

EEON

Announcing ... the way to a healthy, sustainable future



Greening the Way Ontario Learns

A PUBLIC STRATEGIC PLAN FOR THE ADVANCEMENT OF ENVIRONMENTAL LITERACY

Summary Version



EEON

Environmental Education **ON**tario

www.eeon.org

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Acknowledgements

EEON is very grateful to its members, partners, supporters and over 450 individuals from organizations across the province for their contribution to *Greening the Way Ontario Learns: A Public Strategic Plan for Environmental and Sustainability Education*. These individuals came from all regions of Ontario, from many sectors, and from all 17 audiences served by this Plan. The input of the participants and contributors does not necessarily represent the official policy or endorsement of the Plan by these organizations.

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Alex Waters	Ducks Unlimited

EEON Coordinator

Tunde Otto-Harris

Financial Supporters

Generous Financial supporters have made *Greening the Way Ontario Learns: A Public Strategic Plan for Environmental and Sustainability Education* possible:

- Environment Canada
 - The George Cedric Metcalf Charitable Foundation
 - The Ontario Trillium Foundation
-

Publication

Writing Committee:	Dave Arthur, Jane Forbes, Elise Houghton, Nancy Randall
Supervisory and Assistance:	Tunde Otto-Harris and Carly Gaylor
Content Editor:	Elise Houghton
Cover Art:	Clive Dobson
Layout and Production:	V John Lee



The following have assumed various roles with Environmental Education Ontario as advisors, supporters, administration assistants, writers, committee members, volunteers, facilitators, and more.

EEON Supporters

Cynthia Abel, Peel Children's Water Festival

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John Ferguson, Environment

Commissioner's Office of Ontario

Allan Foster, Toronto Region

Conservation Authority

Carly Gaylor,

McMaster University student

Dave Green, Toronto and Region

Conservation Authority

Judy Halpern, Magic Suitcase

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Andrew Kerr-Wilson,

Lanark District School Board

Stan Kosior, Science Teachers'

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Joan Kott, Hamilton Wentworth District

School Board

Stan Kozak, Curriculum Advisors

Liz Lundy, World Wildlife Fund

Clare Magee, Seneca College

Jim Mahon, Labour Caucus Ontario

Alorani Martin, Toronto District School Board

Barrie Martin,

Ontario Ministry of Natural Resources

Michele Martin, Roots and Shoots

Gale May, Toronto District School Board

Charlotte McCallum,

Christian Farmers' Federation of Ontario

Dorothy McDougall,

Toronto School of Theology

Denis McGowan, Ontario Ministry of Education

Barb McKean, Royal Botanical Gardens

Nancy Randall, Curriculum Consultant

Sandra Root, Down to Earth

Liz Sauer, Environment Canada

Stuart Schellenberger, Wind Earth

Science Associates

Beth Stormont, Down to Earth

Bond Strand, Toronto District School Board

Rochelle Strauss, Earth Rangers

John Tersigni, Green Brick Road

Jane Wadden, Toronto District School Board

Dawna Wastesicoot,

Ontario Forestry Association

Dennis Wendland, Waterloo Region District

School Board (retired)

Mark Whitcombe,

Toronto District School Board

Charlotte Young, Envision-Synergy



Greening the Way Ontario Learns

Organizations

Contributors from the following groups, organizations, agencies, institutions, ministries, boards and companies assisted EON in the preparation of this document:

Adventure Daycamps,

Algoma District School Board,

Algonquin College,

Algonquin to Adirondacks

Conservation Association,

Anishnabeg Outreach,

Arthur Henderson School,

Association for Canadian

Educational Resources,

Ausable Bayfield Conservation Authority,

Bancroft Area and Haliburton Highlands

Stewardship Councils,

Barb's Backyard,

BDO Dunwoody,

Beck Incorporated,

Black Creek Conservation Project of Toronto,

Brock University,

Bruce County Resource

Stewardship Network,

Canadian Association of Physicians
for the Environment,

Canadian Auto Workers of Canada,

Canadian Ecology Centre,

Canadian Friends of John Muir,

Canadian Institute for

Environmental Law and Policy,

Canadian Institute of Child Health,

Canadian Labour Congress,

Canadian Lifesaving Society,

Canadian River Guide Council,

Canadian Union of Public Employees,

Canadians For Renewable Energy
& Environmental Action (Barrie),

Catholic Network for Women's Equality,

Cathy's Crawly Composters,

Christian Farmers Federation of Ontario,

Citizens' Environmental Watch,

Clean Production Network,

Conservation Council of Ontario,

Council of Outdoor Educators of Ontario,

County of Duerin,

Courage Brook Academy, Curriculum Advisors,

Delaware Nation of the Thames,

Demeter Foundation,

Development and Peace

Catholic Education,

District School Board Ontario North East,

Domtar Incorporated,

Down To Earth,

Ducks Unlimited Canada,

Duffins Creek Environmental Education Centre,

Durham District School Board,

Earth Rangers,

Eco-Camp Bickell,

Educational Awareness,

Elementary Teachers Federation of Ontario,

Elgin Stewardship Council,

Elliott Allen Institute for Theology & Ecology,

Elora Centre For Environmental Excellence,

English as a Second Language LINK,

Enviro Insights,

Environment Canada Ontario Region,

Environmental Commissioner's Office of Ontario,

Environmental Connections Outdoor

Education Programs (Brockville),

Environmental Insights,

Envision-Synergy,

Etobicoke Outdoor Education Centre,

Everdale Environmental Learning Centre
& Organic Farm,

Federation of Ontario Naturalists,

Fisheries & Oceans Canada,

Five Lights Business Group,

Friends of Charleston Lake Park,

Friends of Malcolmson Eco-Park,

Friends of Second Marsh,

Friends of Stoney Creek,



Friends of the Mad River,
FutureWatch,
Global Environment Vision Incorporated,
Grand River Conservation Authority,
Great Lakes United,
Green Group,
Green Teacher Magazine,
Grenville Land Stewardship Council,
Guelph Arboretum,
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Interface Flooring Systems,
Irish Lake Conservation Club,
Jane Goodall Institute of Canada,
Kawartha Outdoor
Education Center/Camp Kawartha,
Kawartha Pine Ridge District School Board,
Key Foundation, Kingston Field Naturalists,
Kortright Centre for Conservation,
K-W YMCA,
Cross-Cultural and Community Services,
Labour Caucus of Ontario,
Lakehead District Board of Education,
Lakehead University Faculty of Education,
Lanark District Board of Education,
Learning for a Sustainable Future,
Leeds County Stewardship Council,
Leslie M. Frost Natural Resources Centre,
Lever Canada,
Long Point Region Conservation Authority,
Lower Thames Valley Conservation Authority,
MacGregor Point Provincial Park,
Macskimming Outdoor Education Centre,
Magic Suitcase,

Mallard Group,
Mansfield Outdoor Centre,
McMaster University School of Nursing,
Mississauga Master Gardeners,
Mississippi Valley Conservation,
National Aboriginal Forestry Association,
National Farmers Union,
National Youth Roundtable,
New Canadian Engineer Program,
Niagara College Centre
for Environmental Training,
Niagara College of Applied Arts
Environmental Field and Laboratory Sciences,
Niagara on the Lake
Environmental Education Centre,
Niagara Recycling,
Niagara Region District School Board,
Norfolk Land Stewardship Council,
North Shore Tribal Council
Environment Program,
North Toronto Green Community,
Oak Ridges Trail Association,
Ojibway and Cree Cultural Centre,
Ojibways of Sucker Creek,
Ontario Agri-Food,
Ontario College of Family Physicians,
Ontario English Catholic Teachers Federation,
Ontario Environmental Network,
Ontario Federation of Anglers and Hunters,
Ontario Forest Industries Association,
Ontario Forestry Association,
Ontario Horticultural Association,
Ontario Institute for Studies in Education,
Ontario Ministry of Education,
Ontario Ministry of Natural Resources,
Ontario Parks Association,
Ontario Power Generation,
Ontario Public Health Association
(Environmental Health Work Group),
Ontario Science Centre,

Ontario Society for Environmental Education,
 Ontario Trails Council,
 Orca Equinox Adventures,
 Ottawa Carleton District School Board,
 Parents' Environmental Network,
 Peel Children's Water Festival,
 Peel Environmental Network,
 Peel Public Health,
 Peninsula Field Naturalists,
 People & Planet Friendly,
 Permaculture Community Action Worknet,
 Perth Stewardship Network,
 Pollution Probe,
 Queen's University Faculty of Education,
 Randall and Associates,
 Recycling Development Corporation Group,
 Region of Peel,
 Regional Municipality of Waterloo Planning Dept.,
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 Richmond Hill Naturalists,
 Rideau Valley Field Naturalists,
 Roots & Shoots Regional Office (Ontario),
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 South Riverdale Community Health Centre,
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 as a Second Language of Ontario,
 Thames Valley District School Board,
 The Natural Step,
 Toronto & Region Conservation Authority,

