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Council of
Ministers
of Education,
Canada

**Canada's Response to UNESCO Questionnaires on the
UN Decade of Education for Sustainable Development, 2005–2014:
Education for Sustainable Development after 2014 and
UN Decade of ESD Final Report**

February 2014

**Prepared by the Council of Ministers of Education, Canada
in collaboration with
The Canadian Commission for UNESCO**



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Canadian
Commission
for UNESCO

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Background

UNESCO has requested that its Member States complete two questionnaires on the UN Decade of Education for Sustainable Development 2005–2014 (UNDESD). Questionnaire 1 focuses on collecting information on Member States' priorities for ESD after the end of the UNDESD. The key purpose is to help develop a post-2014 ESD program framework. Questionnaire 2 focuses on compiling country achievements and challenges during the decade. Its key purpose is to help carry out the final assessment of UNDESD.

Questionnaire 1 – Education for Sustainable Development after 2014

In the outcome document of the 2012 United Nations Conference on Sustainable Development (Rio+20), *The Future We Want*, Member States committed to strengthening ESD beyond the end of the United Nations Decade of Education for Sustainable Development (UNDESD 2005–2014): “We resolve to promote education for sustainable development and to integrate sustainable development more actively into education beyond the United Nations Decade of Education for Sustainable Development.”

As we approach the end of the UNDESD, UNESCO, in fulfilling its role as lead agency in the implementation and coordination of the UNDESD, is preparing the follow-up to the decade and ways forward in ESD.

At its 190th session, the Executive Board of UNESCO expressed “its preference for a programme framework as follow-up to the United Nations Decade of Education for Sustainable Development after 2014.” The board requested UNESCO’s Director-General, Irina Bokova, “to develop, in consultation with Member States, and in collaboration with relevant stakeholders, the proposal for a programme framework, led by UNESCO, which should cover at least the period of the forthcoming Medium-Term Strategy 2014–2021.”¹

Questionnaire 2 – UN Decade of ESD Final Report

The UNESCO World Conference on Education for Sustainable Development (ESD), to be held in Japan in November 2014, will mark the end of the UNDESD and celebrate its achievements.

In fulfilling its role as lead agency in the implementation and coordination of the UNDESD, UNESCO is required to prepare a final report, the 2014 End-of-the-Decade Report, to be presented to the UN General Assembly in the autumn of 2015. The 2014 End-of-the-Decade Report will take stock of the growth of ESD during the UNDESD and provide an updated picture of ESD around the world.

¹ UNESCO Executive Board. Decisions adopted by the executive board at its 190th session, Paris, 2012, p.16. Retrieved from <http://unesdoc.unesco.org/images/0021/002181/218189e.pdf>

In light of this process, UNESCO is asking Member States to provide quantitative and qualitative data on ESD by completing the UNESCO Questionnaire 2.

The CMEC Secretariat collaborated with the Canadian Commission for UNESCO (CCU) on Canada's response, which was prepared by Heather Creech, an independent consultant with extensive expertise in ESD.

Note that a workshop was organized by the CCU, in conjunction with its Annual General Meeting on May 2, 2013, to consult with its members and a number of key Canadian stakeholders working on ESD. Ms. Creech attended this meeting so as to take these discussions into account when drafting Canada's report.

Canada's Response to Questionnaire 1: Education for Sustainable Development after 2014

1. Which areas and levels of education should a global programme framework for Education for Sustainable Development (ESD) after 2014 particularly highlight?

The programme framework should focus on ESD as an integral element of quality education in the following areas: *Please mark the three most relevant to your country.*

- Early Childhood Care and Education
- Primary Education***
- Secondary Education***
- Technical and Vocational Education and Training (TVET)
- Higher Education***
- Teacher Education
- Non-formal Education
- Training and Capacity Building
- Public Awareness

***Please note:** Primary, Secondary and Higher Education include and covers Technical and Vocational Education and Training (TVET) and Teacher Education.

2. Which sustainability challenges should a global programme framework for Education for Sustainable Development (ESD) after 2014 particularly highlight?

The programme framework should focus on ESD as a critical lever for addressing policies and practices in the following areas: *Please mark the three most relevant to your country.*

- Agriculture and food security
- Biodiversity
- Climate change**
- Disaster risk reduction (DRR)
- Energy**
- Poverty eradication
- Health
- Oceans
- Sustainable cities and human settlements
- Sustainable consumption and production (SCP)**
- Water and sanitation
- Other, please specify: _____

Please note that issues such as cultural diversity, equity, gender, global citizenship, human rights, peace, traditional and indigenous knowledge are assumed to cut across ESD's engagement with all these themes.

3. Which ESD initiatives have been particularly successful?

Initiatives are understood as any project big or small, from policy and finance to individual successful activities in schools. Please list relevant local, national, regional, global initiatives (3 maximum) providing a website reference and/or contact names:

3. (a) Name of the initiative: Nova Scotia – Energy Awareness in Curriculum and Facilities

Website: www.gov.ns.ca

Contact name & email: Marilyn Webster, websteml@gov.ns.ca

Brief description: The Province of Nova Scotia is committed to creating high-performance buildings that employ green and sustainable design and construction practices. All of our new school buildings are designed to meet Leadership in Energy and Environmental Design (LEED) gold certification. All schools participate in energy-efficiency measures and recycling practices. Cross-curricular resources have been developed, such as *A closer look: energy and me* for grades 2 and 3 science students, and Energy Meters (grades 6–9). The Energy Around Us (grades 4–10) cross-curricular project provided professional learning communities of practice that gave a sound knowledge and resources for teachers to connect with each other and to plan for authentic student learning opportunities in the classroom and the community.

Why do you consider this initiative successful? The response to this initiative has been overwhelming and ongoing.

3. (b) Name of the initiative: Ontario – Embedding opportunities for students to learn about the environment across disciplines and grades

Website: <http://www.edu.gov.on.ca/eng/curriculum>

Contact name & email: Catherine Mahler, catherine.mahler@ontario.ca; Michel St-Amant, michel.st-amant@ontario.ca

Brief description: Using ministry-developed standards for environmental education for the development of curriculum, learning about the environment is embedded where appropriate across all disciplines and grades.

Why do you consider this initiative successful? The research-based revisions to the curriculum provide multiple opportunities for students to learn about the environment in many contexts, not simply in Science or Geography classes. The considered approach to revision also gives teachers time to develop their capacity to support learning about the environment.

3. (c) Name of the initiative: Alberta – Inspiring Education/Curriculum Redesign

Website: www.education.alberta.ca

Contact name & email: Caroline Nixon, caroline.nixon@gov.ab.ca

Brief description: Alberta Education, as articulated through Inspiring Education, is transforming its education system to be one that strives to instill in its students the qualities and abilities of engaged thinkers and ethical citizens with an entrepreneurial spirit. To support this vision, Alberta is currently undergoing curriculum redesign. Integral to this work is consideration of education for sustainable development (ESD), given its prominence in the 21st century. Particular emphasis is placed upon ethical citizenship, an essential component of which is environmental stewardship. As Alberta moves forward with this transformation, we will continue to integrate ESD into our programs of study as they are developed.

Why do you consider this initiative successful? n/a

3. (d) Name of the initiative: British Columbia – Carbon Neutral BC

Website: http://www.livesmartbc.ca/government/carbon_neutral/index.html

Contact name & email: <http://www.livesmartbc.ca/contact/index.html>

Brief description: It has been five years since the British Columbia *Greenhouse Gas Reduction Targets Act* (GGRTA) was enacted. The act requires all public-sector organizations, including school districts, to report on their greenhouse-gas emissions and purchase carbon offsets to become carbon neutral. In 2011, BC's 60 school districts reported 214,048 tonnes of Co₂ emissions and invested in 191,335 tonnes of Co₂ offsets. Schools have updated infrastructure and implemented behavior-change programs for staff, students, and the community to reduce carbon emissions. In addition to the BC GGRTA, all new schools in BC are built to LEED gold standard. In 2012, 14 new and improved school facilities were opened. Additionally, construction has started on another four schools, and agreements have been signed with school districts signaling the start of work on 18 school-improvement projects.

Why do you consider this initiative successful? It is a province-wide program that requires BC's entire public sector, including schools, postsecondary institutions, government offices, Crown corporations, and hospitals to achieve net-zero greenhouse-gas emissions.

3. (e) Name of the initiative: Newfoundland and Labrador – Environmental Science Curriculum

Website: <http://www.ed.gov.nl.ca/edu/k12/curriculum/guides/science/index.html#envsci3205>

Contact name & email: Craig White, craigwhite@gov.nl.ca

Brief description: Newfoundland and Labrador's ES3205 curriculum was redeveloped and has the theme of sustainable development as the underlying framework. The issues and topics are all local/regional to the province. Contrary to the popular slogan, Newfoundland and Labrador decided to opt for a "think locally, act locally" approach with the view that, if we did this locally, global issues would be addressed as a matter of course.

Why do you consider this initiative successful? The curriculum is very hands-on and is intended to attract students from all academic levels. The issues resonate with students. All students, regardless of where in the province they live, will encounter issues/concerns that are specific to their locality. At minimum, they should be able to relate to the issues because these are issues in our province, not on the other side of the world.

3. (f) Name of the initiative: Manitoba – Grade 12 Global Issues Citizenship and Sustainability Course

Website: http://www.edu.gov.mb.ca/k12/cur/socstud/global_issues/index.html

Contact name & email: Linda Connor, linda.connor@gov.mb.ca

Brief description: This course consolidates learning across disciplines to empower students as agents of change for a sustainable and equitable future. A required component of the course is the planning and implementation of an action research project.

Why do you consider this initiative successful? This is the first course in Manitoba's K–12 curriculum that is solely focused on sustainability. The course was piloted in 2012-2013 and will be rolled out across the province in the fall of 2013. Response from teachers and students during the pilot phase was very positive. We anticipate the course will make a difference in the lives of many students and teachers.

3. (g) Name of the initiative: Quebec – Brundtland Green Establishment (BGE)

Website: <http://www.evb.csq.qc.net/>

Contact name & email: Louise Pettigrew, pettigrew.louise@csq.qc.net

Brief description: Launched in 1993 by the *Centrale des syndicats du Québec* (CSQ) in partnership with RECYC-QUÉBEC, the BGE network now includes over 1,400 schools that have signed up since its creation. A BGE is a place where people think, teach, educate, and act according to the values of a more environmentally friendly, peaceful, united, and democratic world. The engagement of youth and adults is fostered by promoting and publicly recognizing their achievements and actions.

Why do you consider this initiative successful? This initiative is successful because it aims not only to take action on the environment, but to work for social equity and social cohesion as well.

3. (h) Name of the initiative: Quebec – *Projet PACTE 2D (Partenariat, Apprentissage, Collaboration et Transfert en Éducation au Développement Durable* [Partnership, Learning, Collaboration, and Transfer in Education for Sustainable Development])

Website: <http://www.usherbrooke.ca/developpement-durable/enseignement/appui/pacte2d>

Contact name & email: veronique.bisaillon@pacte2d.ca

Brief description: The main goal of the project is to promote the integration of sustainable development in college- and university-level curricula in seven partner postsecondary institutions.

Why do you consider this initiative successful? This initiative is successful because it is supported by a number of institutions working together and by funding that has made it possible to hire dedicated project staff.

4. What challenges did your country encounter in the implementation of ESD?

In Canada, education is an area of provincial and territorial jurisdiction. There is no federal department of education and no integrated national system of education. In the 13 jurisdictions — 10 provinces and three territories — departments or ministries of education are responsible for the organization, delivery, and assessment of education at the elementary and secondary levels, for technical and vocational education, and for postsecondary education. Some jurisdictions have separate departments or ministries, one having responsibility for elementary-secondary education and another for postsecondary education and skills training. Implementation of ESD on a pan-Canadian level has been a challenge due to the different priorities of each province and territory. The development and implementation of education policy and curriculum also varies between provinces/territories. Fiscal constraints, differing priorities, and the geographical range of Canada have tempered the national response to implementation.

5. Which other considerations have to be taken into account when developing the post-2014 ESD framework?

Development of a post-2014 framework should take into consideration the nature of ESD, combined with the best practices as described in the research literature, in addition to incorporating the specific needs of a given country, province, region, etc. Given the many pedagogical and political philosophies that underlie education policy, it would be beneficial to develop a post-2014 ESD framework that enables all jurisdictions/regions to support the ESD objectives that build on their unique strengths, rather than subscribing to a particular model or definition of ESD. To achieve this, the framework should be co-developed with key partners and have enough flexibility that others could tailor it to their specific priorities and needs. Resources, funding, and capacity-building opportunities to support the post framework are also needed. Finally, review of priorities according to the context must also be taken into account during the process.

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Canada's response to UNESCO Questionnaire 2: UN Decade of ESD Final Report

The monitoring and evaluation process for the United Nations Decade of Education for Sustainable Development (UNDESD), which ends in 2014, is designed to capture a variety of activities related to education for sustainable development (ESD) and take stock of ESD's growth throughout the UNDESD. The final assessment and report will summarize and highlight the accomplishments of the UNDESD, convey lessons learned, and point the way for post-decade efforts.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) world conference on ESD will be held in November 2014 in Japan. Marking the end of the DESD and therefore the monitoring and evaluation effort, it is based on four themes:

1. celebrating a decade of action;
2. reorienting education to build a better future for all;
3. accelerating action for sustainable development; and
4. setting the agenda for ESD beyond 2014.

Education for Sustainable Development (ESD):

- *allows every human being to acquire the knowledge, skills, attitudes, and values necessary to shape a sustainable future.*
- *touches every aspect of education including planning, policy development, program implementation, finance, curriculum, teaching, learning, assessment, administration, etc.*
- *is called by many names in national and local contexts. In some places, environmental education (EE) and other related "educations" (e.g., global education and climate change education) are defined and practised to include sociocultural and economic aspects alongside environmental aspects. Such efforts should be included in the responses to this questionnaire.*

Preparing Canada's Report

Across Canada, most provincial and territorial departments and ministries of education, as well as many other organizations and individuals, have worked over ten years to build awareness and support programming and policy change consistent with ESD/EE. The Council of Ministers of Education, Canada (CMEC) has played a leading role in implementing UNDESD activities in Canada and in aligning them with international efforts. The following report, prepared under the auspices of CMEC, is Canada's report to UNESCO on the results of Canadian efforts to raise awareness, increase engagement, and act on education for sustainable development.

A note on terminology used in Canada

In Canada, terms and definitions related to ESD and similar approaches, including sustainability education, education for sustainability, and environmental education, vary among provinces and territories. Inherent in all these definitions is an understanding of the interrelationships between economic, social, and environmental perspectives and fostering informed, engaged, and responsible citizens. This report refers to both Education for Sustainable Development and Environmental Education (ESD/EE).

Abbreviations for provinces and territories

AB	Alberta
BC	British Columbia
MB	Manitoba
NB	New Brunswick
NL	Newfoundland and Labrador
NS	Nova Scotia
NT	Northwest Territories
NU	Nunavut
ON	Ontario
PEI	Prince Edward Island
QC	Quebec
SK	Saskatchewan
YK	Yukon Territory

Acronyms

AASHE	Association for the Advancement of Sustainability in Higher Education
AASHE STARS	Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment and Rating System
CCUNESCO	Canadian Commission for UNESCO
CMEC	Council of Ministers of Education, Canada
CMEC ESDWG	CMEC Education for Sustainable Development Working Group
DESD	United Nations Decade of Education for Sustainable Development
ECEC	Early Childhood Education and Care
EE	Environmental Education
EECOM	Canadian Network for Environmental Education and Communication

ESD	Education for Sustainable Development
EVB	Établissements verts Brundtland
IISD	International Institute for Sustainable Development
ISCED	International Standard Classification for Education
LEED	Leadership in Energy and Environmental Design
LSF	Learning for a Sustainable Future
OISE	Ontario Institute for Studies in Education
P/T	Provinces and territories
RCE	Regional Centre of Expertise in Education for Sustainable Development
SEdA	Sustainability and Education Academy
TVET	Technical/Vocational Education and Training
UNECE	United Nations Economic Commission for Europe

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Number of students enrolled in K–12 in this jurisdiction: approx. 5,315,000²

Number of students enrolled in postsecondary programs in this jurisdiction: 1,955,340

Respondent Information

Provinces and territories

Because education is the jurisdiction of the ten provinces and three territories, Canada's response to UNESCO compiles official responses from the responsible jurisdictions under the auspices of the Council of Minister of Education, Canada (CMEC). All ten provinces responded to the UNESCO questionnaire while the governments of the three territories indicated with regret that they were unable to do so. The responding provinces have a combined K-12 student population of 5,292,284, or 99.5 per cent coverage of the K-12 student population across the country.³

In many provinces, support for higher education is the responsibility of a government department or ministry that is separate from those that oversee K-12. Institutions of higher education in Canada have their own incorporation and governance structures, and function collaboratively but independent from provincial government departments. In this report, all of the provincial government respondents reported on activities from early childhood education and care through to K-12, but only four also included coverage of ESD/EE in higher education. Institutions in these four provinces have a combined student population of 545,492 — less than a third of all students in higher education across Canada.⁴ Finally, most provincial government respondents indicated that it was outside of their mandate to report on nonformal education, training, and public education.

