Mapping the movement towards sustainable production and consumption in North America

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Abstract

The paper reviews some of the many initiatives and efforts to build networks and institute policies promoting sustainable production and consumption (SPAC) values and practices in North America since the 1992 UN Conference on Environment and Development. In addition to a review of literature, the paper analyzes a selection of SPAC initiatives in Canada and the US from the NASCA/CEC database. The paper also assesses results from interviews with representatives from government, business, consumer and environmental organizations on their experience and efforts to "take the lead" in influencing public opinion and behavior as well as government and corporate policy towards SPAC.

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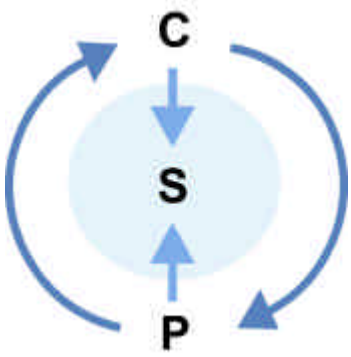
1. Taking the lead

In 1973, the year of the first energy crisis and the birth of OPEC, E.F. Schumacher pointed out that our industrial society's addiction to fossil fuels and squandering of nonrenewable natural capital was taking us on a collision course. To change course, he advised, "We must thoroughly understand the problem and begin to see the possibility of evolving a new life-style, with new methods of production and new patterns of consumption." [1]

Almost twenty years later, at the 1992 UN Conference on Environment and Development ("Earth Summit"), a heated debate on the impact of population growth led to acknowledgement that "the unsustainable pattern of consumption and production, particularly in industrialized countries" was the "major cause of the continued deterioration of the global environment."[2] Heads of state, including those from the United States and Canada, agreed that the industrialized countries would "take the lead" in the "reorientation of existing production and consumption patterns that have developed in industrial societies and are in turn emulated in much of the world." [3]

More than a decade later, as social and environmental trends continue to worsen [4] and in the face of political and cultural inertia and resistance, concerned members of civil society, governments, business, and academia as well as individual citizens have accepted this responsibility to address one of the most critical challenges of our time. In North America, where our share of production, consumption and waste far exceeds the rest of the planet, the challenge is especially acute. How does this challenge translate into practice? Reorienting existing production and consumption patterns is easier said than done. Nevertheless, across the continent the seeds of a social movement to begin this reorientation of society have taken root and are growing.

2. Defining sustainable production and consumption



Just as there are many different definitions and dimensions of “sustainability” so there are many definitions and ways of approaching sustainable production and consumption (SPAC). Some prefer to emphasize one side or the other (i.e., consumption vs. production [5]), or to talk about *sustainable consumption and production* (SCP) [6]. Much of the fuzziness of the concept lies in the varied meanings of "susainability," which like other important concepts, such as love, justice, truth and freedom, have various interpretations, the dominance of which often depends on the interpreter in power. Thus, like other words, the specific meaning will depend on the context, the stakeholders and the stakes or interests involved. Those in the part of government dealing with environmental regulation can be expected to have somewhat different interests and perspectives from those dealing with trade, development, finance or commerce. In turn there will also be differences within and between industry, academic or civil society groups. Thus, we can expect a number of different answers to the question what makes a particular production and consumption system or process "sustainable."

In defining sustainability as well as sustainable production and consumption, it is important to distinguish between biological and economic perspectives.

From the biological perspective, we define sustainable production and consumption as essential aspects of a living system. From protozoa to higher plants and animals to ecosystems, life continually engages in production and consumption processes. From this viewpoint, "sustainability" is about the survival and evolution of a species or community.

The economic perspective on sustainable production and consumption is more problematic, as the term "sustainability" is applied to different and sometimes opposing priorities and assumptions. For example, a number of economists and politicians apply the term sustainability not to the survivial and evolution of the human and biological communities which the economic system should sustain, but to the economic system itself, as in the term "sustained economic growth." Thus the definition of "sustainable production and consumption" is caught in a conceptual schism: Are we talking about how production and consumption sustains human life and the ecosystems supporting it or are we talking about sustaining the growth of production and consumption patterns -- increasing their efficiency and minimizing pollution and negative effects, but only to sustain greater growth of the economic system?

