

Sustainable Consumption: Issues and Challenges¹

I. Background and Overview

A. Agenda 21 and Public Concern

The issue of sustainable consumption has been the subject of growing interest since the conclusion of the Rio De Janeiro, Earth Summit in June 1992. There, sustainable consumption and production were explicitly supported in Agenda 21 (IISD 1996):

In order to support this broad strategy, Governments, and/or private research and policy institutes, with the assistance of regional and international economic and environmental organizations, should make a concerted effort to expand or promote databases on production and consumption and develop methodologies for analyzing them (Agenda 21, Chapter 4).

... the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries, which is a matter of grave concern, aggravating poverty and imbalances (Agenda 21, Chapter 4.3).

Over the past decade, public opinion surveys have consistently shown a public concern about the emergence of a consumer society, and its focus on satisfying individual wants, as the dominant set of societal values (Yearning for balance 1995). These same surveys have also suggested a public concern about specific environmental problems such as waste reduction, air pollution, and even global warming. Demographics do explain part of the emergence of these public concerns. However, a broader link exists between what, how much and why something is consumed in a society and environmental degradation. This discussion around the issues of materialism and the environment--of a globally sustainable level of consumption--is in its infancy. Right

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now, neither the public, media nor government have drawn a direct link between the societal trend toward materialistic values and these environmental issues.

B. The Purpose of this Paper

The purpose of this paper is to identify the key issues related to sustainable consumption, to describe current practices to move away from socially unsustainable consumption paths, and to identify possible options to achieve a sustainable consumption path in Canada. In addition to this more general and abstract discussion, two case studies of community action plans empowering households and individuals to choose sustainable consumption lifestyles are appended.

This paper provides a context for addressing these issues and challenges. It is not intended to be an exhaustive review of all the issues, but rather to provide a starting point from which a discussion on sustainable consumption may begin in Canada.

II. Consumption and Sustainable Development

For the purposes of this paper, there are two fundamental linkages between human consumption and achieving a sustainable development path. These linkages are based on a definition of sustainable development that infers i) the maintenance of stocks of natural resources, and ii) that these resources are consumed fairly. The first is straightforward: the consumption of natural resources now reduces the amount of resources available for future consumption. The second link relates to the distribution of the benefits from consumption. This includes who gains and who loses from existing levels and patterns of consumption. The former linkage is often perceived as an issue of resource allocation or scarcity. The latter is an issue of fairness between different socio-economic and political groups.

A. Natural Resource Scarcity

In a competitive market economy the concept of natural resource scarcity explains what is made and consumed within a society given a finite amount of natural resources available to make goods and services. The demand for these scarce natural resources determines their level of use as *inputs into production*, and imputes their value. The allocation of natural resources is determined by the *relative demand* for consumptive purposes of the goods and services produced. That is, the value of scarce resources is reflected in the price people are *willing-to-pay* to consume the goods and services containing these resources. Resource scarcity ensures there is *efficient pricing* in a market economy. Thus, the level and pattern of consumption in a society reflects both the relative value of different resources to a society and the quantity of resources consumed.

There are a number of often valid arguments that market prices do not efficiently allocate scarce resources. These include consumer choices based on less than full information, the lack of a competitive market to allocate resources efficiently, and other market distortions that result in the value of the resource not reflecting its full costs. Addressing any of these problems within a market will improve market efficiency, and will change current levels and patterns of consumption and the stock of natural resources available for future consumption. Improving market efficiency, however, does not mean human consumption will be sustainable.

Another approach to changing resource allocation and use is to shift human behaviour from individual consumers seeking to satisfy wants (i.e., desires) to meeting needs (i.e., necessities). This approach complements actions improving the use of natural resources by moving individual consumption patterns toward a sustainable path.

B. The Issue of Fairness

The non-sustainable consumption of natural resources *implies* an inequitable distribution of the gains from using the natural environment. This is the issue of fairness. In a market economy fairness, like resource scarcity, is often perceived as solely an issue of the efficient allocation of available resources. That is, the efficient use of resources provides the greatest benefits to a society. If one individual becomes better off, another becomes worse off. This is unfair.

There are two problems with such a definition of fairness. Firstly, what is “fair” is not defined. Secondly, the definition of “unfair” fails to consider whether or not the efficient allocation of resources meets the needs of all groups within a society. A society is only fair when resources are allocated in a manner ensuring that the basic human needs of all groups within it are met.

