



Council of Ministers of Education, Canada
Conseil des ministres de l'Éducation (Canada)

UNITED NATIONS DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT (2005–14)

CANADA'S RESPONSE TO THE UNESCO QUESTIONNAIRE

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Background of the Project

The United Nations has declared the years 2005 to 2014 as the Decade of Education for Sustainable Development (DESD) under the leadership of the United Nations Educational, Scientific and Cultural Organization (UNESCO). One of the first steps in implementing the decade was to get an early sense of the activities in place or planned in member countries. To this end, UNESCO circulated a questionnaire requesting input on action plans, events, and the major groups involved.

To provide a picture of the activity in Canada related to the Decade, this report includes the involvement of federal, provincial, and territorial governments, as well as civil society. This broad governmental representation reflects the fact that in Canada there is no federal department of education and no integrated national system of education. The 13 jurisdictions — 10 provinces and 3 territories — and their departments or ministries of education are responsible for formal education at the elementary, secondary, and postsecondary levels. Appendix A of this report provides more detail on the formal systems of education in Canada.

The Council of Ministers of Education, Canada circulated the questionnaire to each of the ministries and departments of education in the 13 jurisdictions. Replies were received from 11 provinces and territories: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Prince Edward Island, New Brunswick, Newfoundland and Labrador, Nunavut, and the Northwest Territories. Examples of ESD activities of the federal government and civil society were compiled by the Canadian Commission for UNESCO. As the Decade is an evolving concept and the activities and the stakeholders so diverse, this report is intended to provide a snapshot of ESD activities in Canada.

Responses to the Questionnaire

1. Action Plans for Education for Sustainable Development (ESD)

The province of Manitoba has been particularly active in all aspects of education for sustainable development. The Manitoba Department of Education, Citizenship and Youth has developed a provincial *Education for Sustainability Action Plan (2004–2008)* to foster teaching and learning for sustainability in elementary and secondary classrooms. The Action Plan includes

- Sustainable development concepts integrated into new curricula
- Teacher training workshops and other projects that enhance teaching and learning for sustainability, such as the UNESCO Associated School Project Network and Youth Taking Action
- Web sites focusing on ESD
- Grants for educators to collaboratively plan, develop, and implement sustainability-focused curriculum units
- Information, best practices, and learning resources focused on sustainability education identified and shared

- A provincial Education for Sustainable Development Working Group established to create a culture for education for sustainability in Manitoba
- Benchmarking and tracking of sustainability literacy in the Manitoba curricula

Alberta does not approach sustainable development on a sector-by-sector basis, but rather integrates sustainable development as a whole. The Government of Alberta's 20-year strategic plan, *Today's Opportunities, Tomorrow's Promise: A Strategic Plan for the Government of Alberta*, focuses on unleashing innovation, leading in learning, competing in the global marketplace, and making Alberta the best place to live, work, and visit. The Strategic Plan "has been established to guide the province's efforts on issues relating to sustainable development, global competitiveness, and economic diversity" and significantly supports the scope of *Education for Sustainable Development*.

In Quebec, a plan for sustainable development and an action plan and strategy related to biodiversity were announced in late 2004. All of Quebec's ministries, including the Ministry of Education, Recreation and Sports, are involved in the plan for sustainable development with the goal of improving the quality of life for all through coordinated and focused activities. A public consultation will precede the finalization of the plan.

Prince Edward Island has a *Sustainable Resource Policy* that provides policy direction to all government departments with the goal of uniting their efforts to manage and safeguard the natural province's resources. Education at all levels is an essential component for building this sustainable future. For example, the Department of Education is currently developing and implementing a provincial curriculum in science, social studies, and health that contains specific outcomes and learning opportunities related to sustainability, stewardship, and the environment. This curriculum will be implemented and maintained within the provincial educational system over the life of the DESD.

The Newfoundland and Labrador Department of Education has developed a statement of intent (see below), which sets out a strategic framework that promotes education for sustainable development on multiple levels. This strategy includes active participation from both the public and private sectors. Additionally, the focus of the statement of intent is to build on existing programs that promote the principles associated with sustainable development. In particular, this includes a further enhancement of curriculum outcomes in the kindergarten – level III (grade 12) school program.

Statement of Intent: Building a Better Tomorrow

Newfoundland and Labrador Department of Education Response to the United Nations Decade for Sustainable Development

Affirming the principles of the United Nations Decade for Sustainable Development (DESD) in the context of the province of Newfoundland and Labrador, the Department of Education intends to develop strategies that

- *advance education for sustainable development within Newfoundland and Labrador*

- *foster a culture that promotes sustainability in the areas of the environment, culture, and the economy*
- *encourage increased access to quality education for all citizens*
- *reorient existing educational programs to further improve the knowledge, skills, principles, and attitudes related to sustainability*
- *promote broader public awareness whereby citizens contribute to the creation of sustainable communities through private and public participation*
- *enhance education and training for business leaders and workers that facilitate sustainable economic practices*

In addition to anticipated events following from the implementation of the statement of intent, the Department of Education is focusing on incorporating specific, long-term curriculum outcomes into the kindergarten – level III (grade 12) school curriculum on sustainability.

Of particular significance is the development of a new environmental science course in collaboration with the Department of Environment and Conservation, which involves five other federal and five provincial departments/agencies. This unique approach to curriculum development has the potential to initiate a nation-wide program of environmental science education that will provide students in every region of Canada with relevant, local examples of the key principles of sustainability.

Additionally, in recent curriculum development and renewal, an integrated approach is taken to education and sustainability. For example, curriculum outcomes and learning activities on sustainability are found in science and social studies curricula from primary through high school. This includes

- A new primary curriculum focus on the value of living organisms and the impact of human activities on their survival.
- A focus at the elementary level on the study of animal habitats, ozone depletion, energy conservation, and endangered species. Also at this level, attention is given to cultural issues and cultural preservation and sustainability.
- Intermediate social studies courses focus on specific issues associated with substantiality in relation to cultural, economic, political, and social issues.
- In a mandatory high school science course, 25 per cent of the instructional time is devoted to issues associated with sustainability. A new course in social studies will enable students to assess various issues related to sustainability (anticipated implementation 2008).

The Government of the Northwest Territories has policies related to sustainable development that guide all major development in the territory. These policies are primarily generated by the

Department of Environment and Natural Resources. There are significant reflections of the principles of environmental sustainability throughout both traditional Aboriginal education programs and the social studies and science curricula that all students follow.

In Saskatchewan, education for sustainable development has become part of the curriculum in science, history, and social studies. Along with some of the other provinces and territories, Saskatchewan will be implementing the *Pan-Canadian Science Framework*, which addresses sustainability and encourages students to engage in related projects in their communities.

In Ontario, through revisions of the curriculum, subjects with a connection to sustainable development have been improved and new ones have been included. Some examples of the content follow:

- Science and Technology throughout the eight years of elementary school — habitats and communities, interactions within ecosystems, diversity of living things, energy from wind and moving water, and conservation of energy
- Social Studies and Geography for elementary school — human and natural systems, human and natural patterns, exploitation and utilization of resources, ecosystems, and urbanization
- Science and World Studies for the first two years of secondary school — human-environment interaction, sustainability of ecosystems, and ecosystems and human activity.

The territory of Nunavut covers about two million square kilometres in the northeast of Canada. Eighty-five per cent of the population of 30,000 is Inuit, and this has a profound impact on all aspects of life and government, including education. In 2004, the government described the education system as needing to be built within the context of Inuit Qaujimajatuqangit (translated as ‘that which is long known by Inuit’) and that the raising and teaching of children and the care of those in need are a collective community process. As Nunavut sets out to build new schools within the context of Inuit Qaujimajatuqangit, one of the foundational principles embraces the concepts of stewardship and environmental well-being. The document *Inuuqatigiit: The Curriculum from the Inuit Perspective* lays the foundation for education in Nunavut by stressing the very specific and unique set of relationships by which Inuit have lived. The fundamental belief is that the connectedness that individuals feel, both to each other and to their environment, ultimately determines their character and their value to the community. Sustainable development in its broadest definition is a core value of Inuit life and thus is becoming the foundation of education in Nunavut.