For the purposes of this paper, we define "sustainable production and consumption" as *a system providing for human needs, improving social and economic security and quality of life for all people, including future generations, while protecting the ecosystems upon which human life depends.*

3. Focus on driving factors

At the 1992 Earth Summit, world leaders then explained why they would make sustainable production and consumption as an overarching global objective. In *Agenda 21* they agreed that "the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries...aggravating poverty and imbalances." [7] Thus, to stop environmental and social degradation we need to significantly change our production and consumption patterns.

This view of production and consumption patterns as the major driving forces behind environmental and other problems was not new. The discussion goes back to the early 1970s. At that time Commoner [8] claimed "the postwar technological transformation of productive activities is the chief reason for the present environmental crisis." Ehrlich and Holdren insisted that population and consumption were also major driving forces. This was formulated as the popular "IPAT" equation [9], attributing environmental impacts (I) to population (P), per capita consumption or affluence (A) and the technology (T) of production.

This formulation widely influenced discussions, research and policies dealing with environmental concerns. According to Dietz and Rosa [10], IPAT "has been adopted as the orienting perspective for much of the discussion about the principal factors, called *driving forces*,

of global environmental change." Chertow [11] reports that after 30 years "the concepts of the IPAT equation are at the core of the emerging field of industrial ecology."

Various others have tried to update and improve the IPAT equation [12]. Dietz and Rosa [13] raised the need for a "human ecological model of environmental impact." Brulle [14] also called for including "social origins" into the equation, explaining that "to expand our understanding of the process of ecological degradation, it is necessary to delve further into the social processes that influence social institutions, cultural beliefs, and individual personality structures."

However, the purpose of this paper is not to produce to a theoretical model of how production and consumption patterns drive environmental and social degradation. Rather, our purpose is *to explore the task of mapping the movement of people and actions aimed at changing those patterns*.

4. Sustainable production and consumption as a social movement

Using Webster's dictionary definition of *movement* as "a series of organized activities working toward an objective," we return to the global agreement at the 2002 World Summit on Sustainable Development that, along with eradicating poverty and protecting natural resources, changing unsustainable production and consumption patterns was one of the three "overarching objectives of, and essential requirements for, sustainable development." [15] This paper examines some of the organized activities in the movement working towards that overarching objective.

In North America, the movement for sustainable production and consumption takes shape as a relatively small but growing convergence of networks, organizations and individuals, often committed to different environmental, social and economic issues and concerns yet linked by an understanding and effort to change at least some aspect of the production and consumption patterns underlying and drivilng those issues and concerns.

The movement to achieve sustainable production and consumption is probably one of the most important yet little known social movements of the new century. In North America its roots reach into our past in many, although not necessarily the same, values and practices of both European colonists [16] and the indigenous peoples they found here. Many of these values and practices were dramatically swept aside by the industrialization of the 19th century [17]. As the 20th century unfolded, modern consumer society quickly displaced the earlier productive functions of the household and family as shopping malls and suburbs replaced family farms and countryside [18]. The labor and consumer movements also grew, fighting to ensure, among other things, rights to health and safety, if not economic security. After an interlude during World War II when frugality was temporarily equated with patriotism, post-war consumerism exploded and economic growth became the national mantra, both celebrated by the new medium of television and a thriving advertising industry [19]. The post-war years also saw the promotion and rapid spread of mass consumer values and habits across the globe, reaching out to both affluent and disspossessed [20].

During the 1970s and 1980s, this celebration of consumption and growth bumped up against a growing public awareness and concern over the environmental and social impacts and failures of industrialization as environmental catastrophes such as Love Canal (1978), Bhopal (1984), Chernobyl (1986), and Exxon Valdez (1989), biodiversity loss, climate change, and the continuing social degradation of racism and poverty threatened to turn the American Dream into a nightmare. In response, various "new social movements" [21] emerged organizing around the objectives to protect the environment and fight poverty – as well as ending the war in Vietnam, eliminating racism, sexism and other forms of discrimination, joining other traditions of labor and consumer movements attempting to improve the quality of life.

