

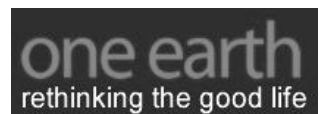
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Sustainable Household Consumption

Key Considerations and Elements for a Canadian Strategy

Prepared for:
Office of Consumer Affairs, Industry Canada

By Vanessa Timmer, Emmanuel Prinnet & Dagmar Timmer



March 31, 2009

About the Consumers Council of Canada

The Consumers Council of Canada works collaboratively with consumers, business and government in support of consumers' rights and responsibilities, including:

- The right to safety.
- The right to choose.
- The right to be heard.
- The right to be informed.
- The right to consumer education.
- The right to consumer redress.
- The right to a healthy environment.
- The right to basic needs.
- The right to privacy.

The Council seeks to have an efficient, equitable, effective and safe marketplace for consumers. It endeavours to be a voice for consumers across Canada, and works to listen to consumers and develop policy consistent with what it is told. The Council provides leadership in educating and informing consumers about their rights and responsibilities.

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Executive Summary

This report presents key considerations and elements of a household consumption strategy for Canada, to support the early stage of work proceeding at the federal government level to give consideration to the potential development of a national Sustainable Consumption and Production (SCP) Framework called for as part of the UN Marrakech Process. Embedding the household strategy within a broader SCP framework is essential, as a central conclusion of this report is that households cannot advance sustainable consumption on their own but require collective solutions and collective actions by government and other stakeholders. The federal government has the responsibility to take the lead in creating the conditions to enable and encourage sustainable household consumption choices through an instrument mix of regulation and policies, use of fiscal measures, support for research and development on SCP, and engagement campaigns, to exemplify sustainable procurement policies, and to convene other key stakeholders to play their role in addressing this systemic challenge.

GLOBAL CONTEXT

- **Humanity is currently living beyond its ecological means**, utilizing resources and creating waste 30-40% faster than what the Earth can regenerate or absorb each year.
- **Global consumption, including household consumption, is placing unsustainable and increasing stress on the Earth's life support systems** (60% of which have been degraded in the past 50 years) leading to energy and material resource scarcity, climate change, toxic waste accumulation, and biodiversity loss.
- **There is a growing income and household consumption disparity** with higher income groups accounting for a vastly greater share of global resource use, while the impact of ecosystem degradation has a disproportionate impact on the poor.
- The **United Nations Marrakech Process** is a global process to support action on sustainable consumption and production (SCP) with the goals of assisting countries in their efforts to green their economies, helping corporations develop greener business models, and encouraging consumers to adopt more sustainable lifestyles.

HOUSEHOLD CONSUMPTION PATTERNS

- Households' purchase and investment decisions have a role to play in achieving SCP, especially when analyzed in **aggregate**. This is particularly true in Canada, where the high footprint per capita includes **consumers representing a third of overall energy use**.
- Three consumption clusters – **mobility, food, and housing** – have been identified as being the most significant in terms of interventions at a household level: they drive 75% of the life cycle impacts of consumption in Western economies. Impact includes the selection, purchase, use, maintenance, repair and disposal of products or services. It also includes 'indirect' impacts from the production process.
- Household choices are made within a context of **cultural norms** that shape consumption patterns by influencing understanding of household needs, which can be blurred with "wants."
- Households **vary in their pattern of consumption** according to a range of factors, including income level and household size, which determine their consumer values and preferences.
- **Households are embedded in a context that limits their capacity for choice**. Factors including climate, pricing and infrastructure tend to lead to "lock-in" behaviour patterns.

A WINDOW OF OPPORTUNITY FOR CANADA

- The Canadian Government has an unparalleled opportunity to move forward on sustainable consumption and production (SCP) and sustainable household consumption in the coming years, including as part of the United Nations **Marrakech Process, which has major meetings in 2010 and 2011. Canada is exploring the possibility of developing a national SCP Framework** in order to fulfill its commitment to the UN. More than 20 countries have already completed a similar framework. By embracing the scale of change needed, Canada can move from its rank of 28th out of 30 OECD countries on environmental indicators to a stronger leadership role.
- The **economic crisis stimulates new thinking on SCP**, highlighting the interrelated nature of the production and consumption system. It represents the largest systemic failure in recent memory with global implications, and this failure has led to a questioning of the economic orthodoxy and of the accountability of major institutions.
- At the same time, there is building scientific evidence of the **severity of climate change**.
- Political action can **build on an existing level of support among Canadians** for changing unsustainable production and consumption patterns, starting at the household level.

PARADOXES IN ADVANCING SUSTAINABLE HOUSEHOLD CONSUMPTION

It is important to avoid a number of paradoxes, constraints and unintended consequences, which policy analysis and research are revealing. These include:

- **Value-Action Gap:** More information does not necessarily lead to corresponding sustainable consumption actions and behaviour change.
- **Distributional Concerns:** Policy instruments can have a disproportionate impact on the more vulnerable and marginalized people and households in society.
- **Limitations of Market-Based Approaches:** Economic instruments and tools are powerful but they can backfire or be limited in addressing the necessary cultural shift.
- **Unrealistic Time Horizons for Impact:** Time delays in the effectiveness of policy tools and instruments are not always taken into account in their design or assessment.
- **Incremental Steps can Undermine Revolutionary Change:** A small commitment or behaviour change made by households does not necessarily lead to more significant changes in consumer behaviour.
- **Rebound Effect:** Gains in reducing unsustainable household consumption can lead to unanticipated, increased consumption in other areas that counteract sustainable development.
- **Overemphasis on Individual Choice and on Shifting Household Demand:** The influence of structural constraints and lock-in behaviour is frequently underplayed and individual households are often the focus of blame and interventions.

Recognizing and Planning for Complexity in Advancing Sustainable Household Consumption: There are proven policy tools that governments can employ for accelerating behaviour shifts in households, yet puzzles remain given the complex factors at play.

SUSTAINABLE HOUSEHOLD CONSUMPTION AS A SYSTEMIC CHALLENGE

Overcoming the paradoxes outlined above and finding effective, efficient, enduring solutions to advance sustainable household consumption requires a **systems thinking perspective**, which includes:

- **Seeing the whole system and looking for relationships and connections:** A systems thinking perspective is useful for understanding that households are complex systems of interdependent and interconnecting parts, which, in turn, are embedded in other systems, including social networks, infrastructure and institutional rules that constrain or enable their actions. Household behaviours are influenced by **driving forces: internal** (e.g., socio-cultural), **external** (e.g., institutional), and **meta** (e.g., global natural resource scarcity).
- **Anticipating unanticipated consequences and looking for change over time:** A systems perspective not only stimulates thinking about the boundaries of the household system, but also about how this complex system changes over time, often in unexpected ways because of dynamics such as **feedback loops, synergies, and time lags** between cause and effect. It also encourages consideration of the **long-term** and **local and global consequences** of household behaviour and of interventions in the system.
- **Finding leverage points:** Understanding system dynamics can provide insight into **priority action areas** or places within the complex system where small shifts lead to **cascading effects** that influence household consumption behaviours, including changes in structural conditions that shape household choice.
- **Engaging a variety of actors and employing an instrument mix:** the complexity of the household requires the collaborative engagement of **multiple stakeholders**, including the public sector, private sector, retail, civil society, media, research institutes and household consumers, with government taking the lead. Because of variation across households and across consumption clusters (mobility, food, housing), a **mix of instrument tools and approaches** is the most effective approach to tailor interventions to specific cases.
- **Adopt an adaptive, learning approach:** as interventions are undertaken to influence sustainable household consumption, it is essential to **establish targets and indicators** and to **monitor results** in order to learn and adapt interventions over time. This monitoring should be coupled with in-depth **research** on the effectiveness of different interventions, as well as **parallel intervention pilots** and **rapid prototyping of solutions** that allow for experimentation of instrument mixes for effectiveness.

KEY ELEMENTS AND CONSIDERATIONS FOR A SUSTAINABLE HOUSEHOLD CONSUMPTION STRATEGY

These conclusions are based on the analysis of the European case studies (UK, Sweden, Finland) and on the literature review.

- **The most appropriate focus for a sustainable household consumption strategy is on changing the conditions and systems within which households operate**, such as transportation and land-use decisions, liveable mixed-use community and density policies, alternative measures of progress and wellbeing, economic incentives, and regulatory frameworks. Individual households are constrained in advancing sustainable household consumption by social, institutional and cultural factors which lock them into particular patterns of behaviour and although they have a role to play in the choices they make; however, the effective and higher leverage point of intervention lies in shaping the conditions of their choices.

- Multiple stakeholder involvement, including engagement of household consumers, is important because diverse actors have a role to play in collaborative interventions to shift consumption patterns; however, **there is a central role for governments to take the lead in advancing sustainable household consumption**, particularly as they play a significant part in shaping the socio-cultural framework and institutional rules which govern how household choices are made, make infrastructure decisions, and shape the moral framing of social goods.
- **Governments also play a vital role in creating visions and stretch targets to establish the parameters of the long-term sustainable household consumption goals**, for example, striving for household consumption that is carbon neutral, within natural material resource limits, equitable and non toxic. Incremental policy steps and the use of economic instruments is encouraged as long as these interventions advance longer-term visions and objectives.
- Unsustainability in all its forms (e.g., climate change, overconsumption) is the archetypal example of gross market failure. **Government intervention in the economy to correct for market failure is consistent with sound market economics.** It is the means by which society ensures that **prices 'tell the truth' about the full social costs of production and consumption.** Valid prices are one of the most effective ways to redirect individual and household consumption along more sustainable paths.
- **Governments should adopt an integrated strategy that enables, encourages, exemplifies and builds commitment towards sustainable household consumption**, including through qualitative guidance on sustainable lifestyles, standards, economic incentives, stakeholder engagement, public procurement and, in particular, **clear regulatory frameworks.**

RECOMMENDATIONS FOR THE FEDERAL GOVERNMENT

Next steps:

- **Address sustainable household consumption as part of the Sustainable Consumption and Production Framework** currently being considered; and
- Identify a **ministerial and departmental lead** on the sustainable consumption and production file **supported by a cross-departmental coordinated federal effort and by high-level political commitment.**

Recommendations for the Ministerial and Departmental Lead:

Adaptive governance:

1. Adopt a **learning and adaptive management approach** which ensures **active listening** to other stakeholders, iterative reflection and **questioning of assumptions and practices**, and coherence amongst the visions, objectives, actions and evaluation of its interventions;
2. Engage different levels of government, the private sector, civil society, media, retail, academia and other key players in the effort to advance sustainable household consumption through a collaborative process involving a **multi-stakeholder council**, and an **advisory commission** which can serve as a watchdog;
3. Develop **clear long-term sustainability visions and targets** that address the scale and urgency of the issue (for example, genuine progress indicators and index of wellbeing, carbon neutral, absolute reductions in household ecological footprints, green fiscal reform);
4. Provide tools for **monitoring at the household level** (for example, water and energy metering, transparent access to consumer product information) and at the **systems level** by establishing **sustainable household indicators** that make progress transparent (for example, on resource use, greenhouse gas emissions, green products, sustainable transportation use);
5. Support **continued research** on advancing sustainable household consumption and on the effectiveness of diverse interventions to build an evidence base and enable learning (for example, integrated impact assessment of national policies, life cycle assessments); and
6. Enable **experimentation** and **action-learning** within safe-fail environments.

Policy Tools and Instruments:

7. **Build on and integrate with existing federal programs**, including the Eco-Logo program, regulatory frameworks for industry, extended producer responsibility programs, and green procurement;
8. **Develop interventions that shift the conditions within which households make choices** including institutional rules, land-use and transportation planning, infrastructure decisions, guidelines for dense housing construction, combined with **regulation and standard setting**;
9. **Get the prices right** by reflecting social and environmental costs in the prices of household goods and services and motivate sustainable household consumption through **fiscal incentives**, clear **information campaigns** and **labelling** to reveal the world behind products, and to encourage sustainable choices (e.g., non-toxic, 'Made in Canada');
10. **Engage in budgetary and ecological tax reform**; and

11. **Develop engagement activities with partners** to build commitment on advancing sustainable household consumption through the sustainable consumption and production (SCP) agenda as part of the Canadian response to the 2010 and 2011 United Nations Commission on Sustainable Development meetings on SCP, **and support initiatives of other actors to advance sustainable household consumption.**

The report was prepared by One Earth Consulting Ltd. on behalf of the Consumers Council of Canada, with funding from Industry Canada. The preparation of this report benefitted from the insights of an Advisory Board (see Appendix B). The views in this report are not necessarily those of Industry Canada or of the Government of Canada.

List of Acronyms

CSD	Commission on Sustainable Development
CTV	Canadian television network
DEFRA	United Kingdom's Department for Environment, Food and Rural Affairs
DFAIT	Canada's Department of Foreign Affairs and International Trade
DTI	United Kingdom's Department for Industry and Trade
EAF	Environmental Action Fund
EU	European Union
GDP	Gross Domestic Product
MBIs	Market-based instruments
NGOs	Nongovernmental organizations
NSDS	National sustainable development strategy
OECD	Organization for Economic Cooperation and Development
PPP	Purchasing power parity
Rio Earth Summit	UN Conference on Environment and Development held in Brazil in 1992
SCP	Sustainable consumption and production
UK	United Kingdom
UN	United Nations
UNEP	United Nations Environment Program
US(A)	United States (of America)
VAs	Voluntary agreements
WWF	World Wildlife Fund
10YFP	10 Year Framework of Programmes on SCP (United Nations)

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1. Introduction

The overall aim of this report is to combine a literature and case study analysis and establish how the Canadian federal government can best encourage sustainable household consumption. Concerns about environmental pressure from households and the social, economic and ethical implications of this impact have been on the international agenda for decades. Governments, including Canada, have introduced policies to affect household patterns of consumption and influence their decisions. In Canada, national initiatives have included fuel consumption labels, incentives to buy alternative-fuel vehicles, organic food labelling, tighter minimum energy performance standards for residential buildings¹, eco-labelling, and green public procurement. However, Canada has yet to adopt a coherent strategy for advancing sustainable household consumption.

This report is guided by the overarching research question: **What are key considerations and elements for a Canadian strategy on sustainable household consumption?**

Based on the analysis of the literature and three European case studies (Finland, Sweden and the United Kingdom), a central recommendation of this report is that Canada needs to adopt an integrated approach to addressing household consumption patterns in order to be efficient and effective at reducing household impacts and address the systemic nature of the challenge. Another consideration highlighted is the degree to which individual household consumption choices to advance sustainability are supported and constrained by social, institutional, economic and political conditions. Ultimately, the report outputs should help policy-makers at the federal level select the right approach to encourage sustainable household consumption in Canada.

Box 1.1 Defining Key Terms

Sustainable consumption is the use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations.^{2,3}

Household consumption is the consumption of goods and services by households. It includes the selection, purchase, use, maintenance, repair and disposal of any product or service. However, it does not include consumption by the public sector or intermediate consumption of products and services in the productive sector.⁴

Sustainable household consumption means a consumption of goods and services that meets human needs and provides increased quality of life while at the same time minimizing the negative impact of consumption on health and environment, to benefit fair and just global development.⁵

1.1 Global Context

- **Humanity is currently living beyond its ecological means**, utilizing resources and creating waste 30-40% faster than what the Earth can regenerate or absorb each year.
- **Global consumption, including household consumption, is placing unsustainable and increasing stress on the Earth's life support systems** (60% of which have been degraded in the past 50 years) leading to energy and material resource scarcity, climate change, toxic waste accumulation, and biodiversity loss.
- **There is a growing income and household consumption disparity** with higher income groups accounting for a vastly greater share of global resource use, while the impact of ecosystem degradation has a disproportionate impact on the poor.
- The **United Nations Marrakech Process** is a global process to support action on sustainable consumption and production (SCP) with the goals of assisting countries in their efforts to green their economies, helping corporations develop greener business models, and encouraging consumers to adopt more sustainable lifestyles.

¹ OECD 2008b

² Norwegian Ministry of Environment 1994 and 1995; UN-CSD 1995.

³ Note: the distinction between needs versus wants is critical and will be developed further in Section 1.2 below.

⁴ OECD (2002a): Towards Sustainable Household Consumption, Paris.

⁵ Ministry of Integration and Gender Equality (Sweden) 2005.

As humanity, we have overstepped the carrying capacity of the Earth. Our consumption of natural resources overshoots the planet's ability to replenish them by as much as 30 per cent according to figures provided by the Global Footprint Network and the World Wildlife Fund (WWF) in their latest *Living Planet* report⁶, and perhaps as much as 40% according to the latest evidence released by the Global Footprint Network in 2008. Furthermore, we are creating waste faster than it can be absorbed. This overshoot is only possible in the short term: "We cut trees faster than they re-grow, and catch fish faster than they repopulate. While this can be done for a short while, overshoot ultimately leads us to undermine the living systems and deplete resources on which our economy depends."⁷

Global consumption, including household consumption, is placing unsustainable and increasing stress on the Earth's life support systems, with 60% of the ecosystem services examined during the United Nations Millennium Ecosystem Assessment (2005) being degraded or used unsustainably, including fresh water, capture fisheries, air and water purification, and the regulation of regional and local climate, natural hazards, and pests. This degradation leads to energy and material resource scarcity, climate change, toxic waste accumulation, and biodiversity loss.⁸ If per capita footprints do not decrease, then our growing population will put additional strain on these ecosystems and – by extension – our life support system. It is important to note that this depletion of the natural ecosystem has a disproportionate impact on the poor who do not have the capacity to buy their way out of a problem by acquiring resources from elsewhere and who do not have the resiliency to absorb catastrophic failure of ecosystem services or natural disasters. There are many aspects to sustainable development, but our consumption patterns and production processes are its "material" heart: we must dramatically reduce their impact to side-step ecological crisis.

This is a global challenge given the scale and urgency of the changes needed. In addition to the emergent ecological degradation, current unsustainable production and consumption patterns are also raising significant social justice concerns. Our use of natural resources is inequitable and the strongest responsibility lies with the affluent high-consuming individuals and countries, as recognized by all UN member States in the Rio Declaration on the Environment and Development in 1992. This is particularly relevant for nations like Canada, where the average citizen lives a lifestyle that would require the equivalent of four planets of resources to sustain it if everyone on Earth lived as Canadians do. Ecological Footprint analysis shows that, at the global scale, we have 1.8 ha of productive land available per capita per year. As such, countries and individuals who consume more than this "Fair Earthshare" have a moral imperative to move from a consumerist model that demands too high a proportion of material- and energy-intensive goods and services to one that is in line with what our Earth can sustain. Often, this can mean an 80 per cent reduction in material and energy throughput in the economy – a daunting challenge that can only be met by such efforts as reducing the amount of natural resource consumption, increasing the amount of recycling and reusing of materials, changing our measures of progress, and re-designing social, economic and industrial systems.

Household consumption in Canada is dependent on and interconnected with peoples and places around the world, even if these connections are not always clearly perceived. Global trade has allowed for consumption patterns by households in the aggregate to have impacts on other countries, which are both positive and negative:

"Global trade magnifies the effect of governance, regulations, and management practices on ecosystems and their services, enhancing good practices but worsening the damage caused by poor practices. Increased trade can accelerate degradation of ecosystem services in exporting countries if their policy, regulatory, and management systems are inadequate. At the same time, international trade enables comparative advantages to be exploited and accelerates the diffusion of more-efficient technologies and practices. For example, the increased demand for forest products in many countries stimulated by growth in forest products trade can lead to more rapid degradation of forests in countries with poor systems of regulation and management, but can also stimulate a "virtuous cycle" if the regulatory framework is sufficiently robust to prevent resource degradation while trade, and profits, increase. While historically most trade related to ecosystems has involved provisioning services such as food, timber, fibre, genetic resources, and biochemicals, one regulating service—climate regulation, or more specifically carbon sequestration— is now also traded internationally."⁹

Because of this global interconnectedness of the sustainable consumption and production system, the need for action on (SCP) has been recognized at the international level, with 191 countries agreeing that "to achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate their unsustainable patterns of production and consumption."¹⁰ Moreover, the

⁶ WWF, *Living Planet Report 2008*.