Toronto Cancer Prevention Coalition
 (Environmental and Occupational Work Group),
 Toronto District School Board,
 Toronto Public Health,
 Toronto School of Theology,
 Toronto Star,
 Toronto Zoo,
 Trillium Corporate Communications Inc.,
 Trillium Lakelands District School Board,
 Unitarian Congregation of South Peel,
 University of Guelph Arboretum,
 University of Guelph School of Environmental
 Design and Rural Development,
 University of Ottawa,
 University of St. Michael's College,
 University of Waterloo,
 University of Western Ontario- Ecosystem Health,
 University of Toronto,
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 Women's Health and Environment Network,
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 Wye Marsh Wildlife Centre,
 York Catholic District School Board,
 York Region District School Board,
 York University, Youth Employment Service,
 Youth Roundtable on the Environment



The need for public environmental education

It is increasingly evident that keeping our economy and our society healthy will depend on preserving a healthy natural environment. It is equally clear that it is up to all of us – individuals as well as governments, business and industry, and professionals – to make decisions which sustain environmental health. Achieving success requires the participation of an environmentally educated public.

How well environmentally-educated are we?

A national survey conducted in 2002 by Environics International for Environmental Education Ontario revealed that only 4% of Canadians believed they knew enough to keep the environment healthy.

About Environmental Education Ontario (EEON)

Environmental Education Ontario believes that a healthy society and a healthy economy depend on a healthy environment ... and that education is the way to get there.

EEON is a coalition of professionals working to raise awareness of the importance of environmental and sustainability education (E&SE) across sectors of society in our province. EEON has taken the lead by facilitating the development and implementation of a public strategic plan for the growth of environmental learning.





OUR VISION

An Ontario where all members of the population are environmentally literate, and their behaviour reflects a commitment to a healthy, sustainable environment for future generations

OUR MISSION

To promote environmental literacy and to elicit a commitment from all sectors to act toward a healthy, sustainable environment. EON will support, facilitate and document Ontarians' progress towards this goal.

Gathering ideas – from across sectors and across the province

In 2002 and 2003, at weekend workshops or through the completion of written workbooks, over 500 Ontarians contributed their ideas to a vision of an ecologically literate province. *Greening the Way Ontario Learns: A Public Strategic Plan for Environmental and Sustainability Education*, is a first in Canada. It is a dynamic, interactive document that invites all interested members of the public to become involved in advancing environmental learning. EON's "public strategic plan" offers outcomes, needs and strategies for improved ecological literacy across 17 core societal sectors which, in the plan, are called Audiences.

- Aboriginal Peoples
- Business and Industry
- Consumers
- Families
- Governments / Agencies
- Labour Organizations
- Media
- Medical/Public Health Professionals
- New Canadians
- Outdoor Recreation Resource Users
- Post-secondary Faculty
- Post-secondary Students
- Preschool-Grade 12 Teachers
- Preschool-Grade 12 Students
- Religious Groups
- Rural Landowners/Farmers
- Youth and Citizens' Group

Why an environmental and sustainability education plan?

Within formal education and across professional and civic society there is a need – and a wish – to become more skilled at making environmental decisions and choices. A more ecologically literate public will contribute greatly to continued prosperity within a framework of ecological sustainability.

The knowledge and skills derived from environmental learning contribute to many important areas of human activity.

Becoming ecologically literate, the goal of environmental and sustainability education, affords learners new perspectives on personal lifestyle choices, resource use, design and technology, urban planning and ecosystem protection, public health, law and policy making.

The goals of *Greening the Way Ontario Learns* and EEON's strategic planning project are to:

- stimulate practical objective-setting for E&SE
- improve communication and networking
- channel resources effectively
- raise the level of awareness of and engagement in learning about the Earth's natural systems which support human life
- encourage and support learning which leads to change towards a healthy, sustainable future.



EEON aims to stimulate a process which will raise the profile of environmental and sustainability education (E&SE) in Ontario to one of more prominence and consistent mainstream support.