Educational components are critical to the strategies by which the Government of Canada integrates sustainable development into its activities. The 2005 compendium, *Education for Sustainable Development in Canada: The Work of the Federal Government*, brings together the education-related commitments that are part of the sustainable development strategies of the 29 federal departments and agencies for the years 2004 through 2006. This document illustrates a true commitment by the federal government to the Decade, and provides a foundation on which to build. The electronic version of the compendium can be obtained by contacting the Canadian Commission for UNESCO at info@unesco.ca.

Environment Canada is developing a *Competitiveness and Environmental Sustainability Framework* (CESF) to position Canada with one voice on sustainable development issues. One of the stated five pillars is “education and engagement.” As a result of this orientation, the department is currently furthering its support to organizations whose mandate incorporates education for sustainable development, as expressed in the following selected examples. The department is working with the non-government organization, *Learning for a Sustainable Future* and the Ministry of Education, Citizenship and Youth in Manitoba, in identifying sustainable–development resources for educators. Furthermore, Environment Canada, the Institute for Research and Innovation on Sustainability of York University (Ontario) and other partners are working together towards the implementation of a Sustainable Education Academy pilot project in Canada. Finally, the department, *Learning for a Sustainable Future*, the McConnell Family Foundation, and the province of Manitoba are collaborating with the study on benchmarking and tracking the sustainable literacy in Manitoba mentioned above, creating a National Sustainability Expert Council and a series of provincial/regional sustainability working groups (mentioned in section 2), supporting the Green Street pan-Canadian environmental education program, and hosting a series of Youth Taking Action Forums. Many other Environment Canada programs provide resources for educators that further opportunities for Canadians to learn about sustainable development and get involved to ensure a sustainable future.

The federal government, through Foreign Affairs Canada and Environment Canada, hosted a series of meetings with representatives of organizations interested in developing a strategy for Canada’s engagement in the DESD. Charles Hopkins, UNESCO Chair in Reorienting Teacher Education to Address Sustainability and United Nations University Chair in Education for Sustainable Development, led some of the meetings. The meetings have led to the creation of a Canadian UNDESD network.

2. Committees for the Decade of Education for Sustainable Development

Since 1991, Quebec has had an interministerial committee on sustainable development to ensure that government policy and practice are consistent with the principles of sustainable development and that the initiatives of the various departments, including those of education, are complementary.

Manitoba’s Working Group on Education for Sustainable Development is currently being established to bring together senior leaders from provincial ministries, faculties of education, school divisions, teacher networks, academia, the business community, and nongovernmental organizations to support the development and implementation of ESD policies, curricula, resources, and teacher education. Consultation on and design of all the components will take place in 2005–06 with program implementation following in 2006–08.

In Newfoundland and Labrador, a working group is being established with the mandate of facilitating a broad agenda among all stakeholders pursuant to ESD. Two consultative bodies, representative of governmental and nongovernmental agencies, will serve to provide a mechanism to develop specific plans that further promote a culture of education for sustainable development.

A two-day meeting hosted by Environment Canada in the spring of 2005 furthered the ongoing dialogue on the content and organization of the UN Decade for Canada, and formed the basis of the national UNDESD network. Participants, consisting of approximately fifty representatives from civil society and government departments, identified organizations and individuals to take part in an interim steering committee, consisting of an interim executive team, a sub-committee on governance models, and another on engagement. Other sub-committees may be created as needed as the Decade unrolls.

British Columbia has not established a provincial committee for the DESD, but government officials and representatives of the postsecondary institutions have been active participants in the pan-Canadian steering committee mentioned above and in response to question one.

3. Web sites on Education for Sustainable Development and/or the Decade

While a Decade-specific Web site has yet to be developed in British Columbia, an interactive Environmental Programs Articulation Committee Web-site is hosted by Royal Roads University in Victoria, B.C. The Web site serves as a discussion forum and clearinghouse for environmental educators at the postsecondary level by providing course outlines, curricula, and other materials regarding sustainability and environmental education.

In Quebec, the Web site of the Ministry of Sustainable Development, Environment, and Parks has extensive information on sustainable development, including policies and activities related to sustainable development and education.

A provincial Web site on education for sustainable development, to be made available to educators in 2006, is being designed in Manitoba.

An area on the Newfoundland and Labrador government Web site will be launched in 2006 to promote specific issues related to ESD.

The UNESD Canadian network has highlighted on several occasions that it would be important to develop an electronic clearinghouse. The Canadian Environmental Network, who provides coordination, communication, research and networking services to more than 800 Canadian environmental groups, has developed a special page devoted to the Decade on its Web site at <http://www.cen-rce.org/>

4. Plans for a national Launch for the Decade

The idea of holding a national launch is being discussed. In addition, several organizations, communities, and provinces have already held or are planning to create their own launch events, either independently or with partners.

The Canadian Commission for UNESCO held its own launch for the Decade at its March 2005 Annual general Meeting in Toronto, Ontario. The theme of the meeting was 'Sustainable Development: Learning to Live Together'. The Canadian Ambassador to UNESCO, Yvon

Charbonneau, spoke about the Decade and the Ambassador for the Environment, Foreign Affairs Canada, Karen Kraft Sloan, was also in attendance.

Quebec held its launch of the Decade under the aegis of the Canadian Commission for UNESCO in May 2005 at the *Carrefour de la citoyenneté responsable* organized by the Centrale des syndicats du Québec. The partners included the Conseil syndical de la région de Québec, Oxfam-Québec, Club 2/3, and Recyc-Québec. Aline Bory-Adams, head of the Division of Education for Sustainable Development at UNESCO, represented Director-General Koichiro Matsuura at the launch. Among subjects addressed by the forum were the citizen commitment of youth, the management of residual materials, fair-trade commerce, and sustainable development in schools. This year's event brought together nearly 1,000 teachers and students from every region of Québec.

Manitoba Education, Citizenship and Youth and Manitoba Hydro are planning to announce the establishment of a new Education for Sustainable Development Grant in fall 2005; the Grant will enable educators to collaboratively plan and implement ESD-focused curriculum units. The Decade will be launched at that time, communicating that partnerships such as this one between the government and private industry are required to move ESD forward in Manitoba.

An announcement highlighting the provinces ESD framework will be made in 2006. This announcement will highlight the adaptation of the UN DESD to the context of Newfoundland and Labrador.

5. The Main Governmental and Nongovernmental Bodies Involved in Education for Sustainable Development

All of the responding jurisdictions have a wide range of governmental and nongovernmental bodies involved in education for sustainable development. For example, British Columbia's initiatives include public elementary, secondary, and postsecondary institutions and research institutes, each with a defined focus but working in various collaborations and partnerships for optimum effectiveness.

The Government of Alberta has incorporated the input of stakeholders into its 20-year strategy and is supportive of education in sustainable development. Issues of sustainability have been integrated through educational programming initiatives in both the K-12 and postsecondary sectors such as

- energy programming, agricultural food and nutritional sciences, research in new technologies, access to new technologies
- renewable resources (including forestry)
- rural economy (policy development)
- biological sciences
- the northern studies initiative
- civil and all applied science, basic science and engineering programs
- the National Institute for Nanotechnology

Government ministries and agencies supporting the principles of education and sustainable development include Alberta Sustainable Resource Development, Environment, Education, Advanced Education, the Alberta Heritage Savings Trust Fund, and the Department of Parks and Protected Areas under the Ministry of Community Development.

The Ministry of Innovation and Science was specifically created to provide leadership and make strategic investments to enhance Alberta's position in the knowledge economy, contributing to the sustainable development of the provincial economy and making the province increasingly competitive in global markets. Growth and development of Alberta's innovation system is critical to the well-being and future prosperity of Alberta. The Government of Alberta, universities, and industry all play important roles in converting research and technology into products and services that benefit Alberta.