In contrast to the environmental, civil rights and other social movements, the sustainable production and consumption movement works in the background, generally out of the public limelight. Only a small part of the population sees themselves as part of this movement, including many of those actively involved in creating it. Like "sustainable development," the idea of sustainable production and consumption is almost a taboo for most journalists and many politicians. *In the long-run, success in protecting the environment and eradicating poverty will depend on success in achieving sustainable production and consumption. Ultimately, the future of our continent and species will depend precisely on how or if this objective is achieved.*

5. Mapping the movement

5.1 A wide range of activities and actors

Mapping the movement to achieve sustainable production and consumption involves identifying the wide range of overlapping and interlinking *activities and actors*, as well as providing a *conceptual framework* or schema explaining the ways those activities and initiatives direct themselves to different parts of the production and consumption system. Each of those initiatives also involves a *public discourse* on the norms and practices of this system and the need for change.

On the consumption side, various initiatives aim to change the values and behavior underlying individual consumer demand, focusing on access to meaningful information, education, and dialogue about the quality of people's lives and the impact of current production and consumption patterns on that quality.

Other initiatives focus on the production side, aiming to improve or change the design of products and production processes, directing the message to company and industry decision-makers. Some initaitives focus attention on improving the efficiency of current production methods; others aim at providing more compelling incentives (positive or negative) for transforming or replacing entire industries, including market-oriented strategies or regulatory strategies. Several initiatives focus more on influencing political and legislative policymakers, especially in those situations where the market fails to provide sufficient incentives; such strategies look to government regulatory mechanisms to encourage or compel socially responsible business practices and decisions. Other initiatives also aim at influencing other government policies, such as reducing government support of unsustainable business practices, as with industry subsidies.

Many of these various initiatives may seem unrelated, involving different networks, audiences, targets and strategies. Yet they are all linked in their efforts to change production and consumption patterns so they are more environmentally friendly, more socially just, and economically responsible. They all share a common strategic approach addressing the deep rooted causes of problems rather than providing relief to the symptoms. Moreover, the goal is not only prevent catastrophes but improve the overall quality of life.

5.2 A map of time and action

Like most maps, we are forced to work with simplifications of phenomena, plotting out paths, general shapes and outlines while often leaving out many vital details of concern to those living in that terrain. Nevertheless, maps have their uses, allowing us to chart out our future course and perhaps make some important stops or sidetrips we may not have otherwise considered.

Unlike maps of geography, this is a map of time and action, of political, social and cultural forces. It is a map of human behavior attempting to transform and restore a healthy balance to the interplay of socioeconomic and ecological systems upon which we all depend.

One part of this movement to achieve sustainable production and consumption is etched in the history of international expert meetings and think tank studies; other parts are in the many grassroots education and advocacy campaigns, in the struggle for responsible policies, laws and compliance, in the demand for transparency and accountability from corporations and government, in the expanding public debates on lifestyle and life quality, and in the networking among groups recognizing common aims and struggles.

In 1995 the New Roadmap Foundation produced a directory of organizations and leaders involved in "a great shift...underway in North America -- a movement away from overconsumption and meaningless materialism, toward balanced, fulfilling lifestyles." [22] For many people, the "movement to reduce overconsumption" is the most important work, particularly in changing personal behavior and values. However, our mapping of the broader sustainable production and consumption movement covers a wider range of initiatives and issues, including underconsumption as well as overconsumption, products and production processes, and the intervening domains of investment (determining what to produce for whom) and distribution (the flow of products, information and other activities from producer to consumer).