² Based on a reported student population of 5,292,284 for ten provincial respondents, plus an estimate for the three territories. Estimate for the K-12 student population for the three territories is 22,500, or .5 per cent of the total Canadian K-12 student population, based on Statistics Canada data for 2010/11. Accessed August 12, 2013 from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=4770025&tabMode=dataTable&srchLan=-1&p1=-1&p2=9>

³ As above.

⁴ Based on Statistics Canada data for 2010/11. Accessed August 12, 2013 from <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/educ71a-eng.htm>.

Canadian respondents to UNESCO's stakeholder survey

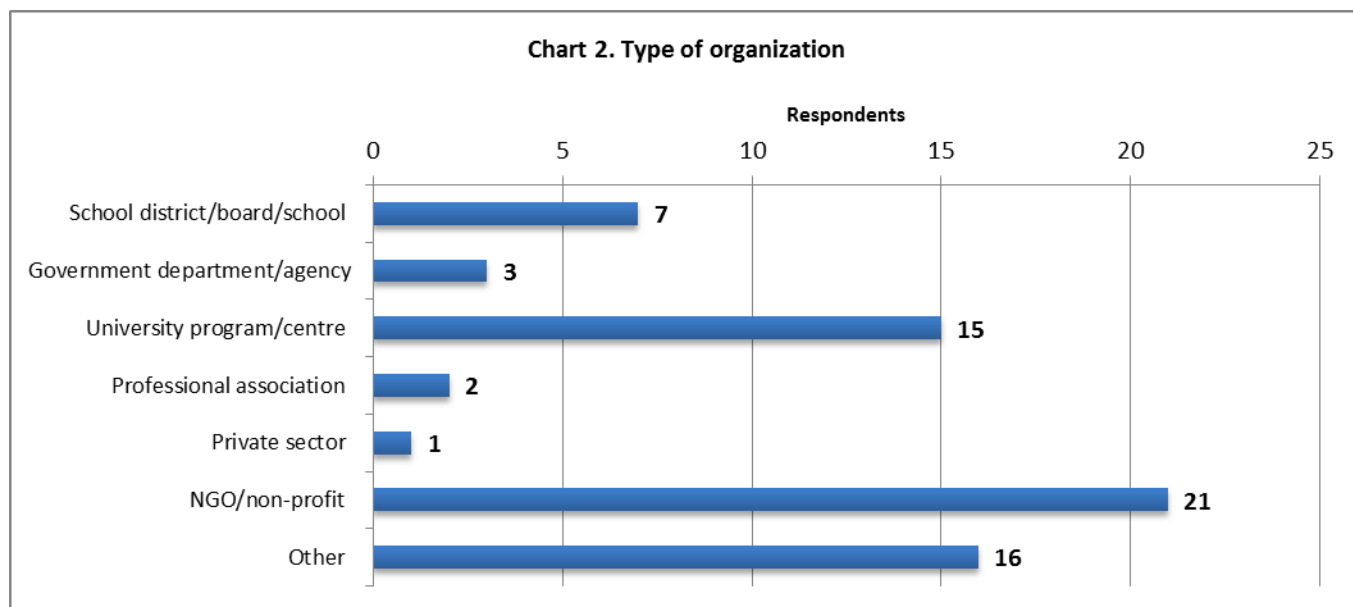
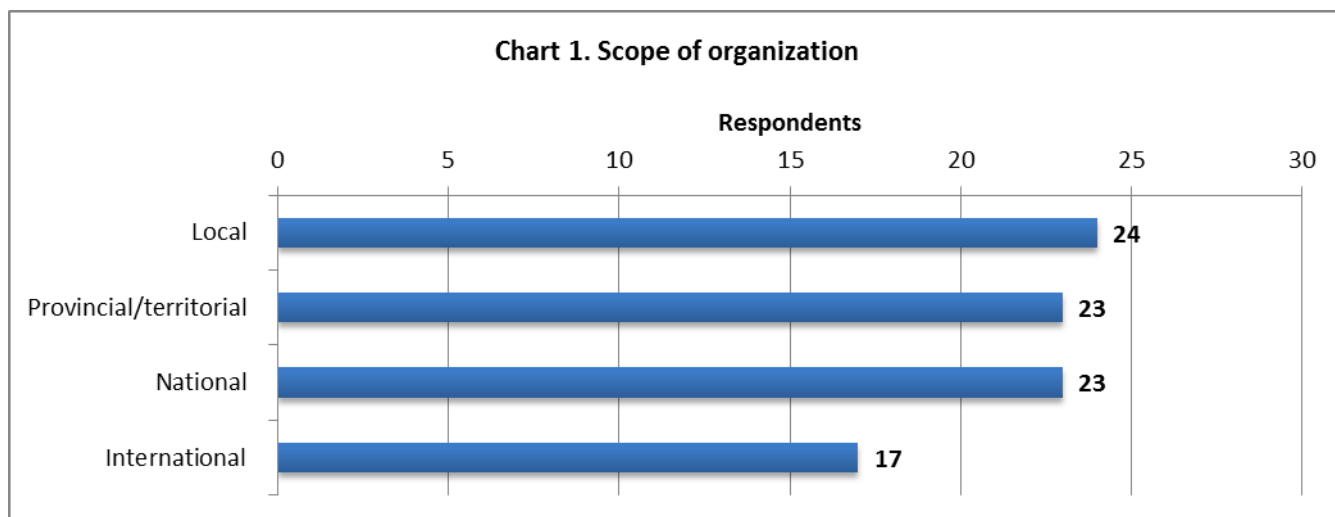


Chart 3. Sector of organization

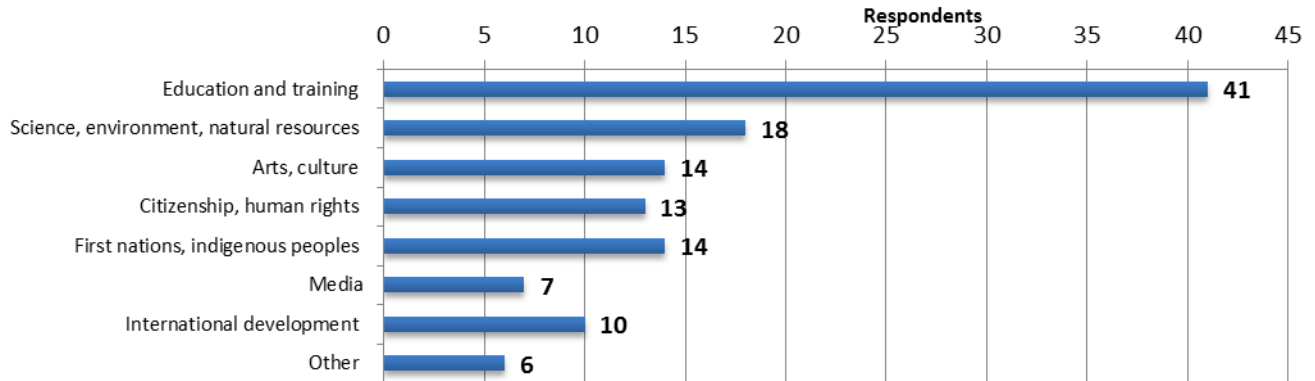
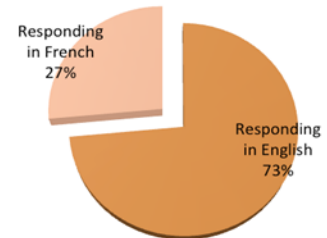
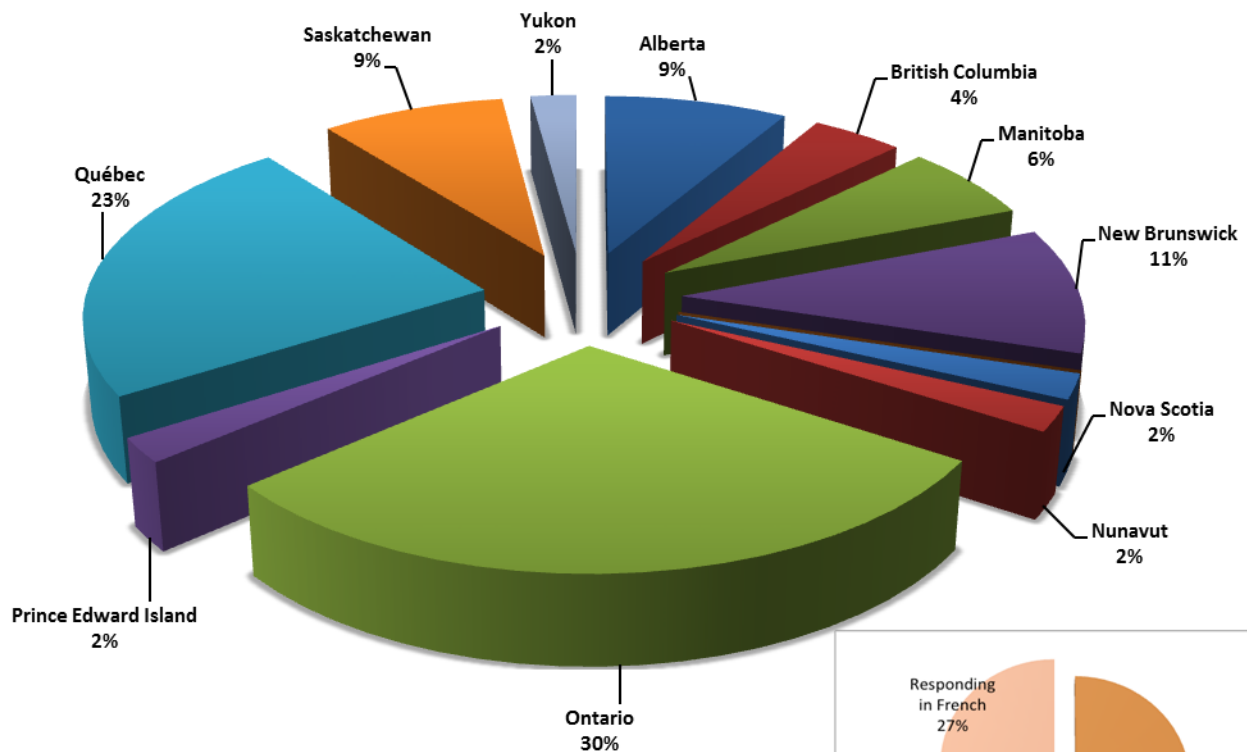


Chart 4. Provinces and territories of stakeholder respondents



The ESD Working Group for CMEC has used a consultation-and-research approach to prepare Canada's contribution to the UN DESD final report.

To enhance Canada's report with a strong stakeholder response, CMEC endorsed the efforts of the Canadian Commission for UNESCO to hold a workshop with 29 key stakeholders from across Canada on May 2, 2013 in Toronto. The Manitoba ESD Working Group replicated the workshop format for 29 provincial and local-level stakeholders in Winnipeg, Manitoba on the 17th of May 2013. Eleven ESD/EE thought leaders and experts were interviewed in person and by phone in May and June (Appendix 1). After these interviews CMEC reviewed relevant publications that stakeholders and key informants had identified (Appendix 2). The UNESCO questionnaire for stakeholders was posted online; information about the survey was circulated through the contacts of CMEC's ESD Working Group, and through ESD and EE networks across the country (Appendix 3).

Data collected from the stakeholder survey, two consultations, interviews, and relevant publications have been used to:

- complement the provincial government responses on progress on ESD/EE in K-12, and to
- fill in gaps with respect to progress on ESD/EE in higher education as well as nonformal and informal education.

The stakeholder survey group (49 respondents in total) represents a good cross-section of organizations and individuals from across the country, including two based in the territories (charts 1 to 4). The activities of this group cover local, provincial/territorial, and national interests, with a third also involved in international issues (chart 1). Over 85 per cent indicated that they work in the education and training sector but other sectors are also well covered, with nearly 40 per cent involved in natural resources and the environment, and nearly 30 per cent involved in one or more of arts and culture, citizenship and rights, and First Nations/indigenous peoples (chart 3). Respondents from nongovernmental organizations form the largest group, with those organizations ranging in size from five or fewer full-time employees, to over 600 staff. The volunteer base for many of these organizations can extend into the hundreds. Respondents from university centres (and colleges, as reported in the "other" category) form the next largest group, representing institutions with a few hundred full-time staff to those with over 1,000 employees.

The two consultations drew in 58 participants (with some overlap of participants attending both events), representing again a cross-section of organization and sector types. Interviews were held with 11 ESD/EE thought leaders and experts, most of whom also participated in one or both of the consultations.

However, the private sector as a whole is largely absent from the stakeholder group — with only one survey respondent from a private university in the group, and no representatives in either the consultations or interview group. We address the significance of this gap later.

SECTION 1. Celebrating a Decade of Action: “What have we achieved, what are the lessons learnt?”

1. Does your country have:

ESD Focal Point or Organization	■ Yes <input type="checkbox"/> No (2 at the national level and 5 of 10 provinces)
Provincial ESD/DESD coordinating body	■ Yes <input type="checkbox"/> No (5 of 10 provinces)
ESD strategy or plan	■ Yes <input type="checkbox"/> No (6 of 10 provinces)
Provincial legislation related to EE/ESD	■ Yes <input type="checkbox"/> No (4 of 10 provinces)
ESD included in relevant policy	■ Yes <input type="checkbox"/> No (5 of 10 provinces)

Note: Total, for focal points, policy, and planning: 80 per cent of the provinces have at least one of an ESD/EE focal point/coordinating body, strategy, legislation, or relevant policy.

Comments

Pan-Canadian planning

In Canada, many partners from across sectors have joined efforts to make ESD and EE a reality. These efforts have built on many initiatives since the Brundtland Commission in 1987 and the Earth Summit in 1992 to establish a culture of environmental awareness and sustainable development through education. For example, as a community of environmental educators and communicators, the Canadian Network for Environmental Education and Communication (EECOM) (established in 1993) has continued to play an important role in building capacity for environmental learning. The *Établissement vert Brundtland de la Centrale des syndicats du Québec (EVB-CSQ)* was created in Quebec in 1993. Twenty years later, more than 1,400 institutions in Quebec are working with EVB for a peaceful, democratic, and sustainable world. Learning for a Sustainable Future (LSF) was created through Canada’s former National Round Table on the Environment and the Economy in 1991, with the mandate to integrate sustainability education into Canada’s education system. Today it continues to work together with educators, students, parents, government, community members, and business leaders to integrate the concepts and principles of sustainable development into education policy, school curricula, teacher education, and lifelong learning across Canada. York University (Canada) was designated as the UNESCO Chair in Reorienting Teacher Education toward Sustainability in 1999.

At the beginning of the DESD, Canada identified three primary focal points for DESD implementation in order to establish a strong consensus among ESD/EE actors:

- the Council of Ministers of Education, Canada (CMEC), the intergovernmental body that serves as a forum for policy and planning and as an instrument to represent the education interests of the provinces and territories internationally;
- the federal department of environment (Environment Canada), which aims to reflect the national interest regarding environmental issues;
- the Canadian Commission for UNESCO (CCUNESCO), which engages and consults with

civil society.

These three groups, together with Manitoba Education, Learning for a Sustainable Future (LSF), and the J.W. McConnell Foundation, initiated Canada's response to the DESD, laying the groundwork for significant progress, achievements, and lessons learned over ten years.

At the end of the DESD, there are now two ESD/EE focal points at the pan-Canadian level:

- Council of Ministers of Education Canada (CMEC) [ESD Working Group](#), made up of government representatives from provincial and territorial ministries of education (K-12 level)⁵
- [ESD Canada](#), a network that brings together a broad range of stakeholders from across the country to support systemic change toward ESD/EE within the formal, nonformal, and informal education systems. Hosted by LSD, ESD Canada meets formally through an annual conference call, and informally through related opportunities such as CCUNESCO and EECOM annual meetings.⁶

There are also seven Regional Centres of Expertise for ESD (RCE) across the country, with locations in British Columbia, Saskatchewan, Ontario, Quebec, and the Tantramar region (New Brunswick and Nova Scotia). RCEs are established through a program of the United Nations University (UNU), designed to bring together existing formal, non-formal and informal education organizations to deliver education for sustainable development (ESD) to local and regional communities. The seven Canadian RCEs are part of a larger network of 127 RCEs around the world.

