

# NRCan's Six Priorities for Action

The previous section described the key public issues that will determine the realization of NRCan's vision of a sustainable future. As an advocate for natural resources, NRCan has the ability to play a fundamental role in moving Canada towards a more sustainable future. However, our stakeholders have told us that we should not try to be all things to all people. There are specific areas within our realm of expertise where we have the capacity to make a difference – areas where we should consolidate our efforts.

NRCan is focusing on six themes to streamline and better coordinate our activities over the three year period of *SDS – Now and for the Future*, to best address these public priorities. The six themes, represented by icons, will appear throughout this document. The first three – corporate stewardship and accountability; knowledge and information; and leadership and partnerships – refer to ways we do business, while the last three – climate change; innovation; and sustainable communities – refer to specific ends that NRCan will help to address. As many of the actions reach across these thematic areas, some will be illustrated with more than one icon.



## CORPORATE STEWARDSHIP AND ACCOUNTABILITY

If NRCan is to lead by example, it must “walk the talk” and manage itself in a responsible manner that respects the three pillars of sustainable development. For the Department to achieve its business and sustainable development goals, we must integrate environmental, economic and social growth opportunities into our day to day practices. We must also be held accountable – both to staff and stakeholders – for continuous improvements within the organization.

In both the public and private sector, those organizations that measure and evaluate the results of their work find that it builds support within and outside the organization. This over-arching theme permeates the way NRCan conducts its business and is integral to all aspects of the SDS.

Over the course of *SDS – Now and for the Future*, NRCan is committed to managing the Department through long-term considerations and ensuring that individuals understand the indicators or benchmarks by which our progress is measured.



### KNOWLEDGE AND INFORMATION

As sustainable development depends on our individual and collective actions, there is a need to gather, produce, share and communicate knowledge and information with Canadians – of all ages and all walks of life – on the importance of sustainable development to our standard of living and quality of life. This applies equally to government officials, private sector developers, community planners or individual Canadian families. We all need to be aware of the consequences of our actions.

Canadians expect the federal government to play a leadership role in providing them with the knowledge they need. Given the importance of natural resources in our everyday decisions, NRCan must be able to create, share and communicate the knowledge and information Canadians require.



### LEADERSHIP AND PARTNERSHIPS


The road towards sustainable development requires collective action, but it also requires leadership driven by a vision, direction and specific actions – many of which need to be undertaken by the public sector. At the same time, it necessitates partnerships, as no single department, organization, company or individual can advance sustainable development in isolation.

Building upon our strengths and credibility with our stakeholders, NRCan is ready to engage partners involved in the production and consumption of natural resources with the opportunities sustainable development presents. NRCan will lead other federal departments, other governments, the private sector, non-governmental organizations, Aboriginal and community groups in the key areas that will advance sustainable development of Canada's natural resources.



### CLIMATE CHANGE

Under the 1997 Kyoto Protocol on global climate change, Canada made an international commitment to reduce its greenhouse gas (GHG) emissions to six percent below the 1990 level by the period 2008-2012. NRCan has primary responsibility for the domestic implementation of climate change initiatives. Our actions contribute towards the mitigation of climate change, as well as our ability to understand, predict and adapt to the impacts of climate change. Technologies developed to address climate change will provide both national and international benefit.



NRCan priority areas for action through to the end of 2003 will include: addressing market barriers to adopting energy efficiency and renewable energy technologies; enhancing access for individuals, companies and communities that wish to adopt these technologies; and, increasing our contributions to innovative technologies. Further, we will continue to provide Canadians with the education and information they need to understand the consequences of climate change on our planet and to make better informed decisions about their use of energy and actions to adapt to climate change.

### INNOVATION



Many Canadians increasingly regard innovation as a new national imperative to succeed in the global, knowledge-based economy. Governments and industries are recognizing that it is only through the generation of better ideas and the implementation of innovative products, services, and processes that Canada will be able to truly achieve its sustainable development goals. Governments have a unique role to play in providing the vision, coordination, knowledge and strong leadership needed to catalyze a more strategic approach to creating innovations to enable sustainable development within the natural resource sector.

NRCan's approach to innovation will engage stakeholders and communities across all regions of Canada. Natural resource-based firms have identified insufficient R&D and related networks and shortages of highly skilled workers as principal barriers to innovation. The innovation policy framework of NRCan calls for: the creation and sharing of scientific research, developing skilled knowledge workers, support for commercialization, and business and market development assistance.

Canada's overall innovation and sustainability record will be strengthened with resource sector solutions. The wealth of scientific and technical knowledge NRCan provides enables a strengthened stewardship of our natural resource endowment. The applications of innovative new ideas and technologies will yield economic, environmental, health and social benefits for all regions and will contribute to a higher quality of life for Canadians.

### SUSTAINABLE COMMUNITIES



Sustainable communities are those which add value to natural resources and reap the rewards of this approach in terms of jobs and prosperity that continue for future generations. A sustainable community empowers itself to achieve a common vision for the future, and effectively responds to change through community based integrated decision making, increased resilience and economic self reliance, and sound environmental stewardship. Sustainable communities have the collective capacity to "get things done."