⁷ http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/

⁸ Millennium Ecosystem Assessment 2005.

⁹ Millennium Ecosystem Assessment 2005.

¹⁰ Rio Declaration on Environment and Development, 1992.

international community recognized that the developed world must take the lead. It reiterated this commitment from the 1992 UN Conference on Environment and Development (Rio Earth Summit) at the Rio +5 Special Session of the General Assembly, at the UN's Millennium Summit, and at the World Summit on Sustainable Development (Johannesburg Plan of Implementation). Building on these commitments, the UN has initiated the Marrakech Process – named after the city in which the inaugural meeting took place – to support the elaboration of a 10-Year Framework of Programs (10YFP) on SCP. Its goals are to assist countries in their efforts to green their economies, to help corporations develop greener business models, and to encourage consumers to adopt more sustainable lifestyles.¹¹

Progress on SCP is underway, across sectors and stakeholder groups, though these efforts fall significantly short of the scale of change that is needed to reverse alarming trends in ecosystem decline and growing social inequities. At a government level, since Rio, more than twenty countries have developed or are developing national sustainable consumption and production strategies, including the three that were selected for deeper analysis in this study: Finland, Sweden and the United Kingdom.¹² In 2008, the Department of Foreign Affairs and International Trade (DFAIT) took the lead within the Government of Canada to convene a process for developing a strategic framework on SCP, honouring its Agenda 21 commitment to “Develop a domestic policy framework that will encourage a shift to more sustainable patterns of production and consumption.”¹³ The process involves an ad hoc working group of representatives from across the federal government including representatives from Industry Canada, Environment Canada and Natural Resources Canada, with advisory support from the private sector and civil society. This report contributes to this effort by defining elements of the sustainable household consumption component.

1.2 Household Consumption Patterns

- *Households' purchase and investment decisions have a role to play in achieving SCP, especially when analyzed in **aggregate**. This is particularly true in Canada, where the high footprint per capita includes **consumers representing a third of overall energy use**.*
- *Three consumption clusters – **food, mobility and housing** – have been identified as being the most significant in terms of interventions at a household level: they drive 75% of the life cycle impacts of consumption in Western economies. Impact includes the selection, purchase, use, maintenance, repair and disposal of products or services. It also includes 'indirect' impacts from the production process.*
- *Household choices are made within a context of **cultural norms** that shape consumption patterns by influencing understanding of household needs, which can be blurred with “wants.”*
- *Households **vary in their pattern of consumption** according to a range of factors, including income level and household size, which determine their consumer values and preferences.*
- ***Households are embedded in a context that limits their capacity for choice**. Factors including climate, pricing and infrastructure tend to lead to “lock-in” behaviour patterns.*

Households' purchase and investment decisions have a role to play in achieving SCP, especially when analyzed in aggregate for their cumulative impact. This is particularly true in Canada, where the high footprint per capita includes **consumers representing a third of overall energy use**, and emitting a similar percentage of total greenhouse gas emissions. Three consumption clusters have been identified that matter the most in terms of interventions at a household level; they drive 75% of the life cycle impacts of consumption in Western economies:¹⁴

- **Mobility** (e.g., commuting, goods transportation)
- **Food**
- **Housing** (e.g., water, materials and energy use)

It is important to note that of all three of these cultures, mobility is the largest driver of consumption. Personal transportation, with its resultant car-dominated landscape, urban sprawl, encroachment on agricultural land and adverse ecosystem and human health effects from air pollution, combined with the transportation of goods for household use, represent the largest contributor to household consumption with the largest leverage for making improvements.

¹¹ For more about the Marrakech Process, see <http://esa.un.org/marrakechprocess>

¹² UN (3rd International Expert Meeting on 10 Year Framework of Programmes on SCP) 2007. Countries include Austria, Sweden, France, Czech Republic, Hungary, Finland, Belgium, Romania, Norway and UK in Europe; Ethiopia and Mauritius in Africa; Jamaica and Argentina in Latin America and Caribbean; and Japan, Thailand and Indonesia in Asia and the Pacific.

¹³ UN 1992 (Agenda 21, section 4.17 [b])

¹⁴ Hertwich 2005, the EIPRO study of Tukker 2006.

Emphasis on other clusters can also be found, including the OECD's grouping of waste, transport, energy, food and water.¹⁵ In some studies, the mobility cluster has also been disaggregated to reflect the differential impact of domestic transportation and commuting and of travel for recreation and tourism.¹⁶ Measures of impact generally distinguish between emissions or resource use caused 'directly' by the household, and the 'indirect' impacts of the goods and services consumed, e.g., transport of food to the supermarket or car factory emissions.¹⁷ By prioritizing these high leverage clusters (most particularly food, mobility and housing), Canada can take advantage of research findings and increase its efficacy in influencing consumption and production patterns.

Consumption is not only about meeting material needs, something which has become more pronounced in the past decades. Actual needs are "finite, few and classifiable, such as subsistence, protection, affection, identity, creation and freedom."¹⁸ In their essence, these categories can give rise to a simple lifestyle with a low Ecological Footprint. But they can be expanded in meaning through a cultural lens, as was the case in the post-war period. After World War II, there was a conscious effort to transform military factories into factories for consumer products in order to supply employment to returning soldiers. This shift was supported by access to cheap fossil fuels, and reinforced by marketing and advertising as well as by designing certain products to be disposable. Cars, televisions, and other consumer goods went from being household luxuries and status symbols to becoming "needs" for most. And other goods – from perfumes to the latest designer clothes – are status symbols which combine with other consumer goods to help people create identity, confirm their position, pursue dreams, and, indeed, may give meaning to life.¹⁹ Consumption is part of a social conversation amongst different members of a community and has an evolutionary basis in establishing hierarchy and desirability.²⁰ Consuming to fit in can have interesting ramifications when sustainability is one of the values aspired to. The World Wildlife Fund cites an example of a woman who had solar panels installed on the north-side of her house in London, as she was more concerned with being perceived as "green" by her neighbours than she was in seeking to maximize electricity production from a renewable resource by placing the panels on the sunny – yet invisible to most people – side.²¹

In light of the need to reduce overconsumption, the good news is that what we "want" **does not necessarily deliver happiness**: there is an increasing body of evidence that higher income and consumption levels do not deliver a corresponding increase in well-being, particularly beyond a certain threshold. The two appear to correlate only at low income levels, with global statistics showing that with an income over US \$15,000, there appears to be little correlation at all.²² This provides a window into discussing the current configuration – and perceived benefits – of our consumer society, especially when faced with economic downturn, as is the case currently across our global economy. On the other hand, working towards a sustainable world offers immediate benefits to consumers in Canada, for example, for their health through the use of non-toxic and biodegradable products, and to the economy by creating jobs in sectors such as green building construction and renewable energies, as well as reducing or minimizing the burden of debt to future generations. Of course, future generations also benefit by a move towards sustainable household consumption, as efforts today pay off by orders of magnitude in the future.

To advance sustainable household consumption patterns, it is important to acknowledge the fact that not all households are the same. Households are diverse and reflect their socio-economic status as well as demography, settlement patterns and sub-cultures. They vary in their pattern of consumption according to a range of factors, which shape their consumer values and preferences, including:

- Income level
- Household size
- Age
- Education
- Comfort and cleanliness²³
- Price point

A 2007 Canadian survey on households and their environmental choices provides evidence of the variation that exists amongst the provinces and regions of Canada in the degree to which they engaged in different environmental practices (e.g., switching to energy efficient lighting, turning the water tap off during brushing teeth, purchasing energy efficient appliances).²⁴

¹⁵ OECD 2009.

¹⁶ Sustainable Consumption Roundtable 2006 - Sweden

¹⁷ Edgar G. Hertwich 2006 in Jackson (ed.) 2006

¹⁸ Max-Neeff (1991) identified 9 axiological needs, as referenced in Tukker et al. eds. 2008.

¹⁹ Tukker et al. eds. 2008 with reference to Baudrillard, 1981; Jackson, 2004.

²⁰ Jackson 2005

²¹ WWF 2008.

²² Inglehart and Klingemann 2000 from Jackson 2006.

²³ Darnton 2006.

²⁴ Statistics Canada 2009

According to recent studies, status-seeking behaviour of consumers may be overplayed where the majority of everyday decisions are motivated by “convenience...practice, and individual responses to social and institutional norms.”²⁵ More critically, households are “locked” into behaviour patterns which are structural or institutional in their origin.²⁶ Households are embedded in a context that limits their capacity for choice.²⁷ Factors that limit their everyday consumer dynamics include:

- Climate (e.g., with different energy use across Canada due to climate variation)
- Geography (e.g., urban versus rural)
- Accessibility to “green” systems and products (e.g., public transportation, recycling schemes)
- Price (e.g., the cost of organic vs. regular meats)

Governments can help frame this consumer context, fostering institutional shifts that promote different everyday dynamics for consumers – and for those who produce consumer goods and services.

1.3 A Window of Opportunity for Canada

- *The Canadian Government has an unparalleled opportunity to move forward on sustainable consumption and production (SCP) and sustainable household consumption in the coming years, including as part of the United Nation’s **Marrakech Process which has major meetings in 2010 and 2011. Canada has started preparing a SCP Framework** to fulfill its commitment to the UN. More than 20 countries have already completed a similar framework. By embracing the scale of change needed, Canada can move from its rank of 28th out of 30 OECD countries on environmental indicators to a stronger leadership role.*
- *The **economic crisis stimulates new thinking on SCP**, highlighting the interrelated nature of the production and consumption system. It represents the largest systemic failure in recent memory with global implications and this failure has led to a questioning of the economic orthodoxy and of the accountability of major institutions.*
- *At the same time, there is building scientific evidence of the **severity of climate change**.*
- *Political action can **build on an existing level of support among Canadians** for changing unsustainable production and consumption patterns, starting at the household level.*

This report explores opportunities the Canadian government has in designing its SCP strategy. In particular, what are the possible policy interventions that move beyond targeting individual consumers to promote system-wide innovations that enable households to make more sustainable choices in their consumption patterns?

The notion of “consumer sovereignty” may blur the issue somewhat, but it is clear that governments help frame the consumer context in their roles as policy and decision-makers, tax collectors, investors, conveners and purveyors of the public good. The Canadian Government has the capacity to set the broader rules for trade and consumption²⁸ including reduction at the scale required, which amounts to an 80-90% reduction in material and energy flows. As such, it will need to be a major player in facilitating sustainable household consumption, as governments like the UK, Finland and Sweden have been. The Canadian Government has an unparalleled opportunity to move on this issue in the coming years, including as part of the United Nations Marrakech Process which has major meetings in 2010 and 2011.

The economic crisis stimulates new thinking on SCP, highlighting the interrelated nature of the production and consumption system. It represents the biggest systemic failure in recent memory with global implications and has led to a questioning of the economic orthodoxy and of the accountability of major institutions. Discussions about sparking a green economy can lead to long-term legacies of innovation in production processes and can lead to a more resilient economic system generally.²⁹ At the same time, there is deeply concerning evidence from the scientific and political discussions on the unfolding of climate change that the future scenarios within the Intergovernmental Panel on Climate Change reports are cautious and conservative, and that the impacts of climate change are much more significant and much more rapid than anticipated.³⁰ Both the economic and the climate crises are causing people to reflect on

²⁵ Jackson 2006, referencing Gronow and Warde 2001 and Shove 2003.

²⁶ Jackson 2006; Darnton 2004; Kollmuss & Agyeman 2002; WWF 2008.

²⁷ Sanne 2002 as discussed in Jackson 2006.

²⁸ Its capacity to set the rules on some trade issues is managed in part through trade agreements including the North American Free Trade Agreement.

²⁹ See green economy initiatives in Canada, the United Kingdom, the United States and also at the international level within the United Nations Environment Programme.

³⁰ e.g., D. S. Battisti and R. L. Naylor, “Historical warnings of future food insecurity with unprecedented seasonal heat.” *Science* (9 January 2009): 240-44; Anderson, K., Bows, A., ‘Reframing the climate change challenge in light of post-2000 emission trends’, *Philosophical Transactions of the Royal Society, A*, 366, 3863-3882.

their lifestyles and explore questions of ‘how am I contributing to the solution?’, ‘how much is enough?’ in terms of their consumption, and to pose questions about what is important in life.³¹ The credit crunch is also prompting people to rethink how they often overextend their own lifestyles.³²

A February 2009 survey by Statistics Canada shows that “Canadian families are embracing energy-efficient light bulbs, water-conserving toilets and shower heads, reusable shopping bags and eschewing bottled water in growing numbers. Eco products often carry a premium price tag but save consumers money over the long run, conservation experts say, and that’s a big draw when everyone is anxiously watching their bank accounts.”³³ As was evident from the Great Depression, a shift to ‘back to basics’ can have a lasting impact on values and human behaviour, although there is a need to embed shifts at the institutional level in order to maintain their impact across generations. This seems a powerful time to discuss the values that underpin our consumption patterns and our lifestyles.

At a government level, since the United Nations Earth Summit in 1992 in Rio de Janeiro, more than twenty countries have developed or are developing national sustainable consumption and production strategies with a household component or specifically aimed at households, including the three that were selected for deeper analysis in this study: Finland, Sweden and the United Kingdom.³⁴ Taking a strategic and coherent approach in Canada to household consumption is made all the more important given its international record on the issue, as compared with Europe. As the report, *The Maple Leaf in the OECD*, notes, Canada ranked 28th out of thirty OECD countries on a set of 29 environmental indicators in the OECD’s 2005 ranking.³⁵ There has been progress in Canada, notably the EcoLogo initiative³⁶ which is managed by a third party and which can be built upon as Canada moves forward on a sustainable household consumption strategy. There are other exceptional programs such as ones aimed at addressing producer responsibility and establishing standards and guidelines for green building. In terms of Government departments that hold mandates related to sustainable consumption, Industry Canada has primary responsibility for market development, including setting, implementing and enforcing marketplace rules, and the Office of Consumer Affairs works explicitly on consumer issues and consumer protection.³⁷ Section five sets out recommendations to the Canadian Government based on research conducted for this paper.

Political action can build on an existing level of support among Canadians for changing unsustainable production and consumption patterns, starting at the household level. A CTV and Globe and Mail poll conducted by the Strategic Counsel³⁸ found that many Canadians are ready to take the following personal steps: 76 percent are willing to pay to have their houses retro-fitted to become more energy efficient; 73 percent would reduce the amount they fly to times when it is only absolutely necessary; 72 percent would pay more for a fuel-efficient car; 62 percent are willing to have the economy grow at a significantly slower rate; and 61 percent would reduce the amount they drive in half. Appendix C provides further figures on some of these statistics.

Working towards a sustainable world offers immediate benefits to consumers in Canada, for example, for their health through the use of non-toxic and biodegradable products, and to the economy by creating jobs in sectors such as green building construction and renewable energies. Of course, future generations also benefit by a move towards sustainable household consumption, as efforts today pay off by orders of magnitude in the future.

1.4 Methodology

This report is guided by the overarching research question: **What are some key considerations and elements for designing a Canadian strategy for sustainable household consumption?** In answering this research question, the authors of this report adopt a methodology that combines a literature review with a case study analysis of three European sustainable household consumption strategies. The sustainable household consumption literature provides the theoretical basis for this project and serves as the foundation

³¹ C. Campbell and J. Kirby (2008) “Living on Less: Times are tough but could the new frugality make us healthier and happier than we’ve been in years?” in *Macleans* magazine, 3 November; T. Cowen (2009), “Recession can change a way of life” in *International Herald Tribune*, 1 February.

³² James Riordan, personal communication 2009.

³³ Proudfoot 2009.

³⁴ UN (3rd International Expert Meeting on 10 Year Framework of Programmes on SCP) 2007. Countries include Austria, Sweden, France, Czech Republic, Hungary, Finland, Belgium, Romania, Norway and UK in Europe; Ethiopia and Mauritius in Africa; Jamaica and Argentina in Latin America and Caribbean; and Japan, Thailand and Indonesia in Asia and the Pacific.

³⁵ Gunton 2005; OECD 2005.

³⁶ See www.ecologo.org.

³⁷ Potts 2006.

³⁸ January 2007.

for the review of driving factors and key paradoxes, the development of the case study assessment framework, the analysis of the case studies, and the recommendations.

The methodology advisor for this project is Maged Senbel, PhD, School of Community and Regional Planning, University of British Columbia who supported the development of the case study selection criteria, case study assessment framework and the literature review. The report also benefited from the support of a committee of experts from Canada and in Europe (see Appendix) who were asked to review the bibliography, to be interviewed on their analysis of the driving factors of household consumption and key challenges in intervening to influence consumption patterns, and to review the report.

1.5 Summary and Structure of the Report

This report is divided into five sections. This introduction provides the international and Canadian context for the report, defines sustainable household consumption and describes the aims, methodology and format. The second section reviews the latest research on some of the paradoxes that result from interventions to advance sustainable household consumption, as well as a number of possible policy responses to these paradoxes. The report then outlines how a systems thinking approach to shifting household consumption patterns is useful for addressing these paradoxes, for defining the scope of the problem and for identifying clear, enduring and effective solutions. The fourth section contains the analysis of three European case studies – Finland, Sweden and the United Kingdom – through the lens of a case study assessment framework, based on the insights from the literature and from the previous section on adopting a systemic approach. The report concludes with recommendations to the Canadian federal government as to how to advance sustainable household consumption.

2. Paradoxes in Advancing Sustainable Household Consumption

It is important to avoid a number of paradoxes, constraints and unintended consequences which policy analysis and research are revealing. These include:

- **Value-Action Gap:** *More information does not necessarily lead to corresponding sustainable consumption actions and behaviour change.*
- **Distributional Concerns:** *Policy instruments can have a disproportionate impact on the more vulnerable and marginalized people and households in society.*
- **Limitations of Market-Based Approaches:** *Economic instruments and tools are powerful but they can backfire or be limited in addressing the necessary cultural shift.*
- **Unrealistic Time Horizons for Impact:** *Time delays in the effectiveness of policy tools and instruments are not always taken into account in their design or assessment.*
- **Incremental Steps can Undermine Revolutionary Change:** *A small commitment or behaviour change made by households does not necessarily lead to more significant changes in consumer behaviour.*
- **Rebound Effect:** *Gains in reducing unsustainable household consumption can lead to unanticipated increased consumption in other areas which counteract sustainable development.*
- **Overemphasis on Individual Choice and on Shifting Household Demand:** *The influence of structural constraints and lock-in behaviour is frequently underplayed and individual households are often the focus of blame and interventions.*

Recognizing and Planning for Complexity in Advancing Sustainable Household Consumption: *There are proven policy tools that governments can employ for accelerating behaviour shifts in households, yet puzzles remain given the complex factors at play.*

A key consideration in creating a strategy for advancing sustainable household consumption in Canada is avoiding a number of paradoxes, constraints and unintended consequences which policy analysis and research are revealing. Awareness of these will help the Canadian government move forward with an appropriate instrument mix of policy tools and approaches that support real progress towards sustainable consumption and production.

2.1 Value-action gap

More information does not necessarily lead to corresponding sustainable consumption actions.

When designing policy to shift household behaviour, a key paradox to bear in mind is that actions do not necessarily follow an “info-in-action-out” model: more information does not necessarily lead to corresponding action. It was formerly thought that sustainable consumption — or more generally pro-environmental behaviour — was highly influenced by one’s state of knowledge and general pro-environmental attitude, something that is increasing in Canada (see Appendix C). The fact that knowledge of environmental issues does not necessarily lead to environmentally responsible consumption is referred to as the “value—action gap.”³⁹

Purchasing lower-impact products can face structural constraints, either inherent in characteristics of the household (for example, rural or urban location of household, age of household members) or by virtue of the household being nested within a city or other system which have their own constraints (for example, historical land-use planning decisions, institutional rules, layout of infrastructure). Lack of time, the ease of finding a product, poor transit options can all lead to actions inconsistent with values. Other reasons why the value-action gap persists include lack – or mistrust - of information (e.g., where counter-claims to product stewardship can not be verified); a sense that a purchase is too small to have a meaningful impact (perhaps a sense that the problem itself is large and that an individual or household action will not affect the solution); and preference (e.g., strawberries in winter because it fits with the dinner plan). Another reason for the value-action gap is that many actions that need to be taken are prone to “forgetting.” A classic example is remembering to bring reusable shopping bags when going grocery shopping. In Canada, statistics show that in 2007, 30 per cent of households use their own bags, a number which has likely increased to nearly half today.⁴⁰ However, even the most dedicated individuals will forget reusable bags at home at one point or another.

