE"

Bathurst Sustainable Development in New Brunswick documented results from a feasibility study on public transit and a pilot project to test the new service prototype in a booklet entitled "Public Transit: A How To Guide for Small Urban Centres". A number of companion programs supported the pilot by promoting transit use and awareness of the service.

Lead organization:
Bathurst Sustainable Development

MOST contribution: $30,000

www.bathurstsustainabledevelopment.com

Innovative Tools and Practices

- A series of Companion Tours were conducted to assist Bathurst residents become comfortable using transit. Transit Companions were trained from the Canadian Institute for the Blind, the Ideal Centre for Challenged Adults, and the Homeless Shelter to provide their own tours.

Partnership Legacy

- Main project partners included the City of Bathurst and the Regional Homelessness Association. Bathurst Sustainable Development will continue to partner with the City.

Reach

- 32,538 single transit rides were taken during the transit test project.
- Over 8,000 transit schedules with transit maps were distributed and 58 presentations were conducted.
- 100 copies of the "How to Guide" were printed plus an electronic version was posted on the website.
- Four small transit systems were given copies of the guide and electronic notices and links were sent to 12 Canadian communities.

Key Lessons

- A strong campaign on the economic benefits of public transit is required before launching a new bus service.

Quantifiable Impacts

- 20% of participants on Companion Tours stated they would use transit regularly and 80% noted they had a better understanding of the service and sustainable transportation.

TRANSIT CITY

The Transit City project builds on an earlier report called "Building a Transit City" released in 2005 by the City of Toronto and Toronto Transit Commission. The report stresses improved service quality, better fare policy, and a network of modest cost LRT (Light Rail Transit) and busway corridors reaching across the entire city.

Through Transit City, the Toronto Environmental Alliance (TEA) aimed to increase public engagement on improving transit service, provide practical examples of what a Transit City would look like, and develop support from community leaders and stakeholders for the project.

To do this, resource materials were prepared to explain the Transit City vision and the differences among a range of rapid transit services. Community workshops held in five inner-suburb neighbourhoods presented this information along with the proposed network of routes detailed in the 2005 report. Other activities included gathering signatures on a Call for Action to support the Transit City vision and distributing surveys asking for feedback on the proposed network of routes.

Highlights from consultations with residents revealed a desire for a more focused plan with fewer routes and a more thorough cost analysis, for rapid transit extending into neighbourhoods, better connections between destinations and inner-suburb neighbourhoods, and additional routes that would create a loop.

Results from the neighbourhood workshops were summarized in a report entitled "Rapid Transit for Toronto's Inner Suburbs" and synthesized into a map.

The Transit City project increased understanding and support for the recommendations contained in the 2005 report "Building A Transit City", and gathered feedback on the proposed network of routes in Toronto.

Lead organization:
Toronto Environmental Alliance

MOST contribution: $15,000

www.torontoenvironment.org

Quantifiable Impacts

- Implementation of the new Transit City Light Rail Plan is projected to yield 175 million riders, half of which would be new to transit while the other half would transfer from bus.
- Light rail vehicles produce 92% less CO_2 than automobiles and 83% less than diesel buses.

Partnership Legacy

- 17 community groups joined TEA to deliver the project, largely assisting in the delivery of all workshops. These groups included a union, a magazine, various social policy and advocacy organizations, environmental groups, and others. The great majority will remain involved in this effort.

Key Lessons

- Attendance at the workshops resulted in a stronger understanding of the benefits of a light rail and surface rapid transit network. Survey responses from those who attended the consultations tended to favour light rail, while responses from those who did not attend preferred an extension of subways.

Innovative Tools and Practices

- Some presentations were given as part of a previously organized event, which reached more people with less effort but provided less time to present and solicit feedback.

Reach

- About 34,000 people were reached through media coverage and the five neighbourhood workshops, which drew 145 attendees.

URBAN TRANSIT REGIONAL FLEET ASSESSMENT

Bathurst Sustainable Development is a non-profit community organization that facilitates community, business, and government interaction for the betterment of environmental quality, economic health, and social well-being of residents in the area.

In this feasibility study, Bathurst Sustainable Development collected and assessed data and information about target user groups, financial operations of the service, population size, leasing options of the buses, energy options (including diesel, natural gas, hydrogen, electric, and hybrid buses), and insurance requirements. Details such as a proposed bus route, bus stop locations, hours of operation, necessary signage, and schedules and requirements under transportation laws and policies at varying levels were established.

Potential partners that already had a suitable 'bus stop' designed into their property were approached and secured. Public awareness was raised and input was gathered through consultation and survey forms randomly distributed to community organizations, businesses, large employers, churches, individuals, and local governments in each of the six municipalities. As a final step, Bathurst Sustainable Development timed and tested the Regional Fleet options. A final report summarized all information compiled through the feasibility study. The study was completed in spite of the challenge created by the lack of some anticipated financial contributions.

Results from community input indicate that a Regional Fleet bus service is required to keep people in the region and to reduce travel costs. Of the 1,045 responses, 79% said they would use the bus service and 94% believe the service would be beneficial to the region's workforce and communities.

"FOR A BETTER FUTURE"

This feasibility study evaluated the potential to establish a Regional Fleet bus service that would connect the communities of Beresford, Petit Rocher, Pointe Vert, Nigadoo and Belladune with the City of Bathurst, New Brunswick.

Lead organization:
Bathurst Sustainable Development

MOST contribution: $25,000

www.bathurstsustainabledevelopment.com

Reach

- 29 consultations involved 1,155 people and 4,400 questionnaires were circulated, of which 24% were completed and returned.
- The website had 5,000 hits in the first nine months of the study.
- An estimated 22,000 people were made aware of the project through newspaper articles and publication of the consultation form in two local newspapers.

Partnership Legacy

- Main partners in the feasibility study included the six municipalities, all of which planned to maintain their partnership with this project.

Key Lessons

- The feasibility study provided broad exposure in the region on the topic of public transportation and its role in addressing climate change, providing quality of life, and contributing to the economy.
- The greatest challenges remain convincing municipal councillors of the need for public transit services and gaining eligibility for funding through Infrastructure Canada.

Innovative Tools and Practices

- Due to the widespread circulation of the consultation forms and surveys, residents who often are not heard on such issues were able to participate in the study.

Quantifiable Impacts

- If the Regional Fleet bus service operated five days per week year-round and 25% of trips were switched to transit, the resulting estimated reduction is 2,630 tonnes of CO_2.

Please direct your comments and inquiries to:

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