Provinces and territories

There has been real investment in policy and planning in 80 per cent of the provinces. Only two report having no focal points, coordinating bodies, plans, policies, or legislation related to ESD/EE. Half of the provinces have either an ESD/EE focal point or a provincial coordinating body or, in most cases, both. One province reports having an ESD/EE plan, although without the additional support of an ESD/EE focal point or coordinating group. Half of the provinces also report that ESD/EE has been included in relevant policy, with four also having legislation in place that supports ESD/EE.⁷

At the beginning of the decade, the J.W. McConnell Family Foundation, Environment Canada, Manitoba Education, and LSF supported the establishment of ESD working groups in each of Canada's provinces and territories. These groups were developed to support and foster a culture of education for sustainable development in each province and territory by bringing together

⁵ <http://www.cmec.ca/147/Programs-and-Initiatives/Education-for-Sustainable-Development/Overview/index.html>

⁶ <http://www.esdcanada.ca>

⁷ The Sustainability and Education Policy Network is in the process of examining provincial and territorial ESD policy in more detail, looking at five indicators: SD in curriculum, in facilities management, in research, in governance, and in community engagement. Full results are not yet available. See www.sepn.ca.

senior leaders from provincial ministries and departments, the federal government, NGOs, and the formal, informal, and nonformal education sectors to support regional coordination, development, and implementation of ESD/EE policies, curricula, materials/resources, and teacher education. Nine provincial working groups were established during the decade, with varying degrees of activity and devolution towards the end of the period. Active mechanisms for multistakeholder engagement in ESD/EE continue in six provinces. Learning for a Sustainable Future takes a particular interest in connecting Ontario ESD/EE stakeholders. In New Brunswick, the Sustainable Education Alliance network continues to serve the objectives of an ESD working group; in British Columbia and Saskatchewan, the Regional Centres of Expertise play this role. In Manitoba, the ESDWG is enhanced by the newly established ESD Leaders Council. In Quebec the Établissements verts Brundtland (EVB) movement serves the interests of ESD/EE in that province.

Stakeholders

Stakeholders have made comparable investments in their own organizations, with 60 per cent having ESD/EE focal points in place and nearly half following up with ESD/EE strategies and plans.

	YES	NO
ESD focal point	26	18
ESD strategy or plan	20	24

2. What are your country's greatest achievements in ESD during the UN Decade of Education for Sustainable Development? What challenges were encountered? What lessons were learnt?

Achievements can be related to any number of topics (e.g., policy; practice such as curriculum, pedagogy, and assessment; tools such as information communications technology (ICT); research; evaluation; and partnerships).

Greatest achievements

Pan-Canadian

- ESD/EE is identified as one of eight priority areas in the Council of Ministers of Education's Learn Canada 2020 document.⁸ Because the lifespan of this document extends beyond the end of the UN DESD in 2014 it will continue to be on the CMEC agenda.
- The recently established CMEC Education for Sustainable Development Working Group (CMEC ESDWG) has played an important coordinating role in sharing resources and

⁸ "Learn Canada 2020," available at http://www.cmec.ca/278/Press-Releases/Press-Releases-Detail/Education-Ministers-Release-Learn-Canada-2020-.html?id_article=316

successful practices among jurisdictions at the government level.

- Although provinces and territories use different terminology (i.e., ESD, environmental education, green schools, global citizenship, etc.) to describe their approach, there is now a common understanding that environmental, social, economic, and cultural aspects of sustainable development are included in what they do, regardless of the words they use.
- There has been a rich array of successful practices and approaches to ESD/EE in jurisdictions across Canada (e.g., Établissements verts Brundtland (EVB) in Quebec, eco schools in Ontario, the Sustainability and Education Academy (SEdA) in Manitoba, BC Green Games in BC, Nature and Forest Kindergarten Schools in Ontario, BC, and New Brunswick, and play-based learning, to name just a few.) These initiatives inform many reforms, both in Canada and internationally.
- CMEC ESD/EE research and reporting on ESD/EE includes:
 - [Education for Sustainable Development in Canadian Faculties of Education](#)
 - [Report to UNECE and UNESCO on Indicators of Education for Sustainable Development: Report for Canada \(2007–2010\)](#)
 - [Developing a Pan-Canadian ESD Framework for Collaboration and Action: Background Paper](#)
 - [Report to UNECE and UNESCO on Indicators of Education for Sustainable Development \(2005-2007\)](#)
 - [United Nations Decade of Education for Sustainable Development \(2005-2014\): Canada’s Response to the UNESCO Questionnaire](#)
 - [Educating for Sustainability: The Status of Sustainable Development Education in Canada](#)
- ESD leadership on an international level: Manitoba’s Deputy Minister of Education and Advanced Education and Literacy, Dr. Gerald Farthing, is the current chair of the United Nations Economic Commission for Europe (UNECE) ESD steering committee. Canada is also a member of the UNECE expert group on competencies in ESD, which was mandated to prepare general recommendations for policy-makers and a range of competencies in ESD for educators. Among the 19 members of this group, the former Dean of the Faculty of Education at Université de Saint-Boniface, Dr. Len Rivard, represents Canada. Dr. Alex Michalos, University of Northern British Columbia and Brandon University, also served on the UNECE ESD indicators expert group.
- The establishment of the ESD Canada network in 2006, which helped to foster provincial ESD working groups in many provinces and territories across Canada, brought together a broad range of stakeholders from across the country and within provinces to support systemic change toward ESD/EE within the formal, nonformal, and informal education systems. ESD Canada continues to meet formally through an annual conference call, and informally through related opportunities such as CCUNESCO and EECOM annual meetings.
- Awareness of sustainable development in Canada has risen in recent years, and many more Canadians are more conscious of issues such as climate change and the need to act to preserve our natural resources. This must be tempered by acknowledging that behaviours have yet to be significantly altered with respect to transportation,

consumption, energy use, etc.

- A strong network of civil society organizations is championing ESD/EE provincially and nationally.

Provinces and territories

While the response of provinces and territories may not be uniform, the following achievements have been highlighted in their reports:

- Many are aligning education policy with provincial governments' environment and sustainable development objectives
- Many have created department-wide education policies and frameworks in support of ESD/EE
- Many report specific changes to curriculum for various grades and the introduction of new courses focused on environmental sciences, global issues, citizenship, and sustainability. Several are mandating environment and sustainable development learning outcomes across K-12 (in all jurisdictions).
- Many are including First Nations/indigenous people's perspectives into mainstream curricula
- Many are implementing whole-school approaches, in which teachers incorporate ESD/EE principles in their course design and link it to the changes that individual schools and school districts are making to more sustainable infrastructure and operations
- Some are developing partnerships and a growing culture of collaboration that will continue beyond the end of the DESD
- Some have achieved increasing awareness and modified curriculum within higher education.

Stakeholders and workshop participants

- So much has been accomplished to date that it is now possible to begin to explore the gaps — what hasn't been done, what still needs work, and where does attention now need to be focused?
- Successful convening, engagement, and partnerships with provincial departments of education, school districts, and schools are contributing to ESD/EE policies, frameworks, and curricula. Various curricula across the country have been influenced by, and in many cases have embedded ESD/EE.
- Significant new resources have been developed to support ESD/EE by stakeholders, including theme documents on major issues within sustainable development, ESD/EE learning modules, resources and workshops for reorienting teaching and learning experiential education programs for students, and teacher kits.
- There are over a thousand teacher candidates involved in ESD/EE infusion
- Teacher federations and subject associations have recognized ESD/EE as a focus.
- Targeted capacity building for school administrators and senior education leaders, through the model Sustainable Education Academy has brought about broad-scale change from beliefs to implementation.
- Pilot efforts are developing a standardized test of tenth graders' knowledge, attitudes, and

behaviours concerning sustainable development.

- Equity aspects of sustainable development are now being addressed through safe and caring schools, anti-bullying, and other initiatives.
 - Efforts to engage youth directly include initiatives such as the “Our Canada Project” — an innovative call to action for young people to get involved with responsible citizenship, the “Ignite Change Now! Global Youth Assembly, and the cross-Canada “Me to We” events.
 - A number of universities and colleges have strengthened their commitment to ESD/EE in courses, programs, and operations and are moving from “greening the campus” to “greening the mind.”
- Many private- and public-sector organizations have increased ESD/EE training and professional development.
- Many public outreach organizations (zoos, museums, etc.) have incorporated ESD/EE into their programming.
- Changes in understanding and culture among staff in their own organizations have led to the development of new strategic visions that support sustainability.
- Changes have occurred within communities, with increases in levels of public awareness about green spaces, water resources, and other sustainability issues.
- Research publications have been produced through the Regional Centres of Expertise.
- People are rethinking of learning as an ongoing lifelong journey of personal and professional growth, development, and discovery.
- The Canadian Biosphere Reserves Association said that biosphere reserves are platforms for ESD/EE in Canada. There are initiatives for youth education; schools are involved in sustainable development activities; and concrete activities are organized based on various themes. Work is also done with other sectors in the community, such as business, municipalities, and citizen organizations, to educate and move forward toward sustainable development. Over the last two years, the Canadian Biosphere Reserves Association has gathered information on best practices across the national network of biosphere reserves.

Challenges

Pan-Canadian

- Because formal education is a provincial responsibility in Canada, the priorities of each jurisdiction differ and ESD/EE does not always factor prominently.
- The federal government, through Environment Canada, participated only in the planning stages for Canadian actions, providing input and some financial support. There was no comparable federal-level stakeholder involved to promote sustainability in nonformal or informal/public education across the country.
- It took time to establish an ESD/EE framework among jurisdictions where commonalities could be found and the resources were not always available to implement the identified actions. As one thought leader suggests, there are many topics and issues addressed in education that are relevant to ESD/EE but they are not understood as such.

- Jurisdictions have different understandings of ESD/EE.

Provinces and territories

- Some find it challenging to align environmental sustainability objectives with economic prosperity.
- Some face changing priorities, financial constraints, and delays at the department level. In particular, we note competing priorities with increased emphasis on literacy and numeracy issues.
- Some identify that issues of timetabling, crowded curricula, consideration of ESD/EE as an “add-on” rather than a transformative approach to the curriculum, focus on exams, low collegial support, and lack of resources make it difficult to implement ESD/EE at the classroom level.
- Some notice a lack of teachers trained for ESD/EE implementation, both in-service and pre-service. Faculties of education point to mandated course content that makes it a challenge to integrate ESD/EE into pre-service curricula. The autonomous nature of faculty members to decide whether they will integrate ESD/EE into their course content is another issue.
- Some see also a lack of channels for communicating and celebrating success in implementation.

Stakeholders and workshop participants

- There remains a significant gap in including First Nations/indigenous peoples in ESD/EE across Canada. In Canada, education for First Nations is supported at the federal level, but with ESD/EE considered a provincial jurisdiction, there has been no support for First Nations in ESD/EE activities.
- Shifting entrenched cultures within the education system can take time. Political will is absent in a number of jurisdictions — locally, many teachers and schools are not yet on board. Even with the increase in multistakeholder approaches, there is still no accessible, transparent process that allows the broader community to engage with the formal education system as a whole across the country.
- In Canada, not having a national ministry of education makes simple tasks more complicated; on the other hand, the provincial structure ensures that ESD/EE can be presented in a way that respects regional perspectives and challenges.
- Budget mechanisms can work against making operational changes: in school divisions, operating budgets and capital budgets are separate which does not allow money to be saved in one place (for example, from increased energy efficiency) and directed to support innovation in another.
- Challenges in influencing young people and in informal/public awareness include apathy, lack of trust in political and government institutions, competing influences, particularly with media messages promoting unsustainable behaviours (transportation, consumption, etc.). Nevertheless, stakeholders have observed changes taking place, particularly where young people can become directly involved in action projects.

- Challenges for ESD/EE infusion in higher education include financial constraints, human resources, lack of mechanisms for knowledge sharing and networking, and constraints within the academic environment
- Major challenges remain with respect to coordinating the wide range of ESD/EE-related activities across the country and internationally.

Lessons Learned

Pan-Canadian

- Although the CMEC ESDWG uses the term *ESD*, it was important for jurisdictions to retain their own existing terminology (e.g., environmental education, green schools, global citizenship, etc.) rather than adopt the phrase *ESD* unilaterally. By supporting this approach, jurisdictions could best suit the needs of their respective audiences. The approach also encourages jurisdictions to see themselves as part of the dialogue regardless of the language they use.
- Members of the CMEC ESDWG feel it's important to recognize that jurisdictions have different understandings of ESD/EE and jurisdictions need to proceed at their own pace.
- ESD needs to be communicated as an overarching theme for quality education and twenty-first-century learning that supports and embraces the existing priorities that jurisdictions are currently dealing with.
- Further benchmarks, developed collaboratively with provinces and territories, may be considered to assess whether, on a pan-Canadian level, our ESD/EE efforts are making a difference.
- Identifying ESD/EE in K-12 education as the priority area for the CMEC ESDWG allowed for a more strategic focus but it also led to the perception that ESD/EE is the sole responsibility of the K-12 ministries of education, which made it more difficult to monitor and report on ESD/EE in advanced education as well as in the areas of public awareness, training, and capacity building. Note that it is not in most ministries' mandates to monitor and report the ESD/EE policies of postsecondary institutions due to their autonomy over their education programming.

Provinces and territories

Lessons provided by individual provinces include the following:

- ESD/EE requires consultation on systemic and systematic change: "It is important to emphasize a system-wide approach from early learning to postsecondary, across governmental and nongovernmental organizations" (BC). "Steady comprehensive approaches can be well received" across the education system (Ontario).
- K-12 leadership within the education system is necessary to sustain efforts and ensure ESD/EE objectives are implemented across the curriculum — "ESD must extend past the science curriculum to become a general, cross-curricular skill" (New Brunswick). Manitoba noted that once the department of education sent signals to school divisions that ESD/EE

was important, school divisions felt safer to act in more public ways and ramp up their whole-school approaches.

- There is a need for greater consensus on terminology, but “it is also important to develop tools based on the terminology used by the school system, in order to help link ESD and classroom practices” (Quebec).
- For implementation to be successful, many provinces and territories should consider providing professional development and networking for senior education officials/administrators and teachers along with partnerships with other organizations, including academic centres, other government departments, NGOs, communities, private-sector supporters, and the schools themselves.
- There is a need for increased flexibility in school timetables, course design, and course and program choice, along with more outdoor learning experiences incorporated within the school curriculum.
- There is a need to identify benchmarks that measure whether ESD/EE efforts are making a difference. Although there is considerable anecdotal information available, the reach and impact of ESD/EE efforts should be tracked through both quantitative and qualitative data.

Stakeholders and workshop participants

- Leadership at the provincial department-of-education level combined with political support in other government departments is an important enabling condition for ESD/EE implementation.
- Sustainability objectives should be better aligned between government departments, with particular attention paid to the intersection of education and training and the need for new skills for greening economies.
- While environment and social justice pillars are now being addressed in formal education, economics is still not really being considered.
- More attention is needed to how people learn, not just what they learn.

3. Rating the impact of the DESD in your country

How would you rate the impact of the DESD in helping:

- **boost advocacy efforts for ESD in your province? *Mark one.***

Very helpful Helpful Somewhat helpful Not helpful

- **stimulate changes related to educational practices in your province? *Mark one.***

Very helpful Helpful Somewhat helpful Not helpful

- **stimulate changes related to sustainability practices in your province? *Mark one.***

Very helpful Helpful Somewhat helpful Not helpful

Canadian report: Note that this is an average of responses from the provinces and territories.

Comments

All provincial jurisdictions agreed that the UN decade was instrumental in raising awareness on ESD, and that the DESD has helped, at least to some degree, to stimulate changes in education practices.

This view was reinforced by workshop participants and key informants who suggest that, while work would have continued, efforts would have been in isolation and would not have had the benefit of the cross-jurisdictional, multistakeholder engagement that the DESD fostered in Canada. It kept attention focused on ESD/EE, provided the language necessary to generate political support, provided the support for important research and capacity building, and stimulated new networks and partnerships.

Canada-wide, there are very few far-reaching initiatives. Clearly, our leaders are still focused on the economy, to the detriment of health and the environment.

—Stakeholder submission

Some respondents were less convinced that the DESD helped to change practices necessary for sustainability across the country, and several chose not to even attempt to gauge the decade's impact on sustainability itself. Workshop and key informants' contributions point to the difficulty of measuring the DESD's impact on sustainable development, especially given the length of time that will pass between the introduction of ESD/EE to children and whether and how they will advance a more sustainable world as adults. More research is needed to connect ESD/EE with actual changes in behaviours and actions that contribute to sustainability.

SECTION 2. Reorienting Education to Build a Better Future for All⁹: “How does ESD reinforce quality education?”

4. How does ESD reinforce quality education in your country? Please include quantitative and qualitative data where possible.

UNESCO suggests that ESD can contribute to and reinforce the delivery of quality education. According to the Dakar Framework for Action, adopted at the World Education Forum in Dakar, Senegal, April 26-28, 2000, quality education satisfies “basic learning needs, and enriches the lives of learners and their overall experience of living.” The Dakar Framework therefore calls for: “improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.”¹⁰

Quality education includes a relevant curriculum; accurate assessment of learning outcomes (including knowledge, skills, attitudes, and values); active learning techniques; an encouraging, healthy, and safe learning environment; and an engagement with the surrounding local communities and respect for cultures.