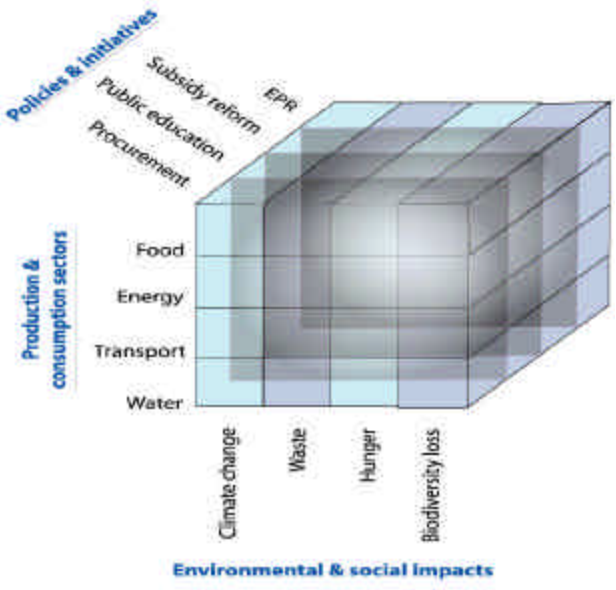
5.3 Missing categories and definitions

Identifying who is who in the realm of sustainable production and consumption is a daunting task, given the lack of standardized data and definitions. *One obstacle is the slow acceptance of sustainable development as a descriptive category* by governmental and academic data gatherers as well as many civil society groups. Trying to get a statistical picture of the number of public interest groups working on sustainable development, not to mention sustainable production and consumption, leads repeatedly to brick walls.

In the United States, according to the National Center for Charitable Statistics, [23] there were 1,368,723 nonprofit organizations operating in 2003; of these more than half (over 783,000) were public charities. Among public charities only 1.5 percent engage in "environmental" activities, 3.7 percent in "health" activities, 3.6 percent in "civil rights, social action, advocacy," and 2.5 percent in "community improvement and capacity building." The rest focused on religion, sports, housing, human services and other activities. More than one-third were classified "unknown." Nowhere was any mention of "sustainable development" nor any obvious way to identify groups in the different categories with this orientation.

Canada's National Survey of Nonprofit and Voluntary Organizations [24] also provides a snapshot of public interest groups, although using somewhat different classifications and survey methods. Surveying 13,000 incorporated nonprofit organizations and registered charities, Statistics Canada weighted the results to account for an estimated 161,000 nonprofit and voluntary organizations and charities in the country. Of these 2.8 percent focused on environment, 3.3 percent on "health," 2.3 percent on "law, advocacy and politics" (including protecting and promoting civil and other rights), and 7.6 percent focused on "development and housing" (i.e., "to help improve communities and promote the economic and social well-being of society.") Over 40 percent focused on sports or religion. Again, while a useful profile of the nonprofit community, we find no mention or obvious ways to discern groups engaged in sustainability and especially the cross-cutting issue of sustainable production and consumption.

Even the Global Civil Society Yearbook, which attempts to trace "the emergence of a global civil society, the vast contradictory process by which NGOs, social movements, individual activists, and even academic experts became powerful actors on the international stage," [25] has yet to incorporate *sustainable development* as an active category which deliberately links and seeks to overcome the gaps separating environment, development and other civil society organizations. Ironically, the 2002 report cites the Earth Summit as "one of the birthplaces of global civil society," yet says little about the very theme of the conference to build a bridge between environment and development. Instead, reference is made solely to the "environmental movement." [26] The perceived gap between environmental and development organizations, and the tendency to reduce sustainable development to "environment" remains one of the challenges to the sustainability movement as well as efforts to analyze and map the convergence of these advocacy streams.



6. Converging views and actions

For years now production and consumption has been referred to, at least within the international community discussing sustainable development, as a cross-cutting issue. The movement to achieve sustainable production and

consumption likewise cuts across many different issues and the social movements organized around them; thus it involves a complex convergence of a wide range of viewspoints, actions and organizations. They converge around *the need to focus on the common underlying patterns of production and consumption cutting across their individual issues and driving their different problems*.

While some groups and initiatives direct themselves more generally to the wider patterns and impacts of production and consumption as a global system, the majority of participants in this movement tend to focus more on specific concrete aspects of production and consumption as it applies to their area of concern.

Groups and networks organize themselves in various ways. Some organize around promoting particular *policies and initiatives* (e.g., procurement or subsidy reform), while others organize within a specific *production-consumption sector* (e.g., sustainable agriculture, sustainable energy, transportation), and others organize around problem areas of concern (climate change, waste, hunger, biodiversity loss), in response to the *environmental and social impacts* of unsustainable production and consumption patterns. In many cases, the work of these different groups often overlaps.