Some initiatives and examples of the Alberta Government's support include

- Alberta Education's approach to sustainable development of infusing "sustainability education" throughout the curriculum, for example,
 - The Elementary Science Program has two main emphases – science inquiry and problem-solving through technology – that are developed through the topics of interactions in the environment, the needs of plants and animals, habitat preservation, reducing, reusing, and recycling of waste materials, and maintaining wetland and forest ecosystems.
 - The Grades 7-12 Science Program, through an emphasis on social and environmental contexts of science and technology, provides students with opportunities to investigate science-related social and environmental issues through the topics of biological diversity, energy use and conservation, environmental chemistry, matter and energy exchange in the biosphere, and sustaining global ecosystems.
 - The new K-12 Social Studies Program, through an emphasis on citizenship and identity, provides opportunities for students to explore multiple perspectives on the use, distribution, and management of resources and wealth. Students at the senior high school level will also critically consider the political, social, and environmental implications of resource use and technological change within the contexts of globalization, nationalism, and internationalism and political and economic ideologies.
- The provision of capital funding for educational institutions to improve facilities and energy efficiency
- Capital funding for improvements to environmentally oriented postsecondary initiatives such as the Alberta Ingenuity Centre for Water Research, which is closely aligned with the Alberta government's *Water for Life: Alberta's Strategy for Sustainability*
- initiatives that encourage economic diversification, moving the economy from a resource base to a more sustainable knowledge base through the Ministry of Innovation and Science
- The Alberta Heritage Savings Trust Fund, whose mission it is to provide prudent stewardship of the savings from Alberta's non-renewable resources, awards program
- The development of a Pan-Canadian Science Framework that identifies four areas of science education: skills, knowledge, attitudes, and the interrelationships between science, technology, society, and the environment
- Sustainable Resource Development, "which works with Albertans across the province to ensure a balance between the economic, environmental and social values of the province" (copious educational resource materials, of interest to audiences from kindergarten to adult,

are offered free of charge to Albertans by the ministry; topics include lands and forests, fish and wildlife, and Alberta's Species at Risk Education Program)

Nongovernmental organizations, both alone and in partnership with the Government of Alberta Ministries and private industry, have been incorporating the concepts involved in education for sustainable development. Initiatives have involved, and continue to involve, a broad scope of programs and activities.

Examples of nongovernmental and partnership activities include the following:

- The Fellowship in Environmental Education Society in Alberta (FEESA) promotes, coordinates, and supports bias-balanced environmental and sustainability education on issues such as energy, climate change, and water; the organization has a mission to empower all Albertans to make informed choices about the environment by providing bias-balanced education. FEESA is governed by a volunteer board of directors drawn equally from government, industry, community/special interest and educational sectors.
- The National Education Initiative on Climate Change, developed by FEESA and Destination Conservation, is an Alberta pilot project to deliver education resources and training to teachers in all provinces and territories. The pilot involves professional development in-service sessions for teachers of all grades, so that they are more confident in handling the subject of climate change in their classrooms.
- Greenlearning.ca is an innovative project of the Pembina Institute for Appropriate Development, developed to bring accurate and engaging educational materials to students, teachers, and parents.
- Alberta Ecotrust was founded in 1991 by Petro-Canada and is partnered with the Pembina Institute for Appropriate Development. The organization functions as a unique partnership between corporations and environmental groups that support sound and effective community-based environmental action. Since 1992 Alberta Ecotrust has provided more than \$3.5 million in grants to more than 300 grassroots environmental initiatives developed by communities throughout the province.
- Network for Environmental Education (NEE) is an initiative of the Calgary/Banff Chapter of the Canadian Parks and Wilderness Society (CPAWS), a not-for-profit, nongovernmental organization. The CPAWS Education team helps teachers and students take informed action on important conservation issues such as endangered species or the protection of Alberta's threatened ecosystems.
- Sustainable Communities Initiative, a partnership between Alberta Environmental Protection, industry, and FEESA, supports community action to become healthy and sustainable through public education, participation, and communication.
- The Pembina Institute is an independent, not-for-profit environmental policy research and education organization, founded in Drayton Valley, Alberta. It is composed of a multidisciplinary staff of more than 30, with offices in Drayton Valley, Calgary, Edmonton, Vancouver, and Ottawa. The Pembina Institute's major policy research and education programs are in the areas of sustainable energy, climate change, environmental governance, ecological fiscal reform, sustainability indicators, and the environmental impacts of the energy industry. Charitable environmental education and research programs are carried out in conjunction with the Pembina Institute's sister organization, the GAIA Foundation for Earth Education.

- The Alberta Emerald Foundation for Environmental Excellence has a mission of promoting environmental stewardship and sustainable development through stimulating public awareness of environmental progress. The foundation recognizes best practices in Alberta by celebrating and advancing environmental excellence. The foundation was founded in the fall of 1991 to recognize the outstanding initiative and leadership of Albertans in the face of many environmental challenges. The Emerald Awards were created by the foundation to celebrate these achievements, and the foundation encourages all individual Albertans, Alberta organizations, and corporations to participate in the awards program.

As the aims of ESD have broad implications for various community stakeholders, the working group for ESD in Newfoundland and Labrador has an open and inclusive approach in building partnerships that serve the unique needs of each stakeholder while advancing the mandate of the provincial ESD strategy.

British Columbia Government Ministries

- The Ministry of Advanced Education provides overall funding and program coordination for public postsecondary education and training system.
- The Ministry of Education is responsible for setting educational standards and developing curriculum for all subject areas, kindergarten through secondary school. Sustainable development is addressed throughout the curriculum, more specifically in courses related to the social studies and science.
- The Ministry of Water, Land and Air Protection works to promote a clean, healthy, and naturally diverse environment. The ministry is responsible for environmental protection and stewardship.
- The Georgia Basin Action Plan, led by Environment Canada, is an international multi-stakeholder partnership that provides tools, support, and a framework for action toward sustainability in the Georgia Basin. Provincial partners include the Ministry of Water, Land and Air Protection and the Ministry of Sustainable Resource Management.

British Columbia's Public Postsecondary Institutions

- BC's environmental programs cover all areas of the environmental industry — from environmental protection to environmental education, communications, and research. Twenty-one of British Columbia's 26 public postsecondary institutions offer a wide range of academic and career programs related to these many aspects of sustainable development at the certificate, diploma, undergraduate, and/or graduate level.
- The Environmental Programs Articulation Committee supports the development and integration of curriculum and instructional materials at the postsecondary level related to the sustainability of the environment. This committee collaborates with stakeholders, including representatives of relevant provincial ministries, federal departments, and nongovernmental agencies, as well as the Ministry of Education and public schools.

- The Sustainable Development Research Initiative (SDRI) is a research group within the Institute for Resources, Environment, and Sustainability at the University of British Columbia. SDRI encourages interdisciplinary collaboration among faculty, departments, and other centres at the university, as well as with other institutes and programs undertaking sustainability research in Canada and around the world.
- The Centre for Sustainable Community Development at Simon Fraser University focuses on sustainability-oriented research. The Centre's current research areas include food security, food-related micro enterprise, sustainable development capacity building at the international level, and professional development.
- The Institute of Urban Ecology (IUE) at Douglas College seeks to know more about nature in the city and the importance of urban biodiversity at the community level. IUE's work involves making nature an important part of improving the quality of life and the health of the greater natural ecosystems in which a city is found.

British Columbia Nongovernmental Organizations

- The Environmental Educators of British Columbia Society is a network for environmental educators across the province. The group facilitates networking between formal and informal environmental educators and improves public access to current ideas, information, and curriculum resources in the multi-disciplinary field of environmental education.
- The International Centre for Sustainable Cities (ICSC) was founded in 1993 as a partnership involving three levels of government, the private sector, and civil society organizations. The ICSC undertakes practical demonstration projects that show how urban sustainability can be implemented. Demonstrations deal with issues such as solid waste, water, sewage, land-use, transportation, housing, energy efficiency, social conflict, and poverty. ICSC also creates and supports peer networks to share learning and disseminate ideas.
- The BC Environmental Network (BCEN) is a network of community-based environmental organizations that advocate for environmental responsibility and community participation in activities leading to ecological sustainability. The BCEN is an affiliate of the Canadian Environmental Network.
- The Fraser Basin Council is a not-for-profit, nongovernmental organization with a mandate to educate on the need for economic, environmental, and social sustainability in the basin of the Fraser River. Through its projects, the council encourages quality of life by helping decision-makers and residents make responsible decisions about how people live, work, and play in the Basin. The council includes four levels of government in its management structure.

As demonstrated by this extensive list, British Columbia initiatives in sustainable development involve numerous government, educational, research, and community groups. Other jurisdictions reach out to a wide range of organizations as well.

The Province of New Brunswick has engaged the four departments of Education, Training and Employment Development, Environment and Local Government, and Natural Resources to work in consultation and collaboration with nongovernmental organizations such as the Conservation Council, the Protected Natural Areas Coalition, the Environmental Network, and the Soil and Crop Improvement Association.