A common approach adopted in much of the developed world to distribute resources more equitably is through the reallocation of income to provide a basic level of support to less advantaged individuals. For example, the use of a progressive income tax regime in combination with social security measures ensures some minimum annual level of income to these individuals. The redistribution and restriction on income has also been presented as an approach to restrict consumption to more sustainable levels. At present there is vigorous debate regarding the efficacy of this approach to redistributing wealth. Reductions in personal disposable incomes will reduce the levels of consumption. However, restricting income fails to address the underlying causes of unsustainable consumption: the maintenance of consumptive behaviour where human needs are met primarily through the purchase of goods and services in the market place. This implies a need to develop a better understanding of why existing consumer purchasing habits evolved and how they can become more sustainable in practice.

III. Sustainable Consumption and Consumer Behaviour

The purpose of this section is to provide an understanding of consumption and the possible determinants of consumer behaviour. A brief overview of some existing plans encouraging sustainable consumption is also provided.

A. Seeking a Definition of Sustainable Consumption

An understanding of what consumption is and how it affects the natural environment is required to identify the issues associated with moving towards a sustainable consumption path. Consumption can be considered as the reason why things are made in a market economy. In addition, consumption and production, together, can be viewed as the source of all human-made stress on the natural environment. Assuming that all goods and services are produced to meet consumer demand, individual purchasing habits and lifestyles can be considered responsible for much of the environmental degradation arising from this producer-consumer relationship.

A simple and common definition of consumption is that it consists of goods and services consumed by people (private consumption) or government (public consumption) (Stern 1995). The *level* of consumption is generally measured in monetary terms and is determined by a number of factors:

- Income (money) available for consumption;
- Price of the goods and services;
- Technologies used to produce the goods and services consumed; and
- Tastes and preferences of consumers.

An alternative definition of consumption is possible based on the Laws of Thermodynamics: consumption is the transformation of energy and material that increases entropy. The by-products of consumption are pollution and the reduced usefulness of the energy or material for future consumption. This biophysical definition of consumption implies that *all* human activity results in the transformation of materials and energy. Thus, like the more conventional definition of consumption, the impacts on the environment arise from:

- i) the income and pattern of spending by individuals and households,
- ii) the value placed on different natural attributes through these consumption habits, and

- iii) the forces affecting individual “preferences” (i.e., one’s values and world views as they concern material goods, and social norms and interpersonal influences (e.g., advertising)) (Stern 1995).

What is sustainable consumption?

The Soria Moria Conference (February 1994) proposed a working definition of sustainable consumption: “the use of goods and services that respond to basic needs and bring a better quality of life while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations (IISD 1996).” This definition identifies the causal relationship between consumption, natural resource use, and degradation of the environment. It implies the negative impacts that environmental degradation have on human and ecosystem health.

Implicit in this definition of sustainable consumption is some need to constrain or alter the existing allocation and use of goods, services and natural resources; that is, the rate at which energy and materials are used. Thus, sustainable consumption requires the development of consumption patterns that distribute and use natural resources in a way that maintains the stock of energy and material. Ultimately, sustainable consumption will result in social or economic activity requiring little consumption or will result in no consumption of material and energy (Stern 1995). Activities that improve resource intensities—for example, industrial reuse activities or integrated mixed use urban planning permitting people to live, shop and work within a neighbourhood—can increase economic activity and reduce natural resource consumption.

B. Understanding Consumer Behaviour

At present, there is generally a good understanding of the relationships between:

- i) resource scarcity, market prices and consumer buying habits, and
- ii) income and consumption.

In modern economics, price and income are perceived as the primary determinants of consumer demand. However, a more fundamental determinant of consumer demand are the factors affecting individual *taste and preference*.

The tastes and preferences of an individual are often overlooked in society or perceived in the context of advertising niches and product identification. Simply, individual wants and values are reflected or shaped by the media. However, a more fundamental understanding of consumer behaviour is required where changes in price and income determine *incremental* changes in consumer purchases *and* tastes and preferences reflect

the *basket* of good and services from which individuals desire to consume. Price and income affect what and how much is purchased from the basket. Shifting tastes and preferences, or what individuals want *in* their basket, requires an understanding of individuals' needs and values. In this context, consumer behaviour—the process of individuals' selecting the products held within the basket—is determined by how existing social structures meet human needs.