Implementing the Plan

EEON will help to achieve the implementation of strategies identified in this document in a variety of ways. It will facilitate collaboration among Ontario citizens – groups, organizations, institutions, agencies and individuals – who wish to advance environmental learning. All interested members of the public are invited to join in this important and rewarding work.

EEON invites you to adopt an E&SE strategy that fits with your current activities and priorities.

Readers of *Greening The Way Ontario Learns* are encouraged to select and implement strategies from the Plan – or to devise additional ones. Either way, EEON wishes to hear from all of those working to advance E&SE (please see our website, www.eeon.org). As an educational charitable group, Environmental Education Ontario will act as a central information-dispensing role – resource-gathering, strengthening networks, providing information and workshops, tracking progress.

What is Environmental and Sustainability Education (E&SE)?

The great challenge of our time is to build and nurture sustainable communities –communities that are designed in such a way that their ways of life, businesses, economies, physical structures, and technologies do not interfere with nature’s inherent ability to sustain life. The first step in this endeavor is to understand the principles of organization that ecosystems have developed to sustain the web of life. This understanding is what we call ecological literacy.

–Fritjof Capra

Environmental and sustainability education (E&SE) is about healthy relationships between humans and the Earth’s living systems. It includes the many and varied forms of education that help us appreciate and maintain the integrity of the biosphere. Over the last century a range of terms – conservation, wilderness education, outdoor education, environmental education, and more recently education for sustainability and ecological literacy – have been coined to describe learning about human relationships to the Earth. The relationships themselves have included everything from resource use to esthetic appreciation of nature, to the acquisition of scientific knowledge, to an ecological philosophy of preservation of the web of life of which we as humans are a part. Environmental and sustainability education today is perhaps best defined by its desired outcomes. To EEON, it means the transmission, growth and application of environmental knowledge across all sectors of society.





Some Guiding Principles of E&SE

The foundations of environmental or ecological learning are deeply rooted in the notion of connections: across educational and professional disciplines, as well as across the social, biological, economic, political, technological, cultural, historical, esthetic and moral aspects of learning about the environment. EON believes that some of the guiding principles relevant to environmental and sustainability education include:

- humans are a part of the natural environment
- “environment” must be considered in its totality, and focus on the dynamic interactions between human systems and natural systems
- the best environmental learning is interdisciplinary
- environmental learning encompasses both short and long-term futures, from the local to the regional, national and global levels
- critical thinking, consideration of a diversity of viewpoints, and problem-solving are core skills
- values and environmental ethics guide attitudes and environmental decision-making and actions
- citizen participation in sustainable solutions is essential
- E&SE is a process of lifelong learning

Our Audiences

Highlights of Outcomes, Needs and Strategies from the Plan's 17 chosen societal sectors

This section features highlights from *Greening the Way Ontario Learns: A Public Strategic Plan for Environmental and Sustainability Education*. The following excerpts reflect the wide range of powerful ideas for change put forward by participants from the seventeen public sectors – or Audiences for environmental and sustainability education – which EEON identified for its first public planning process. The full Plan gives the complete versions of their approaches and strategies for advancing environmental literacy. To request a copy of the Plan – and to participate in the implementation process – please visit our website at www.eeon.org. And please see The Challenge on page 23 of this booklet.

Please note: The strategies in each audience sector are directed to individuals, groups, organizations, institutions, agencies or ministries that are actual or potential deliverers or supporters of environmental and sustainability education to members of this audience.

Disclaimer

The opinions and strategic planning ideas expressed in the following Audience sections of this document are those of the contributors during a public consultative process. They do not necessarily express the views of Environmental Education Ontario (EEON) as an organization.



AUDIENCES



Aboriginal Peoples

Incorporating and representing Aboriginal Peoples' values in environmental programs and processes will facilitate their full participation in environmental stewardship and decision-making. Kindergarten to grade twelve curricula should offer more experiential learning opportunities that incorporate Aboriginal perspectives, including language, culture and environmental issues. Cross-cultural environmental awareness workshops, as well as appreciation and recognition of those who model sustainable living, will help to work toward environmental and sustainability awareness. A collection of Aboriginal world perspectives on the environment and a list of positive Aboriginal environmental mentors were identified as potentially valuable resources for ecological learning.