³⁹ Rees 2004, McKenzie-Mohr 1999.

⁴⁰ Proudfoot 2009.

Consumption patterns can be consistent within a household, or inconsistent from one decision to the next in a household according to access or availability, for instance. This is true with goods as well as services like recycling: “Regarding recycling, the single strongest predictor of that behaviour was found to be access to curbside recycling.”⁴¹

2.2 Consumption clusters require different interventions

Policy instruments and tools that are effective in one domain are not necessarily transferrable to another.

When designing policies to shift consumption patterns, it is important to realize that consumption clusters require a unique mix of instruments. There are a number of categorizations of instruments available to governments, and one categorization⁴² distinguishes between:

- **Regulation:** government *rules and directives* that mandate receivers to act in accordance with what is ordered in these rules and directives.
- **Market-based instruments (MBIs):** powers to establish markets and/or affect the estimates of *costs and benefits*.
- **Informational devices:** means to influence production of knowledge, the distribution of *information*, and persuasion.
- **Voluntary agreements (VAs):** capacities to promote voluntary commitments by individual businesses and sector associations, which are the result of *negotiations* with public authorities and/or explicitly recognized by authorities.
- **Organizational arrangements:** powers to *change the organization* of government by new cooperation schemes, agreements or institutional arrangements within the governmental realm or between governments.

This does not mean that there are no cross-over policy tools, e.g., information campaigns, but that they need to be tailored to the specific context and paradoxes at play in each sphere. In instrument mixes “the “classical” method of making policy through laws or economic incentives is *complemented* with means such as monitoring, peer pressure and mutual learning.”⁴³ See Table 2.1 for some sample actions that have been proposed and implemented within the three key consumption clusters: mobility, food and housing.

Table 2.1 Sample Actions to Shift Consumption Behaviour ⁴⁴

Consumption cluster	Sample actions
Mobility	<ul style="list-style-type: none"> • Pricing measures (e.g., fuel taxes, congestion charges, clean car tax incentives) • Regulatory measures (e.g., emission standards (for level of emissions of new cars or car maintenance schemes)), parking restrictions, reduced car speed, free highway zones for car sharing) • Policies (e.g., mixed-use as a new paradigm for planning, short distance / human scale cities) • Information (e.g., information campaigns on regional and local products, car labelling, life cycle assessments of mobility options) • Investments in transportation infrastructure, particularly access to public transit (e.g., bus, cycling lanes) or alternative fuel car technologies (e.g., hybrid vehicles)

⁴¹ Darnton 2006; Doug Mackenzie-Mohr 1999.

⁴² Berg 2009

⁴³ Rubik et al. 2009

⁴⁴ EEA 2005, 2007; OECD 2002, 2008

Consumption cluster	Sample actions
Food	<ul style="list-style-type: none"> • Sustainability targets set along the food chain to address indirect effects of food and drink consumption (e.g., waste from the production process, distribution effects from transporting food) • Introduction of an integrated food label (that reflects social and ecological aspects), and the creation of a clearinghouse for all labels with analysis on existing criteria. • More research on the food system, including research into the retail structures and market concentration. • Establishment of standards for packaging waste. • Creation of a certification system for organic food. • Taxing food with high CO2 footprint and unhealthy food. • Trade rules reflect SCP, and export subsidies are phased out. • Policy-making takes into account life cycle and sustainability considerations of food production and consumption. • Targets set of minimum level of local and seasonal food in stores. • Public canteens provide fewer animal-based meals.
Housing	<ul style="list-style-type: none"> • Integrated policies created on spatial planning. • Guidance and support given for diverse housing options, including policies to encourage smaller household size and functional complete communities. • Standards for net zero and living buildings are defined. • Establishment of standards for energy and water use of appliances, and labelling appliances to support household choice in combination with information campaigns. • Energy taxes and energy conservation grants provided. • Introduction of water and energy pricing and metering. • Subsidies for renewable power, including solar power, and green electricity schemes. • Tax incentives to influence household size • Restrictions on water use (e.g., for landscape irrigation). • Establishment of accessible recycling facilities, recycle premiums, pricing on household waste, standards for waste packaging reduction, and awareness campaigns to avoid packaging. • Local waste separation regulations. • Development of best practice guides and toolkits for households, including supporting reduced consumption.

2.3 Distributional Concerns

Policy instruments can have a disproportionate impact on the more vulnerable and marginalized people and households in society.

The primary responsibility for change lies with the affluent, as their per capita share of resource use far outstrips the planet's supply. In Canada, we are currently engaged in ecological "deficit spending" where our consumption patterns do not reflect the actual stocks and flows of the natural system. At a more localized level, policy instruments need to take into consider their (potential) impact on the more vulnerable or marginalized households. There is evidence that user charges may be regressive, for example, where waste collection charges through unit pricing means that lower income households pay a higher proportion of their income than other higher income

households.⁴⁵ Another area in which distributional impacts are particularly marked is in transportation policy measures. A 2008 OECD study notes that some policy interventions seem to be progressive, e.g., bus transport subsidies, whereas others tend to be regressive, e.g., road pricing.⁴⁶ Table 2.2 lists a number of options that have been advanced for dealing with the potential regressive impact of household consumption policies.

2.4 Limitations of Market-Based Approaches

Economic instruments and tools are powerful but they can backfire or be limited in addressing the necessary cultural shift.

The concept of “willingness to pay” is the basis of the economic theory of value and refers to the value attributed by a person to a good or service as measured by what they are willing to pay, sacrifice or exchange for that good or service. The actual “willingness to pay” sometimes expresses itself differently in a hypothetical case (e.g., in a survey) as opposed to when the consumer is actually paying for a good at the cash register or deciding which service to use.⁴⁷ In other words, a person may state their willingness to pay a higher price for a green product but not be able to pay more or not want to pay that higher amount in an actual exchange. There is evidence that predisposed individuals will be more likely to take certain actions, particularly when economic instruments are deployed to offset long payback periods, such as providing subsidies or incentives to price goods or services at an equivalent level to competitor products. This economic adjustment may even bring in new audiences for a good or service.

Economic instruments have a key role to play, as is explored throughout this paper and in the experience of the case study countries. For example, unit-pricing for waste collection services is shown to be very effective in increasing recycling rates and reducing household waste. It is tied more closely to shifting consumption patterns than the more commonly applied, flat-fee pricing system.⁴⁸ In this and other cases, a market-based approach is guided by government policy, for example on solid waste management, and the economic incentives support this public goal. However, economic instruments have their limitations, especially if used in isolation from other policy instruments. For example, incentives can have less impact on a target audience because of, e.g., home occupation status: “Landlords will have few incentives to invest in energy / water efficiency equipments - which will mainly benefit the tenant. On the other hand, the tenant will have few incentives to make investments in a property (e.g., house, flat), they do not own.”⁴⁹

A rich lens is needed which complements “rational use” consumption patterns (centered on price point and access) with a set of norms and values to produce policy directives which are strategic enough to account for variation across households. The symbolic role of many consumer goods is still at play and provides both an opportunity and barrier to change. Incumbent on those seeking to shift consumption patterns is an attempt to reframe needs and wants within a more sustainable framework: “It is naive to ask consumers to ‘voluntary downscale’ and to give up their desires, without offering them alternative dreams.”⁵⁰ This requires a longer term cultural shift based in iterative dialogue amongst citizens to define desirable futures and to shape the guiding value system.

Given the importance of this broader cultural conversation, governments and other actors need to be aware of another way in which economic instruments can backfire. There is evidence that emphasizing financial savings and the economic self-interest of consumers in information campaigns about adopting sustainable consumption behaviour may undermine the deeper cultural shift needed to move away from an unsustainable consumer culture. These economic arguments for social change may reinforce individualistic and materialistic values that are currently at the root of consumer culture, rather than broaden value considerations to include moral and existential considerations.⁵¹ It may also undo shifts that are already occurring. Indeed, it has been shown in the 2008 OECD report that information tools “geared towards households’ non-economic motivations for environmental behaviour, such as personal and social norms [can have adverse effects]. In the case of recycling, given the importance that norms seem to have in the motivation of households to recycle (e.g., sense of civic duty, wish to be seen by others as a responsible citizen), the adoption of a pricing mechanism...maybe lead to ‘crowding out’ effects” wherein the citizen’s likelihood to recycle decreases with the shift from a normative to a financial incentive.⁵² Moving towards more sustainable household consumption patterns will require that economic instruments are used in way that complements a values-based approach aimed at shifting the cultural foundation of household behaviour.

⁴⁵ OECD 2008.

⁴⁶ OECD 2008.

⁴⁷ CCC 2004.

⁴⁸ OECD 2008.

⁴⁹ OECD 2008

⁵⁰ Tukker et al. eds. 2008, drawn from Tim Jackson (e.g., 2006).

⁵¹ Homer Dixon 2006

⁵² OECD 2008.

2.5 Unrealistic Time Horizons for Impact

Time delays in the effectiveness of policy tools and instruments are not taken into account in their design or assessment.

Household consumption choices are shaped by various internal and external driving factors. Changing household consumption patterns often requires an integrated approach to address interacting factors simultaneously while accounting for unexpected side effects (e.g., 'rebound effects' that undermine efficiency gains through increased consumption). These dynamics highlight the importance of taking time dimensions into consideration. Household consumption shifts in response to financial incentives or changes in infrastructure may change over short and longer time frames. For example, fuel charges combined with improved public transit options may first reduce vehicle trips in the short-term and then change behaviour of household members away from private vehicle use towards transit use. A 2008 OECD report notes that a similar time lag exists when introducing other types of policies like regulatory measures (e.g., parking restrictions).⁵³ In other words, change interventions should be monitored over longer time frames. This is particularly the case for assessing cultural shifts that may take many years to unfold.

For example, on energy consumption, consumer knowledge in Canada seems to have shifted since 2004 due to education campaigns on climate change. A report released by the Consumers Council of Canada in 2004 found that consumers were not willing to pay the premium for energy efficient products, to some extent because they were unaware of Canada's climate change commitments related to the Kyoto Accord.⁵⁴ Recent statistics (see Appendix C) show that Canadians have been moving towards more energy-efficient purchases for their homes, potentially partly resulting from awareness raised around climate change in the popular culture. This is very positive given that in Canada, consumers represent a third of overall energy use, and emit a similar percentage of total greenhouse gas emissions.⁵⁵

In addition, time lags are inherent in the dynamics of human behaviour impacts on ecosystems and on ecosystem services. Lag times can be short for clear evidence of over-harvesting of particular species, where feedback loops allow the impact to be minimized or halted within a short time frame. However, decades may pass before the impact of nutrient loading or climate change is felt, making management very difficult.⁵⁶ Section 3.1 provides further discussion on long-lag problems, time delays and feedback.

2.6 Incremental Steps can Undermine Revolutionary Change

A small commitment made by households does not necessarily lead to more significant changes in consumer behaviour.

Another paradox emerges when exploring the value of incremental improvements in households' consumption choices. Some social marketing experts discuss the merits of the 'foot-in-the-door' strategy as a means to promote pro-environmental behaviour.⁵⁷ Essentially, the theory behind this concept is that individuals may be unwilling to make changes in their behaviour or lifestyles, for instance, if this change or commitment to change appears to be significant compared with the status quo. A foot-in-the-door approach involves getting individuals to agree to a small commitment now, as this would prepare them for, and make them more prone to, accepting more substantial commitments down the road. The assumption is that individuals, in their desire to be consistent with themselves and to appear to be consistent to others, will agree to larger requests if they have already agreed to a small one. There is evidence to support that this is the case, and that the foot-in-the-door strategy has been successful in the past.⁵⁸

Many assume, though, that if individuals are prompted to make small changes in their life, this small behaviour change will act as a wedge, and will naturally lead to more significant changes on the part of these individuals. Research does indicate that although the foot-in-the-door may be effective in some particular instances, opportunities for consequential change remain limited unless certain conditions are respected, notably that individuals be specifically requested to undertake larger pro-environmental behaviours once they have already been asked to undertake small ones. Also, a 'negative spill over' effect has been observed to take place: as certain individuals undertake simple steps such as recycling, they may have an appeased conscience by feeling that they have "done their bit," avoiding more costly and difficult behaviours as a consequence.⁵⁹

⁵³ OECD 2008.

⁵⁴ Consumers Council of Canada 2004.

⁵⁵ Canada vs. the OECD: An Environmental Comparison, 2001.

⁵⁶ Millennium Ecosystem Assessment 2005.

⁵⁷ McKenzie-Mohr 1999.

⁵⁸ McKenzie-Mohr 1999.

⁵⁹ WWF 2008.

2.7 Rebound Effect

Gains in reducing unsustainable household consumption leads to unanticipated increased consumption in other areas which counteract sustainable development

Even if and as one changes household consumption practices, there is an unfortunate reality called the “rebound effect” which threatens to undermine any gains made through better technology and resultant efficiencies in manufacturing or use – unless corrective steps are taken to compensate for this. What is the rebound effect? As an example, in a study undertaken in the United Kingdom, those who recycle more are less likely to reduce their consumption of material goods. “As a process becomes more efficient, its products become less expensive so individuals may tend to consume more of those products at the same cost to themselves than they otherwise would have. This cancels any intended benefit from the gain in efficiency.”⁶⁰

Alternatively, the “rebound effect” means spending the savings gained from having invested in efficiency measures on other goods and services, thus cancelling out any ecological benefit. For example, savings from purchasing a more fuel-efficient vehicle may be spent on other energy-consuming goods and services, undermining the ecological benefits of a more efficient vehicle.⁶¹ A survey of US studies shows that the rebound effect is between 0 (for goods such as refrigerators) and 50 per cent of energy use (for space cooling) with a more typical figure of less than 30 per cent (for space heating, lighting and auto transport). A study of OECD countries’ energy use found that the rebound effect is at 5-15 per cent.⁶² The rebound effect means that a household’s actions are not always as expected. For example, a study in the UK shows that people who recycle regularly are less likely than average to reduce the amount of household waste they produced.⁶³

2.8 Overemphasis on Individual Choice and on Shifting Household Demand

The influence of structural constraints and lock-in behaviour is underplayed and individual households are the focus of blame and interventions.

Reflecting on experience in Europe, Arnold Tukker writes: “... even where there is freedom of choice, humans (and consumers) have too much on their mind to think through every little action they take. Much of what people do, like choosing their pub, shop or brand, is routine behaviour that only is changed during disruptive events, crises or other windows of opportunity (like moving, marrying, changing jobs etc.)”⁶⁴ Further, as described in the introduction, consumers are often locked into their use of certain goods and services because of external constraints they face. There can be a tendency to blame the individual or the household, when often the reason is deeper-rooted and structural.

Some of these constraints have cultural roots. For example, interventions to advance sustainable household consumption and even reduced consumption faces cultural resistance in that shopping is an acceptable pastime in its own right. There may even be bio-physical foundations with an evolutionary advantage to shopping with evidence that people experience increased dopamine when purchasing products (insofar as it is reward-seeking behaviour) and use shopping as a social conversation that establishes identity and hierarchical position in society.⁶⁵ A lack of connection with community means that people look for gratification and replacement of this sense of being part of a collective with material goods. The literature indicates that a sense of trust and community feeling leads to less consumption.⁶⁶ Other factors that influence the penchant for shopping as a pastime are structural, including access to transportation systems to engage in other activities, or the climate of the community with extreme weather conditions (hot and humid, or cold) enticing people to the regulated temperature of a store or mall.

It is not analytically rigorous to assign blame to individual consumer choice without taking structural conditions into account. Some authors describe three conditions that need to be met in order to achieve behaviour change: knowing, wanting and being able.⁶⁷ In other words, household members need **adequate knowledge**, which can be influenced by social instruments including awareness

⁶⁰ NGO context paper 2007.

⁶¹ NGO context paper 2007.

⁶² Edgar G. Hertwich 2006 in Jackson 2006.

⁶³ Darnton 2004.

⁶⁴ Tukker et al. eds. 2008.

⁶⁵ Jackson 2005

⁶⁶ Padanyi, personal communication 2009; Helliwell 2004.

⁶⁷ OECD 2002.

campaigns, education and information about product choice. Household members also need to be **willing to change**, which can be influenced by social instruments such as campaigns focused on the importance of their actions, by economic instruments that provide incentives or establish a higher price for unsustainable choices, and by regulatory instruments that can restrict the use of a product or service or establish standards. Finally, the household member needs to have the **ability to change**, which is influenced both by personal capabilities and by external factors including infrastructure, product choice, and the accessibility and reliability of alternatives.

By adopting an instrument mix to influence behaviour change, governments can ensure that a household can shift from knowing about a problem to being willing to change to having the ability to change. Both individual and systemic changes need to be addressed to promote pro-environmental behaviour, but which should be addressed first from a policy-maker’s point of view? The literature would indicate that removing external barriers should be targeted first before addressing internal barriers. Proceeding in this manner allows for the broader, more systemic changes to take place first. New social norms take root from which new behavioural patterns — pro-environmental ones — emerge. As infrastructure is provided to citizens (for example, comfortable, reliable, efficient and affordable public transportation), people start to change their habits and can progressively modify their outlook on what they may have formerly perceived as—in this particular instance—an undesirable mode of transportation. In other words, addressing external factors first can not only lead to change in behaviour in of itself, but can also lead to internal changes as a consequence. Others argue for an integrated approach that addresses both internal and external factors in a systemic way. This approach will be further explored in Section 3 of this report.

2.9 Summary and Addressing the Paradox

Recognizing and Planning for Complexity in Advancing Sustainable Household Consumption: There are proven policy tools that governments can employ for accelerating behaviour shifts in households, yet puzzles remain given the complex factors at play.

Consumption patterns differ in their magnitude of impact and reflect households’ motivations and their understanding of their own needs and the real or perceived link to well-being. The decisions consumers make at the household level in terms of their housing, transportation, food and energy choices result in significant differences in their Ecological Footprints. Indeed, both their Ecological Footprints as well as their patterns of consumption are differentiated by socio-economic and other factors. It results in a web of interactions that policy-makers need to study as they seek opportunities to shift consumer behaviour towards sustainable consumption. This shift includes supporting consumers with fuller information about the products they consume and their impact, as well as moving households from focusing on their “wants” towards a stronger focus on their “needs,” with attendant lowered overall consumption.

What are the possible policy tools or instruments that can address these paradoxes and challenges? As this report outlines, there have been proven techniques that governments can employ for accelerating such behaviour shifts in households, yet puzzles remain given the complex factors at play. Certain policy instruments – e.g., awareness-raising campaigns and eco-labeling – on their own are not effective in creating behaviour change, in part because of the value-action gap that was described above and in part because they may not take into account structural constraints. Table 2.3 discusses some approaches that have been attempted in different countries and present a starting point for the case study analysis.

Table 2.2 Possible policy interventions to address the paradoxes⁶⁸

#	Paradox	Description	Possible policy approaches, tools or instruments
2.1	Value-action gap	More information does not necessarily lead to corresponding actions	<ul style="list-style-type: none"> • Create an environment in which sustainable consumption is mainstreamed into consumers’ current lifestyles. • Make the sustainable choice easy to implement, practical and financially attractive. • Make unsustainable consumption less easy by removing products, or pricing them to be less accessible or more costly through taxes or regulation. • Visual and auditory prompts, e.g., a sign at the cash register to use a reusable bag

⁶⁸ A synthesis of policy implications for influencing household behaviour can be found in OECD 2008, Rubik et al. 2009. Some of the content of this table has been adapted from these studies.