Given the time and resources, we would like to produce a series of studies and papers devoted to analyzing the ways in which groups and initiatives organized around each sector views and responds to the production and consumption patterns involved, e.g., those promoting the sustainable production and consumption of energy, or sustainable food production and consumption, transport, or housing). Likewise, we would like to examine how groups and initiatives organized around specific environmental or social impacts assess and strategically address the production and consumption patterns involved. However, these studies are beyond the constraints of this paper; here we examine a selection of policy advocacy and other initiatives addressing specific production or consumption patterns.

7. North American Sustainable Consumption and Production Database

One source of cases we draw from is the North American Sustainable Consumption and Production Database, a project conducted in 2003 by members of the **North American Sustainable Consumption Alliance (NASCA).** The project involved identifying and developing profiles of a selection of SPAC-oriented initiatives in Canada, the United States and Mexico, followed by creation of a public-access, online database. The goal of the project was to develop a tool to facilitate collaboration and cooperation

North American Sustainable Consumption Alliance

Mission statement

The North American Sustainable Consumption Alliance (NASCA) is a strategic partnership of individuals and organizations working to promote more sustainable consumption patterns in Mexico, Canada and the United States. We share the common goal of encouraging individuals, businesses, institutions and governments to reduce their impact on the environment and society by changing how they consume materials and resources.

NASCA recognizes that sustainable consumption and sustainable production are inextricably linked. Our mission is to facilitate information exchange, communication and outreach and collaborative action around sustainable consumption. We strive to influence social and economic forces to make the case for sustainable choices more compelling.

among organizations in North America promoting sustainable consumption and/or production. Currently the North American Sustainable Consumption and Production Database available on the web provides information about initiatives that can be supported, replicated, or joined. [27]

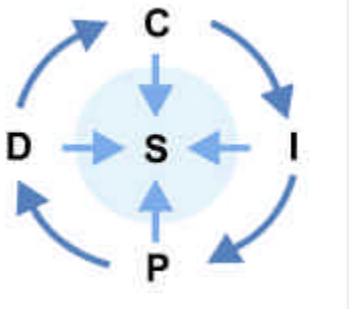
Project partners in the three countries identified a total of 194 initiatives, classifying these according to organization sector, country, organization type (e.g., government, business, academic, or public interest group), as well as focus areas, tools and approaches [28].

8. Schema for types of initiative

For this paper, we developed a basic schema for classifying activities (ranging from advocacy of specific governmental or corporate policies to other initiatives, such as public education and citizen action campaigns) according to whether they were generally production-oriented or consumption-oriented in their objectives. The activities were chosen as to their objective in reorienting a particular production or consumption pattern towards sustainability (S), i.e., providing for human needs and improving the quality of life of all while protecting ecosystems.