In responding to UNESCO’s inquiry, “How does ESD reinforce quality education?” Canadian provinces suggest that their approaches to EE and ESD align with and reinforce quality education objectives, including both content and approach to learning, as well as access to education (Aboriginal peoples, girls, and so forth). Several provinces highlighted how ESD/EE contributes to the following quality education objectives, through:

- *The retention of students.* In Quebec, the annual drop-out rate (i.e., the proportion of students leaving the system with no diploma or qualification) in the general, secondary non-adult system was 17.4 per cent in 2009-2010, down 1 per cent over the prior year (18.4% in 2008-2009). The annual rate decreased again in 2010-2011 to 16.2 per cent.
- *The extension of learning outcomes beyond literacy and numeracy to address life skills.* Manitoba emphasizes that “ESD/EE allows students to take authentic action ... knowing that they are learning and shaping their future. ESD/EE is far more than teaching knowledge and principles related to sustainability. ESD/EE helps prepare our students for a sustainable future by ensuring that they are environmentally responsible, globally aware, economically astute, socially responsible, and technologically proficient citizens who are capable of coping with the emerging challenges and opportunities we are facing now and will continue to face in the future.” Quebec states that “cross-curricular

⁹“The process of “Reorienting education” encompasses the inclusion of ESD/EE considerations in “every aspect of education including planning, policy development, program implementation, finance, curriculum, teaching, learning, assessment, administration” (<http://unesdoc.unesco.org/images/0021/002166/216606e.pdf>; accessed 13 February 2013.)

¹⁰ *The Dakar framework for action*, <http://www.unesco.org/education/wef/en-conf/dakframeng.shtm>

competencies address the challenges that students will face in a number of aspects of their lives and are therefore associated with sustainable development and involve important issues for individuals and communities. Cross-curricular competencies should therefore be the educational focus in any learning and assessment situation.”

Newfoundland and Labrador notes that many of the ESD-related skills that students should develop before leaving the K-12 system are similar to those they currently aim to develop “in an effort to address the need for 21st-century learning... e.g., collaboration, communication, creative thinking, and critical thinking.”

- *Reinforcing the importance of active learning techniques.* Environmental education reinforces the quality of education in Ontario through its systems-thinking approach to the knowledge and skills students need. Nova Scotia, British Columbia, and PEI likewise highlight the importance of inquiry-based and action-oriented learning, problem solving, and modelling within the community, through which students and teachers can make connections to their lives.
- *Attention given to community embeddedness and cultural awareness.* Alberta’s education system now seeks to encourage students to see beyond their own self-interests and to actively contribute to the economic growth and sociocultural strength of their communities while minimizing their environmental impacts. In Manitoba, schools are reinforcing “place-based pedagogy” so that students’ actions and behaviours model good citizenship and respect for cultural differences while encompassing ecological literacy. BC notes in particular the integration of Aboriginal world views and knowledge in the curriculum.

To further understand how ESD/EE contributes to quality education, workshop participants emphasized the need for more research and better indicators, as well as clear priorities and strategies.

5. How has the state of ESD changed since 2005 in different areas of education?

In the tables below, please provide a realistic estimation of the state of ESD in education as it was in 2005 and as it is today, according to the following scale:

1. ESD has not been included.
3. ESD is in progress.
5. ESD has been completely integrated.

Use the space below the table to comment on your choice, explaining causes or evidence associated with this change.

Canadian report: Note that estimations we provided are an average of responses from the provinces and stakeholders.

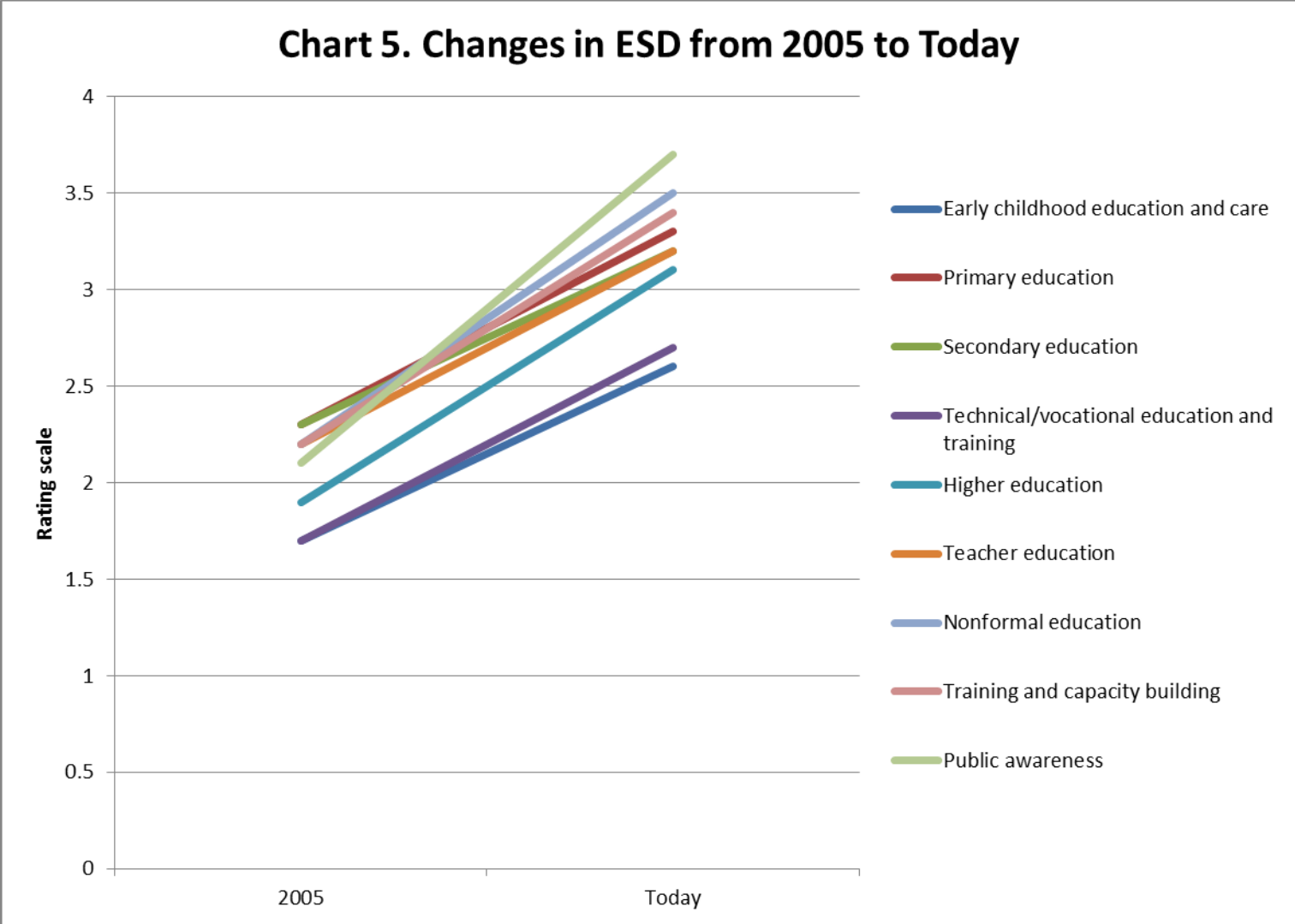
Overview of comments

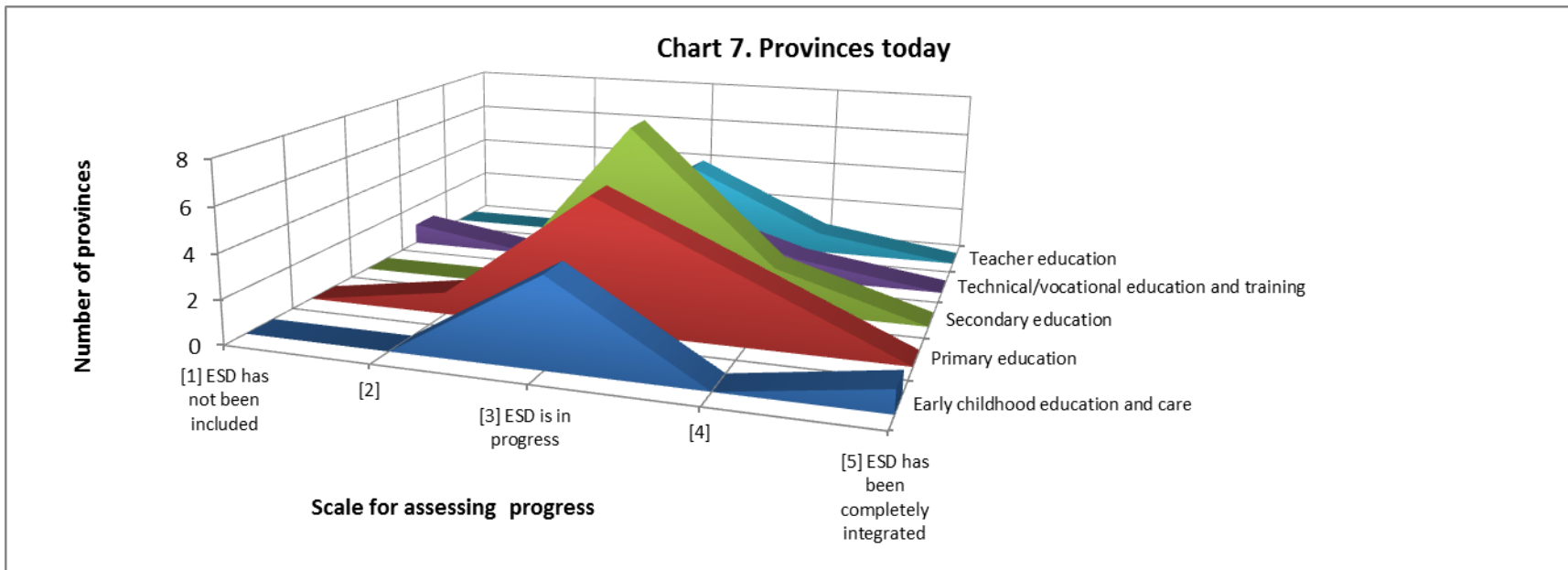
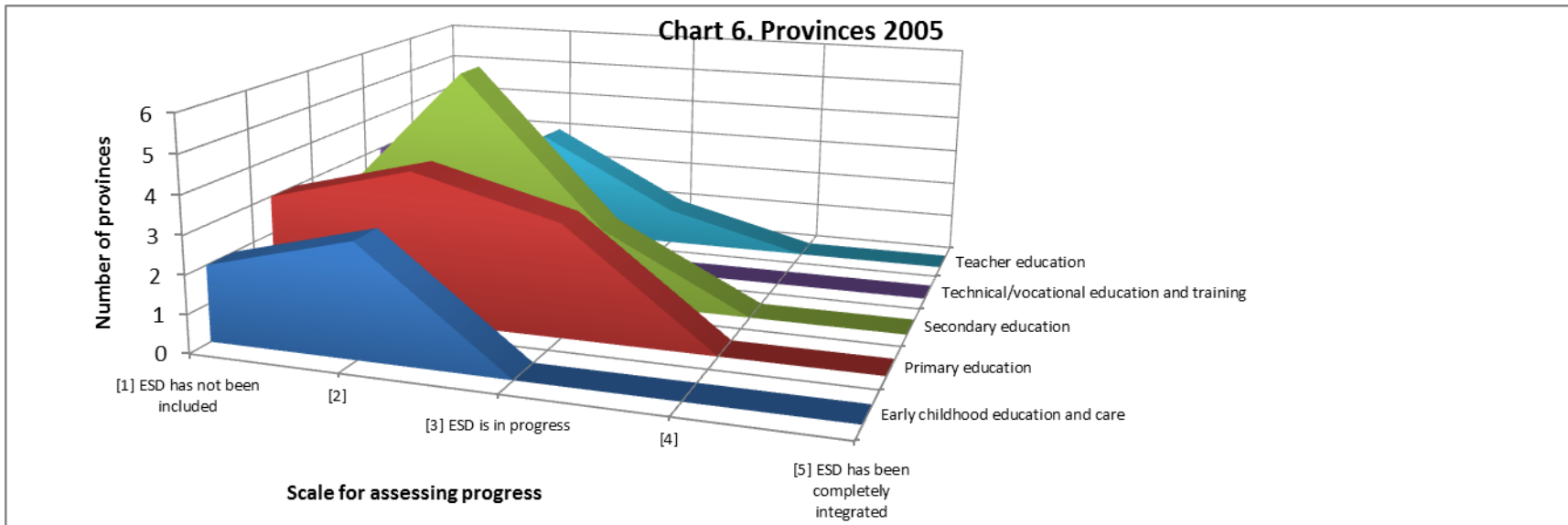
There is a consistent view among those reporting that there has been important progress in all forms of education but there is still considerable work to be done. The rating scale's averaged results suggest that from a pan-Canadian perspective, ESD/EE has not been fully integrated into any of the forms of education yet, but ESD/EE has nevertheless advanced from 2005, and is well in progress in most forms (see chart 5).

In particular, the provinces' official reports reveal a majority view that there has been real progress on ESD/EE in formal education — from Early Childhood Education and Care (ECEC) through to teacher education. The four provinces that reported on advanced education suggested real gains in that area as well. In over two-thirds of the jurisdictions, work was already initiated on primary and secondary education prior to the start of the decade and there are important steps toward progress on ESD/EE. Although three of the ten provinces had no efforts underway in 2005 to integrate ESD/EE into primary education, they have now moved toward doing so. Likewise two provinces have advanced from no action to progress on secondary education during the DESD. Moves to address ESD/EE in Early Childhood Education and Care and in technical/vocational education and training have also proven fruitful in several jurisdictions, whereas no efforts were underway prior to 2005. One jurisdiction (New Brunswick) reports that ESD/EE has been fully integrated into ECEC (see charts 6 and 7).

It is more difficult to determine with confidence that there has been progress on nonformal education, capacity building, and public education. Many respondents in both the provinces and stakeholder-response groups considered these areas outside of their mandate and were unable to comment, and a number of respondents were unclear about the distinctions among these types of education. Further, the lack of private-sector respondents in the survey population affects in particular the findings' reliability on nonformal education, training, and capacity building. While the averaged results suggest that the most progress has taken place within nonformal education and public awareness during the DESD, the low numbers of stakeholders reporting suggest a cautious approach to any analysis of these data.

Chart 5. Changes in ESD from 2005 to Today





5a. Early Childhood Education and Care (ECEC)	2005	1	2	3	4	5
	today	1	2	3	4	5

Note: Respondents indicated, using a five-point scale, whether 1. ESD has not been included; 3. ESD is in progress; 5. ESD has been completely integrated. The average of responses from the provinces and stakeholders was 1.7 in 2005 and 2.6 in 2013.

Comments

ECEC in general is growing in importance for some jurisdictions, with ECEC noted as the top educational priority for two of the ten provinces. Several provinces noted efforts to launch new frameworks and curriculum to support ECEC:

- The New Brunswick Early Learning and Child Care Curriculum, promoting an experiential-based approach to learning, recognizes the unique cultural and linguistic identities of all children.
- The development of the Alberta Early Learning Curriculum Framework, combined with efforts across a number of ministries, integrates Early Learning and Care activities.
- The British Columbia Early Learning Framework describes the vision, pedagogical principles, and key areas of learning for children birth to five years (before school entry).

5b. Primary Education	2005	1	2	3	4	5
	today	1	2	3	4	5

Note: The average of responses from the provinces and stakeholders was 2.3 in 2005 and 3.3 in 2013.

See comments below, under Secondary Education

5c. Secondary Education	2005	1	2	3	4	5
	today	1	2	3	4	5

Note: The average of responses from the provinces and stakeholders was 2.3 in 2005 and 3.2 in 2013.

Comments on Primary and Secondary Education

While ESD/EE is a stated priority for only one provincial education department, most of the provincial priorities for education align with quality education. (Many suggest that ESD/EE contributes to quality education). Provinces highlight their mandates for creating effective learning environments, ensuring student achievement, addressing literacy and numeracy skills, and improving completion rates.

ESD-related learning outcomes are embedded throughout the K-7 [and] 8-12 curriculum in many subjects and grades. Because the learning outcomes are mandated, all BC students experience ESD.
—BC Ministry of Education

Several provinces noted that ESD/EE learning outcomes are embedded in primary and secondary education curricula and curriculum policy, and learning resources are provided for teachers. As one

province commented, “integration [of ESD/EE] continues to be a priority as curricula are renewed.”

Learning for a Sustainable Future and other stakeholders commented on their priorities and support for the K-12 sector, along with specific partnership and project initiatives that engage students and support ESD/EE implementation in the schools. They are also creating an enabling environment by working with school district leaders and students.

5d. Technical/Vocational Education and Training (TVET)	2005	1.7	2	3	4	5
	today	1	2.7	3	4	5

Note: The average of responses from the provinces and stakeholders was 1.7 in 2005 and 2.7 in 2013.

Comments

Six of the ten provinces reported on their general priorities for TVET, noting the need to address skills development, the supply of a trained workforce to meet market demand, and in particular to meet the demands of a green economy and expand programming for Aboriginal and more remote populations.

Only half of the provinces provided a progress rating on ESD/EE in TVET, with three of those reporting that ESD/EE was not included in TVET in 2005. But, as of today, at least four suggest that ESD/EE is in progress or well advanced. Several provinces reflected on TVET at the postsecondary level. Across Canada, as both Ontario and Saskatchewan noted, postsecondary institutions have autonomy in academic matters. Because curriculum and program content are the purview of the institutions, ESD/EE is driven at the individual faculty and institutional level. In British Columbia, Manitoba, and elsewhere, new initiatives are underway at technical colleges and other postsecondary institutions that support ESD, providing training in new sustainable building technologies, renewable energies, and so forth. But as one stakeholder commented, “not all [students in technical programs] receive sustainability education. In particular, apprenticeship training and very short programs do not include specific ESD.”