Business and Industry

To minimize their impact on the environment, businesses and industry must regularly assess the environmental impacts of their operations and incorporate environmental considerations into all levels of decision-making. This can be effectively achieved through integration of environmental accountability and profitability into management practices, with incentives and support for research on cost-efficient and environmentally sound processes and products. Economic indicators that measure the true environmental costs of operations are useful tools. Application of the precautionary principle, research, policy-making, life cycle analysis, quantification of environmental releases and adoption of Environmental Management Systems, are additional means of achieving high environmental standards. In order to implement environmental management decisions in business and industry, employees trained in environmental and sustainability practices are an essential and valuable asset.



Consumers



Increased demand by educated consumers for environmentally sound merchandise and services would help to move society towards more sustainable resource consumption and waste reduction. Purchasing choices can be guided by weighing environmental sustainability against convenience, by asking questions, by requesting green products and services, and by avoiding toxic goods. Strategies to attain the environmental education consumers need to fulfill this role include improved media coverage of environmental issues, web resources, consumer health education centers, and consumer education workgroups. Green consumption can also be promoted through innovative tools such as social marketing, environmental "issue" campaigns and promotions. A consumer push for environmental standards across industry would help to eliminate the competitive disadvantage that environmentally sound practice sometimes entails.

Families

To use their environmental knowledge in decision-making, families must understand the relationship between a healthy natural environment and their own personal health and well-being. Environmentally sound action ideas for the home and community would help provide this knowledge. More research on the most effective means to deliver such information to families is needed. Proposed educational sources range from school activities that involve students' families, to urban sustainability centers, to clearinghouse websites. Publicity about alternative resources such as green energy, more media coverage of environmentally sound practices, and financial incentives are important ways to promote sustainable choices. The drafting of Family Environmental Mission Statements and the pursuit of active stewardship within households are among the creative schemes proposed.

Governments and Agencies

With resources and education to increase understanding of how to enhance healthy ecosystems, economies and communities based on natural boundaries (e.g. watersheds), government decision-making would be better able to factor in environmental health criteria. To educate politicians, public servants and staff on the necessity of safeguarding ecosystem function, integrity, biodiversity and natural heritage, there is a need for planning models with a holistic vision for achieving ecological sustainability. Long-term environmental planning that allows parties to govern in a consistent direction with respect to future ecological health would be beneficial. Indicators to measure species and ecosystem function loss and cost, State of the Environment reporting templates based on an ecosystems approach, and Environmental Management Systems in government operations are all approaches which would beneficially add environmental elements as part of government job responsibilities.

Labour Organizations

A sound understanding of environmental issues and ecological concepts would enable members of the labour community to become more involved in sustainable practices to reduce negative environmental impacts of their company's processes and/or products. This is attainable through education and training in areas related to environmental issues, environmental legislation, health and safety, and environmental technology. Workplace-based, on-site information sessions, workshops and courses would help to achieve this goal and provide current information. With improved environmental education and training, labour organization members will be able to initiate, participate in, improve and promote environmental programs in the workplace, their homes and in their communities.

Media

As a sector with great public influence, the media has enormous potential for helping to achieve societal environmental awareness. Regular inclusion of environmental issues and related stories about role models on the radio, television and the Internet, and in newspapers, including daily environmental sections or segments, would be indicators that environmental considerations have been successfully integrated into mainstream media. To provide informed reporting on environmental issues, media staff require environmental knowledge. This would be greatly facilitated by the inclusion of environmental programs and courses in schools of journalism, as well as ongoing education through professional workshops and conferences. Media focus on environmental issues needs to be stimulated by public support for more coverage of environmental topics, and more provision of concise environmental information that demonstrate relevance to as many people as possible.

Medical and Public Health Professionals

Inclusion of environmental considerations as a core part of primary and continuing medical training and education would help to ensure their inclusion within medical practice. Achieving a higher level of environmental consideration will require formal training, quality information resources, and multi-level government funding for research, professional development time, collaboration and education. Increased environmental learning and interchange with professionals from other fields will result in an increased medical awareness of the reciprocal relationship between humans, their health and the environment. Enhancing policy support for environmental health education, active environmental health promotion, and recognition for those who make the environment a priority in health care are additional strategies to strengthen the integration of environmental considerations into medical practice.

New Canadians

If new Canadians are to adopt behaviours and actions consistent with being stewards of the environment, a culturally sensitive way of sharing environmental information is necessary. Community, provincial, and national environmental organizations would in turn be greatly strengthened by incorporating the unique knowledge and living traditions that new Canadians bring from their countries of origin. To reach as many new Canadians as possible, it is important to ensure that environmental studies are included not only in school curriculum, but also in language training programs. Additional strategies include the amendment of the Canadian citizenship test to include a question on the environment, the creation of an umbrella group (New Canadians for the Environment), and the provision of funding for environmental messages.