As such, achieving sustainable consumption could focus on changing the composition of the *preferred* goods and services in someone's basket by shifting its contents from material satisfiers to less or non-material satisfiers. The more simply and easily needs are satisfied, the less consumption of resources is required. Most consumer purchases are motivated by a desire to satisfy some need rather than for the product itself. For example, people consume fossil fuels to heat their living space. In cold northern climates heating is required to subsist. However, some of the heating need could be met from a housing design that optimizes passive solar heating. The latter meets the need but requires less material or energy input. What affects this consumption choice is of importance. That is, changing the contents of the preference basket requires identifying and understanding its determinants.

Manfred Max-Neef (1990) developed a system of fundamental human needs comprised of subsistence, protection, affection, understanding, participation, creation, recreation, identity, and freedom. It is the means by which these needs are satisfied that dictate consumer behaviour. These needs can be met in fundamentally different ways such as personal and collective attributes (being), institutions, social norms and its mechanisms (having), actions (doing), and relationships in space or time (interacting) (Max-Neef 1990). The composition of one's needs, and how they are satisfied, will vary over time and differ among societies and social groups. The responsibility of sustainable consumers, then, is to satisfy their personal needs in a manner that minimizes the requirement to consume natural resources. In a recent survey, people were asked to rate what would make them more satisfied with their lives. The responses were striking: non-material aspirations consistently outranked material ones by huge margins (Yearning for balance 1995).

Understanding what determines individual taste and preference, or consumer behaviour, provides a useful starting point to identifying the causes of existing consumptive patterns and how these patterns can be changed to become more sustainable.

C. Designing for Sustainable Consumption

To change the contents of an individual's existing basket of goods and services requires significant changes in social structures. For example, the majority of energy use,

discharges into water systems and air pollutants, and many other environmentally destructive activities result directly from established institutional structures rather than individual behaviour—specifically, from the acts of corporations and governments to meet consumer demand (Gardner and Stern 1996). That is, the most environmentally significant decisions are not those that householders alone make. For example, the purchase and use of consumer technologies is based on price and household income *and* the decisions of organizations and institutions on how these technologies are designed, produced, distributed, and marketed. This includes existing engineering and business management practices and regulations covering the entire life cycle of the good. Changing someone's purchasing habits requires changing the social structures that determine these needs as well. The design of these structures is of fundamental importance in determining the type and composition of a consumption path, and cannot be implemented over a short period of time.

Physical structures - this is often referred to as “capital” and includes all the tools, machines, buildings, technologies and other physical infrastructures that assist in the process of making and distributing goods and services. The type of physical structure “built” in a society has a direct effect on individual consumption through establishing a pattern of financial investment to make and distribute goods and services. The infrastructure dictates a consumption pattern and its impact on the environment. The physical structure also indirectly affects consumption patterns by its impact on employment patterns and income. For example, workers in knowledge based industries require higher levels of education and are paid higher wages relative to workers in the retail services sector. This dichotomy affects the pattern of consumption *within* each group and, more importantly, *creates* social norms that encourage greater consumption (i.e. individuals in the lower income group try to meet or exceed the level of consumption of its peer group). Also, the impact of investment in physical structures today to meet current consumption demands implies a loss of savings for future consumption.

The following are examples of physical structures and their impact on consumption:

Urban design - Land use planning has emphasized single use development areas and suburban sprawl. Shopping malls and industrial parks increase commuting costs to work and shopping, and diminish the individual's sense of community.

Transportation systems - Once the car became the dominant mode of transport, housing, family, work, shopping and recreation patterns were designed around it, altering how and where personal and family relationships take place.

Resource management - Extensive extraction and use of natural resources (minerals, land, air and water) result in a perceived right to free access and use, and pollution, wastes, etc., that require greater consumption to mitigate.

Media and advertising - The use of television, radio, print media, as well as corporate sponsorship of entertainment events, reinforces existing consumption patterns and consumptive lifestyles.

Human structures - People are more than instruments of production (i.e., labour) or sources of consumption. They are the pool of creative energy, knowledge and ambition that directs all human activity. How someone is treated in the labour market affects both their productivity and consumptive behaviour. A healthy, motivated and educated individual can contribute more fully to these activities. The well-being of the individual is satisfied by being better able to do and interact in a society to meet one's needs. A healthier, skilled and motivated person is likelier to be happier than one without these attributes. And a happy person is more likely to remain healthy, skilled and motivated than an unhappy one (Ekins, Hillman and Hutchison 1992). Enhancing human structures is an objective of sustainable consumption. Investing in education, training and stimulating work experience reduces the amount of goods and services consumed by someone to meet their needs.