#	Paradox	Description	Possible policy approaches, tools or instruments
			<ul style="list-style-type: none"> Information-based options (e.g., labels) tend not to be effective if used in isolation but need to be part of an instrument mix Emphasis on building community around sustainability issues and reducing isolation of households within their existing communities in order to create community support through peer influence and normative pressure for households to take action
2.2	Consumption clusters require different interventions	Policy instruments and tools that are effective in one domain are not necessarily transferrable to another	<ul style="list-style-type: none"> Explore the appropriate instrument mix per sector, based on evidence in Canada and other countries Energy efficiency standards are shown to be very effective Even within a cluster, it is not effective to develop a uniform programme but instead tailor the programme to reflect variation across households (e.g., specific geography, community, car use, income group, housing type).
2.3	Distributional Concerns	Policy instruments can have a disproportionate impact on vulnerable and marginalized people and households in society	<ul style="list-style-type: none"> Ensure that basic needs are protected and offset unintended regressive impact of, e.g., unit pricing, through the reduction of taxes or the provision of direct financial support to low-income families. Provide subsidies, e.g., of energy-efficient appliances (especially if standards are established that call for compliance). Ensure that there are adjustment options to policies that are progressive, e.g., more household transportation choices available. Carefully consider the nature of the good consumed in designing interventions and aim to tailor response (e.g., water use policies that ensure that basic needs are met vs. luxury use of water for swimming pools). Consider the importance of related-expenditures of the policy intervention in the total “basket” of expenditures for low- and high-income households.
2.4	Limitations of Market-based Approach	Economic instruments and tools are powerful but they can backfire.	<ul style="list-style-type: none"> Tax incentives that are aimed at a target group (e.g., to tackle landlord-tenant type issues) Adopt social marketing techniques that combine economic incentives with information-based campaigns, normative cues etc. Establish visioning processes and dialogues amongst citizens to identify broader societal goals and guiding values. Create deposit refund systems which return financial incentives to the consumer. Apply unit (or volume-based) pricing which ties price to actual goods or services consumed (or wasted), e.g., unit-pricing for waste collection service. Employ non-pricing mechanisms such as water restrictions (e.g., landscape irrigation). Facilitate the distribution of tools for efficient resource use (e.g., low-flow showerheads).

#	Paradox	Description	Possible policy approaches, tools or instruments
2.5	Unrealistic Time Horizons for Impact	Time delays in the effectiveness of policy tools and instruments are not taken into account in their design or assessment	<ul style="list-style-type: none"> • Note a time delay with fuel taxes, which seem to have a stronger effect on fuel use and kilometres driven in the long run (than the short run)⁶⁹ • Specify clear indicators that can measure longer-term progress and provide the basis for adaptive management and improvements over time. • Pilot different interventions simultaneously to assess their short and long-term effectiveness.
2.6	Incremental steps can undermine revolutionary change	A small commitment made by households does not necessarily lead to more significant changes in consumer behaviour.	<ul style="list-style-type: none"> • Set stretch goals, e.g., zero waste. • Change the system parameters (e.g., better transportation infrastructure), especially for the high impact consumption clusters. • Facilitating substitution possibilities (e.g., subsidies for cost-effective heating technologies). • Link environmentally friendly products to health concerns in order to establish a clear incentive to adopt more significant behaviour change.
2.7	Rebound effect	Gains in reducing unsustainable household consumption leads to unanticipated increased consumption in other areas which counteract sustainable development	<ul style="list-style-type: none"> • Place a cap on the amount of energy, water, fossil fuels etc. available to a household, and allow for tradeable permits above the level required for basic needs so that, for example, households that want to purchase additional energy consuming appliances must purchase credits from other households. • Emphasize source reduction in order to achieve absolute reductions in material and energy use. • Establish price increases of a good or service (through, say, a tax) in proportion to the savings achieved through gains in efficiency (thus keeping the price of the good or service the same as it was previously instead of rendering it cheaper). • Consider regulating limits on housing size for households.
2.8	Overemphasis on individual choice and on shifting household demand	The influence of structural constraints and lock-in behaviour is underplayed and individual households are the focus of blame and interventions	<ul style="list-style-type: none"> • Focus intervention efforts on shifting structural conditions for facilitating greener consumer decisions, e.g., transportation system, curb-side recycling • Work with nodes of consumption, e.g., supermarkets, industrial clusters.

There are a number of important commonalities amongst the suggested approaches, tools and instruments which are worth highlighting. Many of the paradoxes described above result from the **unintended consequences** of particular interventions, and from a **limited definition of the problem or solution** in terms of the elements being considered, their interconnection with other factors, and their resultant dynamics over time. This analysis indicates the need for a systemic approach to addressing sustainable household consumption. The next section details the elements of a systemic approach as an analytical basis for assessing the European case studies in Section 4.

⁶⁹ OECD 2008.

3. Sustainable Household Consumption as a Systemic Challenge

- **Seeing the whole system and looking for relationships and connections:** A systems thinking perspective is useful for understanding that households are complex systems of interdependent and interconnecting parts, which, in turn, are embedded in other systems including social networks, infrastructure and institutional rules that constrain or enable their actions. Household behaviours are influenced by **driving forces: internal** (e.g., socio-cultural), **external** (e.g., institutional), and **meta** (e.g., global natural resource scarcity).
- **Anticipating unanticipated consequences and looking for change over time:** A systems perspective not only stimulates thinking about the boundaries of the household system, but also about how this complex system changes over time, often in unexpected ways because of dynamics such as **feedback loops, synergies, and time lags** between cause and effect. It also encourages consideration of the **long-term and local and global consequences** of household behaviour and of interventions in the system.
- **Finding leverage points:** Understanding system dynamics can provide insight into **priority action areas** or places within the complex system where small shifts lead to **cascading effects** that influence household consumption behaviours, including changes in structural conditions that shape household choice.
- **Engaging a variety of actors and employing an instrument mix:** the complexity of the household requires the collaborative engagement of **multiple stakeholders** including the public sector, private sector, retail, civil society, media, research institutes and household consumers, with government taking the lead. Because of variation across households and across consumption clusters (mobility, food, housing), a **mix of instrument tools and approaches** is the most effective approach to tailor interventions to specific cases.
- **Adopt an adaptive, learning approach:** as interventions are undertaken to influence sustainable household consumption, it is essential to **establish targets and indicators** and to **monitor results** in order to learn and adapt interventions over time. This monitoring should be coupled with in-depth **research** on the effectiveness of different interventions, as well as **parallel intervention pilots and rapid prototyping of solutions** that allow for experimentation of instrument mixes for effectiveness.

What does it mean to approach sustainable household consumption as a systemic challenge? First, it means that **households are understood as a system**, a group of interdependent, interacting and connected components that form a complex and unified whole. In the case of a household, these components include the individuals within the household with all their complex behaviours, mental models and consumer choices, as well as the physical infrastructure of the household. As will become apparent below, the **household system is embedded within many other systems** including systems of social networks, communities, transportation systems, global supply chains, and of institutional rules, norms and worldviews.

Second, it means **understanding the dynamics of these systems**. How does the system change over time? How do the component parts work together, influence each other? Because of their complex interdependence, the interactions of system components often lead to patterns of behaviour and events that can be unexpected and difficult to predict. To better understand households as systems nested within systems and the dynamics that lead to unsustainable or sustainable household consumption, it is useful to draw from the field of **systems thinking**⁷⁰, which **focuses attention on relationships, patterns and trends** amongst systems parts, rather than on the individual parts themselves, and **on the long-term and short-term impact of actions**. This section of the report details this systems thinking perspective and concludes with specific recommendations for the role of governments in addressing household consumption as a systemic challenge.

The **benefits** of adopting a systems thinking approach to advancing sustainable household consumption include **addressing the paradoxes and challenges** described in the previous section as well as **finding effective, efficient, enduring solutions to complex problems**. By creating a **more accurate picture of the reality of a problem**, it is possible to **avoid unintended consequences**, to **identify a wider set of alternative solutions**, and to **determine priorities for action**. There is also an **economic benefit** for adopting an integrated approach, as unintended consequences and failed or duplicate interventions can be costly to any actor seeking to influence a system in terms of **avoiding administrative and transaction costs**.

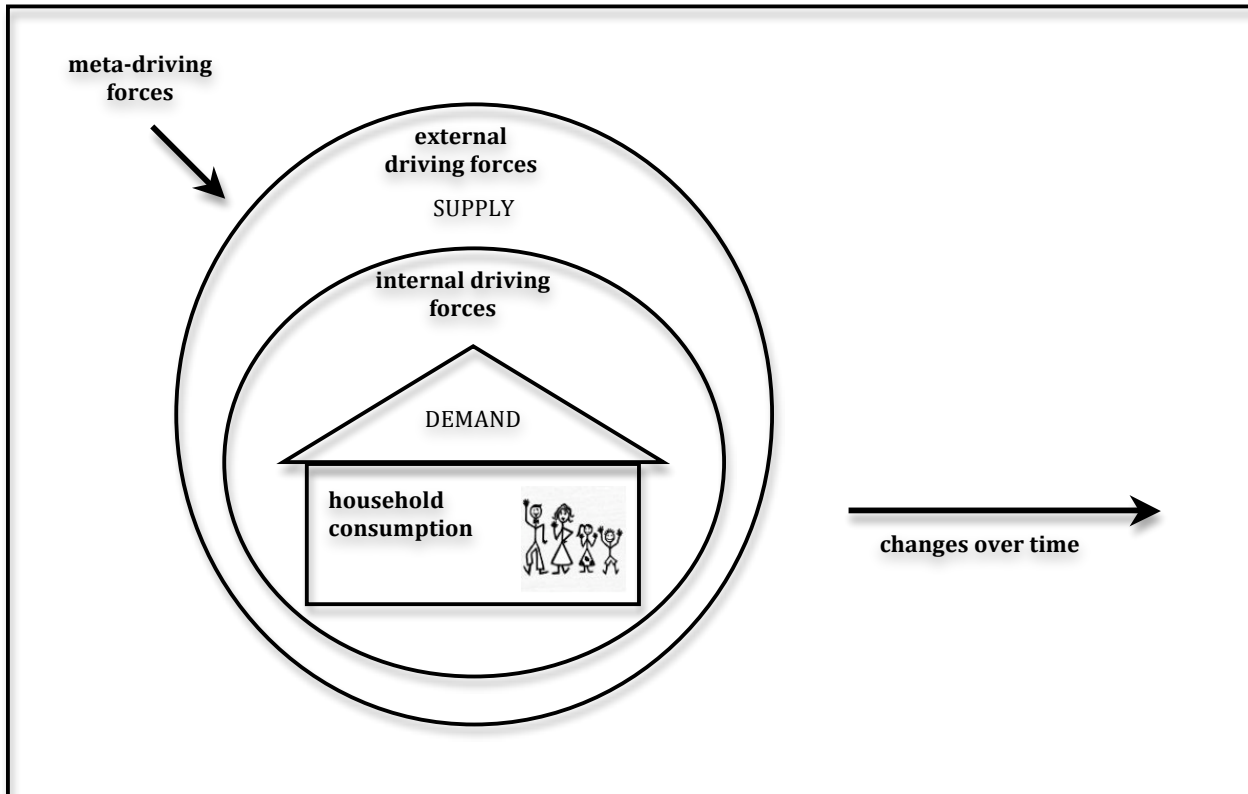
3.1 Making the Household Consumption System Visible

A key element in creating a sustainable household consumption strategy is understanding the system and its drivers in order to ensure better problem definition. What are the **driving forces** that influence household consumption? A complex system is highly contingent

⁷⁰ e.g., Booth Sweeney 2001

in that “how it behaves at any given time, and how it evolves over time, depends on a host of factors, large and small, knowable and unknowable.”⁷¹ One attempt at identifying the knowable factors has identified three categories of driving forces: **internal**, **external** and **meta-driving forces**.⁷² Figure 3.1 depicts household consumption as a system that is influenced by these three sets of driving forces and that changes over time.

Figure 3.1 Internal and external drivers of household consumption



The **internal system** includes the socio-cultural framework and values that define the basic needs and wants of the household, as well as the abilities of the household to make consumption choices. This is the **demand side** of the consumption and production system. It also includes the social contexts – the relationships and networks of friends, communities, neighbourhoods, organizations, workplaces, societies – within which the household and its members are embedded and whose influence can shift consumption choices.

The **external system** can be characterized as the infrastructure, institutional, political, regulative and economic systems that create the conditions within which households make choices. These structures determine the **supply side** of the consumption and production system. They are the structural systems that establish the ‘rules of the game’ within government, business, and society – the investment and financial parameters, business models and metrics, regulations and policies, laws, supply chains and distribution systems, and systems of access to information about household goods and services. Household consumption patterns are also indirectly shaped by society’s capacity for innovation, by research and development, and by society’s creation of new or adaptation of existing household goods and services.

One European Environment Agency report defines these two categories as follows:⁷³

⁷¹ Homer Dixon 2006: 25

⁷² Bleischwitz 2008

⁷³ EEA 2008

External driving forces are classified bundles of drivers that exert influence on private consumption and have a systemic, institutional and structural nature, i.e., they are not imminently influenced by one individual, if so rather at a political than an individual level.

Internal driving forces are bundles of drivers developing within and from socio-cultural environments, i.e., they are influenced more at individual and less at a political level.

These two definitions describe these driving factors in terms of **the capacity of individuals to influence their nature or the direction and scale of their impact**. This shifts attention from describing the components of the system to **understanding how the system changes over time and how to intervene in a system to influence its behaviour**. Systems thinkers embrace the fact that systems are always moving and changing, and that they are changing in unexpected ways because of their interdependent, interconnected nature. Unlike a machine, complex systems exhibit **systems dynamics** that are unpredictable:

- The interactions amongst the different parts of the system give rise to qualities or properties that are not measurable by adding up or analyzing the different parts. These are called **emergent properties** in systems jargon – when the whole is greater than the sum of the parts. For example, just as a sports team becomes a great team because of the interactions amongst the players, a household’s consumption patterns arise from the interactions amongst the individuals within the household and from the interaction with the internal and external system within which it is embedded.
- Complex systems also appear to be **path dependent** – past behaviour and factors that have shaped that behaviour have resulted in the system as it is at a particular point in time, regardless of the circuitous route it took to get there. In complex systems, shifting from that pattern or retracing to take a different path is not easy and often not possible.
- Section 2.5 discussed the **time delays** that sometimes occur when intervening in a system. Sometimes “one event can influence another – even if the second event occurs a long time after the first, and “far away” from the first.”⁷⁴ There is also an important distinction that can be made between long-run problems and solutions and long-lag ones.
With a long-run problem, a solution can be applied any time between now and when the problem manifests; the “solution window,” if you will, is open up to the moment of the problem. While the costs will vary, it’s possible for a solution applied at any time to work. [for example, turning a car to avoid a cliff, or a household starting organic composting to reduce their garbage and avoid a waste disposal fee]... With long-lag problems, there’s a significant distance between cause and effect, for both the problem and any attempted solution. The available time to head-off the problem doesn’t stretch from now until when the problem manifests; the “solution window” may be considerably briefer. [for example, climate change requires households to reduce greenhouse gases now to avoid global warming in the future].⁷⁵
- Systems thinkers understand that cause and effect in complex systems is not always proportional or predictable, such that dynamics are **non-linear**. The complex interaction of **feedbacks, synergies** and **multiplier effects** within the system either reinforce change or buffer the system from change. When change does occur, it can happen slowly or quickly, and incrementally adjust or radically transform a system. The transformation of a system can result from factors culminating over time or occur in a step change or a combination of these dynamics. For example, a household can absorb the rising fuel costs and continue to use the car for commuting and then, at a certain point, suddenly shift to using public transit.
- The dynamics of complex systems also exhibit **thresholds** in which the system flips from one pattern of behaviour to another, sometimes to such a degree that it cannot return to its past state or pattern. For example, a baby born to a household will shift that household’s pattern of consumption to a new equilibrium.

In identifying how to advance sustainable household consumption, it is possible to use knowledge of these system dynamics to support effective interventions. For instance, it is valuable to understand the **leverage points** of a system, which are the “places within a complex system ... where a small shift in one thing can produce big changes in everything.”⁷⁶ Section 2.8 highlights the problem with solely attributing unsustainable household consumption patterns to individual household behaviour choices without examining the structural conditions that lock households into particular patterns of behaviour or make alternative choices undesirable or inaccessible.

⁷⁴ Booth Sweeney 2001

⁷⁵ Jamais Cascio, September 30, 2008, Long-run vs. Long-lag. http://openthefuture.com/2008/10/long-run_vs_long-lag.html

⁷⁶ Meadows 1999

By focusing interventions on the structural conditions that shape household consumption choices, on how the parts of the system are organized, and on the rules of the system, it is possible to adjust **“upstream” conditions that can have cascading effects and influence household choices and behaviours.**

The highest leverage points in a complex system are the **mental models, worldviews** and **assumptions** that are reinforced by our broader cultural story or **socio-cultural framework**. Mental models shape and sustain the structures of the household consumption system. Systems thinker, Donella Meadows articulated the power of mental models through these questions:

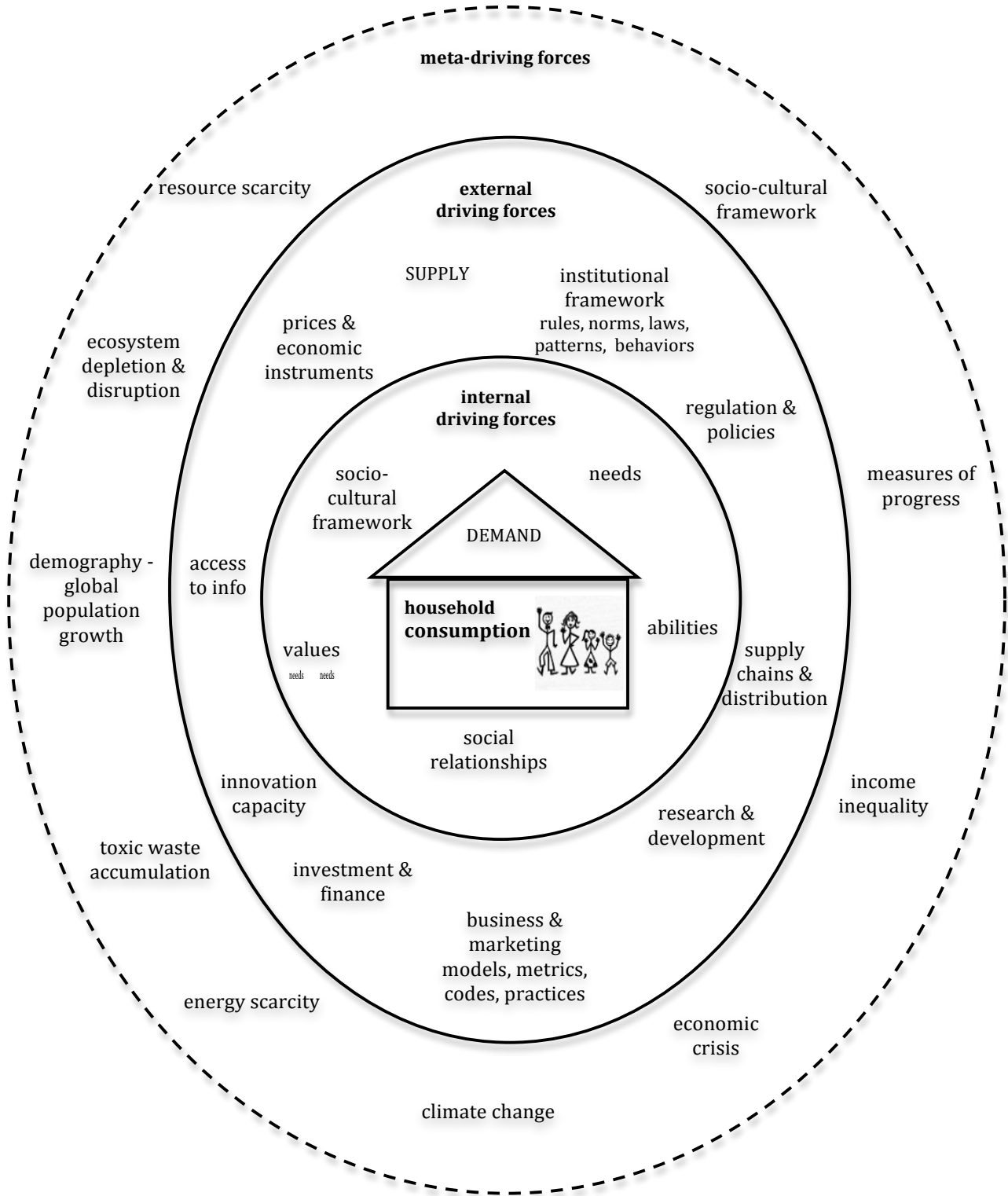
How is that one way of seeing the world becomes so widely shared that institutions, technologies, production systems, buildings, cities become shaped around that way of seeing? How do systems create cultures? How do cultures create systems? In what way may we be looking at a system through one shared lens?⁷⁷

The socio-cultural framework shapes the internal driving forces influencing the household, and this framework can also be considered a **meta-driving force** as it shapes the external drivers as well. Other meta-driving forces were covered in Section 1 of this report and include the global ecological context – climate change, material resource and energy scarcity, toxic waste accumulation – as well as social and economic factors – growing global population, income disparity, the current economic crisis, and globalization. The introductory section provides evidence that the nature and scale of the change that is required to shift from unsustainable to sustainable household consumption patterns requires an open discussion about the consumer culture, the individualistic and materialistic values that underpin these behaviours, and the ways in which progress is being measured.⁷⁸ Figure 3.2 depicts household consumption as a systemic challenge influenced at multiple scales by multiple, interacting internal, external and meta-driving factors.