In relation to sustainable development, the two governmental bodies involved in the Northwest Territories are the Department of Education, Culture and Employment and the Department of Environment and Natural Resources. Nongovernmental bodies involved in issues of sustainability include Ecology North, the Canadian Arctic Resources Committee, and the Arctic Indigenous Youth Alliance.

Many organizations in Prince Edward Island are working on education for sustainable development and will be working toward supporting the Decade. Provincial government departments include Education, Agriculture, Fisheries and Aquaculture, and Environment, Energy and Forestry. Among the other organizations are the Prince Edward Island Federation of Agriculture, the National Farmers' Union, the Prince Edward Island Soil and Crop Improvement Association, the Department of Environmental Studies at the University of Prince Edward Island, the Hillsborough Eco-Centre, Ducks Unlimited Canada, the Bedeque Bay Environmental Management Association, the Prince Edward Island Wildlife Association, the Atlantic Wind Test Site, MacPhail Woods Ecological Forestry Project, and the Canadian Wildlife Federation.

The ministries of Education, Recreation and Sport and of Sustainable Development, Environment and Parks lead the initiatives in Quebec. On the nongovernmental side, the key bodies are the Association québécoise pour la promotion de l'éducation relative à l'environnement (Quebec Association for the Promotion of Environmental Education), the international organization Planet'ERE, RÉSEAU environnement (Environment Network), Environnement Jeunesse (Environment Youth), Réseau des écoles vertes Bruntland (Bruntland Network of Green Schools), and CLUB 2/3, an organization for education and international cooperation.

In Manitoba, education and nongovernmental organizations, civil society, and business form part of the province-wide thrust for sustainable development education. The two departments of education are partnered with the departments of Conservation; Energy, Science and Technology; and Water Stewardship. All 784 public and independent schools along with the parents' councils, the associations of teachers, trustees, superintendents, and others, and the postsecondary and adult education institutions promote and provide education for sustainable development. The museums, art gallery, zoo, youth groups, Science Council, Forestry Association, and dedicated groups such as the Eco-Network and the Canadian Network for Environmental Education and Communication (EECOM) reach students and adults outside of the formal education system. All the efforts are financed through funding from government, business, and individual contributions.

At the federal level, departments and agencies who have participated in discussions on the DESD include Foreign Affairs Canada, Environment Canada, Natural Resources Canada, Health Canada, Canadian Heritage, Finance, Treasury Board, Agriculture and Agri-Food Canada, and Parks Canada. The UNDESD network consists of a flexible, large and diverse group of individuals and organizations. The Interim Steering Committee consists of individual experts and representatives of the following organizations: Environment Canada, Protect our Water and Environmental Resources, the Canadian Environmental Network, the Canadian Museum of Nature, Foreign Affairs Canada, Club 2/3, Environmental Education Network (EECOM), Pollution Probe, the Sierra Youth Coalition, Pembina Institute for Appropriate Development, SEEDS Foundation, the Native Education Centre, UNESCO Chair on Reorienting Teacher Education to Address Sustainability (York University), Royal Roads University, the B.C. Ministry of Energy and Mines, the Association Québécoise pour la promotion de l'éducation relative à l'environnement (AQPERE), Natural Resources Canada, the Canadian Wildlife Federation, Centraide et syndicats du Québec (CSQ), the Canadian Biosphere Reserves Association, the Association of Canadian Community Colleges, Learning for a Sustainable Future, Environnement Jeunesse (ENJEU), the Center for Sustainable Community Development (Simon Fraser), GreenHeart Education and the Canadian Commission for UNESCO.

6. Important Events and Conferences related to Education for Sustainable Development

Across the country, events related to education for sustainable development are taking place for students at all levels of education, for environment and sustainability professionals, for communities, and for special interest groups. The list below provides a sample of the events held and planned. In addition, schools, community groups, and associations are key actors in education for the environment and for sustainable development in Canada and organize numerous local events. Canadian experts in education for sustainable development also participate in many international meetings.

Fall 2004

The 6th *Annual National Sustainable Campuses Conference* was held at the University of Manitoba from September 30 to October 3, 2004. The gathering brought 35 universities together from across the country to share best practices and accomplishments of sustainable practices within universities around the world. Capacity building workshops highlighted energy development, policy development, transportation management, campus successes, environmental justice, sustainable event management, environmental communications, media relations, and relationship building. Personal sustainability workshops featured a tree planting initiative sparked through the collaboration of the Sierra Youth Coalition and the University of Manitoba.

A videoconference on Global Sustainability Education was the subject of a round table at the Fourth Interdisciplinary Conference on *The Evolution of World Order and Science for Peace*, held in October 2004 at Ryerson University in Toronto, Ontario.

January 2005

The conference *Education for a Sustainable Future* was convened in Ahmedabad, India, from January 18 to 25, 2005, to discuss the UN Decade of Education for Sustainable Development (<http://www.ceeindia.org/esf/>). This conference received financial support from the Canadian International Development Agency (CIDA). The keynote speaker was Charles Hopkins of York University in Toronto, UNESCO Chair in Reorienting Teacher Education to Address Sustainability and the United Nations University Chair for Education for Sustainable Development.

The Réseau québécois des femmes en environnement organized a conference in Montreal entitled *Ecodéfi 2005: International Symposium on Women's Health and the Environment* (<http://www.ecodefi.org/>).

February 2005

In February and March 2005, over 260 middle and secondary school students and teachers from 35 Winnipeg-region schools joined 35 local businesses, government, and community organizations at a two-day Youth Taking Action Forum on *Sustainable Communities: Linking Education to Action*. Delivered by the organization Learning for a Sustainable Future, this event is designed to heighten the awareness among students and teachers of local sustainability issues, encourage community involvement and partnerships, and empower students to take action. Another of these events is to be held in Northern Manitoba in the fall. Learning for a Sustainable Future, a Canadian non-profit organization working to integrate sustainable development principles into the curricula, frequently holds youth forums across Canada (<http://www.lsf-lst.ca/en/about.php>).

In Moncton, New Brunswick, a day-long session on *Learning for a Sustainable Future* was sponsored by the Institute for Research in Sustainability and the New Brunswick Climate Change Hub.

March 2005

The University of Winnipeg in Manitoba hosted a conference focusing on climate change. *QUEST: North, The Circumpolar Reality, Global Citizens Respond* brought together educators, activists, researchers, journalists, policy makers, and students to learn about climate change and the impact in the northern hemisphere. The President of the University of Winnipeg called for the development of a comprehensive sustainability plan for the campus.

April 2005

At the end of April, Manitoba senior secondary students participated in the *Rural Youth Forum 2005* (Youth Citizenship in Action!) at Brandon's Keystone Centre. The focus of the forum was on environmental, social, and political citizenship to raise awareness about citizenship and to promote youth participation in related activities. Delegates participated in youth town hall meetings with provincial cabinet ministers.

May 2005

One hundred and thirty-five students representing 27 high schools competed in the *2005 Manitoba Envirothon* held in early May. The Envirothon is an educational program that promotes students' awareness of the environment, ecosystems, and the natural balance and complexity of these systems, as well as experiences in team learning and study methods. Students have the opportunity to travel and experience different views on sustainability issues, concerns, and concepts while educators can access materials that address learning outcomes in science, social studies, current affairs, and environmental study. Manitoba will be hosting the *2006 Canon Envirothon for North America*.

Also in early May, the ninth annual showcase of the *Youth Stewardship in Environmental Sustainability Project* (YSESP) was held at Manitoba's Oak Hammock Marsh Interpretive Centre. Student projects focused on sustainability issues and were judged at the elementary, secondary, and postsecondary level. Plans are already under way for the 2006 event.

On May 10, representatives from the United Nations Educational, Scientific and Cultural Organization (UNESCO) officially designated four Winnipeg schools as UNESCO-associated schools, following three years in the Associated Schools Project Network (ASPnet). ASPnet promotes peace through local, national, and international partnerships in the areas of human rights, democracy, tolerance, intercultural learning, and environmental issues. ASPnet school activities focus on education for sustainable development.

June 2005

In Prince Edward Island, a forum and conference on *Fostering Sustainable Development* was held in June with Dr. Doug McKenzie-Mohr, Environmental Psychologist, as keynote speaker.