Communities in Canada are experiencing change and are facing complex social, environmental and economic challenges. They are subject to the cyclical nature of commodity prices, the disappearance of traditional industries, environmental degradation, lack of access to technology, and changing demographics to name a few. In keeping with the philosophy that necessity is the mother of invention, these constraints can present unique opportunities. As communities capitalize on information networks, technologies and partnering possibilities, they are discovering the potential for new value-added industries, resource development, tourism, etc.

NRCan will work towards sustainable community development in a more comprehensive manner to enhance opportunities and cushion the changes that occur. Over the next three years we will strive to maintain Canada's natural resource endowment while strengthening social capital, and we will increase local capability to benefit from the transition to a knowledge-based economy.

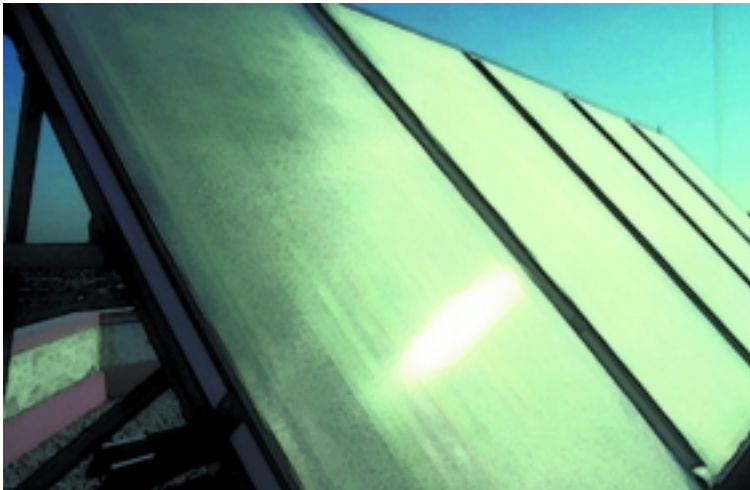




## Vignette: the Climate Change Challenge

Over the past decade, changes in climate and the accelerated pace of the earth's warming have moved the issue of climate change to the top of the global agenda. Addressing climate change is one of the greatest environmental, social and economic challenges ever undertaken by Canada. NRCan plays a key role in developing and implementing Canada's response by virtue of its mandate for the sustainable development of many of Canada's natural resources.

The challenges of climate change illustrate the complexities of sustainable development. The build up of greenhouse gases (GHGs) in the atmosphere – mainly a result of the production and combustion of fossil fuels – could contribute to climate change by increasing the Earth's mean temperature, which many models predict could include an increase in the Earth's temperature, altered precipitation patterns, rising sea levels, and more frequent extreme weather events (tornadoes, hurricanes). At the same time, these fossil fuels have been a part of the high standard of living and contemporary lifestyles of Canadian consumers, as well as the effective functioning, development and competitiveness of the Canadian economy.

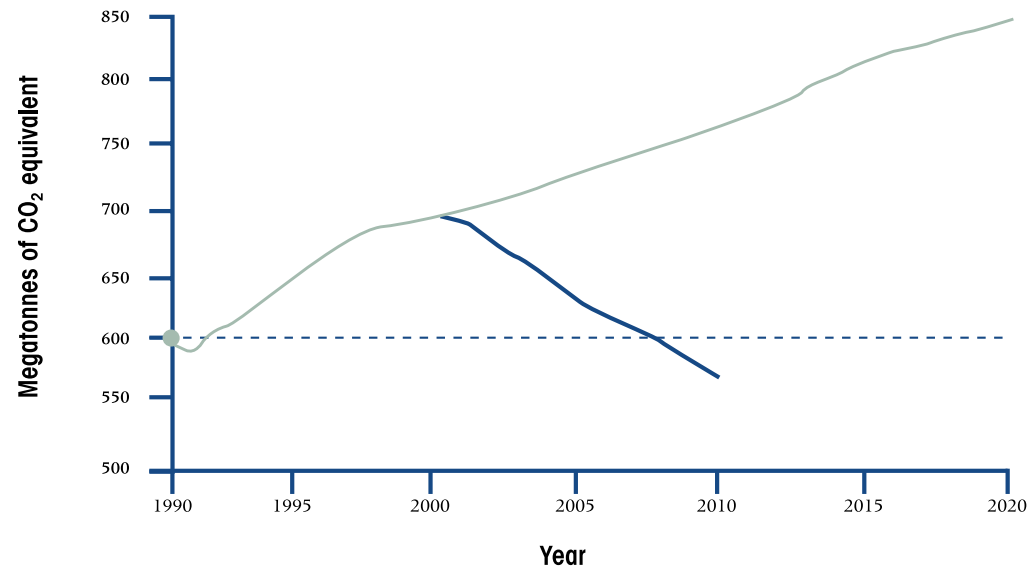


Climate change is a crucial sustainable development issue with implications for the environment, the economy and society. Of necessity, our climate change responses will affect how we produce and consume energy, and utilize forests, peatlands, lakes and agricultural soils as carbon sinks to biologically sequester GHG emissions, as well as the capture and storage of anthropogenic CO<sub>2</sub> in geological formations.