How ESD/EE is integrated within TVET programs in secondary education, and the follow-through to postsecondary technical training and apprenticeships within the trades, requires further investigation across Canada. Research commissioned by Manitoba Education in 2012 noted the following:

- Manitoba has commissioned the development of new curriculum incorporating ESD/EE into a number of technical/vocational subject areas in secondary education.
- British Columbia has developed ESD projects and initiatives for TVET, but does not yet have a provincial strategy specifically for ESD in TVET.
- In Alberta, sustainability is mainstreamed into the natural resources cluster of the Career and Technology Studies senior high-school program, but is not yet mainstreamed in other relevant clusters such as trades, manufacturing, and transportation.
- The Yukon Department of Education’s 2011–2016 strategic plan emphasizes the need to

review and adjust vocational and apprenticeship courses “to ensure that Yukon workers have the knowledge and skills to succeed in the 21st century green economy.”¹¹

Nongovernmental organizations and academic centres such as the Regional Centre of Expertise in Saskatchewan are working with the technical institutes in their provinces to incorporate ESD/EE into missions and curricula. Nevertheless, ESD/EE is an area for further attention beyond 2014.

5e. Higher Education	2005	1	2	3	4	5
	today	1	2	3	4	5

Note: The average of responses from the provinces and stakeholders was 1.9 in 2005 and 3.1 in 2013.

Comments

Of the survey respondents, those provincial departments responsible for advanced education are addressing access to postsecondary education and support for research and innovation, particularly as they might relate to economic development. At the postsecondary level across Canada, ESD/EE has been driven largely at the individual faculty and institutional level. Manitoba points to its recent review of ESD in postsecondary education, observing that most postsecondary institutions are engaged in promising initiatives, although these institutions also know that they have more work to do, and are responding in various ways: preparing new sustainability plans, adopting new standards for sustainability reporting, and/or advancing new programs and course offerings.¹² British Columbia also reports on major initiatives at four of its institutions of higher learning that provide opportunities for sustainability research and implementation on campus and in the surrounding communities.

ESD/EE in higher education in Canada is advancing — as one workshop participant noted, the institutions are moving beyond “greening campuses to greening minds.” Key informants point, for example, to business schools now teaching corporate social responsibility. The Association for Canadian Community Colleges notes that 59 of its 130 members have signed on to its Pan-Canadian Protocol for Sustainability. Thirty-seven universities and colleges have signed onto the international Talloires Declaration. The Sustainability and Education Policy Network has identified 70 of the 220 institutions of higher education across the country as having defined sustainable development in their policies and notes an increase in the use of the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment and Rating System (STARS) reporting systems. Among the stakeholders, NGO and municipal government respondents highlight how they work with faculties of environmental studies to provide materials to support ESD/EE initiatives and mentor and hire students to work on relevant projects and programs. Those stakeholders working in colleges and university centres report on the introduction of new courses, the inclusion of sustainable development beyond the traditional environment and resources disciplines (“Quelques efforts en sociologie, politique et droit, par exemple”), and influencing institutional leadership to address

¹¹ Taylor, S.K. & Creech, H., *Technical-vocational education for sustainable development in Manitoba* (Winnipeg: IISD, 2012).

¹² Huppé, G.A., Creech, H., & Buckler, C., *Education for sustainable development at Manitoba colleges and universities: Results from an institution-wide survey and president interviews across Manitoba’s 11 institutions of higher education* (Winnipeg: IISD, 2013).

ESD/EE from the mission through to curriculum.

5f. Teacher Education

2005	1	2	3	4	5
today	1	2	3	4	5

Note: The average of responses from the provinces and stakeholders was 2.2 in 2005 and 3.2 in 2013.

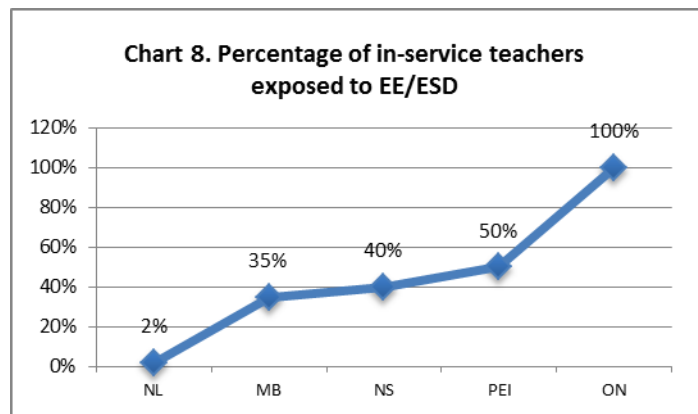
Comments

Provincial respondents to the UNESCO survey reported a total of 58 teacher institutions across the country. However, only two of the provinces (covering 4 of the 58 institutions) suggested that between 75 and 100 per cent of pre-service teachers have been exposed to ESD/EE, with the remaining respondents unable to report. In part, this is due to postsecondary institutions, which are home to the faculties of education, having autonomy in academic matters.

Four Alberta universities have introduced ESD into their teacher education programs; three of these are new since 2005.
—Alberta Education

Thought leaders note that ESD/EE should be considered in the certification of teachers, and that there need to be shifts in hiring practices at the school-district level to include ESD/EE competencies. In 2012, CMEC conducted a study of how Canadian faculties of education are incorporating ESD/EE into their pre-service programs, research, and other activities. The study found the following:

1. In Canada, there is modest but promising progress toward reorienting teacher education to address education for sustainable development. The majority of the faculties in the study are making efforts toward integrating ESD or ESD-like principles into their pre-service programs.
2. Some still see ESD/EE adoption to be primarily an individual faculty member commitment rather than a faculty-wide response, although the UNDESSED has helped to create a legitimate space for dialogue within faculties.
3. Drivers and enablers include the intersection of institutional commitments with faculty member awareness and individual champions, as well as partnerships and collaboration with other departments on campus and with education faculties at other institutions. Key barriers and challenges include communication gaps within faculties, competing interests and priorities within faculties, funding challenges, and lack of professional development opportunities.¹³



¹³ Swayze, N., Creech, H., Buckler, C., & Alfaro, J. *Education for sustainable development in Canadian faculties of education* (Toronto: CMEC, 2012).

As in-service teacher education more directly involves departments of education, five of the ten provinces reported on efforts to prepare teachers for delivering on ESD/EE learning objectives in the classroom (see chart 8). The stakeholder role in teacher education is important as well, with groups such as Saskatchewan’s Regional Centre of Expertise, Learning for a Sustainable Future, and others introducing courses and workshops in faculties of education, and working with school boards, schools, and teacher summer camps.

Related to teacher education:

Insert number or mark “do not know.”

- I. How many teacher education institutions are there in your country?
 58 or do not know

- II. Estimate the percentage of in-service teachers that have been exposed to ESD.
% or do not know (**varies by province — see data table below**)

- III. Estimate the percentage of pre-service teachers that have been exposed to ESD.
% or do not know (**varies by province — see data table below**)

Data Table

% of in-service teachers exposed to ESD		% of pre-service teachers exposed to ESD
BC	Do not know	Do not know
AB	Do not know	Do not know
SK	Do not know	75%
MB	35%	Do not know
ON	100%	Do not know
QC	Do not know	Do not know
NB	Do not know	Do not know
NS	40%	Do not know
PEI	50%	100%
NL	2%	Do not know

5g. Nonformal Education	2005	1	2	3	4	5
	today	1	2	3	4	5

Note: The average of responses from the provinces and stakeholders was 2.2 in 2005 and 3.5 in 2013.

See comments under Public Awareness

5h. Training and Capacity Building	2005	1	2	3	4	5
	today	1	2	3	4	5

Note: The average of responses from the provinces and stakeholders is 2.2 in 2005 and 3.4 in 2013.

See comments under Public Awareness

5i. Public Awareness	2005	1	2	3	4	5
	today	1	2	3.7	4	5

Note: The average of responses from the provinces and stakeholders was 2.1 in 2005 and 3.7 in 2013.

Comments on nonformal education, training and capacity building, and public awareness

Several provinces point to the role that the provincial ESD/EE working groups and ESD Canada have played in advancing ESD/EE in nonformal education, training, and public awareness. The network, working groups, RCEs, and other university centres have brought professional associations (such as the Association of Professional Engineers and Geoscientists of Saskatchewan) into their activities and have encouraged professional development within organizations such as provincial crown corporations/state enterprises and private-sector companies.

Individual organizations active in public environmental education and outreach reported on a wide range of initiatives, from xeriscaping, water management, and waste reduction and recycling through to computer challenges and promoting international campaigns such as Earth Hour. ESD/EE experts have pointed to municipal governments as important actors in raising public awareness, and suggest

The waste management board (COGERNO) has representatives in every town where we have a school. The board offers public evening workshops and broadcasts interesting messages on the radio.

—Stakeholder submission

that the private sector in Canada is doing a lot with respect to educating and informing businesses about corporate social responsibility and sustainable development (see, for example, the Excel Partnership, www.excelpartnership.ca). There are acknowledged gaps, however, and thought leaders have recommended that other stakeholders, including other government departments and agencies, should be encouraged to explore ESD/EE in nonformal education, capacity building, and training as a necessary input to building green economies, with particular attention to the education and training needs of small, micro, and medium-sized enterprises (SMMEs).

6. Trends in Learning

Please check the type(s) of learning that appear to be favoured in the implementation of ESD. *Mark all that apply.*

		# respondents
<input type="checkbox"/>	I do not see any new forms of learning emerge as a result of the implementation of ESD	2
<input checked="" type="checkbox"/>	Discovery learning (learning by discovery and exploration)	26
<input checked="" type="checkbox"/>	Transmissive learning (instruction, transfer of knowledge)	18
<input checked="" type="checkbox"/>	Participatory/collaborative learning (group learning)	29
<input checked="" type="checkbox"/>	Problem-based learning (focus on a real issue/problem)	30
<input checked="" type="checkbox"/>	Disciplinary learning (focus on disciplinary understanding)	15
<input checked="" type="checkbox"/>	Interdisciplinary learning (taking on and integrating different disciplinary perspectives)	28
<input checked="" type="checkbox"/>	Multi-stakeholder social learning (learning together with multiple stakeholders)	25
<input checked="" type="checkbox"/>	Critical-thinking-based learning (raising critical questions about current lifestyles, values, behaviours)	31
<input checked="" type="checkbox"/>	Systems-thinking-based learning (learning to see connections, relationships, interdependencies)	30

Please note that the list of type(s) of learning is the same as for the 2012 DESD report so it will be possible to capture developments.

Comments: *Consider learning/teaching materials, teaching methods, and learning environment*

UNESCO recognizes that the method of teaching can improve learning outcomes, and therefore wishes to understand what types of learning appear to be favoured in Canadian approaches to implement ESD/EE. Because the question did not differentiate between learning approaches used in formal (K-12 and higher education), informal, and non-formal education, the Canadian response combines provincial government responses and those of Canadian stakeholders who provided perspectives not only for K-12 and higher education but also nonformal and informal education for sustainable development.

All types of learning were selected by over a third of respondents, including what might be considered more traditional disciplinary and transmissive approaches. However, there is in general an emphasis on critical thinking, systems thinking, and problem solving as the top three learning approaches being used for ESD, followed closely by participatory approaches.

Comments from respondents and workshop participants also suggest that a grounding in place and culture should underpin and support ESD/EE. Here are some sample comments:

- The Regional Centre of Expertise helps advance grounded theoretical learning (e.g., grounded theory) in relation to the seven SD issue areas identified in the region.
- A significant trend is Aboriginal/Indigenous/Métis youth education and learning in Saskatchewan. We have met with FSIN (Federation of Saskatchewan Indian Nations)/FNUC (First Nations University of Canada), and other elders.
- Outdoor education and place-based learning also support ESD/EE. Parks and protected areas can serve as learning laboratories for students.

Consistent with the ESD initiative, Alberta's new Ministerial Order on Student Learning provides the direction for learning in which students discover, develop, and apply competencies across subject and discipline areas for learning, work, and life. As the system shifts toward an emphasis on cross-curricular competencies, which allow for education to move to an interdisciplinary process of inquiry and discovery, students will be able to demonstrate a range of competencies, including *problem-solving, critical thinking, and communication skills*. [emphasis added]

—Alberta Education

Consideration could also be given for ESD to be understood in the context of lifelong learning — further thought should be given to the methodologies and success factors in learning throughout all stages of life. ESD/EE thought leaders in Canada suggest that sustainable development in general needs a deeper, fundamental recognition of learning, and the role of learning in how we approach the sustainability challenges the world faces. At its most basic, ESD/EE is about learning to live on the planet, responsibly and respectfully.

SECTION 3. Accelerating Action for Sustainable Development: “How are sustainability challenges addressed through Education for Sustainable Development?”

7. Addressing sustainability challenges through ESD

In the next table, please mark with an X the sectors where the following sustainability challenges have been addressed through ESD, in curriculum or program. *Please note that issues such as cultural diversity, equity, gender, global citizenship, human rights, peace, traditional and indigenous knowledge are assumed to cut across ESD’s engagement with all these themes.*

Note: The Canadian response aggregates the reporting provincial jurisdictions and stakeholders (N=37).

Note: ISCED stands for International Standard Classification for Education.

Subsustainability challenges	Early childhood education and care (ISCED 0)	Primary education (ISCED 1)	Secondary education (ISCED 2 & 3)	Technical/Vocational Education and Training (ISCED 3 & 4)	Higher education (ISCED 5,6,7,8)	Teacher education (ISCED 5,6,7)	Nonformal education	Training and capacity building	Public awareness
Agriculture and food security	2	13	16	5	9	8	10	5	8
Biodiversity	5	18	19	7	9	9	9	8	12
Climate change	4	17	21	7	11	10	12	9	14
Disaster risk reduction	1	5	7	1	6	4	5	4	7
Energy	4	17	21	8	9	11	9	5	13
Poverty eradication	3	10	15	2	10	10	6	5	10
Health	5	16	18	6	12	10	11	6	11
Oceans	2	14	16	2	9	8	5	3	7
Sustainable cities and human settlements	2	9	15	6	12	11	7	7	7
Sustainable production and consumption (SCP)	5	19	19	8	12	10	9	5	13
Water and sanitation	4	19	20	9	12	10	13	8	16

Comments

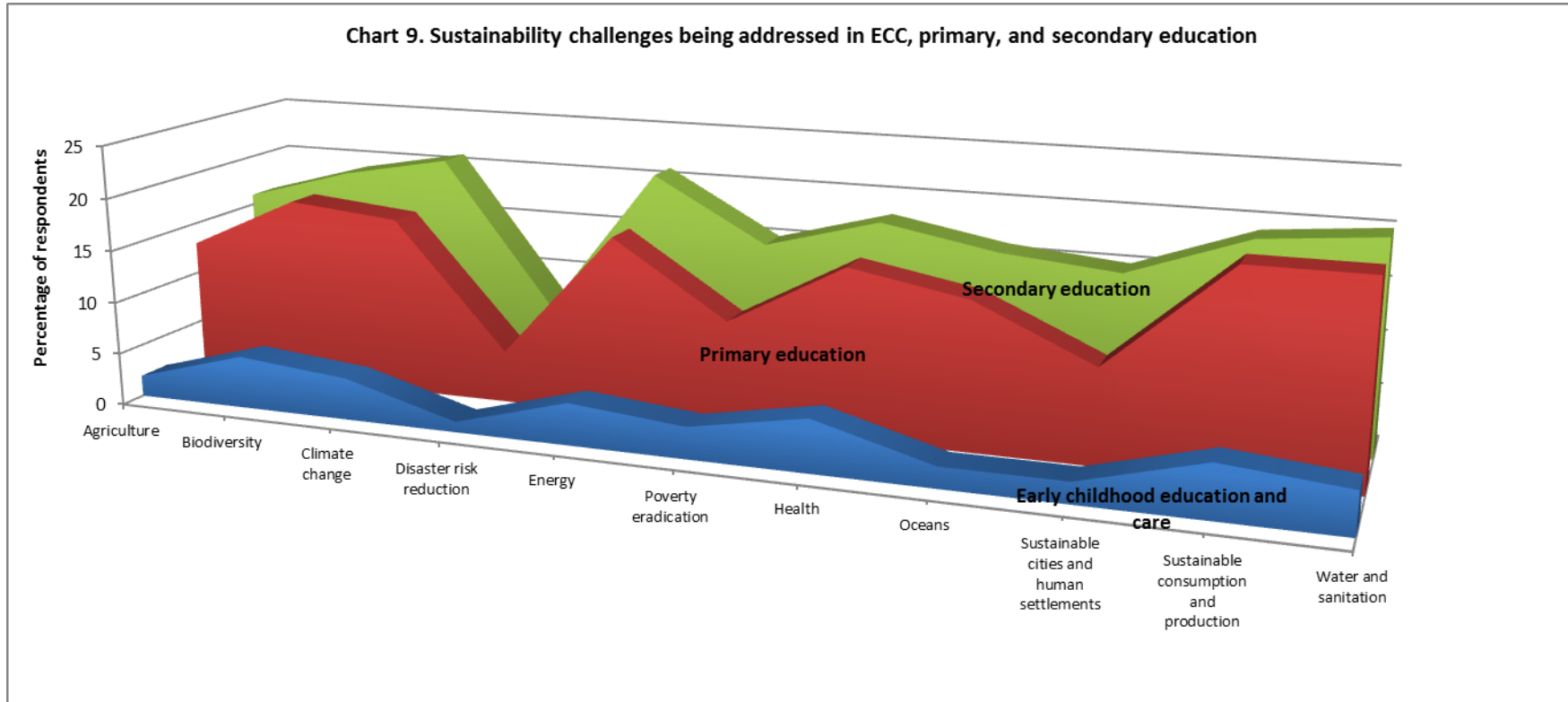
UNESCO is seeking to understand how major sustainability challenges — environmental, social, and economic — are being addressed through ESD across the country. All challenges on UNESCO’s list are being addressed through formal, nonformal, and/or informal education processes by over half of the Canadian respondents (provinces and stakeholders combined). The sole exception is disaster risk reduction, but even that challenge is being addressed through ESD/EE by well over a third of respondents. Close to 90 per cent indicated that they are addressing climate change, biodiversity, and water. Nearly the same number (84%) are addressing challenges related to people, their health, and lifestyles (sustainable consumption and production).