The following are examples of human structures and their impact on consumption:

Education and training - An emphasis on education leads to personal skills development and greater understanding of how needs can be satisfied.

Human health - Improved health, or preventive health care, reduces the need to consume health products and services and enhances our ability to participate in society.

Motivation - Commercial operations that introduce child care facilities, fitness centres, education incentives, career counselling, etc., create a work environment where individuals' needs to do and interact are met. A worker can be motivated to contribute to production or community to meet their needs rather than to consume.

Organizational structures - In general people work and socialize together. These socializing frameworks are not merely a reflection of individuals. The relationships also reflect societal cultures, procedures and traditions. This social environment is itself a catalyst for creating ideas and change. The type and quality of these relationships also affects what is consumed in society and how.

The following are examples of human structures and their impact on consumption:

Economic associations - Relationships within and between business, trade and labour organizations direct how individuals understand themselves and contributes to society.

Household relationships - The development of successful and dynamic family relationships can satisfy individual needs to experience a sense of belonging.

Volunteer/community organizations - People can obtain satisfaction within a community that is able to provide recreational and participatory experiences. Such outlets can create a sense of belonging and improve individual self-esteem.

Political structures - Better public access to the decision-making process by empowering local authorities and enhancing transparency in process, public participation and understanding of policy decisions can create a sense of belonging and worth for individuals. Political structures also imply the impact of non-environmental policies on consumer behaviour. For example, the emphasis on medical care rather than preventive care for human health or subsidies and tax credits for resource use and consumption, increases material and energy use at the production and consumption stage in a product's life cycle.

Actions intended to shift society towards environmentally sustainable structures are identified in Section V.

D. Global Efforts to Meet the Challenge

Since the Earth Summit, a number of meetings and discussions have addressed sustainable consumption. The *Soria Moria Conference* (1994) provided a definition of sustainable consumption (see above). The United Nations Commission on Sustainable Development Ad Hoc Inter-Sessional Working Group on Finance and Changing Consumption and Production Patterns met in March, 1996, to identify key issues, conclusions, and possible recommendations and policy options for consideration by the UNCSD at its fourth session.

However, the movement towards sustainable consumption is still in its infancy. There has been little movement from the international forum to the development of national sustainable consumption strategies. The discussion of goals and objectives is underway in some countries, such as Norway, and at various research centres.

There are, however, a number of programs and policies already in place in many countries that can be considered likely elements of a sustainable consumption strategy. These include reduce, reuse and recycling programs, education programs, changes in land use/development and income and tax policies that restrict consumption activities. Most of these programs were adopted for purposes other than the encouragement of sustainable consumption. They also often focus on creating incremental change in consumption patterns within the individual's consumption basket rather than changing the content of the basket itself.

IV. Sustainable Consumption Practices in Canada

Canadians enjoy a high standard of living and some of the highest per capita consumption rates in the world. As a participant at the Earth Summit, and a signatory to Agenda 21, the Federal Government has committed to fostering sustainable consumption and production throughout Canada. As a starting point, and keeping with its international obligations, Canada could identify the existing possible components of an action plan and discuss possible additional needs to encourage sustainable consumption.

A. Existing Programs and Practices

There are a number of existing policies and programs in Canada which encourage sustainable consumption practices. These programs were developed and implemented by all levels of government, public agencies, business associations, and public interest groups and can be grouped into three broad categories of activities:

Improving efficiency of resource use - reducing the consumption of natural resources while maintaining consumption patterns. Examples of these activities include:

- Energy conservation programs such as demand -side management programs marketed by power utilities,
- *National Packaging Protocol* with clearly stated objectives and milestone targets for a 50% diversion of packaging from disposal by the year 2000.

Providing substitute goods - encouraging alternative goods or services to those currently consumed. The pattern and level of consumption may be reduced. The increased availability of goods in the market containing recycled materials as a result of local waste diversion programs is an example of these initiatives. Eco labelling, such as the *Environmental Choice Program*, gives consumers the information they need to choose environmentally friendly substitutes.

Reducing consumption - reducing the level of overall consumption. This includes price and income policies. Non-economic examples of these activities include

- Environmental education and awareness campaigns sponsored by all levels of government (federal, provincial and local) and various advocacy groups, such as Greenpeace, to reduce resource use and encourage sustainable activities,
- Health, safety and product standards that reduce the demand for specific goods and services (e.g., occupational safety standards reduce the need for medical care, the *Canadian Standards Association* improves the durability, life and safety of goods), and

- Voluntary programs including community activities to assist the needy, the elderly and the poor, groups like the *Consumers' Association of Canada* that advocate safe goods, and pollution prevention initiatives sponsored by industrial associations, including the *Alliance of Manufacturers and Exporters of Canada*.