July 2005

From July 18 to 26, a delegation from Quebec took part in *Planet'ERE*, an event in Burkina Faso bringing together all the major francophone bodies involved in environmental education to exchange information and to collaborate on educational initiatives.

In Saskatchewan, *Youth Forums on Sustainability* have been hosted for three years by the Royal Saskatchewan Museum with support from Saskatchewan Learning, the University of Regina, and the City of Regina. The Youth Forum Steering Committee is hosting a two-day summer course on *Sustainability and Action Planning* in mid-July at the Museum.

August 2005

The Arctic Indigenous Youth Alliance (AIYA) presented a resolution to the 35th Dene National Assembly opposing the proposed development of the Mackenzie Gas Project in the Northwest Territories.

September 2005

The Canadian Network for Environmental Education and Communication organized a conference entitled *Creating Ripples: Environment, Education and Culture* from September 29 to October 2, 2005 in Huntsville, Ontario.

The Canadian Commission for UNESCO celebrated *International Adult Learners' Week* from September 8-14 with the support of Human Resources and Skills Development Canada. The Commission has developed an information kit and webpage devoted to the topic. Through the Commission's diverse partners, including CMEC and the departments responsible for education in each province and territory, and numerous non-governmental organizations, adult education is being celebrated across the country through a variety of activities and events. The theme of this year's Week was "Building Sustainable Communities" in order to highlight the important links between lifelong learning and education for sustainable development (www.unesco.ca).

October 2005

A forum of Northwest Territories youth will bring young people together from across the territory to look at issues of sustainable development.

A consultation in Halifax, Nova Scotia, in October 2005, sponsored by University Leaders for a Sustainable Future, the United Nations University, and the Social Sciences and Humanities Research Council focuses on the topic of *Sustainability in Higher Education: Developing a Comprehensive Research Strategy*.

2006

From May-31 to June 2, 2006, the Center for Environment at the University of Toronto will host 'The Natural City'. Over 500 leaders from business, industry, government and the academic community will gather to rethink how urban and natural environments must be integrated to promote sustainability. The Overarching theme of the conference will be 'success stories'. Education for Sustainable Development has been identified to be one of the central themes of the conference.

From June 19 to 23, 2006, Vancouver, British Columbia, will be hosting the UN-HABITAT's *World Urban Forum III*. There is widespread interest in Greater Vancouver for the series of events prior to and occurring in conjunction with the *World Urban Forum* as these events provide further impetus for local sustainability initiatives. For example, the International Centre for Sustainable Cities, with support from BC Hydro, is hosting breakfast meetings once a month leading up to [Habitat+30](#). This is an opportunity for Vancouverites working on sustainability issues to network with each other and keep each other up-to-date on their plans and projects.

In addition, UNESCO initiatives in Canada such as the Associated Schools Project Network and International Adult Learners' Week (mentioned above), the Biosphere Reserves, UNEVOC, the UNESCO Chairs Programme, and activities of the Sectoral Commissions at the Canadian Commission for UNESCO make significant contributions to the promotion of education for sustainable development and the Decade.

In addition, many conferences on peace and human rights education, which greatly contributes to the concept of education for sustainable development, have been held and are scheduled to occur in 2006.

Education in Canada

Canada is the second largest country in the world — almost 10 million square kilometres (3.8 million square miles) — with a population density of 3.3 people per square kilometre, one of the lowest in the world, and a per capita GDP in 2003 of C\$38,495. A very large portion of the population of 32.1 million lives in four major urban centres, and within 300 kilometres of the southern border with the United States. One of the major challenges to the provision of quality educational opportunities for all Canadians is meeting the needs of both urban students and those in small remote communities as well as those in Aboriginal communities.

Responsibility for Education

Responsibility: In Canada, there is no federal department of education and no integrated national system of education. Within the federal system of shared powers, Canada's Constitution Act of 1867 provides that "[I]n and for each province, the legislature may exclusively make Laws in relation to Education." In the 13 jurisdictions — 10 provinces and 3 territories, departments or ministries of education are responsible for the organization, delivery, and assessment of education at the elementary and secondary levels within their boundaries. In some jurisdictions, separate departments or ministries are responsible for elementary-secondary education and for postsecondary education and skills training. The institutions in the postsecondary system have varying degrees of autonomy from direct provincial government control.

Regional Differences: While there are a great many similarities in the provincial and territorial education systems across Canada, there are important differences that reflect the geography, history, culture, and corresponding specialized needs of the populations served. The comprehensive, diversified, and widely accessible nature of the education systems in Canada reflect the societal belief in the importance of education.

Elementary and Secondary Education

Government Role: Public education is provided free to all Canadian citizens and permanent residents until the end of secondary school — normally at age 18. Each province and territory has one or two departments/ministries of education, headed by a minister who is an elected member of the legislature and appointed to the position by the government leader of the jurisdiction. Deputy ministers, who belong to the civil service, are responsible for the operation of the departments. The ministries and departments provide educational, administrative, and financial management and school support functions, and they define both the educational services to be provided and the policy and legislative framework. Their responsibilities include curriculum development, assessment, teachers' working conditions, funding formulas, equity, and technological innovation.

Local Governance: Local governance of education is usually entrusted to school boards, school districts, school divisions, or district education councils. Their members are elected by public ballot. The power delegated to the local authorities is at the discretion of the provincial and territorial governments and generally consists of the operation and administration (including financial) of the group of schools within their board or division, curriculum implementation, responsibility for personnel, enrolment of students, and initiation of proposals for new construction or other major capital expenditures. There are approximately 15,500 schools in Canada — 10,100 elementary, 3,400 secondary, and 2,000 mixed elementary and secondary — with an overall average of 351 students per school. In 2002–03, provinces and territories reported that there were five million students attending public elementary and secondary schools. Because Canada is a bilingual (French-English) country, each province and territory (except Quebec) has established French-language school boards to manage the network of French-language schools within their jurisdiction that serve the French-speaking minority populations. In Quebec, the same structure applies to education in English-first-language schools.

Funding: Public funding for education comes either directly from the provincial or territorial government or through a mix of provincial transfers and local taxes collected either by the local government or by the boards with taxing powers. Provincial and territorial regulations, revised yearly, provide the grant structure that sets the level of funding for each school board in their jurisdiction, based on factors such as the number of students, special needs, and location. In 2002–03, almost \$40 billion was spent on public elementary and secondary education in Canada, breaking down to an expenditure of about \$7,950 per student. Expenditures on public elementary and secondary schools were 13.4 per cent of the total combined expenditures by provincial, territorial, and local governments in 2002–03, representing 3.3 per cent of GDP.

Teachers: In 2000–01, Canada's elementary and secondary school systems employed close to 310,000 educators, most of whom had four or five years of postsecondary study. This total for educators is primarily teachers, but includes principals, vice-principals, consultants, and counsellors. They are licensed by the provincial and territorial departments or ministries of education. Most secondary school teachers have a subject speciality in the courses they teach.

Some school boards and districts are encountering shortages of secondary teachers specialized in such areas as technology and mathematics.

Pre-elementary Education: Most provinces and territories provide kindergartens, operated by the local education authorities and offering one year of pre-first-grade, non-compulsory education for five-year-olds. In one province, kindergarten is compulsory; in others, pre-school classes are available from age four or even earlier. At a pan-Canadian level, 95 per cent of five-year-olds attend pre-elementary or elementary school, and over 40 per cent of four-year-olds are enrolled in junior kindergarten, with large variations among the jurisdictions. The intensity of the programs also varies, with full-day and half-day programs, depending on the school board.

Elementary Education: The ages for compulsory schooling vary from one jurisdiction to another, but most require attendance in school from age 6 to age 16. In some cases, compulsory schooling starts at 5, and in others it extends to age 18 or graduation from secondary school. In most jurisdictions, elementary schools cover six to eight years of schooling, which can be followed by a middle school or junior high before moving on to secondary school (see Figure 1). The elementary school curriculum emphasizes the basic subjects of language, mathematics, social studies, science, and introductory arts, while some jurisdictions include second-language learning. In many provinces and territories, increased attention is being paid to literacy, especially in the case of boys whose test results have shown that their performance is falling behind that of girls in language. Almost 98 per cent of elementary students go on to the secondary level.