However, where these challenges are being addressed varies greatly, with the lowest percentages of respondents indicating that they address any of these challenges in early childhood education and care (see chart 9). The majority of respondents suggest that they are addressing the sustainability challenges on UNESCO’s list at the secondary education level, followed by primary education (chart 9). This reflects in large part the composition of the response group as a whole, noting again the lower level of advanced-education respondents’ engagement from the provinces and the absence of private-sector respondents in the stakeholders group. Bearing this in mind, charts 10 and 11 illustrate the distribution of responses across TVET, higher education, teacher education, nonformal education, training, and public awareness.

In Saskatchewan, postsecondary institutions have autonomy in academic matters; curriculum and program content are the purview of the institutions. However, in general, postsecondary institutions’ programs address many sustainability issues and challenges either directly or indirectly. For example, one of the priorities identified in University of Regina’s strategic plan is to make the University a leader in environmental responsibility. Put sustainability at the core of our teaching, research and campus life.

—Saskatchewan Education

Chart 9. Sustainability challenges being addressed in ECC, primary, and secondary education



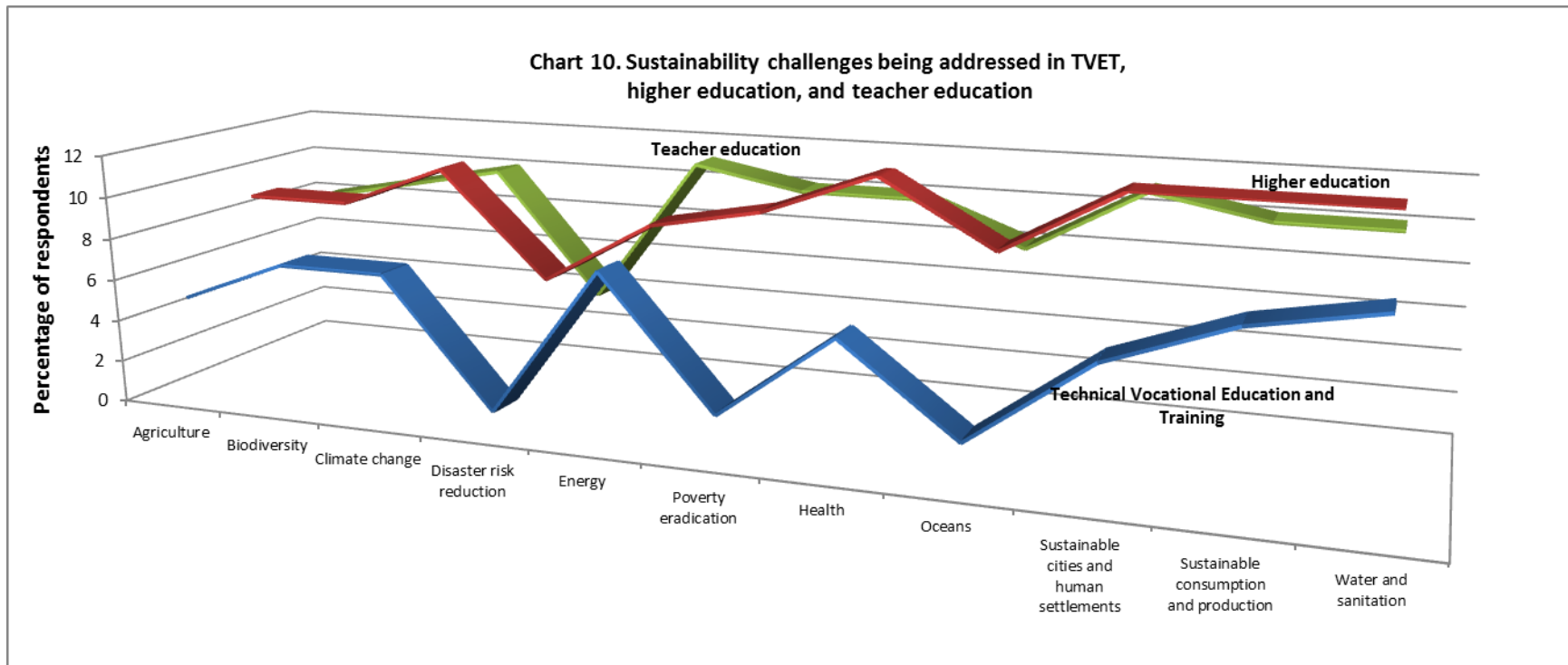
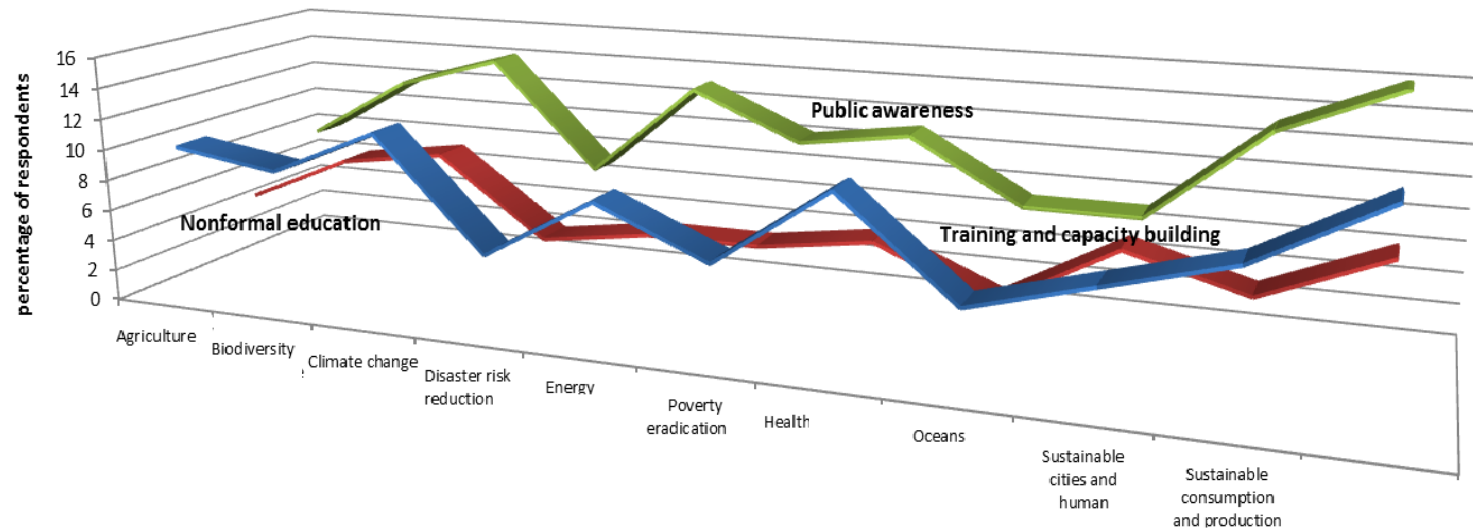


Chart 11. Sustainability challenges addressed in nonformal education, training, and public awareness



SECTION 4. ESD Activities in Numbers

8. Numeric Description of ESD Activities

Please provide the following numeric and narrative information when available. In the absence of the hard number, please provide an accurate estimation, if possible.

Activity	Description	Achievements (narrative)	Achievements (numeric)	Comments
Publications on ESD [EXAMPLE] UNESCO Teacher Training Course on Climate Change Education	[EXAMPLE] The UNESCO Teacher Training Course on Climate Change Education is a six-day training course, targeting secondary school teachers. It provides regional resource packages for the different world regions.	[EXAMPLE] Capacities of teachers strengthened	[EXAMPLE] 10,000 copies printed Distributed in 500 teacher-training institutions Reaching 20,000 students	[EXAMPLE] Published by UNESCO
Advocacy and communication, including ESD publications, brochures, media, and websites	(See responses/comments below for this table)			
Consultations, workshops, meetings, conferences on ESD				
Partnerships and networks on ESD				
Capacity-building and training, including development of ESD resources and educational materials				
Research, development, and innovation				
ICTs for ESD, including e-learning courses				
Monitoring and evaluation, including indicator development				
Other, please specify:				

Note: In Canada, it is challenging to quantify these activities across the ten reporting jurisdictions and the stakeholder group in a way that can be aggregated both nationally and internationally. Based on the information provided through the two surveys sent to provinces and territories and to stakeholders, the following section presents at best only a sample of what has been done over ten years, and underrepresents both the actual numbers of outputs and the reach of those outputs to students, teachers, organizations, and the public at large. As one stakeholder put it, the activities are “too numerous ... it would take considerable time to be accurate.”

On advocacy and communication, including ESD publications, brochures, media, and websites

Six of the ten provincial departments of education reported on significant publishing and communications actions, including ESD/EE related websites (current and under development). Policy frameworks, standards, curriculum guides, ESD/EE tool kits and resources, and guides for schools to address sustainability in their operations have been produced, with the potential to affect 4,337,652 K-12 students in the reporting jurisdictions, or 82 per cent of the Canadian provinces' K-12 population.¹⁴ Those who provided website analytics demonstrate that the materials are accessed tens of thousands of times. In addition, several noted the regular production of ESD/EE newsletters distributed to school districts, teachers, and others, which provide, as New Brunswick reported, “connections to community activities and opportunities for teachers and students [and] connections to other schools.”

A SD website has been on line since late March 2013 and offers SD-related tools to promote:

- buy-in to the concept of SD
- buy-in to the government's SD process
- capacity building for school-system stakeholders

—QC MELS

Canadian stakeholders have been active in producing general teaching-support materials, such as OISE's work on *Natural Curiosity: Building Children's Understanding of the World through Environmental Inquiry*, and Learning for a Sustainable Future's “Connecting the Dots,” which outlines learning strategies for embedding ESD/EE within the classroom. Other stakeholders have focused on specific issue support materials, such as climate change, sustainable consumption and production, and energy. Several organizations are building databases of resources (such as OISE's ESD website for pre-service teachers; the Saskatchewan RCE's catalogue of ESD resources; Green Manitoba's directory of ESD initiatives; and LSF's database of classroom resources, including lesson plans and literature.)

On consultations, workshops, meetings, and conferences on ESD

All provinces have been active in supporting workshops, meetings, and consultations on ESD/EE within their jurisdictions, with both BC and Manitoba also noting the reach of national conferences they have supported, such as the annual meetings of EECOM held in BC, Saskatchewan, Manitoba, and elsewhere and the “Choose the Future” national event in Manitoba. Jurisdictions also reported on similar activities under capacity building and training,

¹⁴ Not including the approximately 22,500 students in the territories.

but several provinces provided indicative numbers for the reach of their conference activities. For example, symposia and meetings have reached close to 1,000 teachers in Manitoba, over 600 in Ontario, 200 in Alberta, and 40 in Quebec.

Canadian stakeholders highlighted conferences that were important contributions to learning in their own sectors, including the National Conference of Sustainable Communities and Learning, and participation in International Polar Year (Polar Educators International group). The RCE North American and Global Conferences as well as the Bonn Conference were also noted as important to stakeholders.

On partnerships and networks on ESD

At the start of the DESD, Canadians were active in building the multistakeholder partnerships and networks necessary to implement ESD/EE in the provinces and territories. Provincial respondents, stakeholders, and key informants all mentioned the establishment of provincial ESD working groups (nine were formed early in the decade) and ESD Canada as the national network of stakeholders; the creation of seven regional centres of expertise for ESD/EE and their engagement in the UNU RCE global network; and specific groups such as the Sustainability Education Alliance of New Brunswick. In addition, several provinces noted important partnerships with other government departments in their jurisdiction, as well as with major private-sector companies and academic institutions that have been instrumental in supporting ESD/EE implementation.

In response to the UN Decade of Education for Sustainable Development, LSF, in partnership with Manitoba Education and Environment Canada, established the ESD Canada Expert Council and Provincial/Territorial working groups. ESD Canada is comprised of leaders from the public, private, and civil society sectors across Canada who collaborate to support the UN's call for systemic change toward ESD. The Provincial/Territorial ESD working groups engage leaders to support the regional advancements of formal, nonformal, and informal ESD.

—LSF stakeholder submission

The emergence of academic and research networks should also be recognized as an outcome of the DESD in Canada, including revitalized interest in a Pan-Canadian Network of Faculties of Education Supporting Sustainability and Stewardship (PANCANNET), and the new Sustainability and Education Policy Research Network. Community-based networks such as the African Nova Scotian Community Development Network, the Environmental Business Professionals Network of London and Area, and the Bluewater Sustainability initiative, bring together local communities, local industry, government, and small business to learn about and promote sustainability.

On capacity building and training, including development of ESD resources and educational materials

Respondents provided insight on a range of capacity-building activities such as:

- Training for staff within the provincial department of education itself

- Training for school district administrations and system leaders
- Training for pre-service and in-service teachers
- Development of specific curricula on ESD/EE and related topics for students
- Establishment of professional development programs based on ESD/learning approaches

It is worth highlighting the investment that several jurisdictions have made in building capacity among school district administrators and system leaders to effect transformation across the whole education system. The goal has been to achieve 100 per cent coverage, although there is still work to be done in most cases. Newfoundland and Labrador has commissioned presentation and workshop materials to convey a consistent message of ESD/EE among jurisdictions. The

Sustainability Education Academy, supported by the province of Manitoba in partnership with York University and LSF, has worked with school divisions and schools to reframe their division policies, curriculum teaching and learning, capacity building, facilities and operations, and partnerships around ESD/EE. Twenty-six of 37 divisions (affecting 497 schools) participated in Manitoba and are now on their way to contribute to the provincial goal of every school having a sustainability plan. Similar sessions have been held for school administrations in Saskatchewan. In Ontario, funding was provided in 2009/10 to support Regional Environmental Education Lead (REEL) positions in each of the six English-language and three French-language regions. The REELs helped support school boards, educators, and students to implement the EE Policy Framework's goals. An outcome of this work was that all of Ontario's 72 school boards now have an EE policy. The Ontario Institute for Studies in Education reports that over 1,000 teacher candidates have been reached.

MELS has offered SD awareness sessions to its staff to promote:

- buy-in to the concept of SD
- buy-in to the government's SD process
- capacity building for ministry staff.

Over 80 per cent of ministry staff participated in SD awareness.

Stakeholders reported on similar efforts to prepare workshop materials and resource kits to support actions in their sectors, including webinars for several thousand educators, peer-training days for "green teachers," the establishment of ESD summer institutes for teachers, and a certificate and diploma program for ESD in community building ("Learning about Community Development").

On research, development, and innovation

A review of ESD/EE-related literature in Canada suggests that the links between research, development, and innovation have not yet been explored in the context of ESD/EE. However, it is still useful to collect information on where respondents consider there has been innovation in their ESD/EE activities over the past 10 years. The survey results suggest that innovation can be found in:

- new education strategies that link education policy with provincial strategies for sustainable development and greening economies [3 mentioned];
- education programs' expansion to include environmental-focused skills development into specialist skills programs [1 mentioned];
- enhancements to the curriculum-development process that include third-party verification to ensure ESD/EE opportunities are appropriately embedded [1 mentioned];
- new education programs that include strong outdoor programming blended with traditional courses [several mentioned];
- new youth leadership programs introduced by stakeholders that take students into their communities for place-based learning and engagement [3 mentioned];
- connecting ESD/EE with ablist/disability studies [1 mentioned];
- cross-cultural exchanges among ESD/EE professionals [1 mentioned]; and
- dedicated investment in research activities to identify ESD/EE leverage points (with reference to Manitoba Education's commissioning of research into school district policies, ESD in First Nations schools, ESD in TVET, and so forth) [1 mentioned]

On ICTs for ESD, including e-learning courses

UNESCO has requested information on how information and communications technologies (ICTs) are being deployed in support of ESD, with particular reference to online courses. This is an area that may require further exploration by UNESCO as the impact of social media on student attitudes and choices in general receives greater attention. How ICTs support and also negatively affect sustainable development needs to be understood in the context of ESD/EE.

