Making a Living, Sustainably
Green Jobs and Sustainability Careers
Why are green jobs and sustainability careers important?

Our world is facing global climate change, energy issues, food and water shortages, growing populations, increasing pollution and waste, emerging diseases, and an uncertain economy. The threats to our planet may seem daunting, but we can all take action by making sustainable choices in our daily lives and in our jobs.

Green jobs and sustainability careers, with their emphasis on renewable energy, reduction of greenhouse gas emissions, improved conservation of natural resources, increased awareness of biodiversity, and heightened social consciousness, among other goals, contribute to a more equitable and sustainable world. We need people who are trained to think about how to protect and repair our social, economic, and environmental systems. We need to develop a workforce that can fill the new and existing jobs required for a sustainable future.

No matter where you start your career in Manitoba, you’ll probably be working to make this province “one of the most sustainable places to live on earth” (Manitoba Conservation and Water Stewardship, Tomorrow Now 4).

This educational resource for students and educators was produced by Manitoba Education, in partnership with the International Institute for Sustainable Development (IISD), to help youth in Manitoba explore sustainability career options and practices and prepare to live and work for a more sustainable future.
The United Nations Environment Programme (UNEP) defines green jobs as “work in agriculture, manufacturing, research and development, [and] administrative and service activities that contribute substantially to preserving or restoring environmental quality” (Green Jobs 3).

Most green jobs are not new jobs, but rather, are based on existing occupations that become, in a sense, “greener” as they build environmental skills and tasks into their everyday duties. This includes jobs that directly or indirectly “help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonize the economy; and minimize or altogether avoid waste and pollution” (UNEP, Green Jobs 3).
Manitoba youth can help build a green economy at home and around the world

The Manitoba government has launched an eight-year strategic action plan to ensure a prosperous and environmentally conscious economy. Tomorrow Now: Manitoba’s Green Plan highlights the importance of instilling green skills, knowledge, and values in young people, the workforce of the future, thereby enabling Manitoba youth to make this province “one of the most sustainable places to live on earth” (Manitoba Conservation and Water Stewardship 4). As global citizens, Manitoba youth can also take their sustainability skills and knowledge wherever they go, making a difference at home and in every corner of the world.

Sustainability at Work

Every person, in every job or business, can contribute to sustainability practices by supporting local charities or awareness-raising campaigns, such as EcoChallenge or Earth Day, by initiating composting and recycling programs, and by promoting more sustainable commuting practices.

Every job can contribute to sustainability

Every job and every career can have a green or sustainability element to it. Young people can bring to their work their knowledge and attitudes about sustainable development, along with their actions. If, in their daily work, young people are making decisions that consider social and environmental outcomes as well as economic ones, they are making a contribution to a better quality of life, for themselves, their co-workers, their employers, or investors. Integration of sustainable development into education and training at all levels, starting from early childhood education, is essential to every job becoming greener.
Making a living, sustainably, requires key attributes

Green jobs and sustainability careers require not only academic and technical credentials, but also a mindset and a skill set that can be applied across all fields of endeavour. Young people working in sustainable development have identified certain values and aptitudes and general skills and abilities, such as the following, that they consider to be necessary for making a living, sustainably, and for ensuring a sustainable future (Timmer, Creech, and Buckler). Employers are increasingly seeking employees with these attributes.

### Values and Aptitudes

- Global mindset
- Rootedness in community
- Concern for equity and human rights
- Respect for diversity
- Sense of urgency
- Capacity for innovation and new ideas
- Integrated thinking
- Respect for science as part of the solution
- Personal commitment to a sustainable lifestyle

### Skills and Abilities

- Bridging and combining disciplines and skills
- Planning with a long-term outlook
- Communicating and networking
- Managing people and projects
- Implementing financial planning (preparing budgets, monitoring costs)
- Dealing with uncertainty and unpredictability
- Applying a systems approach
- Translating complex ideas
Manitobans are choosing green careers in various sectors

Many people in Manitoba are already working in green jobs and sustainability careers.

Job Profiles
The individuals profiled below describe their jobs and the education requirements for those jobs and share tips for students considering a sustainability career.

Winnipeg City Naturalist

My typical job duties include habitat restoration, project management, providing expert advice on issues related to natural areas, and developing management plans for natural areas. A high school student considering a career in this line of work might have strong marks or an interest in botany, ecology, biology, urban planning, or management, and then complete a Bachelor of Science degree in ecology, zoology, botany, forestry, or natural resource management. It would be a good idea to begin by volunteering in nature-related activities, and take summer jobs in the environment or landscaping industry when possible. A student could study biology in high school and aim to spend four years or more at university.

Self-Employed Drywall Installer

My typical job duties include installation of insulation for soundproofing and/or heat retention, installation of vapour barrier, and installation of drywall/gypsumboard. I chose this line of work because installing insulation and vapour barrier correctly is the most important element to keeping houses energy efficient. We’re also now increasingly required to find sustainable products, use recycling facilities where available, and find builders committed to Leadership in Energy and Environmental Design (LEED) building standards. A high school student considering a career in this line of work would need a high school diploma and might be interested in mathematics courses with practical hands-on applications, such as carpentry. Other relevant training includes journeyperson construction and safety training. Finding a company with a conscience is key, as well as keeping an open mind to new ideas and concepts.
Demand for Sustainability Knowledge and Skills Growing

ECO Canada resources emphasize that, in the near future, we can expect to see more jobs being created or existing jobs being retooled for sustainability (these jobs could be categorized as green jobs, sustainability jobs, or environmental jobs) and the demand for sustainability-related knowledge and skills will continue to grow. One of the most critical issues facing Canada is a shortage of skilled labour in green jobs and sustainability careers.