⁷⁷ Meadows 2001

⁷⁸ Mont and Plepys 2008; WWF-UK 2008

Fig. 3.2 Sustainable Household Consumption as a Systemic Challenge
 Adapted from Bleischwitz 2008



3.2 A Diversity of Actors in the Household Consumption System

The complexity of the household consumption system means that no one actor is solely responsible for the system. A diversity of actors have a role to play in shaping the behaviour of this system through their decisions and actions, including governments, businesses, civil society and nongovernmental organizations, and consumers themselves. Advancing sustainable household consumption requires collaboration amongst these different stakeholders that bridges across sectors and approaches. Building on the previous section, effective interventions in the household consumption system require these actors to adopt a systems thinking perspective. Box 3.1 outlines twelve “habits of mind” that systems thinkers need to develop as the basis for decision-making.

Box 3.1: Thinking about Systems: 12 Habits of Mind

Source: Booth Sweeney 2009

A systems thinker develops the following 12 habits of mind:

Sees the whole: Sees the world in terms of interrelated “wholes” or systems, rather than as single events, or snapshots;

Looks for connections: Assumes that nothing stands in isolation; and so tends to look for connections among nature, ourselves, people, problems, and events;

Pays attention to boundaries: “Goes wide” (uses peripheral vision) to check the boundaries drawn around problems, knowing that systems are nested and how you define the system is critical to what you consider or don’t consider;

Changes perspective: Changes perspective to increase understanding, knowing that what we see depends on where we are in the system;

Looks for stocks: Knows that hidden accumulations (of knowledge, carbon dioxide, debt, and so on) can create delays and inertia;

Challenges mental models: Challenges one’s own assumptions about how the world works (our mental models) – and looks for how they may limit thinking;

Anticipates unanticipated consequences: Anticipates unintended consequences by tracing loops of cause and effect and always asking “what happens next”?

Looks for change over time: Sees today’s events as a result of past trends and a harbinger of future ones;

Sees self as part of the system: Looks for influences from within the system, focusing less on blame and more on how the structure (or set of interrelationships) may be influencing behavior;

Embraces ambiguity: Holds the tension of paradox and ambiguity, without trying to resolve it quickly;

Finds leverage: Knows that solutions may be far away from problems and looks for areas of leverage, where a small change can have a large impact on the whole system;

Watches for win/lose attitudes: Is wary of “win/lose” mindsets, knowing they usually make matters worse in situations of high interdependence.

Embracing the inherent uncertainty and complexity of the household consumption system also requires an approach to problem solving and decision-making which is focused on **learning** and **adaptation**. This approach requires the identification of clear vision, principles,

goals, objectives, targets and indicators to measure progress and provide the basis for adaptive management. The vision establishes the direction for aligning objectives, activities and targets and provides a guiding image of success. Principles are broad statements that set direction for all decisions, whereas goals and objectives elaborate on these principles to define the ultimate condition desired. Activities are proposed to deliver on the stated objectives and goals. Targets stipulate a clear and quantifiable desired level of performance. Indicators provide a method through which progress toward a goal and objective can be measured and should take time delays into account. These different strategy components together provide the feedback and are the monitoring systems that provide critical information needed to learn and make adjustments over time.

Diverse actors have specific roles, tools and approaches that they bring to bear on the household consumption problem and on addressing the consumption and production system within which the households are embedded. Figure 3.3 depicts one characterization of these different roles. **Governments** and **regulators** establish the conditions for sustainable household consumption through their negotiation of international agreements; through their establishment of national policies, laws and regulations, fiscal structures and incentives; through their creation and maintenance of infrastructure and services (e.g., transport, recycling etc.); through monitoring and enforcement; and through the guidance they provide to businesses and consumers.

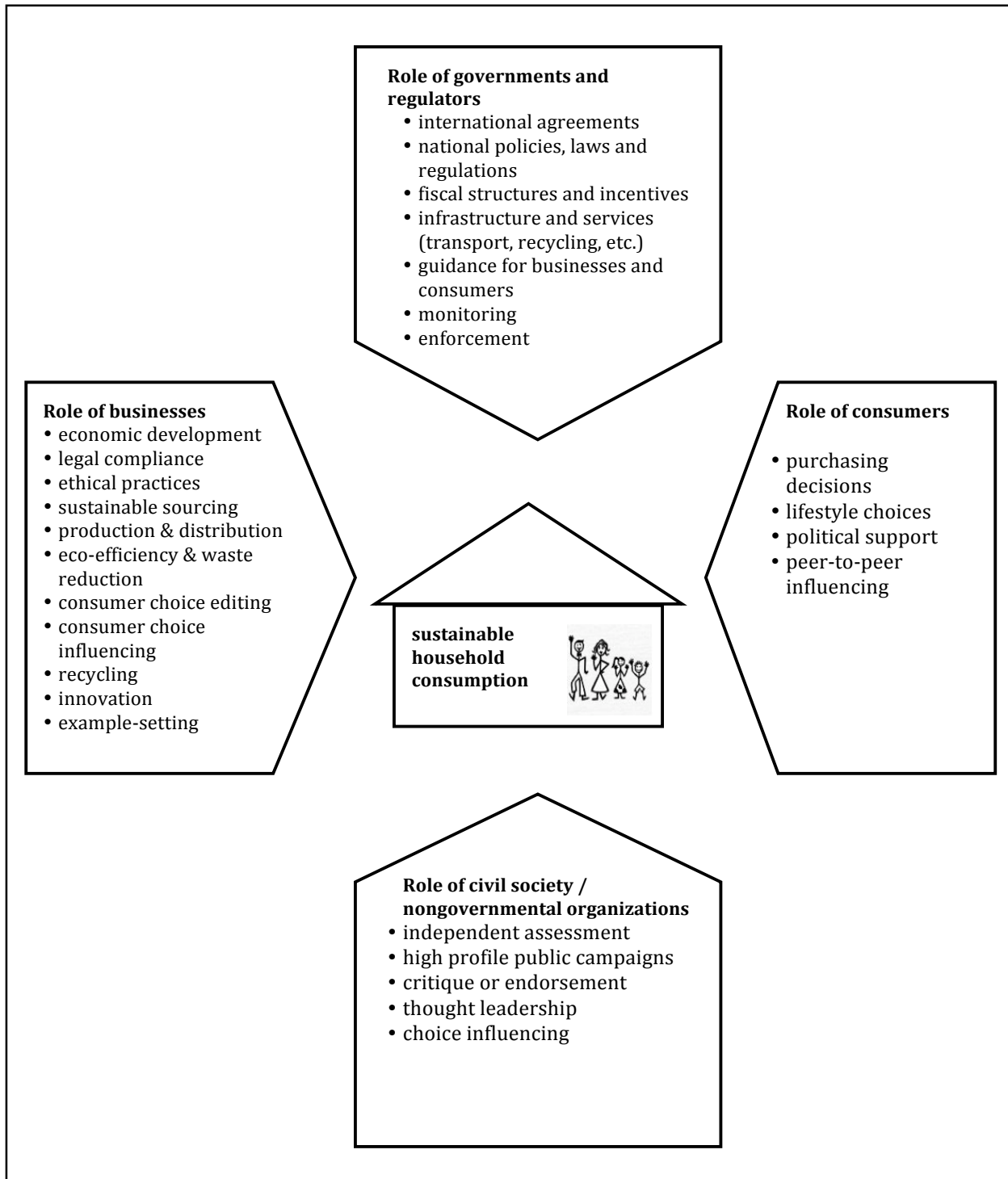
The role of the **business community** ranges from managing internal operational contributions through ethical practices, recycling, eco-efficiency and waste reduction, example-setting and legal compliance to being the engine of economic development and innovation. The private sector is central in shaping the production side of the equation and distribution as well as influencing the consumer and demand side through consumer choice editing (e.g., cutting out environmentally damaging products) and choice influencing (e.g., promoting green goods and services).

Civil society and nongovernmental organizations play a critical role in providing an independent assessment, critique and endorsement of the activities of the other actors. They can shape and influence the choices households make and the actions of other actors by launching high profile public campaigns. There is also an opportunity for these organizations and individuals to play a role as thought leaders, particularly in dialogue on the root causes of unsustainable household consumption and on effective tools for intervention to match the scale and urgency of the change required.

The **household consumers** have a role to play through the purchasing decisions they make and the lifestyles they choose. Through political engagement, consumers can shape the perspectives and actions of other actors and strive to directly influence their peers in their household consumption habits.

Figure 3.3 Roles of governments, consumers, business, and civil society in advancing sustainable household consumption

Adapted from WBCSD 2008



3.3 Key Insights for Government

What are the key considerations and elements drawn from the previous two sections that can inform governmental strategy on sustainable household consumption? The following points summarize a number of important insights.

3.3.1 Adopting an Integrated Strategy to a Systemic Challenge

The complex and interconnected nature of the sustainable consumption challenge requires an integrated strategy.

As a 2008 OECD report notes:

Sustainable consumption programs can promote coherence and realize synergies across a range of policies: consumer, education, economic, social, environmental, etc. In the absence of an integrated strategy, disconnected initiatives not only lack cohesion but the full force of a range of government ministries and their policy tools. Without coherent approaches to sustainable consumption in terms of sectors (food, energy), actors (households, women, youth) and instruments (regulations, taxes, communications), initiatives may have inconsistencies or significant gaps and be generally ineffective.⁷⁹

In adopting an integrated approach, Government recognizes the relationships and interdependence of production and consumption patterns, the importance of creating the external conditions for behaviour shifts (e.g., through infrastructural and institutional changes), the complex interactions of driving factors of household consumption, and the value of taking into account local and global and long-term consequences. The appropriate response to this understanding is an integrated, adaptive approach which involves a broad base of stakeholders in directing change, and which monitors feedback from change interventions to capture learning and influence subsequent policy and change interventions.

3.3.1 Multi-stakeholder collaboration

Multiple key stakeholders should provide input to, and ideally co-produce, a sustainable household consumption strategy, as well as implement the proposed activities.

There are a number of benefits from engaging other stakeholders including the private sector and civil society in advancing sustainable household consumption. First, the challenge of shifting household consumption patterns is a complex one which cannot be sufficiently addressed by Government alone but requires the engagement of a diversity of actors. Second, these actors can identify the risks and opportunities for action through the process of co-producing the strategy. Third, stakeholders can act as change champions and play a critical role in implementing the resultant strategy and providing input to monitor the effectiveness of change interventions.

3.3.2 Instrument Mixes to Address Internal and External Drivers

Interventions should be tailored to reflect significant variations in households.

Households' behaviour varies significantly according to various socio-demographic variables including income level, household size, geography (e.g., urban vs. rural), and age and education levels of household members. Targeted change interventions can benefit from the use of a social marketing approach which includes identifying the interests of audiences and their specific barriers to change in order to shape a tailored response.⁸⁰

Interventions are most effective when they use an instrument mix (e.g., information, market-based instruments, regulation) and these interventions should be tailored to reflect variations across different consumption clusters or sectors (e.g., food, mobility, housing).

For example, information campaigns are most effective at leveraging change when they are combined with other mechanisms such as pricing or social marketing. Insofar as choices and behaviours are restricted by the infrastructural system by which individuals are bound (e.g., they must take the car if no reasonable and accessible alternative exists), there are opportunities related to infrastructure planning and development. Table 2.2 details some of the insights that have emerged from analysis of effective tools and instrument mixes within different consumption clusters. As will be described, the research is clear that there is still a need for further analysis of this type in order to fill in the many gaps in understanding of the impact of specific tools and instruments.

⁷⁹ OECD 2008

⁸⁰ McKenzie Mohr and Smith 1999

Distributional concerns related to equity and fairness should be a key consideration.

Policy instruments can have a disproportionate impact on vulnerable and marginalized people and households in society if distributional concerns are not taken into account. Avoiding these inequitable results requires an understanding of the consequences of specific policy instruments on lower income and disadvantaged individuals, and a targeted approach to ensure that basic needs are being met and that the competitiveness of small businesses are not being unjustly undermined. Environmental taxes and charges are vulnerable to these distributional impacts, and can lead to a lack of compliance due to equity concerns. Policy instruments should be appropriately targeted and ensure that alternative options are available.

3.3.3 Government leading by example

High-level political commitment provides a framework for action.

Government leadership is supported by securing commitment from the highest level of government and by ensuring that encouraging sustainable consumption patterns is a Government priority.

Advancing sustainable household consumption requires a collaborative effort across Government departments.

As Section 3.2 outlined, a collaborative multi-stakeholder approach is necessary for advancing sustainable household consumption, and this includes collaboration amongst diverse departments within the federal government. Shifting the motivation and conditions for household choices requires the engagement of departments including those responsible for industry, trade, environment, natural resources, health, human resources, and public works. It also requires collaboration across levels of government from the municipal to the provincial to the federal level.

Government should lead by example through exemplifying sustainable consumption practices and public procurement.

This leadership supports markets for sustainable products and provides credibility to Governments in advancing sustainable consumption at the household level.

3.3.4 Importance of Research and Learning for Adaptive Governance

Information tools are a key component of any change intervention, including providing the monitoring and information feedback which are critical for learning and adapting interventions over time, and for driving and sustaining change.

Often information tools are identified as being a separate category from other policy instruments, such as financial incentives, regulation and voluntary agreements. In reality, there is an informational component to any policy approach. For example, financial incentives or new standards are ineffective unless the target audience is informed of their existence. Metrics such as Ecological Footprint analysis can be useful in analyzing impact, particularly given recent advances in identifying environmental impacts by sector.

There are significant gaps in research and information on effective change interventions.

Although there is a rich body of literature associated with understanding behaviour and social change towards sustainable consumption, there remain gaps in analysis with regards to the effectiveness of different policy interventions and policy mixes in achieving behaviour change and consumption reductions, and the impact of socio-demographic factors in influencing effectiveness. There are a number of organizations, such as the OECD and the European Environmental Agency, that are leading research initiatives to bridge these gaps in order to inform future policy frameworks and strategies.

Change interventions can build on and link to existing initiatives.

Not all household consumption shifts require new initiatives. By expanding or evolving existing programs, change interventions can reduce administrative and transaction costs while building on the social trust, capabilities, networks and knowledge that have developed over time.

Action-learning, rapid prototyping and parallel pilot programs are most effective in advancing change in a complex system.

The complexity of the challenge indicates that the impact of interventions is uncertain. In this context, traditional implementation models that require detailed strategic planning prior to taking action are not suitable in this context. Instead, an effective strategy under these conditions requires actors to undertake 'action-learning' in which strategies and actions are undertaken almost simultaneously or in rapid succession in an iterative way. This can include rapid prototyping of solutions as well as the parallel piloting of intervention strategies in order to assess effectiveness of an approach or the value of certain components of an approach. This approach to interventions supports learning and adaptation; however, its success depends on the creation of safe-fail environments in

which actors are provided with a buffer to experiment and to have higher rates of failure in order to take risks to find effective solutions. This experimentation should be coupled with a transparent process that reveals why pilot projects are or are not continued and expanded, and the lessons learned from the experimentation.

3.3.5 Socio-Cultural Framework: Addressing a Key Meta-Driver

Because of the scale and urgency of shifting household consumption patterns towards sustainability, change interventions should focus on large-scale, whole system-level changes, using incremental or small step interventions only if they support these larger shifts.

Rather than trying to fit sustainable household consumption patterns into people's current lifestyle and promoting small and 'painless' steps for change, change interventions need to be designed from the perspective that fundamental shifts are needed as a proportional response to the global challenges of resource depletion, climate change, pollution and gross social inequity. These fundamental shifts in policy and lifestyle will need to happen within a relatively short time horizon, particularly in response to climate change. There is evidence that small, incremental shifts distract from and can even undermine efforts to achieve systemic change. In order to avoid this paradox, change interventions need to engage in small step and incremental interventions only if they align with larger shifts.

It is precisely because the challenge is so great, and the time for action so short, that more systemic solutions are needed. We cannot afford to expend time and resources in the pursuit of marginal changes, unless we have a justifiable conviction that such approaches really do offer the most effective way to create the more fundamental changes that are needed.⁸¹

Change agents, including government, need to focus their efforts on higher level changes in the consumption system by shifting values, attitudes, institutional rules and norms, policies and plans, and infrastructure which either 'lock-in' or facilitate changes in household choices. Some argue that a focus on external factors (e.g., infrastructure and pricing) should precede a focus on internal factors (e.g., changes in attitudes), however, a systemic approach indicates that change should focus at multiple levels in order to create sustained shifts at the societal scale.⁸²

Targeted audiences are actors that can be engaged in a change initiative.

A key insight from analyses of change interventions and from systems thinking is the need to shift from a model of awareness-raising and persuasion of target audiences to a model of engagement and co-production of solutions alongside these change agents. Rather than perceiving change interventions as a one-way flow of information, governments can benefit from creating opportunities for dialogue and learning from, for example, the experiences of households in changing their actions in order to shape subsequent policy interventions. Through engagement strategies, government can build commitment to change and gain the support of the actors with whom they share the responsibility for advancing sustainable household consumption, including consumers, private sector, and civil society.

The social networks within which a household is embedded can be a powerful support for change.

Households and their members are nested within multiple networks of relationships including neighbourhoods, families and friends, workplace colleagues, communities of interest and society at large. These social networks can provide the cultural and normative framework for change by mentoring behaviour, fostering new ideas and social innovations, and building capabilities. Spill-over effects can take place from one social context to another such that an individual who adopts sustainable consumption behaviour in the workplace is more likely to adopt that behaviour at home. These networks are vital spaces for engaging in a dialogue about the values-based and systemic shifts that are required to shift to sustainable consumption patterns.

Systemic change requires a values-based approach that shifts the cultural foundation of household behaviour.

There is evidence that traditional market-based approaches which promote pro-environmental behaviour by emphasizing financial savings and economic self-interest may undermine the deeper cultural shift that needs to occur to move away from an unsustainable consumer culture. In fact, economic incentives can have the unexpected effect of 'crowding-out' value-based assessments of pro-environmental behaviour, and any use of economic arguments should be undertaken with this in mind. The challenge remains to shift away from individualistic and materialistic values to values that encompass a collective moral responsibility to current and future generations and that reflect a healthier relationship between people and nature. It is important to note that changes to culture require a

⁸¹ WWF-UK 2008: 11

⁸² Darnton et al. 2006

“normalizing process” which occurs as we settle into new ways of acting and behaving and “this requires a sustained and long-term approach to policymaking.”⁸³

The focus needs to be on creating absolute reductions in household consumption rather than on improving efficiency, and this requires concerted efforts to shift negative perceptions of consumption reductions

There is some debate as to whether the focus of sustainable household consumption strategies should be on shifting from unsustainable consumption to ‘green consumption’ rooted in more efficient production, or on facilitating absolute reductions in the consumption of materials and energy.⁸⁴ Given the scale of the negative environmental and social impacts of current household consumption patterns in high-industrialized countries, and because efforts to date have not had the desired benefits, it seems that securing absolute reductions should become an overarching principle of government action. This shift will require a cultural change as detailed in the point above. As opposed to only shifting to consume the same amount but of sustainable or green goods and services, households will need to consider when to not purchase or consume. This is particularly relevant for households with large ecological footprints who are using a disproportionate amount of natural resources and energy through their household choices. These considerations are critical in daily choices of products and services, including food choices, as well as in larger decisions including household location relative to work and amenities, size of housing, number of cars, and travel and recreation choices.