An understanding of ecological sustainability concepts will help outdoor recreation resource users become more aware of the behaviors required to preserve the quality of the sites they use. To inform them about environmental issues and the ecological needs of the sites they visit, it would be beneficial to have trained personnel at recreation areas, specialized courses, and information centres that detail general and site-specific sustainability issues. Partnerships with outdoor recreation equipment manufacturers and retailers would allow for an exchange of information about sound recreational environmental behaviors and practices, which could in turn be incorporated into outdoor products and services. The protection of parks, pristine wilderness areas, habitats and species at risk would be greatly facilitated if users join in campaigns for legislation and funding.

Post-Secondary Faculty

With a deeper understanding of ecological concepts and environmental issues and their complex relationship to society, technology and the economy, post secondary faculty can integrate these concepts into their teaching to help students move towards a more ecologically sustainable worldview. Such understanding and its applications would be enhanced by faculty attending multi-disciplinary seminars, forums and workshops on environmental literacy, environmental issues, and the integration of environmental and sustainability education (E&SE) into individual and interdisciplinary teaching practice. Further, implementation of environmental policies for campuses and improved environmental content throughout post secondary programs would make sustainability a mainstream expectation. A tactic for funding both research into ecologically sound technologies and systems design as well as changes and additions to programs, courses, and modes of instruction (e.g. interdisciplinary courses) would be needed. Another approach is to enhance the environmental literacy of faculty through improved resources by the building of partnerships (e.g. NGOs, government agencies, businesses and community groups). Improved access to information about environmental issues, through institutional publications, resource lists, AV departments, textbooks, the library and the Internet, is essential. Finally, advancing Canada's commitment to the United Nations Agenda 21 as a driver to increase and improve E&SE is a way to enlist new support.



Post-Secondary Students

Through development of an understanding of ecological concepts (e.g., the complex functions and needs of ecosystems), and by learning to source information and practice skills relevant to integrating environmental issues into their areas of study and training, all post secondary students will develop a framework for ecologically sustainable decision-making and lifestyles. Making environmental and sustainability education a component within all fields of study, and providing a compulsory E&SE course for all students are steps toward this goal. Other strategies are to conduct research on the most effective ways to build ecological literacy, and to create new, and strengthen and expand existing, environmental programs in environmental science, ecological restoration, ecosystem health and interdisciplinary programs. Further approaches are to create practical, applied learning opportunities within E&SE, and teach students to research, communicate and problem solve so that they can apply acquired knowledge to decision-making on environmental issues. Supporting resources such as a specialized website database, textbooks, an ecologically aware culture on campus, and faculty able to integrate ecological principles within their disciplines, are critical.

Pre-School to Grade 12 Students

By developing an understanding of the interconnections between human and natural systems, and of how people can choose to act in ways that have positive impacts on the environment, preschool to grade 12 students will acquire important tools for future decision-making. A powerful strategy to achieve this outcome is to mandate environmental and sustainability education (E&SE), including outdoor education, as a separate subject in core curriculum with its own learning expectations and report card assessment, conferring upon it academic status in education. Helpful supporting actions are to create school projects that provide authentic contexts for developing knowledge in sustainable design, technologies and practices, and programs that teach topics such as the principles of life cycle analysis. A further approach is to build connections between subjects to examine the impacts of technology and human decision-making on the health of ecosystems that support all life. The development of E&SE policy, funding, resources, curriculum and teacher training, as well as a higher civic profile for E&SE as a public health issue, would be vital.

Pre-School to Grade 12 Teachers

In order for preschool to grade 12 teachers to effectively provide students with a sound understanding of, and ability to apply, ecological concepts and to work towards whole-school involvement in environmental stewardship, they need an education system committed to environmental and sustainability education (E&SE) and ecological literacy. A fundamental strategy to achieve this is to establish teacher training and certification for E&SE with a minimum requirement of environment-related studies for entry into faculty of education programs, and supportive pre- and in-service programs supported by high quality environmental resource materials. A further essential step is to make E&SE part of the funding formula for school boards, and to coordinate funding for formal support of E&SE from all levels of government, foundations and other private sources. An Ontario Office of E&SE, assisted by a citizens' advisory board, could play a central role in coordinating these efforts. In addition, support from principals and administrators for regular school involvement in institutional greening, environmental learning, and practical hands-on environmental activities would be needed. Finally, partnerships with organizations, companies, associations and individuals supportive of ecological literacy can contribute greatly to its advancement.