The Minister of Natural Resources has the lead for the domestic implementation of federal policies and measures to reduce greenhouse gas emissions. NRCan is well-positioned to contribute to the climate change file, given its expertise in energy, forestry, mining, earth sciences and remote sensing. Working collaboratively with other federal departments, NRCan advances action on climate change in the areas of science, impacts and adaptation, new technologies, energy efficiency, renewable energy and alternative transportation fuels, nuclear energy, forestry, observing and assessment systems, economic and energy use analysis and modeling, and policy development.

NRCan also plays an important international role in climate change negotiations including: policy development for climate change mitigation and adaptation; engaging developing countries through capacity building and market opportunities for technology development and transfer; leading or participating in global science committees; participating in the development of global observation, as well as assessment capabilities and programs.

## Canada's Emissions Projection and Kyoto Target



Source: Natural Resources Canada, Statistics Canada

### What this indicator shows

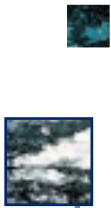
In 1997 in Kyoto, Japan, Canada committed to reducing its greenhouse gas (GHG) emissions by 6% below 1990 levels in the period 2008-2010. The Protocol sets out reduction targets for GHG emissions targets averaging 5.2% from 1990 levels by 2008-2012 for industrialized countries. This chart shows Canada's emissions for the 1990-1999, with "business-as-usual" projections to 2020.

For Canada, emissions continue to grow, but at a reduced rate. This indicates that progress has been made, but that much more needs to be done.

Moreover, Canada only produces about 2% of global GHG emissions. Our total annual emissions are equivalent to the two-year growth in China's emissions alone (China is not a signatory). This underscores the need to involve the less-developed countries in finding mechanisms to limit GHG emissions while at the same time allowing them to develop their economies.

### Implications for sustainable development

All countries produce GHG emissions to a greater or lesser degree, and those emissions do not respect national borders. It is therefore important that all nations accept the need to address climate change, and to develop mechanisms that lead to sustainable development while minimizing GHG emissions.



## **Our Approach**

Responding to climate change from a sustainable development perspective necessitates strategies that are both mitigative and adaptive to protect and enhance the natural environment and the socio-economic well-being of Canadians. A risk management approach that is phased – in response to clarification of international agreement developments and domestic capabilities – and which addresses growth and development, competitiveness and regional issues is essential. In addition to helping to improve the sustainable development practices of resource-based industries, these responses produce ancillary benefits including cleaner air and improved human health.

## **Our Priorities for SDS – Now and for the Future**

### *Improve Scientific and Analytical Understanding*

NRCan's analytical work on carbon budget modeling, GHG emissions projections, modeling and analysis of the economic impacts of mitigative response measures, and the need/potential for adaptation to climate change will contribute to the body of knowledge upon which policy decisions are made. Expanded scientific research will focus on increased satellite-based mapping and innovative on-line service, and forest information systems to enhance the sustainable development of forests.

### *Strengthen Mitigative and Adaptive Responses*

As its contribution to the Government of Canada Action Plan 2000 on Climate Change, NRCan will build on and expand mitigative initiatives including CO<sub>2</sub> capture and storage, fuel cell vehicle infrastructure, vehicle fuel efficiency and emerging renewable energy. NRCan leads the national impacts and adaptation program. It is developing a Climate Change Impacts and Adaptation Research Network (C-CIARN) with the provinces and other parties to determine pragmatic adaptive responses.

### *Undertake R&D to Develop New Technologies*

The Department supports the development and marketing of renewable and alternative energy technologies, as well as hydrocarbon technologies to reduce emissions and enhance efficiency, mainly through the Renewable Energy Deployment Initiative, the Program for Energy Research and Development and Technology Early Action Measures. Innovations developed during this SDS will be financed under the federal Sustainable Development Technology Fund, Action Plan 2000, and the First National Climate Change Business Plan.

### *Increase Public Awareness and Understanding*

NRCan has a number of programs that provide information and advice to affect consumer behaviour in the consumption of energy and, thereby, help reduce GHG emissions. NRCan will work with Environment Canada and the provinces to establish regional information "hubs" to inform stakeholders about climate change and mitigative options.

### *Enhance National and International Coordination*

NRCan plays an important role in the federal-provincial co-management Baseline Protection Initiative (a means to encourage private sector GHG reduction initiatives), as well as the ongoing development and elaboration of the First National Climate Change Business Plan. NRCan will continue to collaborate with the Department of Foreign Affairs and International Trade, and Environment Canada in ongoing Kyoto Protocol negotiations to protect global and Canadian interests.