To what degree have these considerations and elements been taken into account by other countries in their development of sustainable household consumption strategies? The next section analyzes the sustainable consumption and production strategies of three European countries – Finland, Sweden and the United Kingdom – to answer this question.

⁸³ Knotts et al. 2008

⁸⁴ Mont and Plepys 2008

4. European Case Studies

The development of a sustainable household consumption strategy for Canada can be informed by examining efforts undertaken in comparable countries. There are lessons to be learned from those who have moved ahead in creating sustainable consumption and production (SCP) frameworks. Several governments in the European Union have been particularly advanced in their response to their international commitment to develop sustainable development strategies and, specifically, sustainable consumption and production strategies. For the purposes of this report, the strategies developed by Finland, Sweden and the United Kingdom were analyzed. The criteria for selecting these European case studies is described below, including their comparability to the Canadian context, and, subsequently, brief descriptions of each of the case study strategies are provided.

These cases are then analyzed based on the key insights from the sections above. Section 2 outlines some of the complex paradoxes and challenges that face actors in advancing sustainable household consumption, and Section 3 proposes that defining household consumption as a systemic challenge is critical to addressing these challenges. Based on these insights, the three case study country sustainable consumption and production frameworks will be analyzed for evidence of an **integrated approach** including:

- **multi-stakeholder engagement**,
- an **instrument mix** of policy tools and approaches, including instruments that address the **paradoxes** identified in Section 2; and
- **learning and monitoring** processes for adaptive management of household consumption patterns.

This section concludes with some insights from the Finnish, Swedish and UK government processes for developing sustainable consumption and production frameworks, and advancing sustainable household consumption. This chapter is inspired and informed by the work of Annukka Berg, PhD candidate at the University of Helsinki.⁸⁵

4.1 Case Study Criteria

The case study countries were selected based on three criteria (see Box 4.1). First, the country has developed a national sustainable consumption and production strategy in response to its international commitment at the 1992 UN Earth Summit and the 2002 UN World Summit on Sustainable Development. A number of countries have done so, and there has been a particular emphasis on addressing sustainable consumption and production within the European Union.⁸⁶ Within the EU, countries were selected that have been identified as creating exemplary plans and as playing a key role in placing sustainable consumption and production on the international agenda and leading current international discussions through the UN Marrakech Process.⁸⁷

In addition, Finland, Sweden and the United Kingdom are comparable to Canada in a number of ways. All four are highly industrialized countries with similar positions on the Human Development Index. There is some variation in terms of their Gross Domestic Product (GDP) rankings, which are as follows listed at purchasing power parity (PPP) in millions of international dollars: the United Kingdom (country rank #6) = 2,231,000; Canada (rank #13) = 1,307,000; Sweden (rank #33) = 348,600; and Finland (rank #53) = \$185,500.⁸⁸ However, these countries are all characterized as high-income, developed countries.⁸⁹ Canada and the UK have a similarly large carbon footprint per capita, which reflects their direct carbon dioxide emissions from fossil fuel combustion, as well as indirect emissions for products manufactured abroad.⁹⁰ Appendix D provides more statistics about each country's ecological budget. This is most extreme in the case of the United Kingdom, which has a limited bio-capacity in relation to its population. By contrast, Finland and Sweden have forestry and fishing resources that are equivalent to Canada's in proportion if not area.⁹¹ Important differences that inform the analysis in this report include the geographical size of Canada; Canada's interconnections with and proximity to the United States; the lack of a similar clear regional directive comparable to the EU; and political, historical and cultural differences. All three case study countries provide examples of how need combined with political will can support SCP efforts. Globally, all countries are now facing an urgent need to scale back their resource consumption, and this means that these countries can help point the way for Canada.

⁸⁵ Berg 2009; Berg 2007; Berg 2006; Berg, personal communication 2008 and 2009.

⁸⁶ EU 2004; EEA 2005; EEA 2007; EEA 2008

⁸⁷ Berg 2007; EEA 2007

⁸⁸ Source: CIA World Factbook: Country Comparisons - GDP (purchasing power parity) - 2008 data - <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html>

⁸⁹ Global Footprint Network, 2008.

⁹⁰ It also includes carbon dioxide emissions associated with extraction of these fossil fuels, such as flaring of gas. See Appendix D.

⁹¹ See Appendix D for more data

Secondly, case study countries were selected on the degree to which the sustainable consumption and production strategies address household consumption specifically, and details actions and instruments aimed at the household level. Finally, the case study countries were selected based on the amount of information available for investigation and the accessibility of that information.

Box 4.1: Criteria for Case Study Selection

- **A country that has developed a national sustainable consumption and production strategy and is comparable to Canada**

From the Johannesburg Plan of Implementation (2002, paragraph 14): *All countries should promote sustainable consumption and production patterns, with the developed countries taking the lead and with all countries benefiting from the process.*

From the 3rd International Expert Meeting on 10 Year Framework of Programmes on SCP, 2007, 25: *More than twenty countries have developed or are developing national SCP programmes. These include Austria, Sweden, France, Czech Republic, Hungary, Finland, Belgium, Romania, Norway and UK in Europe; Ethiopia and Mauritius in Africa; Jamaica and Argentina in Latin America and Caribbean; and Japan, Thailand and Indonesia in Asia and the Pacific.*

- **National SCP strategy/framework contains an analysis of sustainable household consumption**

The strategy needs to include specific mention of commitments and action at the household level.

- **There is significant access to information for case study analysis**

We have given preference to countries in which most of the key reports are in English and the key contact people can share their insights in English; and in which SCP strategies and supplementary materials (interviews with contact people, third party analyses, supporting documents) are readily available for analysis. Preference is also given to countries in which One Earth has connections to key case study contacts and information.

4.2 Overview: Sustainable Consumption and Production Strategies

Sustainable consumption and production issues are part of a more inclusive mandate to shift towards sustainable development. Over the past decades within United Nations conferences, Governments have committed to developing national sustainable development strategies. The sustainable consumption frameworks and action plans are part of this broader agenda. Finland, Sweden and the United Kingdom have all created national sustainable development strategies (NSDS) which have either been informed by previously created sustainable consumption and production frameworks (UK) or become the basis for the development of consumption action plans (Finland, Sweden). Table 4.1 reviews the SCP relevant strategic documents and national sustainable development strategies produced by each country.

Table 4.1 Overview of the SCP strategic documents produced by the countries⁹²

	Dedicated framework of programmes or action plan	National sustainable development strategy (NSDS)
Finland	<i>Getting More from Less: A National Programme to Promote Sustainable Consumption and Production (2005)</i>	<i>Towards Sustainable Choices – a nationally and globally sustainable Finland (2006)</i>
Sweden	<i>Think Twice! An Action Plan for Sustainable Household Consumption (2005)</i>	<i>Swedish Strategy for Sustainable Development (2002 and updated 2004)</i> <i>Strategic Challenges – A Further Elaboration of the Swedish Strategy for Sustainable Development (2006)</i>
UK	<i>Changing Patterns: UK Government Framework for Sustainable Consumption and Production (2003)</i> <i>I will if you will: Towards Sustainable Consumption (2006)</i>	<i>Securing the Future – Delivering UK Sustainable Development Strategy (2005)</i>

In the 2008 report *Promoting Sustainable Consumption: Good Practices in OECD Countries*, the OECD notes that Finland, Sweden and the United Kingdom have sustainable consumption and production programs, with Sweden and the United Kingdom being the “only OECD countries with dedicated sustainable consumption programs or action plans” (*Think Twice!* for Sweden, and *I will if you will* for the UK). It is important to note that implementation of the Swedish plan is currently on hold as a result of a change in government in 2006 from the Social Democratic Party to an alliance of Conservative parties. The new government did not endorse the SCP action plan developed by the old government; however, this plan was a pioneering document in this field and is still worthy of analysis.⁹³ There is more progress on the UK action plan and policy interventions. Finland’s *Getting More from Less* was endorsed for full implementation by the renewed NSDS in 2006.

4.2.1 Finland

Finland developed one of the first national responses on sustainable consumption and production by initiating a working process in November of 2003. The Ministry of the Environment and Ministry of Trade and Industry selected a widely based 31-member committee (KULTU Committee) of representatives from stakeholder organizations including various ministries, trade, industry, academic institutions, nongovernmental organizations and consumer groups who presented the results of their deliberations to the Ministries. The KULTU Committee held 23 meetings, informed by national and international experts, in order to draft proposals for promoting sustainable consumption and production. The committee was also informed by the ideas submitted by the wider public via a website. The key objectives of the program were to increase the efficiency of the usage of materials and energy through all stages of product life cycles, and to promote environmental education and develop and adopt environmental production technologies. In recognition of the nature of the SCP challenge and of the long timelines of at least 20 years that is required to shift SCP at the national and international level, the Committee created a vision for the year 2025 as an overarching framework for the goals and measures. The Committee proposes that Finland become the most eco-efficient and competitive society in the world by 2025 through long-term yet flexible policy-making. The vision commits Finland to strive to achieve globally negotiated targets identified within the UN Johannesburg Declaration (2002) including that “economic growth must be de-linked from harmful environmental impacts and the increasing use of natural resources.”⁹⁴ In light of these global targets, the Committee created a vision for Finland as follows:

In the future, Finland will base its economy on forms of production that increase national wealth and well-being without depleting biodiversity or exceeding the carrying capacity of natural systems through their environmental impacts. This will give rise to new business opportunities and jobs in sectors that promote well-being and environmental innovations. The eco-

⁹² Drawn in part from EEA 2007

⁹³ Berg 2009

⁹⁴ UN Johannesburg Declaration 2002

efficiency of production in Finland will rise throughout the production chain, with Finland being among the world's leading countries in this respect...People will have the motivation, opportunity and access to knowledge to allow them to make choices to support sustainable consumption and production patterns, as well as opportunities to participate in the planning processes and decisions affecting their surroundings. New eco-efficient product-service systems, sustainable high-quality products and social innovations will encourage a shift away from the accumulation of material goods to more service-based consumer cultures.

The program identifies 73 action points within eleven main fields of action, including the following:

- Forms of production that save materials and energy;
- Fewer material goods, but a higher quality of life;
- Building pleasant and functional communities;
- Improving the quality of construction;
- Getting transport on the right track;
- Sustainable food production from the farm to the table;
- Promoting well-being in workplaces and leisure activities;
- Setting an example.

In the Finland case, in terms of a specific focus on households, there are several programs and action points specifically related to shifting household consumption. For example, a Material-Efficiency Service Centre has been proposed as part of the field of action on forms of production that save materials and energy. It specifies that individual consumers would benefit from this centre. The centre would produce material-saving services for industry and provide an information bank for sustainable material use. The field of action on "fewer material goods, but a higher quality of life" notes the following:

Consumption in Finland has become more diverse, more individualistic, more material and more urban. The use of private cars has increased. The number of single-person households is rising and is already high in comparison to other industrialized countries. Although energy is used efficiently in Finland, consumption rates per head are still high.... The most significant environmental loads created by households are related to energy use in homes and cars, and the consumption of foodstuffs.

The programme addresses each of these high leverage consumption clusters – housing, mobility and food – with action goals. Other action goals relevant to shifting households include reshaping the taxation system, applying a policy mix to address consumption, calling for research and information on sustainable choices, incorporating regional differences and variation amongst households in implementation, planning compact functional and pleasant communities, introducing metering in households for heating and water, and increasing awareness of environmentally favourable leisure activities. Notably, *Getting More from Less* emphasizes the role of education and training combined with infrastructure shifts and economic incentives to reshape current social patterns of consumption and production through a discussion of values and of the links between environmental protection and economic and social wellbeing.

The final document was unanimously accepted by the Finnish government in June 2005 as *Getting More from Less: the National Programme to Promote Sustainable Consumption and Production*. The government endorsement was captured within Finland's renewed national sustainable development strategy, *Towards Sustainable Choices – a nationally and globally sustainable Finland*, released in June 2006.

4.2.2 Sweden

The Swedish government released its first draft of its *Swedish Sustainable Development Strategy* in 2002, and updated the strategy in 2004. Building on this national sustainable development strategy and the Swedish Consumer Policy Strategy, the Swedish Ministry of Agriculture, Food and Consumer Affairs developed *Think Twice! An Action Plan for Sustainable Household Consumption*. This action plan was released in 2005 with the goal of changing everyday consumption in households in order to reduce injustices and environmental degradation while improving personal health and finances. *Think Twice!* acknowledges that Government has a role in encouraging sustainable household consumption patterns as a critical component of achieving sustainable development. As noted above, this action plan has since been stalled with the election in September of 2006 of the alliance of Conservative parties in Sweden, who halted implementation of this action plan developed under the previous government.

The action plan specifically focused on households, and it was part of the Swedish government's efforts towards developing a complete programme for sustainable consumption and production (SCP) in response to its international commitments at the UN World Summit on Sustainable Development in Johannesburg. Alongside the household consumption action plan, the Government was aiming to

develop action plans focused on shifting production patterns as well as public and private sector consumption. Sweden hosts the UN Task Force on Sustainable Lifestyles as part of the Marrakech Process.

The action plan identifies and focuses on three thematic consumption clusters – food, housing and mobility – which, in Sweden account for a large proportion of the negative strain on health, society and the environment. These clusters also account for half of the disposable income after taxes spent by Swedes. The action plan identifies measures to encourage eating sustainably, with a focus on the promotion of food labelling and ethical and organic food consumption, the support to farmers adhering to quality certification systems, the creation of guidelines for school and workplace meals, and the preparation of an action plan on sound eating habits and increased physical activity. For sustainable living, the Swedish Government notes that a prerequisite is the conservation of energy and other natural resources, but also aspects related to health, personal finance, security and accessibility. Sustainable living is supported through measures including tax reductions and subsidies for energy reductions in housing, green tax shifting, metering energy use, energy labelling of appliances and availability of energy advisors, waste prevention and recycling, and production of a sustainable purchasing guide. Finally, sustainable travel measures include a proposed carbon-dioxide differentiated vehicle tax, laws to create easier access to renewable fuels, taxes on air travel and congestion charges in Stockholm, labelling of carbon dioxide emissions of cars and classification of alternative energy fuels, tax exemptions on diesel cars, and guides for purchasing new and used cars.

4.2.3 United Kingdom

For the Government of the United Kingdom, achieving sustainable consumption and production patterns is one of the top four priorities for UK action within the national sustainable development strategy – *Securing the Future - Delivering UK Sustainable Development Strategy*. In September of 2003, the Department for Environment, Food and Rural Affairs (DEFRA) and the Department of Trade and Industry (DTI) released a major government statement, *Changing Patterns: the UK Framework for Sustainable Consumption and Production*, which outlined an agenda to address sustainable consumption and production in response to the call for action at the World Summit on Sustainable Development. The document outlined the economic and environmental case for tackling SCP and highlighted the role of government in shaping and creating markets and establishing policies to advance SCP.

In 2005, the UK government provided further details on this SCP agenda within *Securing the Future. Chapter 3: One Planet Economy* identified the following areas of action for moving forward on the commitment on SCP:

- promoting more sustainable production and improving resource efficiency;
- encouraging more sustainable products;
- influencing consumption patterns;
- supporting innovation to bring through new products, materials and services;
- developing stronger partnerships with key business sectors and other key stakeholders;
- leading by example by working to embed sustainable procurement into the public sector;
- research and evidence building;
- sustainable waste management; and
- strengthening UK and international measures to improve the environmental performance of products and services.

Although the UK strategy places significant emphasis on the role of the private sector and markets in the shift towards sustainable consumption and production, household consumption is specifically addressed through such actions as the production of a guide on sustainable consumption – *I will if you will: Towards sustainable consumption - A Guide to Environment and Greener Living* – and its accompanying website. *I will if you will* was launched in 2006 to inform people about actions they can take in their everyday lives to address climate change and other environmental problems including in their homes, in their shopping behaviour; and in their decisions around travel, food, drink, waste and recycling, energy and water saving, and gardening. There are also ideas about actions to take beyond the household and personal decisions and influence the workplace, school and community.

I will if you will begins with a vision of the ‘good life’ that is possible in the future if people, business, and government share responsibility in taking the opportunity to create new solutions. The report notes that:

With the right imagination and application, the conditions can be right for all to live a good life and fulfill these aspirations, sometimes in new and smarter ways. And [to do] so with the essential bonus of living in ways that are sustainable so that they generate quality of life for all, and for good.

The UK focus is not only on ensuring basic needs but also on redefining the characteristics of quality of life. Informed by the government's Advisory Committee on Consumer Products and the Environment and sectoral strategies developed by both DTI and DEFRA, this report identifies recommendations across a number of areas including the four consumption clusters that generate four-fifths of household impact on the environment: housing, food, travel within the UK, and holiday travel. Action in addressing these areas include providing incentives for airlines to introduce an opt-out carbon offset scheme, encouraging on-site energy generation and smart metering to connect people to their energy use, enabling schools to provide healthy meals, and providing incentives for low-carbon cars.

I will if you will is clear in placing responsibility for shifting everyday consumption beyond individuals to include actions undertaken by government and business. Even within the section focused on actions by people, the report emphasizes the need to help people to act together. By engaging entire communities in change through community level projects funded by an Environmental Action Fund (EAF), the UK government aims to support people in recognizing that they are part of something bigger. The report also emphasizes the importance of deliberative dialogue on values and "thorny issues" in order to shift consumer aspirations, economic models and culture over a longer term towards sustainability. The right approach to engaging people includes ensuring the distributional equity and fairness of incentives and regulation, the need to make changes positive and tangible and to win people's trust, the importance of engaging people in a two-way dialogue as well as ensuring that government sets an example. Governments have a critical role to play as a "choice editor" by ensuring that sustainable products are close to equivalent to the norm in price, quality or availability through intervention when the market is not creating this product parity spontaneously. Governments can also set standards, provide performance labels and establish regulations to support a shift to sustainable consumption. The UK Government has established a two-way conversation with the public through the creation of the Environment and Greener Living Direct website which provides consumers with an impression of their collective impact of their actions and their connection to the bigger picture.⁹⁵

4.3 An Integrated Approach to Sustainable Household Consumption

As Section 3 describes, an integrated approach is one in which a whole system is considered along with the relationships and connections amongst its component parts. There is clear evidence of an integrated approach in the cases of the Swedish and the United Kingdom sustainable consumption and production patterns, described below, whereas Finland did not adopt an explicit integrated model within its programme.

In the case of the Swedish plan *Think Twice!*, the authors note that radical measures must be taken, such as changing consumer habits and the level of demand, in order to create meaningful and lasting change in consumption patterns. For this reason, the action plan aims to break the trend towards unsustainable consumption by focusing on three areas:

- **Enabling sustainable consumption;**
- **Motivating sustainable consumption;** and
- **Creating commitment to sustainable consumption.**

The plan suggests that enabling sustainable consumption happens through administrative and communicative control instruments as well as through measures such as community planning and sustainable urban development, energy efficient housing requirements, organic food production, coordinated information on sustainable consumption and education, standardization and labelling, engagement of the private sector and the European Union. Motivating sustainable consumption requires economic control instruments including a review of the tax system, individual metering of household water and energy use, an information website to monitor consumption patterns, and a nationwide energy efficiency campaign. These two areas are supported by the third area of creating commitment to sustainable consumption through an active dialogue on values. Different stakeholders, including Government, the private sector and a consumer movement, can support this dialogue and promote information campaigns on, for example, organic food, fair trade and on best practice.