Secondary Education: Secondary school covers the final four to six years of compulsory education. In the first years, students take mostly compulsory courses, with some options. The proportion of options increases in the later years so that students may take specialized courses to prepare for the job market or to meet the differing entrance requirements of postsecondary institutions. Secondary school diplomas are awarded to students who complete the requisite number of compulsory and optional courses. In most cases, vocational and academic programs are offered within the same secondary schools, with some shorter non-diploma programs for students interested in specific trades. Enrolment at age 16, the final year of compulsory schooling in many jurisdictions, was above 90 per cent in the 1999–2000 school year. The secondary school completion rate in 2003 was 75.6 per cent, with 81 per cent of girls and 70 per cent of boys graduating. (Because of a change in the structure of senior secondary school in Ontario, a double group of students graduated in 2003, and these graduates are not reflected in the above numbers. Graduates from Ontario generally represent about 37 per cent of all graduates in Canada.) The overall graduation rate has remained relatively stable during the past five years.

Private/Separate Schools: Private, separate, or independent schools provide an alternative to publicly funded schools in many provinces or territories; however, they are required to meet the general standards prescribed by the ministry or department of education. They usually charge tuition fees and have a great variety of options based on interest, religion, language, or academic status. While the public system is coeducational, several of the private schools offer education

for boys or girls only. In most cases, these schools receive partial funding from the province or territory.

Figure 1: Organization and Structure of Elementary and Secondary Schools

Levels within elementary-secondary schools, by jurisdiction

Newfoundland and Labrador	P	1	2	3	4	5	6	7	8	9	10	11	12		
Prince Edward Island	P	1	2	3	4	5	6	7	8	9	10	11	12		
Nova Scotia	P	1	2	3	4	5	6	7	8	9	10	11	12		
New Brunswick - English	P	1	2	3	4	5	6	7	8	9	10	11	12		
New Brunswick - French	P	1	2	3	4	5	6	7	8	9	10	11	12		
Quebec - General	P	P	1	2	3	4	5	6	7	8	9	10	11		
Quebec - Vocational												10	11	12	13
Ontario	P	P	1	2	3	4	5	6	7	8	9	10	11	12	
Manitoba	P	P	1	2	3	4	5	6	7	8	9	10	11	12	
Saskatchewan	P	P	P	1	2	3	4	5	6	7	8	9	10	11	12
Alberta	P	P	P	1	2	3	4	5	6	7	8	9	10	11	12
British Columbia	P	1	2	3	4	5	6	7	8	9	10	11	12		
Yukon	P	1	2	3	4	5	6	7	8	9	10	11	12		
Northwest Territories	P	1	2	3	4	5	6	7	8	9	10	11	12		
Nunavut	P	1	2	3	4	5	6	7	8	9	10	11	12		

P	Pre-elementary, not universally available
P	Pre-elementary, universally available
Elementary/Primary	Elementary/Primary
Junior high/Middle	Junior high/Middle
Senior high	Senior high
Secondary	Secondary

Source: Statistics Canada and Council of Ministers of Education, Canada. Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2003 (Toronto, Ontario: Canadian Education Statistics Council, 2003), 172.

Postsecondary Education

Range of Institutions: Postsecondary education is available in both government-supported and private institutions, which offer degrees, diplomas, certificates, and attestations depending on the nature of the institution and the length of the program. Universities and university colleges focus on degree programs but also offer diplomas and certificates, often in professional designations. The non-degree-granting institutions, such as colleges, community colleges, and technical and vocational institutions, offer diplomas, certificates, and, in some cases, two years of academic credit that can be transferred to the university level. Les collèges d'enseignement général et professionnel (cégeps) in Quebec offer a choice of two-year academic programs that are prerequisite for university study or three-year vocational and professional programs that prepare

students for the labour market. All “recognized” postsecondary institutions in Canada have been given the authority to grant academic credentials by their provincial or territorial government through their charters or legislation that ensure mechanisms for assessing the quality of the institution and its programs. Distance education, which provides extensive on-line, media, and print-based programs, is available from traditional institutions, universities dedicated to distance learning, and college networks.

Governance: Universities are largely autonomous; they set their own admissions standards and degree requirements and have considerable flexibility in the management of their financial affairs and program offerings. Government intervention is generally limited to funding, fee structures, and the introduction of new programs.

In colleges, however, government involvement can extend to admissions policies, program approval, curricula, institutional planning, and working conditions. Most colleges have boards of governors appointed by the provincial or territorial government, with representation from the public, students, and instructors. Program planning incorporates input from business, industry, and labour representatives on college advisory committees.

Funding: Revenue for Canada’s universities and colleges in 2004–05 was \$27.7 billion. Federal, provincial, and municipal government funding, including funding for research, accounted for 55.6 per cent of the revenue, although this ranged from 43.6 per cent in Nova Scotia to 70.5 per cent in Quebec. Student fees accounted for over 20 per cent of the total, with bequests, donations, nongovernmental grants, and sales of products and services bringing in another 24.2 per cent. University and college expenditures in 2004–05 were more than \$27.9 billion. Canada has 157 public universities and degree-granting institutions and over 175 recognized public colleges and institutions. Tuition costs at universities averaged \$4,172 in 2004–05, with international student fees for an undergraduate program averaging about \$12,000 annually. At colleges (outside Quebec), the average tuition was \$2,133 (Quebec residents do not pay college tuition). Education is also funded through the money that governments transfer to individual students through loans, grants, and education tax credits. In 2003, federal and provincial government spending on all forms of student assistance was about \$4.4 billion.

Attendance and Graduation: In 2004–05, there were 785,000 full-time university students (an increase of nearly 130,000 in the previous three years), as well as 270,000 part-time students. In 2004, Canadian universities awarded an estimated 135,000 bachelor’s degrees, 26,000 master’s degrees, and 4,000 doctoral degrees. In 2003, Canadian colleges had over 736,000 full- and part-time students enrolled. Participation in postsecondary education has grown significantly in the past few years, whether measured by numbers of enrolments or by the proportion of the population in any given age group who are attending college or university. Women continue to make up the majority of students on both university and college campuses.

University Activities: Degree-granting institutions in Canada focus on teaching and research. In 2004–05, Canadian universities performed \$9.3 billion worth of research and development, 35 per cent of the national total. Teaching is the key function, whether at the small liberal arts colleges that grant only undergraduate degrees or at the large, comprehensive institutions. Registration varies from about 2,000 students at some institutions to a full-time enrolment of almost 60,000 at the University of Toronto, Canada’s largest university. There are more than 10,000 undergraduate and graduate degree programs offered in Canadian universities, as well as

professional degree programs and certificates. Most institutions provide instruction in either English or French; others offer instruction in both official languages. In 2003–04, Canadian universities employed 37,000 full-time faculty members.

University Degrees: University degrees are offered at three consecutive levels. Students enter at the bachelor's level after having successfully completed secondary school or the two-year cégep program in Quebec. Most universities also have special entrance requirements and paths for mature students. Bachelor's degrees normally require three or four years of full-time study, depending on the province and whether the program is general or specialized. An honours bachelor's degree involves an additional year of study. A master's degree typically requires two years of study after the bachelor's or honours degree. For a doctoral degree, three to five years of additional study and research and a dissertation are the normal requirements. In regulated professions, such as medicine, law, education, and social work, an internship is generally required in order to obtain a licence to practise. University colleges provide three- and four-year bachelor's degrees.

College Activities: At the college level, the focus is on teaching, but applied research is taking on greater importance. Public colleges, specialized institutes, community colleges, institutes of technology, and cégeps offer a range of vocation-oriented programs in a wide variety of professional and technical fields, which may include business, health, applied arts, technology, and social services. These programs range from six months to three years in duration, with some institutes offering postgraduate diplomas as well. Some of the institutions are specialized and provide training in a single field such as fisheries, arts, paramedical technology, and agriculture. Colleges also provide the majority of the literacy and academic upgrading programs, pre-employment and pre-apprenticeship programs, and the in-class portions of registered apprenticeship programs. As well, a wide variety of workshops, short programs, and upgrades for skilled workers and professionals are made available.