B. Designing for Sustainability in Canada

If Canada is to meet its international commitments arising from Agenda 21, the process of designing a sustainable consumption path will likely require coordinating existing activities, identifying constraints to developing the path, and clearly stating what the future path will look like. Such a process will be complex and require extensive discussion of goals and objectives, options and consequences with all stakeholders.

A significant part of the design process will likely focus on learning about existing consumer tastes and preferences and the physical, human and organizational structures of Canada. The purpose of such an exercise would be to identify:

- i) stakeholders for participation in developing the strategy;
- ii) needs of individuals and groups in Canada;
- iii) structural sources of market and institutional failure to efficiently use and distribute natural resources;
- iv) structural sources and causes of inequity between individuals and groups (including intergenerational equity); and
- v) existing policies and programs that complement a sustainable consumption strategy.

Based on such an identification process, a vision of the goals and objectives of a sustainable consumption path for Canada can be developed. The goals and objectives would define the state of the environment, human activity and consumption level and patterns desired. Such a strategy would be similar in structure to the previous *Green Plan*, or the existing *Business Plan* of Environment Canada. However, there are notable differences in designing a sustainable consumption strategy from existing environmental strategies.

First, sustainable consumption requires long term commitment and leadership from all federal departments and agencies. Many of the structural changes require revisions to existing regulatory regimes and federal program management practices. This commitment would be consistent with the current emphasis on horizontality and horizontal policy development occurring within the federal government. More generally, it reflects the need to create a flexible and dynamic federal structure capable of continual change and renewal.

Second, the design requires cooperation and commitment from all levels of government, commercial enterprises, consumers and public interest groups. Existing relations and responsibilities between stakeholders in Canada often do not ensure shared needs and responsibilities. For example, many federal commitments regarding environmental, health and educational needs of Canadians fall under provincial jurisdiction. Alternatively, land use planning is a provincial responsibility but has devolved to local authorities. Designing for sustainability requires shared political responsibility and cooperation.

Third, economic, environmental and social indicators of the success of the strategy could be developed. The focus of the indicators is to measure changes in consumption patterns. This includes:

- improved use of natural resources;
- fairer distribution of social wealth; and
- changes in tastes and preferences.

These indicators can also serve as a useful tool to inform consumers of the relationship between sustainable consumption, environment and our behaviour. Finally, the design of the plan requires an authority that is accountable, transparent and provided with sufficient entitlements to meet its goals and objectives.

Designing for sustainable consumption is a complex and long term undertaking. Sustainable production is a necessary prerequisite to achieve sustainable consumption. However, the selection of a sustainable production path also requires the identification of and commitment to a sustainable consumption path. Just as in conventional economic thought, production and consumption are co-dependent within the market system, so, too, are sustainable consumption and sustainable production.

V. Moving Toward Sustainable Consumption

Integrating a sustainable consumption path within a market-economy is not easy. For example, Agenda 21 speaks interchangeably of changing consumption and changing consumption patterns. But the two are quite different:

Consumption levels can change without changing the pattern - improved efficiency can reduce the level of natural resource consumption but the pattern of using energy and materials to meet individual needs remains.

Consumption patterns can change without changing the level - changing consumer purchases may change the types of goods and services consumed but not change the overall level of resources consumed.

A successful approach to achieving sustainable consumption requires both an increase in the efficiency of resource use *and* a shift in consumption patterns. Implicit within this shift is a more equitable consumption of resources, and a movement away from satisfying individual needs through the consumption of energy and materials altogether. This does not mean that the issue of sustainable consumption is based on technological solutions. Sustainable consumption is a “people issue”. It requires a shift in how individual needs are satisfied, that is, switching from the current necessity of satisfying individual needs by consuming goods and services, to alternative satisfiers that meet those needs.

A. *Changing the Canadian Consumption Pattern*

Often, policy options are grouped into three broad categories: i) economic instruments; ii) regulatory measures; and iii) information and education programs. The policy options presented below, however, are grouped differently to emphasize the complexity of the issues associated with achieving sustainable consumption. Moreover, as previously stated, policies like economic instruments are more effective in achieving incremental changes in consumption, rather than the structural shifts likely required to achieve sustainable consumption.