One of the most comprehensive models for identifying the range of policy objectives that should be included in a holistic SCP strategy has been developed within the United Kingdom. Figure 4.1 provides one version of this model which classifies measures in four categories: enable, engage, exemplify and encourage.

⁹⁵ <http://www.direct.gov.uk/en/Environmentandgreenerliving/index.htm>

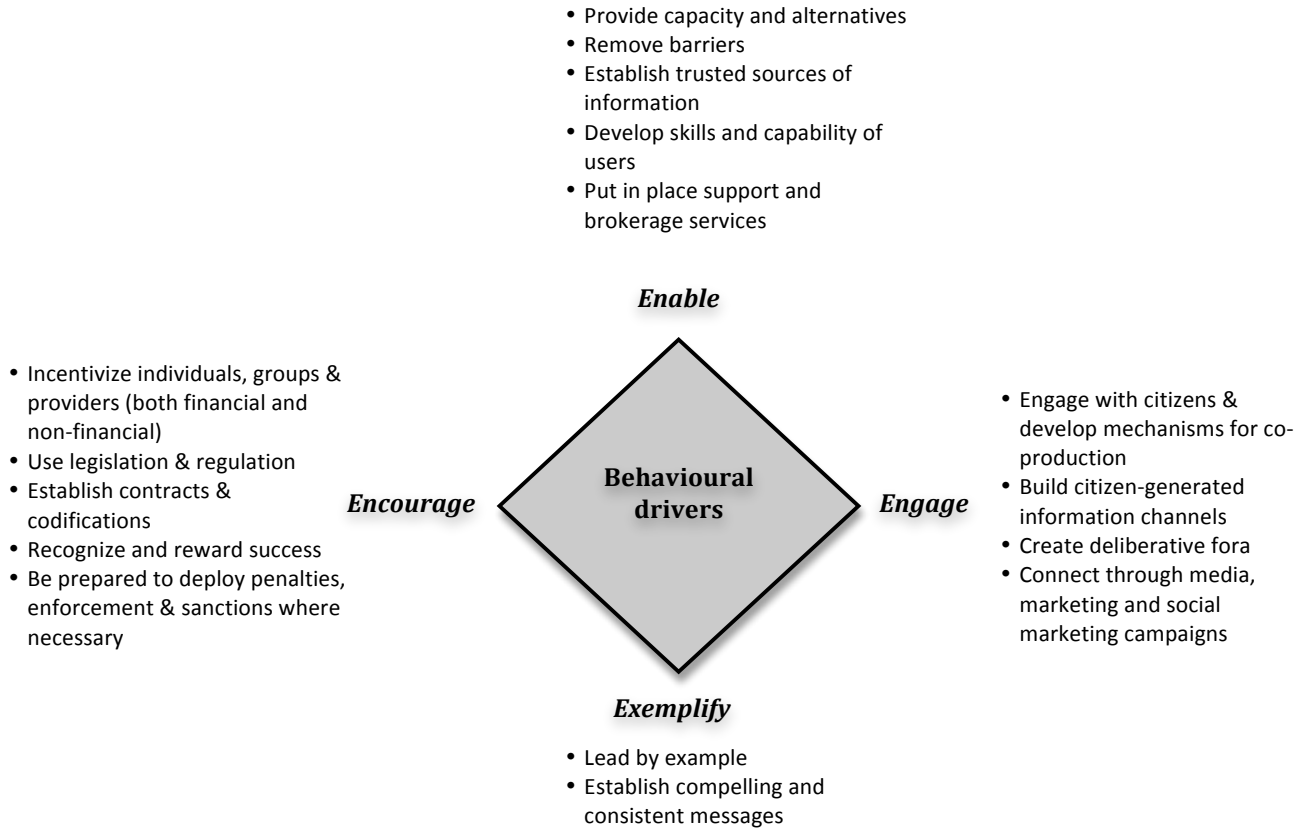


Figure 4.1 United Kingdom model of policy objectives to drive behaviour change⁹⁶

Enabling policies and programs are activities that build capacity and skills and identify alternative courses of action for moving towards sustainable consumption. Initiatives within this category remove barriers to sustainable choices, create support and brokerage services to assist those in need, and provide knowledge and education, supportive tools and funding. Governments can support the shift to sustainable consumption by creating **engagement** measures that draw citizens into co-producing new ideas and solutions and developing two-way conversations through information channels and deliberative dialogue spaces on how to shift consumption patterns. Leading UK expert in sustainable consumption, Tim Jackson notes that this approach is effective because consumer goods and purchasing behaviour are “implicated in ‘social conversations’ about identity, social cohesion and cultural meaning.”

It is clear from this that behaviour change initiatives are going to encounter considerable resistance unless and until it is possible to substitute for these functions of consumer society in some other ways. In this context, motivating sustainable consumption has to be as much about building supportive communities, promoting inclusive societies, providing meaningful work, and encouraging purposeful lives as it is about awareness raising and persuasion.⁹⁷

The social conversation has to shift to an engaging discussion of values and barriers to change. This is the realm of social marketing techniques to promote new and adaptive forms of behaviour.⁹⁸ Governments can play a role in **exemplifying** or leading by example in sustainable consumption practices, in enabling other visible figures and organizations to take the lead, and in establishing compelling and consistent messages around the need to shift towards sustainable consumption. Finally, government measures can **encourage** sustainable household consumption through measures such as financial incentives (e.g., taxes, subsidies, and user charges), legislation

⁹⁶ Jackson 2005

⁹⁷ Jackson 2005

⁹⁸ e.g., McKenzie Mohr and Smith 1999

and regulation to sanction certain actions or behaviour; contracts, standards and codifications to establish or frame expectations about behaviour; and awards and recognition schemes that reward success and best practice.

Finland has not adopted a similar integrated model for identifying its policy objectives; however, its action items reflect some of the elements of the models developed in Sweden and the United Kingdom. For example, Finland also proposes measures and approaches which motivate sustainable household consumption (e.g., information banks on the history of products and product labelling), enable these choices (e.g., land use planning to create pleasant and functional communities linked by accessible transport, sustainable agricultural policies), encourage sustainable consumption (e.g., through education and training including discussions of values through dialogues at regional environment centres), and exemplify sustainable consumption (e.g., through public procurement and sustainable consumption practices within government). In comparison with the United Kingdom, there is evidence that the implementation of Finland's programme is more piecemeal than the UK, with the material efficiency centre and the ecological taxation reform as the key actions being undertaken in this area.⁹⁹ In contrast, actors in the United Kingdom appear to be measuring implementation based on whether the action programs reflect the different components of their integrated model.¹⁰⁰ Given the fact that shifting household consumption patterns is a systemic challenge, there is a strong case to made for an integrated approach in which government and other actors are examining their strategies and actions based on how these actions link to a unified and whole systems approach.

4.4 Multi-stakeholder involvement

Consumption issues bridge environment, social and economic dimensions, and this multi-faceted nature of the consumption challenge can be reflected in the composition of the Ministerial committee dedicated to advancing sustainable household consumption through government intervention. In both Sweden and the United Kingdom, the sustainable consumption strategies were led jointly by Environment Ministries and Economic Ministries such as Trade, Industry or Natural Resources. In all cases, the strategies and programmes identified roles for different governmental departments including those responsible for environment, natural resources, health, land-use planning, industry, trade and agriculture.

In terms of adopting a **multi-stakeholder approach** and consulting with relevant actors, both the United Kingdom and Finland involved key stakeholders in creating their SCP frameworks; whereas Sweden's action plan was developed by government. In terms of implementation, there are some differences across the three countries. Finland's program is intended to be implemented by different ministries and a wide range of stakeholders. The UK's framework is primarily aimed at ensuring implementation by government and business with citizen engagement. Government and consumers are the key actors in implementing Sweden's action plan. Table 4.2 summarizes the lead government departments in each of the cases and the central actors that are expected to play a key role in SCP governance.

Table 4.2 Lead Government Departments and Central Actors in the Finnish, Swedish and British SCP programmes

Country	Lead government departments	Central actors ¹⁰¹
Finland	Ministry of Environment; Ministry of Trade and Industry	Society as a whole; ministries cooperating with stakeholders
Sweden	Ministry of Agriculture, Food and Consumer Affairs	Government that supports consumers
United Kingdom	Department of Environment, Food and Rural Affairs; Department of Trade and Industry	Government working with business

One clear distinction is that in the Swedish and United Kingdom cases, the implementation of the programme is placed in the hands of government with primary support either from consumers or from business. In the case of Finland, the responsibility for implementation is distributed across the entire society, which includes public, private, retail, civil society, academia, industry associations and others. As Berg (2009) notes,

In the Finnish SCP programme, the participative nature of the process was further emphasized by listing after each proposal the different stakeholders that were supposed to take part in the implementation process: In a majority of the 73 action points presented, there was at least one non-governmental actor mentioned among the executors.

⁹⁹ Berg 2009

¹⁰⁰ e.g., Knotts et al. 2008

¹⁰¹ Berg 2009

Berg also emphasizes that this distribution of key implementation actors may lead to diffusion of responsibility in terms of taking action.

4.5 Instrument Mix

All three countries adopt an integrated approach to identifying key priority areas for action to shift consumption patterns resulting in a similar set of high-leverage **consumption clusters – mobility, food, and housing**. The three countries also adopted a **mix of policy instruments** in order to encourage sustainable consumption and production. This is chronicled by Annukka Berg's analysis¹⁰² of their frameworks including Finland, Sweden and UK's proposed use of (1) regulatory instruments (2) market-based instruments (e.g., congestion charges) (3) voluntary agreements (e.g., recommended workplace environmental standards) (4) informational devices (e.g., ecological labelling) (5) institutional arrangements, as well as combinations of these instruments.¹⁰³ Table 2 details the results based on Berg's analysis of 73 proposals within Finland's *Getting More from Less*, 56 proposals in Sweden's *Think Twice!* action plan, and 97 proposals in the UK's *Changing Patterns* and *One Planet Economy* frameworks.

Table 4.3 The total number of action points in each SCP programme and the quantitative and percentage shares of different policy tool categories
Source: Berg 2009

Country	Total no. proposals	Regulation	MBIs	VAs	Informational devices	Institutional arrangements	Other / No tools
Finland	%	1	44	18	64	11	19
	73	1	32	13	47	8	14
Sweden	%	11	45	9	52	2	9
	56	6	25	5	29	1	5
UK	%	3	28	23	34	7	19
	97	3	27	22	33	7	18

MBIs = market-based instruments; VAs = voluntary agreements

Information devices are the dominant tools proposed by the governments. Berg interprets this finding as revealing in "that the pioneering SCP programs define the lack of information and communication as one of the biggest problems in the field."¹⁰⁴ Market based and voluntary schemes were also significant, whereas regulation was non-existent or marginal in all three cases. These results are also indicative of the current market based approach to shifting human behaviour rather than encouraging household consumption changes through regulation. Through interviews with Finnish actors, Berg uncovers that this absence of regulation is partly due to the perception of regulation as an instrument:

It was seen as potentially inflexible and coercive, as a relic of Soviet times. Regulations was not thought to fit together with the cooperative principles of sustainable development, and its chances of meeting the challenges of increasing material flows were questioned....It is associated with concepts such as 'traditional', 'bureaucratic', 'inefficient', and 'expensive'. Meanwhile economic instruments were called 'efficient', 'modern' and 'fine'.¹⁰⁵

As the section above describes, this approach may not be sufficient for advancing sustainable household consumption. Finland's program is particularly focused on incremental shifts through efficiency and has placed its emphasis on research. All three countries would benefit from more than just sporadic references to normative regulation,¹⁰⁶ particularly because of the effectiveness of regulation in promoting sustainable consumption, such as establishing product, emissions and industry standards.¹⁰⁷ Regulatory regimes establish clear parameters within which market-based instruments work and household consumption choices are made.

¹⁰² Berg 2007

¹⁰³ A. Jordan, R. K. W. Rüdiger and A. R. Zito (2003) *'New' Instruments of Environmental Governance? National Experiences and Prospects*, London & Portland, OR: Frank Cass – as referenced in Berg 2007

¹⁰⁴ Berg 2007

¹⁰⁵ Berg 2009

¹⁰⁶ EEA 2007: 25

¹⁰⁷ Tukker et al. 2008

In terms of addressing the paradoxes discussed in Chapter 2, all three case study programmes and action plans addressed the need for an instrument mix and the importance of tailoring interventions to reflect variations across households and across consumption clusters. These interventions were also aimed at shifting the conditions for household choice rather than placing responsibility on household decisions alone. There is preference given to information campaigns as part of addressing consumption issues; however, all three cases reflected a more nuanced understanding of information and its synergies with other instruments and policy tools in order to address the value-action gap. Similarly, market-based instruments were proposed as part of a suite of policy approaches, which indicates an interest in using economic incentives while acknowledging their limitations. In terms of the rebound effect, only Sweden and the UK recognize the existence of this pattern, but neither of these country programmes or plans propose actions that would address this problem, such as setting a cap on household carbon emissions alongside a carbon trading system.

Notably, all three acknowledge the importance of dialogue on the values and cultural frameworks that guide household behaviour choices, the role that the government can play in leading through public procurement, and the influence of larger-scale institutional and infrastructural factors in determining the capability for change in individual household consumption. There is a degree to which the three countries are building on existing and ongoing programs and activities; however, Finland leads in the novelty of the proposed measures as *Getting More from Less* solely identifies new initiatives.

4.6 Learning and Monitoring

Because of the dynamic interactions that result from the interdependence of consumption and production systems as well as the interconnectedness of different parts of the consumption system, an integrated approach to advancing sustainable household consumption requires **continuous learning** and **adaptive management**. Any intervention to shift consumption patterns is an attempt to direct change in a sustainable direction, but because of the complexity of interactions, these actions will likely encounter unanticipated dynamics and unpredictable effects that make the process of intervention inherently uncertain. Evidence of a learning approach to sustainable household consumption in the cases is found in the development of indicators and targets as well as through establishing a monitoring and feedback process. This section details the indicators and the monitoring processes in the Finnish, Swedish and UK cases. There is also some evidence of action-learning and adaptive management. For example, the Swedish government introduced congestion charges in Stockholm – a tax levied on most vehicles entering the city – for a trial period of seven months, and then engaged the Stockholm people in a referendum to ask if they wanted to continue the tax. The Stockholm municipality voted to adopt the congestion charge permanently, and parliament approved this into effect in 2007.¹⁰⁸

In the Finland programme, there are several targets identified including targets to reduce emissions from traffic, to increase energy efficiency, and to increase sustainable public procurement. Although the program does not identify specific indicators to track progress towards these targets, there are 34 indicators identified within the national sustainable development strategy including several directly related to SCP (e.g., Environmental Sustainability Index, Human Development Index, energy and natural resource consumption in relation to economic growth). Monitoring for implementation of the SCP program is being undertaken by an informal network from different ministries with a mid-term review and update planned for a period of five years (2010). Indicators in the national sustainable development strategy also track progress on household consumption, for example through the indicator monitoring the proportion of household expenditure on services.

Two of the twelve headline indicators in the Swedish *Sustainable Development Strategy* focus on sustainable consumption and production patterns – energy efficiency and investments in physical capital (gross and net), human capital (education) and Research and Development in order to highlight key components of sustainability. The 2006 government document, *Strategic Challenges – A Further Elaboration of the Swedish Strategy for Sustainable Development*, noted positive trends in both of these indicators. Evaluating the implementation of the *Think Twice!* action plan was led by the Swedish Consumer Agency who is expected to produce an annual account of the degree of sustainability of household consumption patterns. This analysis is based on the assessment of eight indicators, which are as follows:

1. The number of overweight or obese people (*Sustainable eating*)
2. The market share of organic labelled foods (*Sustainable eating*)
3. Energy utilization for heating and other electrical power use per unit area in single-family dwellings, multi-family dwellings and commercial buildings (*Sustainable living*)
4. Household access to commercial and public service (such as food, fuels, postal services and elementary schools) (*Sustainable living*)
5. The amount of household waste (*Sustainable living*)
6. Total CO₂ household emissions – direct, indirect and international emissions (*Sustainable eating & Sustainable travelling*)

¹⁰⁸ See for example: http://www.c40cities.org/bestpractices/transport/stockholm_congestion.jsp

7. Carbon dioxide emission levels in new cars (*Sustainable travelling*)
8. Household access to public transportation (*Sustainable travelling*)

This analysis was meant to form the basis of discussion at the proposed Forum on Sustainable Household Consumption. The plan was to have a final evaluation conducted in 2009 for presentation to the Riksdag and the Government; however, the 2006 Government shift has placed a hold on this process.

The UK Government tracks progress on action items and on 25 indicators on sustainable consumption and production identified within *Securing Our Future*. Some of these indicators are specifically aimed at tracking household consumption, including:

- Household energy use: domestic CO₂ emissions and household final consumption expenditure
- Private vehicles: CO₂ emissions and car-km and household final consumption expenditure
- Domestic water consumption: domestic water consumption per head
- Household waste: (a) arisings (b) recycled or composted
- Household and dwellings: households, single person households and dwelling stock (contextual indicator)

The UK Government has supported its efforts to develop and implement a sustainable development strategy, a sustainable consumption and production framework and a guide for sustainable consumption by drawing on a team of experts and advisors, including by establishing the UK Sustainable Development Commission, an independent adviser at the highest level (i.e., to the Prime Minister) on sustainable development. The UK SDC was created in 2000 with 18 commissioners representing academia, the scientific community, business and civil society and supported by a policy staff. It was expanded in 2006 to become a watchdog for the implementation of *Securing Our Future* and in 2009 become an executive non-departmental body. As *Changing Patterns* notes, the implementation of the sustainable consumption and production plans is recognized as being “a difficult and ongoing process” which is “not the work of some single policy pronouncement. The UK government notes that implementation involves joint actions by government, business and civil society as well as advocacy at the regional and international level.

4.7 Additional insights from analysis of the EU case studies

Analysis of the case study countries reveals that implementing sustainable consumption and production strategies, and corresponding sustainable household consumption actions, is not straightforward. This issue is inherently political as it raises questions about definitions of progress and the sustainability of lifestyles and household choices, and requires engagement on the cultural factors that underlie policy, social, economic and personal decisions. In high-consumption countries, it also poses questions about the ‘growth’ paradigm underlying our economic and social development models: a discussion that has recently been at the forefront in the UK.¹⁰⁹ Berg (2009) characterizes this challenge by distinguishing between efficiency and sufficiency arguments:

In general in the case of sustainable consumption and production, there seem to be two different ways of approaching the field. The one deals with promoting eco-efficiency while the other sees sufficiency – [absolute reductions in material and energy throughputs] – as a key to overcoming fundamental problems of the field. With regard to the pioneering SCP programmes,... the case of the UK highlights most the efficiency principle. It emphasizes that there is a win-win situation between the environment and the economy and that government and business can work together to tackle SCP related challenges on behalf of the consumer. A critique of growth and technology is absent but the name “One Planet Economy” can still be seen to reflect the idea of ecological limits. An eco-efficiency drive is also a very strong element in the Finnish SCP programme but the carrying capacity of the environment is mentioned several times, as are ideas about bending the growth of material consumption in favour of service consumption. Meanwhile, the Swedish approach towards SCP is ambiguous: At one point (Think twice!, 2005, page 4), it notes that while technological development has brought with it eco-efficiency gains, the increased consumption space has to a large degree been used for increased unsustainable consumption. In another context (Think twice!, 2005, page 3), it states that “economic growth is a prerequisite for sustainable development”. What emphasizes the sufficiency side in the Swedish approach, however is the general consumption orientation, the discussion on human needs and the versatile phenomena related to lifestyles.... While eco-efficiency is rather widely supported, strategies related to the sufficiency side of SCP do not fit neatly together with the prevailing governing mentalities.

¹⁰⁹ Jackson 2009

In North America, there is an additional challenge which these countries are not as confronted with: the focus on individualistic norms and aspirations, rather than the more collective norms prevalent in Europe. As one aspires to translate policy ideas from the European context to Canada, this is important to bear in mind. Further, it provides a window into the type of policy interventions undertaken to date and their effectiveness – or sometimes lack thereof. For example, the since-retired “One Tonne Challenge” sponsored by the Canadian Government focused on individual change, but had the potential to leave households and individuals feeling alone and powerless in their actions given that many of the constraints they faced were structural and impacted their own ability to reduce their carbon footprint.