For now, respondents simply pointed to a growing number of online and blended learning opportunities in both K-12 and higher education. Workshop participants highlighted that distance education requires new and innovative teaching practices that may align with and support ESD/EE. However, teachers need more support in adapting to new technologies.

On monitoring and evaluation, including indicator development

UNESCO also requested information on activities specifically related to monitoring and evaluation, including indicator development. Of note is the work undertaken in Manitoba with the support of Dr. Alex Michalos (UNECE Indicators group) and the International Institute for Sustainable Development to develop and deploy standardized measures for assessing changes in knowledge, attitudes, and behaviours that might be correlated to investments in ESD.¹⁵ A baseline was set in 2009/10 for Grade 10 students across the province. The survey will be repeated in 2013/14 to see whether efforts to introduce ESD into the education system have

¹⁵ Michalos, A.C. et al., *Measuring knowledge, attitudes and behaviours concerning sustainable development among tenth grade students in Manitoba* (Winnipeg: IISD, 2010).

led to real changes among the students themselves. In Alberta, student indicators have been developed for the Alberta Environmental Education Framework. Little was reported on ESD/EE monitoring and evaluation in other jurisdictions. While Canadian stakeholders have not developed specific indicators, the survey results suggest that there is an increased emphasis on community benchmarking and the preparation of institutional and municipal sustainability reports (in particular in higher education with the adoption of AASHE by some stakeholders), as well as feedback loops on school/community projects and resource kits. Nevertheless, work on monitoring and indicator development for ESD/EE outcomes is still limited across Canada.

On other types of activities

Respondents also highlighted other types of activities that support ESD/EE in their jurisdictions and sectors. Recognition and reward programs, by showcasing commitment and innovation among the recipients, have had beneficial outcomes:

- LSF has created ESD innovation awards to inspire action and systemic change; the LSF Jack Layton Award for Youth Action in Sustainability honours passion and commitment for sustainability; and the LSF Greenest Teacher award recognizes those who demonstrate a commitment to education for sustainable development in the classroom.
- The Saskatchewan RCE Recognition Event awards innovation in community-level sustainability projects
- Manitoba's ECO-Globe recognition for individual schools "starts a dialogue" for schools seeking to attain a high level of sustainability performance across their whole school.

Small grant mechanisms have demonstrated that small investments of a few hundred dollars can catalyze excitement and change within individual schools. Capital investments in green school construction (Leadership in Energy and Environmental Design – LEED certifications) can instill pride in communities with these buildings.

9. Comments

Please comment on any other aspect of ESD implementation in your country.

10 messages, 10 years later

1. In Canada, formal education falls to the provinces and territories to implement and oversee. However, the DESD has highlighted the multistakeholder nature of education for everyone involved — governments and stakeholders alike. Everyone needs to participate: school districts, individual schools, institutions of advanced education, government departments and agencies, other levels of government, and nongovernmental and community-based organizations. The “Decade” has encouraged and fostered information exchange and collaboration between and among governments and organizations, advancing a multistakeholder approach to ESD/EE across the country. In Canada, stakeholders believe that more practitioners with a deeper engagement in ESD/EE are now more broadly included. In moving forward, beyond the decade, Canadians encourage UNESCO to build on the process of multistakeholder collaboration and networking fostered throughout the decade. As one stakeholder affirmed, “for any progress to occur, people within the school district have to make a commitment and work hand in hand with community partners.” To sustain the momentum, monitor progress, and connect people, Canada continues to need national coordination, with possible ongoing roles for one or more of CMEC, CCUNESCO, and the network ESD Canada. More synergies are needed among institutions and initiatives.
2. The CMEC ESD working group supports a “broad tent” approach to ESD/EE that encompasses early adopters and implementers of environmental education policies. While the emphases on environment, social, and economic dimensions of ESD/EE vary from province to province, the CMEC ESD working group appreciates all jurisdictions’ efforts to advance environmental and sustainable development learning. Some stakeholders suggest that differentiating between an EE agenda and ESD will be a barrier to ESD’s significant advancement. However, the progress reported by the provinces suggests that the “broad tent” approach allows individual jurisdictions to move forward where they believe they can have the most impact. Most stakeholders believe that there is a move now towards a common understanding and common vocabulary. There is a growing recognition in Canada that ESD/EE encompasses more than environmental knowledge and action, shifting to a broader perspective encompassing economics, equity, peace, and social justice. Canadian thought leaders suggest that a simplified concept is becoming clear — that “ESD is about how people should live on the planet,” respectfully and responsibly.
3. High-level leadership from a cross-section of agencies such as Manitoba Education, Environment Canada, Learning for a Sustainable Future, and CCUNESCO was key to early engagement and progress on ESD/EE in Canada. Leadership, most notably within many provincial departments of education, created both the organizational climate necessary

for change and put the budget resources in place to secure change. The emergence of champions, both institutional (Manitoba Education, CMEC ESDWG, LSF, and the network ESD Canada) and individual (such as Gerald Farthing, Charles Hopkins, David V.J. Bell) has been critical to sustaining efforts throughout the ten years of work. At the school-district and individual-school level, such champions have also been crucial to implementing ESD/EE on the ground. As one thought leader highlighted, in moving forward, leaders must always declare what is important to them personally and create the space to have the conversation with others about why it's important.

4. Analysis of the data collected from the provinces' official reports and from stakeholders across the country reveals a majority view that there has been clear progress on ESD and EE in formal education – from Early Childhood Education and Care through to advanced education. In many jurisdictions, work was already initiated on primary, secondary, and advanced education prior to the start of the decade and there is progress on ESD/EE. In several cases there has been even more advancement. In particular, moves to address ESD/EE in Early Childhood and Care and in Technical/Vocational Education and Training have proven fruitful in several jurisdictions where no efforts were underway prior to 2005. Nevertheless, all provinces still have much work to do to fully integrate ESD/EE across the formal education system. Among the efforts to be encouraged for TVET, stakeholders and thought leaders highlighted the importance of new skills needed for low-carbon and green economic development. Transforming teaching practice also needs attention. The next phase of work should provide support for teachers, teacher candidates, faculty of education staff, school and school board administrators, and trustees across the country to understand both ESD/EE content and pedagogy. Competing priorities and shortage of time and resources will continue to be challenges to be overcome. Leadership will still be needed, combined with partnerships and networks to sustain and continue the gains made to date.
5. It is more difficult to determine what the progress has been on nonformal education, capacity building and training, and public awareness. Many respondents in both the provinces and stakeholder-response groups considered these outside of their mandate and were unable to comment, and a number of respondents were unclear about the distinctions among these types of education. Where stakeholders reported progress on nonformal education, it lay in NGOs' support to schools through outdoor learning activities, enhancing curriculum, and related activities. Given the progress to date on formal education, combined with clear intentions and commitments to continue to advance ESD/EE in formal education among the provinces and stakeholders, Canadians suggest to UNESCO that the post-DESD agenda should have a more explicit focus on reinforcing and advancing the gains in formal education, including teacher education, technical/vocational education and training, and advanced education. Other stakeholders, including other government departments and agencies, should be encouraged to work alongside of, or collaborate more directly with, departments of education to explore ESD/EE in nonformal education, capacity building, and training as a necessary input to building green economies, with particular attention to the education

and training needs of small, micro, and medium-sized enterprises (SMMEs).

6. At the level of school districts and individual schools, there is a move beyond one-off environmental demonstration projects towards long-term efforts to address the social, economic, and environmental footprint of schools combined with informing and engaging students in the process of reducing and managing that footprint. This trend towards “whole school approaches” to ESD/EE is an important outcome of the decade. A post-DESD agenda should continue this work, and promote the importance of a sustainability plan in every school.
7. ESD/EE is as much about the learning process itself as it is about the knowledge needed to address sustainability challenges such as climate change, biodiversity, and poverty eradication. As one thought leader affirms, sustainable development is an educational challenge: ESD/EE is no longer “about” sustainable development, but rather it is learning how to live differently on this planet. Key informants in Canada stressed the importance of critical and systems thinking and problem solving competencies, and in particular that “ESD is about *learning together* to sustain the future” [emphasis added].
8. There is a majority agreement among the provincial jurisdictions and thought leaders that the UN decade was instrumental in raising awareness on ESD/EE and served as a common reference point for bringing people together. The DESD helped to stimulate changes in education practices in most jurisdictions. Some are less convinced, however, that it has advanced sustainability itself, and many chose not to attempt to gauge the decade’s impact on sustainability. This hesitancy may be due to the difficulty of measuring the DESD’s impact on sustainability, especially given the length of time that will pass between the introduction of ESD/EE to children and whether and how they will advance a more sustainable world as adults.
9. Stakeholders in Canada call for a research agenda to make a stronger case for supporting ESD/EE. More work is needed on:
 - how to strengthen the dialogue with First Nations and Aboriginal peoples on ESD,
 - what constitutes the core knowledge that everyone needs to live sustainably, as well as
 - the benchmarks, indicators, and measuring of progress, including how ESD/EE contributes to learners’ knowledge, attitudes, and behaviours.Connections to Education for All initiatives, quality education requirements, and twenty-first-century learning also need to be explored and understood to align international education strategies with global commitments to sustainable development.
10. Through the workshops, interviews, and responses to UNESCO’s questionnaires, there is a real sense of celebration over what had been achieved during the decade in Canada. Stakeholders are committed to continue working, and they want an ongoing framework and process from UNESCO to champion efforts and to share knowledge and experience

around the world. In the next phase of work, new efforts should be made to showcase and celebrate “bright spots” in ESD, promoting what is possible and what works.

Sustainable development is a way of living on this planet “as if we were planning to stay.” It flows from a different way of thinking about how we should live on this planet: an “SD mindset” that involves knowledge and wisdom grounded in new perspectives and values, learning from traditional understandings, and reinforced and actualized by appropriate skills and experiences. Helping people — young and old, rich and poor — acquire this mindset is the primary objective of ESD.

— David V.J. Bell, e-mail, 5 September 2013

A commitment to future action in Canada

Nearly all provinces and stakeholders alike intend to “stay the course” and advance their ESD/EE policies, curricular reforms, whole-school approaches, and professional development, while noting that changes in government always influence priorities and abilities:

- British Columbia notes how provincial legislation on carbon neutrality has refocused attention on ESD/EE.
- Alberta’s continuing support of ESD/EE will be realized through its Curriculum Redesign initiative, which includes a focus on cross-curricular competencies connected to ESD, such as the ability to demonstrate global and cultural understanding, considering the economy and sustainable development.
- Saskatchewan will continue to incorporate ESD/EE concepts and principles in K-12 curricula as they are renewed.
- Manitoba will continue to implement actions toward their three priorities: ensuring there is an ESD/EE school plan in every school by 2015; promoting ESD/EE in teacher education; and reorienting TVET (planning, curriculum, teaching, learning) in support of sustainable development and the transition to a green economy.
- Ontario plans to continue to implement and further develop its environmental education policy in support of boards, teachers, and students.
- Quebec will build its network of partners (teachers and counsellors) and promote its guide to the integration of sustainable development into the school system.
- New Brunswick will continue to promote and support sustainability initiatives in schools.
- Prince Edward Island reports that during its curriculum revision process, it will continue to integrate education for sustainable development within the provincial curriculum.

There is interest among several of the provinces to continue the collaboration among them that the DESD helped to foster in order to share information, successful practices, and monitoring and reporting among jurisdictions at the pan-Canadian level. As Quebec notes, “It would be desirable for the education community to be consulted on integrating sustainable development

in teaching to ensure that the sector’s needs and specific situations are taken into account.” Newfoundland and Labrador in particular calls for greater provincial-federal cooperation to address ESD that may lead to a national strategy at the K-12 level involving all jurisdictions and relevant departments (not at the postsecondary level given the high level of institutional autonomy in this sector). Alberta and Ontario reaffirm the independence of each jurisdiction and that decisions on ESD/EE policy, planning, and resource allocation in postsecondary education should be best left to each province and territory.

British Columbia suggests that “development of a post-2014 framework should take into consideration the nature of ESD/EE, combined with the best practices described in the research literature, while incorporating enough flexibility for each country, province, region, etc. to customize an approach that best suits the needs of their respective audience. To achieve this, the framework should be co-developed by key partners with enough flexibility for others to tailor it to their specific priorities and needs.”

Manitoba emphasizes the importance of Canada’s international connections and that Manitoba will continue to be a member and support the priorities of the UNECE ESD steering committee and will continue to support ESD/EE through UNESCO’s new Global Programme on Education for Sustainable Development (2015–2024).

For many of the stakeholders, ESD/EE has been and will continue to be a core focus of their work, and they are committed to:

- expanding course offerings
- advancing education policy, standards, and good practice
- reorienting teaching and learning to promote an understanding of the interrelationships between economic, social, and environmental perspectives and fostering informed, engaged, and responsible citizens
- fostering sustainable communities
- supporting networks and collaboration
- transforming their institutions from senior leadership through to grassroots
- continuing with publishing and events related to ESD/EE.

Stakeholders reaffirm the need for ongoing work on ESD/EE: having an informed, engaged population is fundamental to healthy communities and sustainable resource use. Stakeholders call for a national strategy to maintain momentum on the UNDES vision and mission for sustainability, backstopped with ongoing collaboration through a national network, a more collaborative approach between governments, teachers’ federations, faculties of education, school boards, nongovernmental organizations, and the ESD working group model continuing in each province and territory.

See Appendix 4 for future plans for ESD/EE in Canada identified by provinces and stakeholders.

10. Sources and actors, research and policy reports

Are you aware of any data sets in your country or beyond that could be useful for the final DESD report? Please list

See Appendices 2 and 3.

Appendix 1. ESD/EE Thought Leaders and Experts Who Were Interviewed

1. Elisabeth Barot, Programme Officer, Education, Canadian Commission for UNESCO
2. David V.J. Bell, Chair, Learning for a Sustainable Future
3. Sylvie Côté, Senior Policy Advisor, Environment Canada
4. Gerald Farthing, Deputy Minister, Manitoba Education and Acting Deputy Minister, Manitoba Advanced Education and Literacy
5. Charles Hopkins, UNESCO Chair in Reorienting Teacher Education, York University
6. Christina McDonald, Chief Operating Officer, Green Manitoba
7. Marcia McKenzie, Project Director, Sustainability and Education Policy Network, University of Saskatchewan
8. Jean Perras, Consultant
9. Dominique Potvin, Programme Officer, Natural Sciences, Canadian Commission for UNESCO
10. Daniel Rosset, Manager, Environmental Assessment, Parks Canada
11. Pamela Schwartzberg, Executive Director, Learning for a Sustainable Future

Appendix 2. Selected Sources Used in the Preparation of the Report

Provincial and territorial governments

British Columbia Additional Reports on Climate Change Impacts, Mitigation, and Adaptation:
<http://www.env.gov.bc.ca/cas/resources/reports.html>

British Columbia Carbon Neutral (2008)
http://www.livesmartbc.ca/attachments/carbon_neutral_action_reports/CarbonNeutralBC-2011-leadingchangeinspiringaction.pdf

British Columbia Carbon Neutral Reporting by Sector (School Districts and Postsecondary):
http://www.livesmartbc.ca/government/carbon_neutral/neutral_action_reports.html

British Columbia Climate Action for the 21st Century (2009)
http://www.env.gov.bc.ca/cas/pdfs/climate_action_21st_century.pdf

British Columbia Climate Action Plan (2008)
<http://www.env.gov.bc.ca/cas/cap.html#cap>

British Columbia Curriculum Maps
http://www.bced.gov.bc.ca/environment_ed/ele_curricmaps.htm

British Columbia Environmental Learning and Experience Interdisciplinary Guide
http://www.bced.gov.bc.ca/environment_ed/

British Columbia Green Economy Update: Growing Green Jobs
http://www.bcge.ca/BCs_Green_Economy_Update_print.pdf

British Columbia Making Progress on BC's Climate Action Plan (2012)
<http://www.env.gov.bc.ca/cas/pdfs/2012-Progress-to-Targets.pdf>

British Columbia Ministry of Education Green Schools Newsletters (October 2009–May 2012)
<http://www.bced.gov.bc.ca/greenschools/newsletters.htm>

British Columbia Ministry of Education Green Schools Website
<http://www.bced.gov.bc.ca/greenschools/>

British Columbia Ministry of Environment: Wild BC
<http://wildbc.org/index.php/programs/>

British Columbia Social Justice 12

http://www.bced.gov.bc.ca/irp/pdfs/social_studies/2008socialjustice12.pdf

British Columbia Sustainable Course Content

<http://www.bced.gov.bc.ca/greenschools/pdfs/sustcoursecontent.pdf>

British Columbia Sustainable Resources 11 and 12

<http://www.bced.gov.bc.ca/irp/pdfs/sciences/2008susres1112.pdf>

British Columbia Sustainable Schools Best Practices Guide

<http://www.bced.gov.bc.ca/greenschools/pdfs/sustbestpractices.pdf>

British Columbia Sustainable Schools Forum (2009)

<http://www.bced.gov.bc.ca/greenschools/sustschoolforum.htm>

Green Manitoba's Sustainability Initiatives directory

<http://greenmanitoba.ca/msid/>

Manitoba Education. ESD website

<http://www.edu.gov.mb.ca/k12/esd/>

Manitoba Education. *Guide for Sustainable Schools in Manitoba*. (Natalie Swayze, Carolee Buckler, and Anne MacDiarmid) (2010)

http://www.edu.gov.mb.ca/k12/esd/pdfs/sustainable_guide.pdf

Manitoba Education. Schools Program Division. *Making a Living, Sustainably: Green Jobs and Sustainability Careers* (2012)

http://www.edu.gov.mb.ca/k12/esd/pdfs/green_jobs.pdf

Manitoba. Tomorrow Now: Manitoba's Green Plan

<http://www.gov.mb.ca/conservation/tomorrownowgreenplan/>

New Brunswick Sustainability News. An electronic newsletter has been produced by Education and Early Childhood Development and distributed three times a year since 2011.