College Recognition and Cooperation: Diplomas are generally awarded for successful completion of two- and three-year college programs, while certificate programs usually take up to one year. In Quebec, attestations d'études collégiales (AEC) are awarded as the equivalent of certificates. University degrees and applied degrees are offered in some colleges and institutes, and others provide university transfer programs. Colleges work very closely with business, industry, labour, and the public service sectors to provide professional development services and specialized programs and, on a wider basis, with their communities to design programs reflecting local needs. Most colleges in Canada also recognize Prior Learning Assessment and Recognition (PLAR) in at least some of their programs. Some universities also recognize it, and a growing number of provinces offer PLAR to adults at the secondary school level. PLAR is a process that helps adults demonstrate and gain recognition for learning they have acquired outside of formal education settings.

Adult Education

Participation: One out of every three adult workers, 35 per cent, participated in some type of formal, job-related training in 2002, accessing opportunities to continue learning and to upgrade their skills. The participants received an average of 150 hours of training. Twenty-five per cent of adult workers reported taking employer-supported training programs, support that might

include payment for training, flexible hours, or transportation to training. Participants are more likely to be in management and professional occupations than in blue collar or clerical occupations. Utilities, educational services, and public administration are the industries with the highest rates of participation. Those with higher levels of literacy and education are also more likely to participate in adult education. Self-directed learning, in which workers learn on their own through observation, study, and learning from other workers, was almost as common as formal training. When asked by researchers, 33 per cent of working adults stated that they had engaged in some sort of self-directed, informal learning related to their jobs during the preceding four-week period.

Providers: Colleges are the primary vehicle for adult education and training for the labour force; universities supply a smaller portion. Community-based groups, largely funded by the provincial, territorial, or federal governments, address special needs such as literacy and serve groups such as the rural poor, the Aboriginal communities, immigrants, displaced workers, and those with low levels of literacy or education. Apprenticeship is an industry-based learning system that combines on-the-job experience with technical training and leads to certification in a skilled trade. Provincial and territorial governments are responsible for apprenticeship training, and much of the classroom learning is done in the college system. Apprenticeship in Canada is largely an adult program. Registration in apprenticeship training programs reached almost 235,000 in 2002, an increase of 40.8 per cent from 1996. Gains occurred in every major trade group, especially the building construction trades.

Activities of the Government of Canada

The Federal Contribution: The federal government of Canada plays an indirect role in elementary-secondary education. A portion of the federal transfer payments made each year to the provinces and territories is nominally for education. It provides financial support for postsecondary education and the teaching of the two official languages. In addition, the federal government is responsible for the education of Registered Indian peoples on reserves, of personnel in the armed forces and the coast guard, and of inmates in federal correctional facilities.

Aboriginal Education: The federal government is responsible for the education of Registered Indian children living on reserves through provincial or federal schools operated by First Nations. Funding is also provided for postsecondary assistance and programs for Registered Indian students. The three northern territories, Yukon, Nunavut, and Northwest Territories, provide education services for their Registered Indian and/or Inuit populations. First Nations children living off reserves are educated in the public elementary and secondary schools in their cities, towns, and communities, with the provinces and the territories providing the majority of educational services for Aboriginal students.

Postsecondary Education: In addition to providing revenue for universities and colleges through transfer payments, the federal government offers direct student support. Every year, the Canada Student Loans Program and related provincial and territorial programs provide loans and interest forgiveness to over 350,000 postsecondary students. The Canada Millennium Scholarship Foundation awards \$285 million in bursaries and scholarships each year to about

100,000 students throughout Canada. For parents, the Canada Education Savings Grant program supplements their savings for postsecondary education. These programs are designed to make postsecondary education more widely accessible and to reduce student debt.

Language Education: Reflecting its history and culture, Canada adopted the Official Languages Act (first passed in 1969 and revised in 1988), which established both French and English as the official languages of Canada and provided for the support of English and French minority populations. According to the 2001 Census, 67 per cent of the population speak English only, 13 per cent speak French only, and 18 per cent speak both French and English. The French-speaking population is concentrated in Quebec, while each of the other provinces and territories has a French-speaking minority population; Quebec has an English-speaking minority population. The federal government's official-language policy and funding programs include making contributions to two education-related components — minority-language education and second-language education. Through the Official Languages in Education Program, the federal government transfers funding for these activities to the provinces and territories based on bilateral and general agreements that respect areas of responsibility and the unique needs of each jurisdiction. The bilateral agreements related to these contributions are negotiated under a protocol worked out through the Council of Ministers of Education, Canada (CMEC). Two national federally funded programs, coordinated by CMEC, provide youth with opportunities for exchange and summer study to enhance their second-language skills.

The Council of Ministers of Education, Canada

Role of CMEC: The Council of Ministers of Education, Canada (CMEC) was formed in 1967 by the provincial and territorial ministers responsible for education to provide a forum in which they could discuss matters of mutual interest, undertake educational initiatives cooperatively, and represent the interests of the provinces and territories with national educational organizations, the federal government, foreign governments, and international organizations. CMEC is the national voice for education in Canada and, through CMEC, the provinces and territories work collectively on common objectives in a broad range of activities at the elementary, secondary, and postsecondary levels.

Ministerial Priorities

At recent meetings of the Council of Ministers of Education, Canada, the provincial and territorial ministers of education defined their three key priorities for the coming years — Aboriginal education, Literacy, and Postsecondary capacity. They also outlined action plans for joint activities that might involve the federal government and other stakeholders, as appropriate.

Aboriginal Education: In the 2001 Census, almost one million people identified themselves as Aboriginal persons, that is, Indian, Métis, or Inuit, representing 3.3 per cent of the population. Of great consequence to the education system, one-third of the Aboriginal population are children aged 14 and under. However, the rates of secondary school completion by Aboriginal students

and of transition to and graduation from postsecondary education remain well below the national average.

All provinces and territories have been implementing changes that focus on the inclusion of Aboriginal communities and parents in educational planning and the revision of curriculum and teaching practices. Their goal is to ensure that all aspects of education are more relevant to Aboriginal learners and reflect Aboriginal history, culture, and traditions for the benefit of all students. Transition and student support services, culturally relevant resources, recruitment and training of Aboriginal teachers, specialized institutions at the elementary, secondary, and postsecondary levels, and flexible methods of teaching, learning, and assessment are examples of the initiatives undertaken to improve the educational achievement of Aboriginal students.

Progress is being made. For example, in recent years there have been increases in the number of young Aboriginal people in non-reserve areas completing secondary school, and higher numbers of Aboriginal people aged 25 to 34 have graduated from postsecondary education. More Aboriginal children living in non-reserve areas are attending preschool programs, while the proportion attending preschool programs designed specifically for them has increased four-fold in five years.

As outlined in their new action plan, the ministries and departments of education in the provinces and territories will work in collaboration with local Aboriginal representatives, education stakeholders, and the federal government to identify and share best practices in Aboriginal education, including teacher training and recruitment, and to establish and/or share education indicators specific to Aboriginal student outcomes. This information will then be used to identify further actions to improve results achieved by Aboriginal learners.

Literacy: Literacy is crucial to individuals, both in their careers and in their quality of life, and it is an issue of major concern in Canadian education. Canadian results on the OECD's Programme for International Student Assessment (PISA), administered to 15-year-olds in 2003, were among the highest in the world in the literacy domains of reading, science, problem solving, and mathematics. PISA also revealed that Canada has one of the highest levels of equity in achievement. However, PISA results showed the differing literacy levels across the country that can be attributed, in part, to socio-economic status, gender, and ethnicity.

A recent international survey, the Adult Literacy and Life Skills Survey, revealed that 58 per cent of adults aged 16 to 65 possess literacy skills that indicate they could meet most everyday reading requirements. This leaves a significant number of adults with low-level literacy skills, which can impact their participation in society and in the economy.

Funding, programs, and resources continue to be increased in all the provinces and territories to benefit school-aged and adult learners and to help them achieve higher levels of literacy, including such activities as

- increased access to books and resources in the classrooms
- more professional development opportunities to prepare teachers to respond to literacy needs
- expansion of successful programs to more classrooms and schools

- extension of full-day kindergarten and enhanced programs to help parents prepare their children to be ready to learn when they start school
- increased funding for cost-shared programs for adult literacy
- more grants for community-based programs in literacy for youth and adults
- awareness and motivation programs involving community role models aimed at increasing young boys' reading
- increased funding for coordinated action involving government, school districts and boards, and communities
- more support for family literacy programs
- more emphasis on the development of reading materials that reflect the culture and stories of the learners.