Religious Groups

A fundamental understanding of ecological principles and an emphasis on the sacredness of all life will allow religious groups to integrate environmental principles into their spiritual practice, positional documents, celebrations, and day-to-day activities. This can be achieved in part by transforming the theological education of religious leaders to include ecological concepts, and by working with environmental organizations to develop resource materials that can help religious communities understand and live out the interconnectedness of the web of life. Religious groups can develop environmental education components and integrate them into existing religious programs, include environmental education sessions in youth camps and religious retreat centres, and organize community activities that celebrate nature and educate about the sacredness of creation.



Rural Landowners and Farmers

Individuals and organizations supporting or providing environmental and sustainability education to farmers and rural landowners will improve programs by recognizing the two distinct types of rural property owners, and their different interests and concerns. Education programs for rural landowners and farmers will help them to develop good land stewardship tools, and incorporate ecological concepts and best environmental practices into land management operations and decision-making. Proposed strategies include development of programs on ecological land assessment and development of indicators, and of brochures and test kits written in plain, clear language. A further approach is to arrange partner funding among different levels of government to provide landowners with help in effecting environmental enhancement (e.g. planting, restoration) on their land. Still another is to invite collaboration among agencies in devising plans or systems that compensate landowners for resource preservation and protection of environmental services (e.g. woodlots-carbon sequestration, wetlands-water recharge, etc.)

Youth and Citizens' Groups

Engaging youth and citizens in environmental decision-making and local democratic processes will greatly enhance their ability to make sound decisions and take actions toward a clean and healthy environment. With positive role models and new insights, youth could internalize ecological principles and begin to apply them in their daily lives. Two ways to reach these outcomes are to make environmental programs a part of all mainstream youth and citizens' programs, and to institutionalize the right of youth to participate in decision-making in environmental organizations. Partnerships between local environmental groups and local businesses and post-secondary institutions would assist youth and citizens' groups in the development of community-based research programs.



A Role for Everyone:

The Challenge

The challenge now is to match the Plan's suggested strategies with groups and individuals prepared to bring them to fruition. Participation from individuals, groups, organizations, institutions and government agencies working in tandem will strengthen the overall effort.

Adopt a Strategy

EEON cordially invites all interested members of the public in Ontario to be part of the challenge to achieve a more environmentally healthy, sustainable, and ecologically literate province. To adopt a strategy, read the full Plan on our website or order a printed copy – and join us and our partners in this important work (see form on back cover).

Join our Listserv – Visit our Website

- Join the EEON network and post news of interest to the E&SE community! Subscribe to our listserv by sending an email to majordomo@icomm.ca with the message "subscribe eeonlist." You can also post messages at eeonlist@icomm.ca
 - Visit our website periodically to post your projects, successes and adopted strategies, and to check on the progress of *Greening the Way Ontario Learns*, at www.eeon.org
-

EEON is an incorporated, not-for-profit, charitable organization, registered with Revenue Canada, charitable number 86493 4617 RR00001.

Support EEON's Work

Your donation will help us increase our outreach and enlist new participants in advancing environmental literacy. Make cheques payable to EEON, and mail to:

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Toronto, ON, M9B 5X1.

Thank you for your support.



EEON
www.eeon.org

Greening the Way Ontario Learns

A Plan to ensure that we and our children enjoy an environmentally healthy province into the future.

The EEON initiative is not merely important, it is crucial. We all need to support it.

—Margaret Atwood

Greening the Way Ontario Learns is breathtaking in its scope. It offers roadmaps to environmental awareness for a long list of social and occupational groups. One yellow brick road for each group. At the end of all roads, a vision of harmony – socially, economically, environmentally. It's practical. It's exciting. It can be done.

— Cameron Smith, Environmental Columnist, *The Toronto Star*

... an important step towards improving the ecological literacy of Ontario citizens – an essential factor in promoting health-sustaining environments for all.

—The Environmental Health Committee, Ontario College of Family Physicians

... a catalyst for positive change. Its vision of environmental literacy for all citizens can create a sound economy and true prosperity for all. Sustainability makes good business sense.

—R. Marrikar, Interface Flooring Systems

Greening the Way Ontario Learns

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