Addressing SCP requires interventions across government mandates including industry regulation, land-use planning, and institutional rules, and engagement of multiple actors in a complex, collaborative process. The cases reflect the importance of high-level government engagement in the sustainable consumption and production field as well as clear leadership from a ministerial and departmental authority, supported by multi-stakeholder councils and watchdog commissions. A sustainable household consumption strategy benefits from a consistent and integrated approach across governmental departments in order to avoid duplication and contradictions and in order to articulate a clear message to target audiences, key stakeholders and the public about the direction for change. In order to secure its long-term viability, the SCP programme also needs to become institutionalized into the governmental bureaucracy. This would avoid the situation that Sweden has experienced in which a new government leadership results in the halting of progress on a sustainable consumption and production programme. The final section outlines recommendations based on this case study analysis and the literature review for the Canadian federal government.

5. Recommendations for the Canadian Federal Government

5.1 Summary of the Challenge and the Opportunity

Urgent and far-reaching action needs to be taken to reverse unsustainable consumption and production patterns and the resulting environmental pressure and social inequity.

Humanity is faced with an unprecedented massive challenge of reversing ecological destruction of the Earth's life support systems and of addressing growing income disparity. Scientific evidence indicates that the scale and rapid rate of global change requires systemic, strategic and large-scale changes in production and consumption patterns to ensure a sustainable future. Industrialized countries contribute disproportionately to the problems and therefore hold the responsibility to take a leadership role in reversing these trends.

Household consumption plays a significant role in the production-consumption chain.

Households make the final choices in terms of products and services to purchase and consume. Although households are relatively small players in the production and consumption chain, the cumulative effect of millions of households leads to major contributions to environmental problems such as air and water pollution, climate change, and waste, and to social problems such as poor working conditions and below subsistence income levels. Shifting the conditions within which households make choices is the most effective approach to addressing these issues.

The Canadian Government is taking commendable steps to fulfill its international commitment to reverse unsustainable consumption and production patterns.

As Section 1 outlined, governments agreed to advance sustainable consumption and production at the 2002 World Summit on Sustainable Development Johannesburg Implementation Plan, and to develop strategies at the national level. There are opportunities for governments to benefit from regional and international attention on sustainable consumption and production issues, particularly in the lead-up to the United Nations meetings to establish an international framework of programs on sustainable consumption and production in 2011. In North America, the Commission on Economic Cooperation (CEC) listed sustainable consumption and production as an important component of its cooperative work plan for 2008.

In November of 2008, the US and Canadian governments convened a regional North American stakeholder consultations workshop in Washington, D.C., as part of the United Nations Marrakech Process. Led by the Department of Foreign Affairs and International Trade (DFAIT) and including representatives from other departments including Industry Canada, Environment Canada, and Natural Resources Canada, work has been underway to follow-up on the recommendations of the workshop participants to begin the development of a possible sustainable consumption and production framework for Canada. This is a significant and positive step towards addressing household consumption as part of a larger sustainable consumption and production strategy. There is also an opportunity to link to the federal Sustainable Development Act which is currently under development. Other federal departments, including Health Canada, Human Resources and Skills Development and Public Works Canada, as well as other stakeholders (private sector, civil society, and the provincial and municipal governments) play a role in shaping this response and implementing the strategy. It is important to note that although considerable lessons can be learned from analyzing the approach of other countries, this remains a complex and systemic challenge and **the international community is learning together as to how to advance sustainable consumption and production, and sustainable household consumption. Canada has an opportunity to take the lead in this area and to engage in the international efforts to transform consumption and production patterns.**

5.2 Next steps

- **Address sustainable consumption as part of the Sustainable Consumption and Production Framework** currently being considered; and
- Identify a **ministerial and departmental lead** on the sustainable consumption and production file **supported by a cross-departmental coordinated federal effort, by clear budget lines and by high-level political commitment.**

5.3 Recommendations for the Ministerial and Departmental Lead

Adaptive governance:

1. Adopt a **learning and adaptive management approach** which ensures **active listening** to other stakeholders, iterative reflection and **questioning of assumptions and practices**, and coherence amongst the visions, objectives, actions and evaluation of its interventions;
2. Engage different levels of government, the private sector, civil society, media, retail, academia and other key players in the effort to advance sustainable household consumption through a collaborative process involving a **multi-stakeholder council**, and an **advisory commission** who can serve as a watchdog;
3. Develop **clear long-term sustainability visions and targets** that address the scale and urgency of the issue (for example, genuine progress indicators and index of wellbeing, carbon neutral, absolute reductions in household ecological footprints, green fiscal reform);
4. Provide tools for **monitoring at the household level** (for example, water and energy metering, transparent access to consumer product information) and at the **systems level** by establishing **sustainable household indicators** that make progress transparent (for example, on resource use, greenhouse gas emissions, green products, sustainable transportation use);
5. Support **continued research** on advancing sustainable household consumption and on the effectiveness of diverse interventions to build an evidence base and enable learning (for example, integrated impact assessment of national policies, life cycle assessments); and
6. Enable **experimentation** and **action-learning** within safe-fail environments.

Policy Tools and Instruments:

7. **Build on and integrate with existing federal programs** including the Eco-Logo program, regulatory frameworks for industry, extended producer responsibility programs, and green procurement;
8. **Develop interventions that shift the conditions within which households make choices** including institutional rules, land-use and transportation planning, infrastructure decisions, guidelines for dense housing construction, combined with **regulation** and **standard setting**;
9. **Get the prices right** by reflecting social and environmental costs into the prices of household goods and services and motivate sustainable household consumption through **fiscal incentives**, clear **information campaigns** and **labelling** to reveal the world behind products, and to encourage sustainable choices (e.g., non-toxic, 'Made in Canada');
10. **Engage in budgetary and ecological tax reform**; and
11. **Develop engagement activities with partners** to build commitment on advancing sustainable household consumption through the sustainable consumption and production (SCP) agenda as part of the Canadian response to the 2010 and 2011 United Nations Commission on Sustainable Development meetings on SCP, **and support initiatives of other actors to advance sustainable household consumption.**

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Appendix A: Advisory Committee

Anne McConnell <i>Willowdale, Ontario, Canada</i>	-Board Member, Consumers Council of Canada -Most recently, Director, Regulatory and Environmental Affairs, with Procter & Gamble's North American External Relations group (previously, held roles in R&D, Regulatory Affairs, and External Relations)
Arnold Tukker, PhD <i>Delft, The Netherlands</i>	-Researcher and Project Manager of SCORE! (Sustainable Consumption Research Exchange) , www.score-network.org -Programme manager (sustainable innovation) at TNO (Built Environment and Geosciences , Innovation and Environment), www.tno.nl
Annukka Berg <i>Helsinki, Finland</i>	- Researcher, Finnish Environment Institute - Researcher, University of Helsinki - Past Assistant to a MP at Parliament of Finland - Past Personal Assistant to a Member of European Parliament at Greens - Member of the SCORE! Network
David Waldron <i>Vancouver, BC, Canada</i>	-Director, Sustainability, David Suzuki Foundation, www.davidsuzuki.org
Jack Luskin, PhD <i>Massachusetts, USA</i>	-Co-Founder, North American Sustainable Consumption Alliance (NASCA), www.nasca.icspac.net -University of Massachusetts-Lowell
James Riordan <i>Ottawa, Ontario, Canada</i>	-Executive Director, Regulatory Innovation and Management Systems, Environment Canada, Government of Canada
Jeffrey Barber <i>Silver Spring, Maryland, USA</i>	-Executive Director and President, Integrative Strategies Forum (ISF), www.isforum.org -Co-Chair, Northern Alliance for Sustainability (ANPED), www.anped.org -Northern Co-Chair, NGO Caucus on Sustainable Production and Consumption, United Nations Commission on Sustainable Development
Joan Huzar <i>Victoria, BC, Canada</i>	-Board Member, Consumers Council of Canada -Past President and Founding Member of the Consumers Council of Canada and Chair of the Energy Committee -Member of the Canadian Commission on Building and Fire Codes
Linda Varangu <i>Kitchener, Ontario, Canada</i>	-Director and Co-Founder, My Sustainable Canada, www.mysustainablecanada.org
Meidad Kissinger, PhD <i>Vancouver, BC, Canada</i>	-Instructor, School of Community and Regional Planning, University of British Columbia
Paulette Padanyi, PhD <i>Guelph, Ontario, Canada</i>	-Chair, Department of Marketing and Consumer Studies, College of Management and Economics, University of Guelph, http://www.mcs.uoguelph.ca/padanyi.html
Peter Dauvergne, PhD <i>Vancouver, BC, Canada</i>	-Professor, Political Science, University of British Columbia -Canada Research Chair in Global Environmental Politics -Senior Advisor to the UBC President -Author of <i>The Shadows of Consumption</i> (MIT Press, 2008)
Sunghwan Yi, PhD <i>Guelph, Ontario, Canada</i>	-Assistant Professor, Department of Marketing and Consumer Studies, College of Management and Economics, University of Guelph, http://www.mcs.uoguelph.ca/yi.html
Tania Del Matto <i>Kitchener, Ontario, Canada</i>	-Director and Co-Founder, My Sustainable Canada, www.mysustainablecanada.org -Co-Founder, North American Sustainable Consumption Alliance (NASCA), www.nasca.icspac.net

In their advisory capacity, these experts were asked to perform three primary tasks:

- October / November 2008 – Review the bibliography and suggest any additional reading.



- December 2008 - March 2009 – Be available for a one hour interview with One Earth (Vanessa Timmer) on sustainable household consumption.
- March 2009 – Read the draft report and provide feedback.

Some of the advisors provide input beyond these tasks.

Appendix B: Authors

The report authors are from One Earth Consulting Ltd. and the One Earth Initiative Society. Their biographies are below.

Vanessa Timmer is Director of One Earth Initiative and Principal of Resourceful Solutions Consulting. She co-hosts the award-winning Canadian television show “The Sustainable Region.” From 2006-2008, she was Project Manager - External Relations at Metro Vancouver as part of the Sustainable Region Initiative, which brings together private sector, municipal governments, civil society and other partners to stimulate ideas and action around sustainability. Vanessa holds a Ph.D. in Environmental Studies. From 2002-3, she was a Fulbright Research Fellow at the Kennedy School of Government at Harvard University. She has written on initiatives combining poverty reduction with biodiversity conservation, on adaptive management and systems theory, and on the role of international civil society actors in global governance processes.

Emmanuel Prinet is Executive Director of One Earth Initiative and Principal of EcoStepping Stones Consulting. He also co-produces a video series called “Sustainability Productions” which highlights the good social and ecological practices of places around the world. He worked on European and international sustainable consumption and production issues for five years with the Paris-based non-profit organization Association 4D, a coalition that brought together more than 120 NGOs working on sustainability issues. In the past decade, Emmanuel supported NGO engagement with the French Government, the European Commission, the OECD and the UN. He also represented 4D in the NGO networks European Environmental Bureau, ANPED and OECD Watch. His experience with the UN is extensive. In 2007, he co-facilitated the NGO Forum for the UN’s 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (“Marrakech Process”) at the International Expert Meeting in Stockholm. He has attended the UN’s Commission on Sustainable Development every year since 2000. Emmanuel holds an MSc in Planning.

Dagmar Timmer is Managing Director of One Earth Initiative, Associate with the International Institute for Sustainable Development, and Principal of Resourceful Solutions Consulting. She co-hosts the award-winning Canadian television show “The Sustainable Region.” From 1999-2005, she worked on forest conservation and development issues. In Kenya, she helped facilitate a network of rainforest-agriculture margin research sites in the Amazon, the Congo and Southeast Asia with ICRAF (The World Agroforestry Centre). In Switzerland, she worked with IUCN - The World Conservation Union. Dagmar is a co-author of the Millennium Ecosystem Assessment (MA), contributing to the tropical forest margins assessment. She holds an MA in Political Science.

You can find out more on the One Earth website: <http://www.OneEarthWeb.org> or by email at info@OneEarthWeb.org.

Appendix C: How Canadian Homes are Going Green

This offers figures from the latest Statistics Canada report on household consumption (2009), as reported for CBC on February 10, 2009 (“How Canadian homes are going green”), online at <http://www.cbc.ca/canada/story/2009/02/10/f-enviro-house.html>.

“More Canadians are going green inside their homes, adding low-flow showerheads and low-volume toilets to save water in the bathroom and using programmable thermostats to help cut down on the heating bills. Statistics Canada’s latest look at the environmental state of Canadian homes also found that use of fluorescent light bulbs has sparked more interest in recent years. On the other hand, pesticide usage is up, but 12 per cent of households using pesticides are opting for organic ones. At the grocery store, 30 per cent of Canadian households use reusable bags. Here’s a closer look at what steps the average Canadian household is — or isn’t — taking to become more environmentally friendly:”

(Source: Households and the Environment: Statistics Canada survey)

Lights

- Percentage of households with at least one kind of energy-saving light: 84.
- Percentage of homes with at least one compact fluorescent light bulb: 69, up from 56 in 2006.

Showers

- Percentage of households with low-flow shower heads: 62, up from 54 in 2006.
- Province where low-flow shower heads were most popular: Ontario (65% of households).
- Province where low-flow shower heads were least popular: Saskatchewan (46% of households).
- Low-flow shower heads can use up to 70% less water and cut about 15% from the water heating cost.

Toilets

- Percentage of households with a low-volume toilet: 39, up from 34 in 2006.
- Provinces where low-volume toilets were most popular: Ontario and Alberta (47% of households).
- Province where low-volume toilets were least popular: Newfoundland and Labrador (28% of households).
- A new low-flow toilet can use less than six litres of water, less than half the volume of an older toilet.

Water

- Percentage of households where no one turns off the tap for brushing their teeth: 13.
- Percentage of households that drink mainly tap water: 59.
- Percentage of households that drink mainly bottled water: 30.

Thermostats

- Percentage of households with thermostats where they were turned down when people were sleeping: 57.
- Percentage of households with programmable thermostats: 42, up from 40 in 2006.
- Households with programmable thermostats were more likely to turn down the temperature while people were sleeping.

Grocery bags

- Percentage of households always using recycled or reusable grocery bags: 30.
- Provinces with highest proportion of households always using recycled or reusable bags: Ontario (35%) and Quebec (33%).
- Provinces with greater proportion of households rarely or never using recycled or reusable bags: New Brunswick (43%) and Newfoundland and Labrador (46%).

Furnaces

- Percentage of households that changed their furnace filters at least every six months: 66.
- Percentage of households that didn’t know when the filter was last changed: 6.

Pesticides

- Percentage of non-apartment households with a lawn or garden that used a chemical or organic pesticide: 33.
- Provinces with the highest use of pesticides: Saskatchewan (48%), Manitoba (47%) and Alberta (47%).
- Provinces with the lowest use of pesticides: Prince Edward Island and Nova Scotia (21%).
- Percentage of households using organic pesticides: 12.

Sustainable Household Consumption

Key Considerations and Elements for a Canadian Strategy

Appendix D: Ecological Footprint and Biocapacity

This data is based on National Footprint Accounts 2008 edition: October 26, 2008.⁵ All data is from the Global Footprint Network (*The Ecological Footprint Atlas 2008*, www.footprintnetwork.org/atlas). The data presented in this table represents a relevant sample of the information in the original, to highlight Canadian data and that of its comparator countries for this study. The original table has additional columns to further define the categories of “Ecological Footprint” and “Biocapacity.” In addition, the original table provides information for other countries.

	Population (million) ⁶	ECOLOGICAL FOOTPRINT (global hectares per capita)			BIOCAPACITY (global hectares per capita)				Ecological (Deficit) or Reserve
		Total Ecological Footprint	Carbon Footprint ²	Built-up Land ³	Total Biocapacity ⁴	Forest	Fishing Ground	Built Land	
World	6,476	2.7	1.41	0.07	2.1	0.81	0.17	0.07	(0.6)
Canada	32.3	7.1	3.44	0.09	20.0	9.30	3.96	0.09	13.0
Sweden	9.0	5.1	0.95	0.20	10.0	5.39	2.63	0.20	4.9
United Kingdom	59.9	5.3	3.51	0.20	1.6	0.09	0.55	0.20	(3.7)
Finland	5.2	5.2	1.68	0.16	11.7	7.22	2.73	0.16	6.5
High Income Countries	972	6.4	4.04	0.13	3.7	1.20	0.58	0.13	(2.7)
Middle Income Countries	3,098	2.2	1.00	0.08	2.2	0.83	0.23	0.08	(0.0)
Low Income Countries	2,371	1.0	0.26	0.05	0.9	0.13	0.07	0.05	(0.1)

Notes

World: Total population includes countries not listed in table.

High income countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, Korea, Rep., Kuwait, Netherlands, New Zealand, Norway, Portugal, Saudi Arabia, Singapore, Slovenia, Spain, Sweden, Switzerland, United Arab Emirates, United Kingdom, and United States of America.

Middle income countries: Albania, Algeria, Angola, Argentina, Armenia, Azerbaijan, Belarus, Bolivia, Bosnia Herzegovina, Botswana, Brazil, Bulgaria, Cameroon, Chile, China, Colombia, Congo, Costa Rica, Croatia, Cuba, Czech Rep., Dominican Rep., Ecuador, Egypt, El Salvador, Estonia, Gabon, Georgia, Guatemala, Honduras, Hungary, Indonesia, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Latvia, Lebanon, Lesotho, Libya, Lithuania, Macedonia, FYR, Malaysia, Mauritius, Mexico, Moldova, Rep., Morocco, Namibia, Nicaragua, Panama, Paraguay, Peru, Philippines, Poland, Romania, Russian Federation, Serbia and Montenegro, Slovakia, South Africa, Rep., Sri Lanka, Swaziland, Syria, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Ukraine, Uruguay, and Venezuela.

Low income countries: Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Central African Rep., Chad, Congo, Dem. Rep., Côte d'Ivoire, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Haiti, India, Kenya, Korea DPR, Kyrgyzstan, Lao PDR, Liberia, Madagascar, Malawi, Mali, Mauritania, Mongolia, Mozambique, Myanmar, Nepal, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Tajikistan, Tanzania, United Rep., Togo, Uganda, Uzbekistan, Vietnam, Yemen, Zambia, and Zimbabwe.

For the following countries, IPCC data supplemented FAO data for forest biocapacity calculation: Algeria, Bangladesh, Benin, Bosnia Herzegovina, Burundi, Chad, Egypt, El Salvador, Eritrea, Ethiopia, Gambia, Georgia, Haiti, Iran, Iraq, Jamaica, Jordan, Kuwait, Kyrgyzstan, Lebanon, Lesotho, Libya, Mali, Mauritania, Mauritius, Mongolia, Namibia, Oman, Rwanda, Senegal, Serbia and Montenegro, Singapore, Somalia, South Africa, Rep., Sri Lanka, Sudan, Swaziland, Syria, and Thailand.

1. Forest Footprint includes fuelwood.
2. Carbon Footprint of a nations' consumption includes direct carbon dioxide emissions from fossil fuel combustion, as well as indirect emissions for products manufactured abroad. It also includes carbon dioxide emissions associated with extraction of these fossil fuels, such as flaring of gas. Other consumption-related carbon dioxide emissions included in the accounts only of the global total are from cement production and tropical forest fires.
3. Built-up land includes areas dammed for hydropower.
4. Biocapacity includes built-up land (see column under Ecological Footprint).
5. All data from Global Footprint Network, 2008. The Ecological Footprint Atlas 2008, www.footprintnetwork.org/atlas
6. Population data from the UN FAO.
7. Updated edition (2000 bis). For more details see: Global Footprint Network, 2008, "Review and revision of the Netherlands' Ecological Footprint assessment-2008 edition: 2008 bis edition with trade adjustments." Oakland, October 2008, www.footprintnetwork.org.

**Government review of National Footprint Accounts completed.

*Government review of National Footprint Accounts partial or in process.

0.0 = less than 0.05

Totals may not add up due to rounding