The policy options discussed are not comprehensive. They highlight the issues related to increasing the value of people, nature and relationships in society, and diminishing the value of money, power and the consumption of goods and services (Ekins, Hillman and Hutchison 1992). In the same context, satisfying needs implies a constraint on individual wants. This is where policy makers diverge from players within the market economy. Players (i.e., sellers) want to satisfy buyers’ wants. However, if these wants are neither socially nor environmentally desirable, and are unnecessary to achieve individual needs, policy makers need to discourage this activity. There is a moral dimension to this component of values often overlooked in economic and policy analysis. From a sustainable consumption perspective, if the material and energy using activity is not needed, the want for it should be discouraged.

Physical Structures

Physical structures are comprised of systems that distribute goods and services within a community. The structure, or change in structure, of these systems are indicators of the commitment to sustainable consumption. Changing how any of these systems operates requires a long term political, financial and social commitment. The purpose of policies to change physical structures is to eliminate activities that encourage the use of natural resources and discourage the ability of people to fulfill their needs.

A significant aspect of these policies is likely devising a framework to evaluate and adopt technology that meets specific environmental, social and economic criteria. New technology is often developed to increase profits to investors from the introduction of

new goods and services for consumption in the market place. Technology and the adoption of new technology is not a bad thing. What is needed, however, is a clear long term objective of how technology will complement development , that is, selecting technology that is consistent with a chosen sustainable development path.

In Canada, and elsewhere, technical innovation is now viewed as the creator of wealth and the solution to social and environmental problems. This assumption, however, is not consistent with sustainable consumption. Sustainable consumption requires selecting technologies that complement the needs of people. This includes enhancing the ability of individuals to find meaningful ways to contribute to building and developing their communities. Trading jobs for technology may be commercially more productive but socially unproductive. In developing new sustainable physical structures choosing the appropriate technology set may be a necessity.

The following examples highlight **hypothetical** policy options, and possible related issues, which could make physical structures more consistent with a sustainable consumption path.

Urban design - The inability of modern local governments in Canada to implement a rational or sustainable urban form is a powerful indicator of the failure of leadership within the existing decision making framework. To enhance a sense of community and re-establish a higher density mixed use form in Canada's urban areas, the existing democratic institutions should endeavor to become more inclusive, focusing on the urban regeneration of brown spaces, mixed uses of space, community gardening and enhanced public access to natural amenities and recreational areas. The resulting urban form will reduce land use, enable individuals to find greater satisfaction from relationships within the community and with the natural environment, and enhance energy efficiency.

Transportation systems - New motor vehicle transportation networks should be discouraged and alternative systems encouraged to enhance access to work, home, recreational services and the natural environment. For example, opportunities could be expanded for home-based employment, home shopping, and the use of electronic media to reduce need for motor vehicles and public transit. An emphasis on bicycles and walking to commercial and work areas complements a higher density urban form while improving individual fitness. Consumption or user fees for existing motor vehicle structures will reduce their use, pollution and costs of maintenance.

Resource management - A shift in resource management objectives that emphasizes consuming resource flows and building resource stocks is required. Policy options include full cost accounting of resource extraction, taxes on natural resource use, and the elimination of government financial and taxation policy incentives which encourage capital intensive exploitation of resources. The expansion of protected natural areas and

a comprehensive system of greenways is required to maintain biodiversity and ecosystem vitality. The use of consumption taxes, labeling or accounting of environmental inputs into goods and services at the retail level, and consumer education programs will reduce resource use and improve resource intensity. Corporate programs to eliminate toxic discharges and develop sustainable environmental management systems will also improve the quality of the natural environment managed.

Media and advertising - Communications media have emerged as the primary source of information in modern societies. Policies are required to ensure that competing and diverse perspectives are represented in the flow of information. Consideration could also be given to placing constraints on the concentration of media operations and on their influence on cultural and community values.

A major focus of the sustainable consumption debate is on the role of advertising in shaping consumer behaviour. Advertising does influence the type and amount of goods and services consumed. The commercialization of values through advertising influences consumer behaviour and encourages "social consumption" (keeping-up-with-the-joneses phenomena). However, without advertising, consumption of most goods and services would continue. Rather than attempting to control advertising or reduce its effectiveness, advocates of sustainable consumption could use advertising to provide information to consumers. Empowering consumers to make choices fulfills human needs. In this context, advertising can contribute to moving towards a sustainable development path.