The CMEC's action plan calls for two forums to be held in the near future, the first on school-age literacy and the second on adult literacy. Their purpose will be to help identify concrete initiatives to increase literacy significantly among children, youth, and adults.

Postsecondary Capacity and Access: Over the next ten years, Canadian universities are expecting an additional 200,000 students in a system that currently accommodates over 785,000. With the demand for seats still rising, there is more pressure to upgrade and construct facilities, to attract and retain faculty and staff, and to alleviate the other problems related to chronic underfunding. For example, one challenge in the decade ahead is the replacement of up to 20,000 university faculty, most of whom are taking retirement, and the hiring of an additional 10,000 new faculty to address the increasing enrolment.

Other aspects of postsecondary capacity that are of particular concern are the accelerating need for and costs of research materials, laboratory equipment, and information and communications technology; the implications of long-deferred building maintenance; institutional capacity to absorb the multiple indirect costs of research; the impact of demographic changes on regional institutions; the need for more graduate students in specific fields and to meet institutional needs for future faculty; and the maintenance of quality in their educational offerings and their research while coping with the increasing numbers of students and the societal, business, and industrial demands for well-educated graduates.

One particular area of concern about access to postsecondary education is the debt load that students acquire and the impact this has on who attends or defers or avoids postsecondary institutions. About one-half of college graduates and university graduates with bachelor's degrees from the class of 2000 left school owing money for their education, mostly in the form of government student loans. Student assistance programs from the federal, provincial, and territorial governments are undergoing considerable expansion to provide wider access to postsecondary education, by encouraging students to continue to graduation through the reduction or forgiveness of debt and interest; increasing grants, bursaries, and scholarships; and developing funding solutions that respond to the changing needs of a diverse range of students. Some jurisdictions have also brought in tuition freezes.

As a first step in the CMEC's collective action, the state of postsecondary systems will be surveyed to prepare a list of the issues facing the provinces and territories. From this summary of issues, a position paper and strategy will be outlined that includes the involvement of the

federal government. The relatively new Council of the Federation brings together the premiers of the provinces and territories to promote collaborative relations among governments, and this Council is expected to address issues related to postsecondary education.

In addition to defining three key priorities, the provinces and territories agreed on the following policy and research objectives that will help them reach their goal of building the best education systems in the world in which every learner succeeds: students with special needs, healthy schools, technology and e-learning, teacher training, learning outcomes, and transitions. These issues will continue to receive priority attention in each jurisdiction as well as on a pan-Canadian basis.

Students with Special Needs: The principle that guides education of special-needs students in Canada is inclusion in the regular classroom to the greatest extent possible. Education for students with special needs, whether in regular or separate classrooms or facilities, operates on the belief that every child can learn and deserves the opportunity to achieve to the furthest extent of his/her abilities. The inclusion of special-needs students in mainstream classrooms places increased demand on the teachers and the school boards. To respond, each jurisdiction has developed detailed policies and procedures; customized resources and supports; set up collaborative efforts with education, health, and social service authorities; enhanced staffing levels; and provided specialized teacher training. The challenge is that the provision of supports is not always adequate to the complexity and scope of the needs.

Healthy Schools: The physical and emotional health of students, in conjunction with safe and caring schools with healthy social and physical environments, are significant contributors to academic success. Schools promote healthy living in terms of nutrition, physical activity, injury prevention, the integration of health-related content into the curriculum, and programs for smoking cessation and healthier lifestyles. Safety interventions include safety audits, entrance cameras, bullying prevention programs, and initiatives such as Effective Behaviour Support to provide training and support so that school communities can effectively work with all students, including those with challenging behaviours. In areas of vulnerability, schools are being tested and reinforced against possible natural disasters. The ministries of education are taking advantage of the reality that the school setting provides a unique opportunity to significantly influence the multiple domains of student health inside and outside the classroom. Collaboration is key as teachers, school administrators, parents, and students work with local health and safety authorities, governments, community groups, and researchers.

Technology and E-learning: Information and communications technologies (ICT) are seen as essential in education, and investments have reflected this. Computers are used for educational purposes in over 99 per cent of Canadian elementary and secondary schools, with an average of 72 computers per school. The median number of students per computer in a school is five. As of the 2003–04 school year, virtually all elementary and secondary schools were connected to the Internet, and these computers were available for student use. Students also had access on a very wide basis to word-processing software, educational and drill and practice programs, spreadsheet and database programs, and presentation software. The enhanced incorporation of ICT into curriculum, teacher training on curriculum and learning management applications, and funding for technology maintenance and upgrades are issues that demand continued attention. Technology in postsecondary education is also being extended to provide institutional information, registration and financial aid services, direct delivery of programs and courses,

career counselling and job opportunities, library and research resources, as well as advanced networks for educators and researchers.

Teacher Training: Much is being asked of teachers as socially-inclusive and competency-based education has evolved to respond to new social and economic pressures. Teaching, curriculum, and assessment practices have become more demanding and more flexible at the same time. While responding to differing needs and capacities in the classrooms, teachers must also incorporate curriculum that integrates important societal messages and ensure that student competencies are developed beyond the mastery of the subject matter. Teachers are, to a great degree, willing to accept and excel at their expanded roles, but also express a need for enhanced support, training, and resources.

Pre-service training of teachers is largely undertaken by the universities. Re-design of the programs is collaborative, involving institutions, the government, the education professionals and, usually, public input. Professional development for practising teachers is shared among the departments/ministries of education, the school boards, the universities, the teachers' associations, and nongovernmental organizations with particular expertise. As well as training, ministries and departments of education are also concerned with the recruitment and retention of teachers, especially in rural settings or in specific subject areas.

Learning Outcomes: The education systems in Canada participate in a number of international studies measuring student achievement, and these are complemented by specific pan-Canadian, provincial, and territorial assessment programs and benchmarks. In addition, longitudinal studies are in place to help policy makers determine appropriate interventions for students, with specific expectations and achievement measures being used as progress indicators.

Considering that about 30 per cent of secondary students are at risk of not graduating, governments are focused on keeping students in school and providing them with the tools necessary for successful completion — more secondary school teachers, special supports for struggling students (including specialists and language and maths mentors), enhanced trades training and cooperative opportunities, increased funding for schools in areas of socioeconomic need, special programs and resources for returning dropouts, and curriculum changes that reflect individual directions and accomplishments.

Parallel with this focus on student outcomes are the public accountability tools and reports that provide the students, their parents, and the public with information on the performance of schools and school boards, including such factors as the rates of graduation and of transition from grade to grade and from graduation to postsecondary education. This public accountability for achievement and learning outcomes reflects the reality that education is a public trust and that everyone is a stakeholder in the system.

Transitions: Currently, governments are paying particular attention to the transition of students from secondary school to the work force or to postsecondary education. With the work force in need of skilled workers and students looking for careers, numerous programs have been designed to facilitate this transition. Many of these programs involve placing the students in the workplace for extended periods of time, giving them the opportunity to learn employment skills, trade skills, leadership, and self-confidence while earning both secondary school and technical

training credits. This may also be combined with career and education counselling so that the students are encouraged and guided in their choices. Apprenticeship and technical and vocational training programs and facilities are being revised and upgraded to reflect industry trends, and specific courses are being offered in communities with defined needs for skilled workers. Enhanced funding for transition programs involving students-at-risk, Aboriginal students, youth in remote communities, and other traditionally disadvantaged groups has led to innovation, increased participation, retention, and success.

Web sites also provide comprehensive information on skills training, job requirements, and opportunities for students, institutions, and employers. Web sites and credit transfer programs are in place to support students in making the transition to postsecondary education as well as to enable the transfer of student credits from one institution to another *within jurisdictions*. Additional attention is needed on transferability and transitions *between jurisdictions* at the postsecondary level.

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www.aucc.ca

Canadian Information Centre for International Credentials (CICIC)

www.cicic.ca

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UNITED NATIONS DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

UNESCO QUESTIONNAIRE

- 1) *Has a national ESD action plan been developed?*
- 2) *Has a national committee for the DESD been established?*
- 3) *Has a national website on ESD and/or the Decade been created?*
- 4) *Are there plans to organize for a national launch for the Decade?*
- 5) *Who are, in terms of education for sustainable development, the main governmental and non-governmental actors/bodies?*
- 6) *Are there any important events or conferences related to ESD that should be mentioned?*