Ontario. Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools

<http://www.edu.gov.on.ca/eng/teachers/enviroed/action.html>

Ontario. *Shaping our Schools, Shaping our Future: Environmental Education in Ontario Schools*

<http://www.edu.gov.on.ca/curriculumcouncil/shapingschools.pdf>

Ontario. Standards for Environmental Education in the Curriculum

<http://www.edu.gov.on.ca/eng/teachers/enviroed/standards.html>

Quebec – Guide sur l’intégration du développement durable dans l’enseignement [Guide on integrating sustainable development in teaching] (under development).

Quebec – Plan d’action sur le développement durable 2013-2015 du ministère de l’Éducation, du Loisir et du Sport [2013-2015 Sustainable development action plan of the Ministère de l’Éducation, du Loisir et du Sport]

http://www.mels.gouv.qc.ca/fileadmin/site_web/documents/publications/BSM/PADD_2013.pdf

Departments and agencies of the government of Canada

Canadian International Development Agency

<http://www.acdi-cida.gc.ca>

Environment Canada

<http://www.ec.gc.ca>

Pan-Canadian organizations

Canadian Commission for UNESCO

<http://www.unesco.ca>

Council of Ministers of Education, Canada (CMEC)

<http://www.cmec.ca/147/Programs-and-Initiatives/Education-for-Sustainable-Development/Overview/index.html>

CMEC (2006). United Nations Decade of Education for Sustainable Development: Canada’s Response to the UNESCO questionnaire.

<http://www.cmec.ca/Publications/Lists/Publications/Attachments/80/Sustainable-2006-03.en.pdf>

CMEC (2007). Report to UNECE and UNESCO on Indicators of Education for Sustainable Development: Report for Canada 2005-2007.

<http://www.cmec.ca/Publications/Lists/Publications/Attachments/104/Canada-Report-ESD-2007-10.en.pdf>

CMEC (2010). Report to UNECE and UNESCO on Indicators of Education for Sustainable Development: Report for Canada 2007–2010.

<http://www.cmec.ca/Publications/Lists/Publications/Attachments/265/esd-canada-report-2007-2010-en.pdf>

CMEC [nd], Educating for Sustainability: The Status of Education for Sustainable Development in

Canada.

<http://www.cmec.ca/Publications/Lists/Publications/Attachments/9/environment.en.pdf>

CMEC. ESD Working Group (2010). Developing a Pan-Canadian ESD Framework for Collaboration and Action - Background Paper, Education for Sustainable Development Working Group.

<http://www.cmec.ca/Publications/Lists/Publications/Attachments/222/ESD-collaboration-action.pdf>

CMEC (2012). Education for Sustainable Development in Canadian Faculties of Education.

www.cmec.ca/Publications/Lists/Publications/Attachments/279/ESD_Dean_reportEN.pdf

Nongovernmental, nonprofit, civil society, private-sector organizations, and reference documents

[Bell, D. \(2009\). Education for sustainable development: Cure or placebo?](#)

http://www.aqpc.qc.ca/appel/espaceusager/telechargement/document_2012_211.doc

Belton, C. (2013). A Canadian school experience. In R. McKeown & V. Nolet, eds. *Schooling for sustainable development in Canada and the United States*, 305-315. New York: Springer.

British Columbia Institute of Environmental Learning <http://www.eco-learning.org/>

Buckler, C., & MacDiarmid, A. (2013). Education for sustainable development in Manitoba: A provincial-wide approach. In R. McKeown and V. Nolet, eds. *Schooling for sustainable development in Canada and the United States*, 95-108. New York: Springer.

Council of Ontario Universities (2009). *Ontario universities: Committed to a greener world. A pledge from the executive heads*. <http://www.cou.on.ca/News/Commentary---Events/Events/Events-PDFs/Committed-to-a-Greener-World---A-Pledge-from-Execu>

Hopkins, Charles (2013). Education for sustainable development in formal education in Canada. In R. McKeown, & V. Nolet, eds. *Schooling for sustainable development in Canada and the United States*, 23-36. New York: Springer.

Hugo, V. nd. Educating and acting for a sustainable future. Unpublished paper. Centrale des syndicats du Québec.

Huppé, G.A., Creech, H., & Buckler, C. (2013). *Education for sustainable development at Manitoba colleges and universities: Results from an institution-wide survey and president interviews across Manitoba's 11 institutions of higher education*. Winnipeg: IISD.

http://www.iisd.org/pdf/2013/education_sd_mb_colleges_universities.pdf

International Institute for Sustainable Development (IISD) <http://www.iisd.org/leaders/un.asp>

Learning for a Sustainable Future (LSF) <http://www.lsf-lst.ca>

Manitoba Advanced Education and Literacy (2006). National education for sustainable development expert council. Unpublished discussion paper and implementation process for the Establishment of the NESDEC.

McKeown, R., & Nolet, V. eds. (2013). *Schooling for sustainable development in Canada and the United States*. New York: Springer.

Michalos, A., Creech, H., Swayze, N., Kahlke, P.M., Buckler, C., & Rempel, K. (2012). Measuring knowledge, attitudes and behaviours concerning sustainable development among tenth grade students in Manitoba. *Social Indicators Research* 106 (2): 213-238. Also available at: <http://www.iisd.org/publications/pub.aspx?pno=1384>

National Round Table on the Environment and the Economy (NRTEE). (1996). *The round table process: Building strategies for sustainable development education*. Ottawa: Learning for a Sustainable Future and NRTEE.

Ontario Institute for Studies in Education and the International Alliance of Leading Educational Institutes. (2009). Climate Change and Sustainable Development: The Response from Education in Canada. http://www.hilaryinwood.ca/research/climate_change_sustainable_development.html

Paas, L., & Creech, H. (2008). *How information and communications technologies can support education for sustainable development: Current uses and trends*. Winnipeg: IISD. http://www.iisd.org/pdf/2008/ict_education_sd_trends.pdf

Saskatchewan Regional Centre of Expertise
<https://sites.google.com/site/saskrce/>

Swayze, N. (2010). *The decade of education for sustainable development (DESD) and sustainability education in first nations schools in Manitoba*. Winnipeg, IISD. http://www.iisd.org/pdf/2010/decade_education_sd_first_nations_mb.pdf

Swayze, N., & Creech, H. (2009). *Sustainability policies at the school division level in Manitoba*. http://www.iisd.org/pdf/2009/sd_policies_mb_school_division.pdf

Taylor, S.K., & Creech, H. (2012). *Technical-vocational education for sustainable development in Manitoba*. Winnipeg: IISD. http://www.iisd.org/pdf/2012/technical_vocational_education_sd_mb.pdf

Appendix 3. Organizations Represented in the Stakeholder Survey¹⁶

1. Alberta Council for Environmental Education
2. Association pour la Recherche au Collégialà
3. Athabasca University
4. Bringing Youth Towards Equality Society
5. Canadian Ethnocultural Council
6. Canadian Network for Democratic Learning
7. Canadian Network for Environmental Education and Communication
8. Canadian Teachers' Federation
9. Canadian Association of Prior Learning Assessment
10. Cégep de Sherbrooke
11. Cégep du Vieux Montréal
12. Centre de recherche interuniversitaire sur la formation et la profession enseignante
13. Centre scolaire Samuel-de-Champlain
14. Unesco Chair in Studies of philosophic foundations of Justice and democratic society
15. Clayoquot Biosphere Trust
16. Collège Montmorency
17. Confederation College
18. Crandall University
19. District scolaire francophone du Nord-Ouest
20. Environmental Services Branch, City of Saskatoon
21. Fanshawe College
22. Foreign Affairs, Trade and Development Canada (formerly Canadian International Development Agency)
23. Georgian College of Applied Arts
24. Green Teacher
25. International Institute for Sustainable Development
26. John Humphrey Centre for Peace and Human Rights
27. La Cité Collégiale
28. Lambton College
29. Learning for a Sustainable Future
30. New Brunswick Environmental Network
31. Nunavut Arctic College
32. Ontario Institute for Studies in Education (OISE), University of Toronto
33. PEN Canada
34. Regional Centre of Expertise on Education for Sustainable Development in Saskatchewan (Canada): RCE Saskatchewan
35. Safe Drinking Water Foundation
36. Shediac Bay Watershed Association

¹⁶ Note that a number of responses from individuals were also received, for a total of 49 stakeholder responses to the survey.

37. Société des arts technologiques (SAT)
38. The Laboratory School, Dr. Eric Jackman Institute of Child Study, OISE, University of Toronto
39. The Manitoba Museum
40. Toronto and Region Conservation Authority
41. University of Calgary
42. United Nations University Regional Centre of Expertise, Saskatchewan
43. Université du Québec à Montréal
44. Youth Advisory Group — Canadian Commission for UNESCO

Appendix 4. Future Plans for ESD/EE in Canada

Provincial ministry/departments of education

P/T	Post-2014 planning	Suggestions for Canada
BC	British Columbia has had an active EE/ESD community since the 1970s and awareness has grown toward a whole-school approach. Recent provincial legislation on carbon neutrality refocused government attention on EE/ESD which resulted in increased participation at the provincial level. Since the time of writing, British Columbia has undergone a change in government. New priorities and approaches may be determined. ¹⁷	Development of post-2014 framework should take into consideration the nature of EE/ESD, combined with the best practices described in the research literature, while incorporating enough flexibility for each country, province, region, etc. to customize an approach that best suits the needs of their respective audience. To achieve this, the framework should be co-developed by key partners with enough flexibility for others to tailor it to their specific priorities and needs.
AB	Alberta's continuing support of ESD will be realized through the newly updated student learning outcomes, which include students' ability to "demonstrate global and cultural understanding, considering the economy and sustainable development."	Alberta believes that the future allocation of resources to support ESD are decisions best left to each Canadian province and territory to make, in accordance with their respective priorities and fiscal realities.
SK	The Ministry of Education will continue to incorporate ESD concepts and principles in K-12 curricula as they are renewed.	
MB	Manitoba Education will continue with our ESD priority and focus on the following: <ul style="list-style-type: none"> • working on the three priority areas of action: 1) ensure that there is an ESD school plan in every school by 2015; 2) promote the introduction of ESD into teacher education; and 3) reorient technical and vocational education and training in support of sustainable development and the transition to a green economy. • completing the multistakeholder three-year ESD action plan • developing a process for ESD school plans and reporting 	Continue with the CMEC Education for Sustainable Development Working Group in order to maintain a coordinating role in sharing resources, successful practices, monitoring, and reporting among jurisdictions at the pan-Canadian level. Where feasible, continue to conduct pan-Canadian ESD research. Continue to be a member and support the priorities of the UNECE ESD steering committee. Continue to support ESD through

¹⁷ The BC respondents were writing before the provincial election in May 2013.

	<ul style="list-style-type: none"> • Providing professional development and research will continue to support and frame ESD. The grade 10 survey will be repeated and results shared by 2014. • developing resources. Learning in the Outdoors is set for release in 2014 and ESD learning experiences and centre activities for K-4 students is set for release in late 2013 	UNESCO's new Global Programme on Education for Sustainable Development (2015–2024).
ON	Ontario plans to continue to implement and further develop its environmental education policy in support of boards, teachers, and students.	Education in Canada is a provincial/territorial responsibility. Ontario recommends that each Canadian jurisdiction proceed with supporting sustainability-related education independently in keeping with each jurisdiction's policy priorities. Ontario is committed to EE as its policy framework. In this context, Ontario does not intend to devote resources to supporting ESD.
QC	A network of contacts with partners within the school system (teachers and guidance counsellors) will be developed. Work will also be done to promote the guide on integrating SD in teaching throughout the school system, as soon as it is released.	It would be desirable for the education community to be consulted on integrating sustainable development in teaching to ensure that the sector's needs and specific situations are taken into account.
NB	Continued membership and action through CMEC working group. Continued work on promotion and support of sustainability initiatives in schools.	Continued collaboration between provincial jurisdictions to promote and support ESD initiatives.
NS		
PEI	K-12: During the curriculum revision process, we will continue to integrate education for sustainable development within our provincial curriculum.	
NL		There needs to be more provincial-federal cooperation to address ESD. A national strategy would provide a focus for the P/Ts to follow. Federal government, through such departments as Environment, Heritage, etc., should take

		<p>the lead on promoting an ESD direction in the nation. This should be supported by a sustained professional learning initiative that will provide teachers with the necessary understanding of ESD and help them integrate ESD-related themes and skills into their classroom instruction.</p>
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Selected comments from Canadian respondents to UNESCO's stakeholder survey

Commitments for post-2014 ESD/EE planning

- We will continue to develop our initiatives in SD, hopefully expanding our range of activities and course offerings over time.
- We will continue to advance environmental education in Alberta and make connections to ESD.
- We will continue to encourage faculty to include sustainability in curriculum, encourage operations to maintain ever-increasing standards of sustainability in building design and maintenance, and finally, incorporate sustainability into the fabric of our institution, from senior leadership to grassroots efforts and administration.
- Sustainable approaches to education and training is part of lifelong learning and an ongoing strategic direction for CAPLA.
- Learning for a Sustainable Future will continue to work on ESD as a core focus of all our work. We continue to fundraise to support our current projects and embrace opportunities to expand on them:
 - advancing education policy, standards, and good practice, including work on the Model Curriculum Theme Documents, and developing an initiative around “Twenty-First Century Education Viewed Through a Sustainability Lens”
 - reorienting teaching and learning
 - fostering sustainable communities — linking education to action
 - supporting collaborative initiatives, networks, and champions
- We will continue with environmental activities and programs and hopefully expand our scope and reach. We hope to improve our planning and deliver stronger education.
- We will continue in the same direction because this matters to our institution and it matters to the planet. We will work in all areas of the institute from education to facilities and operation.
- “We have just begun” ... but will require a more stable/sustainable source of resources and capacity to meet the needs that have been identified through our work to date.
- This work is a core priority of our organization. We will continue to support and develop educational initiatives and programs related to sustainable development through various venues, both formal (i.e., accredited courses) and informal (i.e., public talks, experiential events) means.
- If we can garner funding, the Sustainability Education Alliance will continue to work into the future.
- Sustainability is entrenched at the college at the policy level so more and more decisions will be made with all aspects of sustainability in mind.
- TRCA will most definitely continue our work on ESD — it is well embedded within our strategic plan!

Suggestions for Canada

- Establish an across-Canada network where achievements can continue to be showcased.
- Develop a national strategy to maintain momentum and follow through with the UNDESD vision and mission for sustainability while respecting provincial and territorial jurisdiction over education and institutional autonomy over postsecondary programming.
- Broaden education focus to include all learning. For many people, education is only about what happens in the classroom. CCU should become a more strategic player in facilitating the process and government should allocate more suitable resources.
- The implementation should include a more collaborative approach among governments, teachers' federations, faculties of education, school boards, and nongovernment organizations. ESD working groups should continue to operate in each jurisdiction.
- Provide stronger support for people and groups conducting ESD/EE: political support, financial support, human resources, communications, etc.
- Canada should embrace the concept of ESD wholeheartedly at national and provincial levels because clearly ESD has allowed for tremendous innovation over the UN decade.
- Regularly check in with organizations and facilitate networks.
- Continue organizing and provide stable funding for capacity building.
- A more formal framework/support structure at the NATIONAL level is required to support the regional efforts in the provinces to continue the DESD's momentum.
- Being informed about and engaged in ESD seems to be fundamental to the human condition! We need to understand the world in which we live and proceed in a manner in which populations are sustained and healthy and using resources in a sustainable way.
- Improve awareness, expectations, and requirements. ESD requires resources and most college systems cannot resource efforts adequately. Retain the expertise of environmental sustainability coordinators that have first-hand experience in implementing environmental initiatives on the ground to provide direction and guidance on how to proceed.
- All aspects of sustainability education need to become a part of our culture in the same way that, for example, health and safety or respect are part of our culture. In the long run, sustainability aspects should be infused into the general curriculum starting at the earliest opportunity and extending all the way through to higher and continuing education.
- Canada should help charities that are providing ESD programs to schools in terms of funding and awareness.
- Canada should recognize its importance and invest in ESD programs.
- Canada must continue to have contact internationally to foster support and impetus for change. It is my hope that UNESCO will continue in some manner to maintain and propel ESD forward.