Human structures

The strengthening of human structures enhances the creative abilities and knowledge of people. Inequities that exist in Canada could also be reduced by increasing the opportunities and choices available. Any changes in human structures should be made with an understanding of the cultural and social practices in Canada. For example, improving access to education or improving child welfare must recognize the role of women regarding child care and housework. If individual needs are to be fulfilled, the policies should be inclusive and fair. Ensuring access to opportunities for human development reduces individual uncertainty regarding personal well-being, work, socialization, family and the future (Yearning for balance 1995).

The following examples highlight **hypothetical** policy options, and possible related issues, which could make human structures more consistent with a sustainable consumption path.

Education and training - Education enhances spiritual development and creates knowledge. There is a need for lifelong training and a placed value on teaching and learning in society, at work and within the family. This includes a need to move beyond

the scientific and mechanistic perspectives of decision making institutions. This does not mean that science is not relevant, but instead accepts that gaps exist in the information required by leaders to make good decisions. Some of these gaps could be filled through incorporating the thoughts and ideas found in the fields of the arts or social studies or elsewhere, for example, the use of theatre to help decision makers identify and understand the influence of media and peer pressure on their consumptive behaviour.

Human health - Health services today are directed primarily to large physical institutions such as hospitals. The emphasis is on treating sickness rather than preventing it. Although numerous jurisdictions in Canada have reformed their health services, the system remains fundamentally one of payments to health professionals for the treatment of sickness. Improving human health requires expanding our existing definition of health care services. Increased preventive health care services such as cancer screening, diet and exercise programs, vaccination and immunization programs for the young and elderly reduce ill health. As well, family planning, community health care, and improved air and water quality (pollution prevention) and education programs would improve the well-being of individuals and reduce the costs of health services. A major component of physical and mental health is ensuring that an individual's self-esteem is maintained through meaningful life choices and employment. This requires improved education opportunities, continual training and fair distribution of income and opportunities to participate actively in society (Ekins, Hillman and Hutchison 1992).

Motivation - A sustainable society will require a new relationship between individuals and their families and communities. A means of developing this new set of values may be through the rediscovery of the spiritual resources found in any religion. The importance of these spiritual resources is the potential to reaffirm the sanctity of life, reaffirm the importance of human beings in everyday activities, provide consolation and healing, and provide people with connectedness with the world around them (Ekins, Hillman and Hutchison 1992). Effective communication is required to permit individuals to understand their role and relationship to the goal of achieving a sustainable society.

Often employment is viewed solely as a means to earn income. It is more than that: work gives self-respect, identity and a sense of social purpose. Employment and reward for employment is a great motivator. The motivating force of employment reduces the need for health services and improves the socialization and participation of the individual in the community. Greater meaningful employment may require shifting the work force to fewer hours worked over a shorter working career, and placing increased value on parenting, volunteering and housework (Ekins, Hillman and Hutchison 1992). The financial disincentives to hiring people through payroll taxes and financial and tax

incentives preferring capital and equipment could also be eliminated to encourage the hiring of people.

Organizational structures

Changing consumer behaviour directly is a viable policy strategy, but success depends on addressing the complexities of relevant behaviour within organizations (Gardner and Stern 1996). These non-market solutions organize people to make decisions that improve the total productive capacity of society while decreasing the need for natural resources. The changes focus on improving the transparency, accountability and accessibility of these relationships to ensure that the needs of all groups in society are met.

The following examples highlight **hypothetical** policy options, and possible related issues, which could make organizational structures more consistent with a sustainable consumption path.

Economic associations - Incorporating environmental attitudes into consumer behaviour on a large scale requires changing the way business views itself. Commerce is more than just making money. It provides communities and individuals with opportunities to create satisfying lives. The success of a business is also dependent on having the overall needs of society met by producing goods and services needed by the community (Ekins, Hillman and Hutchison 1992). Business groups and leaders increasingly realize that they are stakeholders in a community just as the society is a stakeholder in the business. The long term viability of both is dependent on acting in ways that best ensures the interests of all stakeholders. This implies increased business accountability to the community. Business could adopt a management style that is open and responsive to all stakeholders. A business-community relationship built on trust and co-dependence enhances the ability to make decisions leading to a sustainable society in an atmosphere of cooperation and trust. A key first step for business is the adoption of social and environmental audits of its operations and ensuring that this information is available to the broad public and presented in an understandable fashion. Business could also adopt green design and environmental management systems in their operations and base investment decisions on criteria that include social, and environmental factors.