My typical job duties include assessing the environmental impacts of planned hydroelectric developments, working with First Nations community members on various environmental studies, reviewing and approving work plans and budgets for environmental studies, and working with engineers to design projects in a way that minimizes environmental effects. A high school student considering a career in this line of work might have interests in biology, environmental science, or social studies, and then seek a master’s degree in environmental science, biology, or natural resource management.

Habitat for Humanity’s ReStore saves approximately 1.5 million tons of garbage from being sent to landfills every year. My typical job duties include working with clients and potential donors from the business community in Winnipeg and surrounding area who are looking to donate home-improvement items to the ReStore, meeting with companies to inform them of the benefits of working with the ReStore and how it can help their business and image, managing events, and performing administrative duties (giving tax receipts for donations, keeping track of calls made, mileage, and expenses). A high school student considering a career in this line of work might be a self-starter or self-motivated (enjoying the feeling of accomplishment without specific direction) and have an interest in helping the less fortunate, giving back to the community, helping reduce waste (lower carbon footprints), redirecting garbage from landfills to be reused, or being part of an organization that gives room to grow within a position. For this job, some secondary education is helpful, along with knowledge of the business world, mostly through work experience and life experience, and skills such as time-management, staying organized, customer service, negotiating, and light accounting.
Green jobs and sustainability careers can be found in all levels of government, in the private sector (ranging from sole proprietorships and micro-enterprises to multinational corporations), in non-governmental organizations, in non-profit and charitable enterprises, and in schools, universities, and think tanks. In Manitoba, hundreds of companies are operating in the environmental sector, many of them providing goods and services related to prevention and remediation of environmental damage to water, air, and soil. In addition, many firms in this province are centred on the development of new technologies that reduce energy consumption, greenhouse gas emissions, and waste (Ruehlcke). Provincial environmental standards for publicly funded buildings and retrofits are in place and new and enhanced ecotourism opportunities are being promoted in the province.

Sectors in Manitoba’s green economy include clean energy, energy efficiency, and waste management, as well as bio-product development and production. Growing concentrations of green jobs in Canada can be found in the sectors identified in the following table.

### Growing Concentrations of Green Jobs and Sustainability Careers in Canada

<table>
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<tr>
<th>SECTOR</th>
<th>FOCUS</th>
<th>EXAMPLES OF WORK AREAS</th>
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| GREEN ENERGY        | » Sustainable generation, transmission, distribution, storage, and use of energy | » Engineering and technical support  
» Energy auditing  
» Manufacturing and marketing of alternative and renewable energy components and systems |
| GREEN MANUFACTURING | » Manufacturing methods that reduce waste and pollution               | » Skilled trades  
» Business sales  
» Management services  
» Environmental monitoring |
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| **GREEN BUILDING and TRANSPORTATION** | » Construction methods that reduce waste and improve energy and water efficiency  
» Systems for transporting people and goods in environmentally responsible ways | » Green construction  
» Landscape design and gardening  
» Architecture  
» Urban and rural planning                                                                                     |
| **AGRICULTURE and NATURAL RESOURCE MANAGEMENT** | » Management of land, water, and natural resources in responsible, sustainable ways | » Sustainable farming, fisheries, forestry, and mining  
» Environmental monitoring                                                                                     |
| **GREEN HOSPITALITY**        | » Ecotourism and the promotion of locally produced foods and services | » Sustainable tourism  
» Restaurant management and culinary arts                                                                          |
| **COMMUNICATIONS and ENGAGEMENT** | » Educating, inspiring, and persuading people to become more responsible citizens | » Education and training  
» Advertising and marketing  
» Research  
» Arts and culture  
» Journalism and media relations  
» Public awareness  
» Social media communication                                                                                   |
| **GREEN ECONOMIC DEVELOPMENT** | » Shaping policies, laws, regulations, and financial instruments that contribute proactively to developing a responsible, sustainable economy | » Policy analysis  
» Law and politics  
» Investment portfolio management  
» Accounting (socially responsible investing, full-cost accounting)                                                |
We can all take action towards responsible living and working

All of us can commit to living a more sustainable lifestyle, at home, in our schools, and in our jobs. The choices we make regarding the work we do and how we spend and invest our income all have an impact on the future of our planet. Let’s take action now and make choices for a sustainable future.

References and Further Reading

PROVINCIAL RESOURCES

Manitoba Government Resources


———. Manitoba Labour Market Information (LMI) and Labour Mobility Website. <www.gov.mb.ca/tce/lmi/index.html>.


Gateways and Portals


Other Resources


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Gateways and Portals


Other Resources


NATIONAL RESOURCES


INTERNATIONAL RESOURCES


JOB SEARCH RESOURCES

Environmental Career Opportunities


GoodWork Canada. <www.goodworkcanada.ca>.


Mainstream Job Boards

Manitoba WorkinfoNET. <www.mb.workinfonet.ca>.

Monster. <www.monster.ca>.


Industry-Specific Job Postings


Replant. <www.replant.ca>.

International Resource for Young Entrepreneurs


The websites cited above were accessed in October 2012.
Contact

Carolee Buckler
Sustainable Development Coordinator
Manitoba Education
Telephone: 204-945-1924
Fax: 204-945-1704
Email: carolee.buckler@gov.mb.ca

For further information on education for sustainable development, refer to the Manitoba Education website at <www.edu.gov.mb.ca/k12/esd/>.

This booklet is available at <www.edu.gov.mb.ca/k12/esd/resources.html>.