Household relationships - As the basic unit of social organization, the family--members of a household-- defines relations and values. Strengthening the family unit requires a move from individual to family decisions of needs. A major component of strengthening the family is altering social programs from a dependency on support to the creation of self-reliance. This includes improved access to affordable childcare, parental support, child benefits and other support programs for those unable to work. In Canada, much of this support is in place. The required policy shift, which exists in some jurisdictions, is in reducing the level of perceived dependence on the "welfare system" and in enhancing self-esteem.

Volunteer/community organizations - The use of public groups for direct input into solving local and national problems empowers people. This is already occurring in some provinces in the areas of education through school councils and medical care through local health boards. These local groups represent stakeholders in the local community. There is a need to expand on this innovation to enhance sustainable consumption practices. For example, local stakeholder groups would be of great value in land use planning. Such an approach is more inclusive and emphasizes cooperative decision making.

Political structures - Often governments use communications to inform people rather than to enhance understanding and knowledge. The latter approach enables learning and feed-back to better appreciate the link between consumption, the natural environment and individual well-being. An example of such a program is Environment Canada's *Environmental Partners Fund* which emphasizes participation in a variety of locally initiated environmental education and information projects. This alternative approach to communications requires clearly stated goals and the ability to monitor and measure success in achieving those goals. Political structures can also reduce the concentration of power (i.e., decentralize and insulate political power from economic influences) to improve its transparency, and accountability and to permit people to feel that they can make useful contributions to the decision making process. Improving access to decision making requires changing how decisions are made, moving away from the current adversarial approach to a cooperative approach.

VI. Issues Raised

The premise of the discussion above is that making Canada more sustainable, will require pursuing both sustainable consumption and sustainable production in tandem. Sustainable consumption, like sustainable development is concerned not just with "pollution" or even just environmental issues, but incorporates social and economic issues as well.

Achieving sustainable consumption will require not just "tweaking" the system, but significant structural changes in society. Changes were reviewed for three different kinds of structures: physical structures, human structures, and organizational structures (including political structures).

The following presents some of the issues and challenges related to sustainable consumption raised in this paper.

A. Physical Structures

Our consumption patterns are, to some extent, literally cast in concrete, steel and plastic. Changing consumption patterns towards increased sustainability will require changes in both the way we view these physical structures, and how we build or rebuild them:

- What role can technology play in bringing about sustainable consumption?
- When considering urban form, should local governments be required to constrain development in ways that encourage sustainable consumption?
- How can the need for “routine” travel be reduced? Can employee benefit plans be modified to decrease the attractiveness of private motor vehicle commuting and increase the attractiveness of home-based employment?
- Can the tax system be changed so that it discourages the things we do not want (resource consumption) rather than the things we do (income and employment)?
- How can communications media be used as a tool to enhance sustainable consumption?

B. Human Structures

A central component to bringing about sustainable consumption will be a shift from meeting higher level needs (such as self-esteem) through material consumption to meeting them through development of the mind, body and spirit. This suggests changes to our human structures related to education, health care, and employment:

- How can the education system be structured to motivate individuals to seek life-long opportunities to learn?
- What activities best achieve preventive health care?
- How can we ensure that work is meaningful? What are the policy and regulatory changes needed to achieve full-employment?

C. Organizational Structures

Beyond the development of the mind, body and spirit, there will also be required a change in organizational structures to be more inclusive, and to shift the individual’s role from user and recipient to contributor and participant. This will have impacts on both private and public sector organizations:

- Is it possible to create an environment for commerce that is inclusive and transparent to all stakeholders?
- How can the existing social support systems be replaced with a guaranteed annual income system?

- How can the benefit of voluntary and community organizations be incorporated into existing decision making frameworks?
- What constitutional changes, or changes to government operations, are required to create a more inclusive and democratic political system in Canada?

VII. Concluding Remarks

The background and issues presented in this paper are meant to provide a broad context within which consumption occurs. This context is necessary to identify relevant issues to achieving a sustainable consumption path. It is often argued that it is not politically feasible to adopt or implement the changes in social structures proposed for discussion in this paper. However, surveys of consumers do not support this criticism (Miller 1996 and Yearning for balance 1995). Still, this paper is not advocating any of the possible policy actions described above. Since the issue of sustainable consumption is in its infancy the issues and options need to be discussed. Broad public debate in Canada is needed and necessary to identify a viable and broadly accepted sustainable consumption path.

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