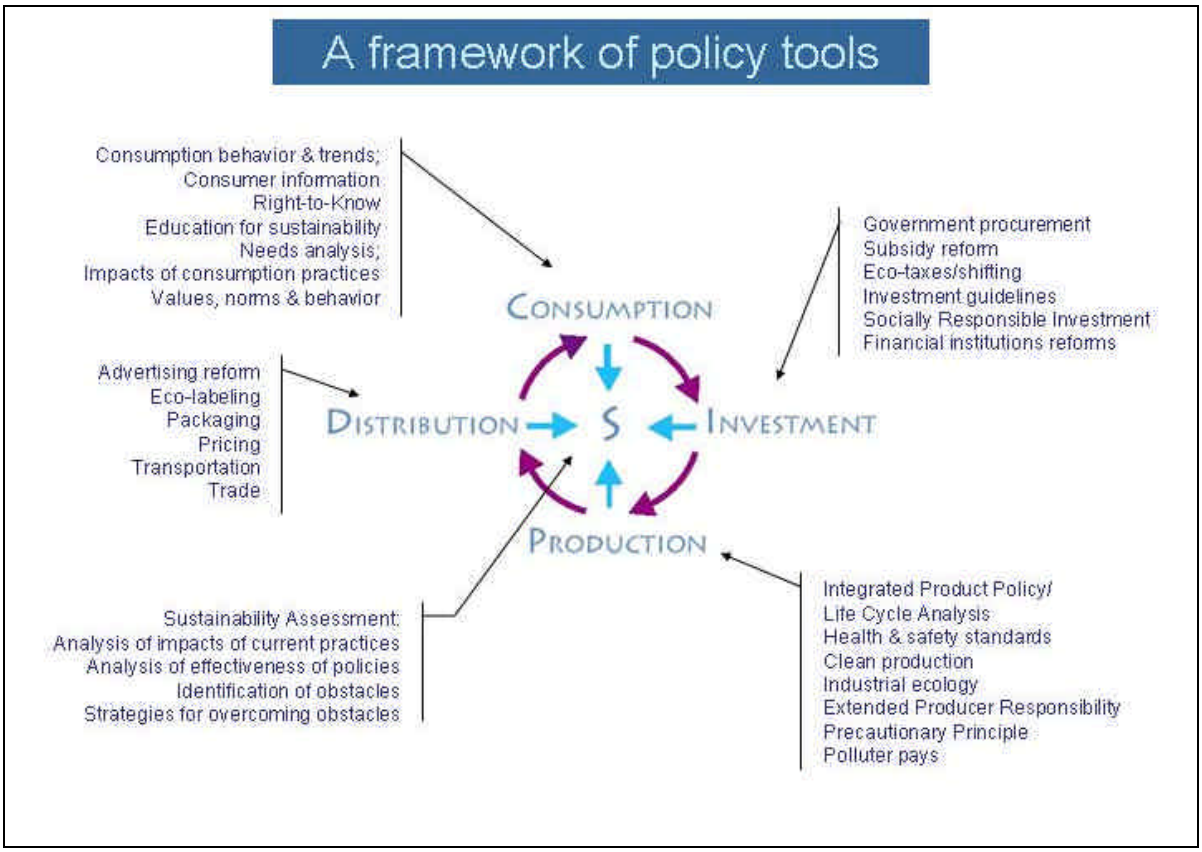
Production-oriented initiatives (P) are those aimed at changing particular production processes or products (e.g., cleaner production and industrial ecology methods, lifecycle analysis and Integrated Product Policy, Extended Producer Responsibility, as well as health and safety standards for products and workplaces.) *Consumption-oriented initiatives* (C) are those dealing mostly with raising awareness and changing consumption behavior, values, and motivations, such as education for sustainability, Right-to-Know, product boycotts, consumer awareness campaigns.

We also found the need for intermediary categories for those initiatives and approaches tending to focus on processes preliminary to either production or consumption, yet playing a major role determining its nature.



Investment-oriented initiatives (I) attempt to influence public or private decision-making regarding what resources (tax revenues, savings, land, labor, knowledge) are to be invested in which production processes, products and services to meet whose needs. Examples include shareholder advocacy, Socially Responsible Investment, institutional procurement, subsidy reform, and other steps to reorient the flow of resources (from government, industy or other institutions) shaping production.

Distribution-oriented initiatives (D) cover a range of actions aimed at the flow of products and services traveling form production to consumption. This includes all elements of marketing (i.e., sales, advertising, pricing, packaging, transportation, and trade). Here we see strategies such as fair trade, advertising reform campaigns, eco-labeling, greening of packaging, and campaigns on local production for local consumption.



The NASCA survey questionnaire asked participants to identify their initiative according to the specific area of focus (e.g., children and youth, trade, poverty/underconsumption, waste prevention) as well as the tools and strategic approaches used (e.g., ecolabeling, lifecycle analysis, full cost accounting, behavior change).

Initiatives, organizations and networks associated with this long list of policy tools and focus areas can also be generally clustered according to different parts of the production-consumption system. In this schema, also used by the SPAC Watch monitoring initiative [29], we view production and consumption as part of an interdependent cycle of activities, around which different issues, initiatives and strategies cluster.

9. Consumption-oriented initiatives

Although each of these initiatives contributes to the broader movement aimed at changing the larger economic system, a number focus specifically on consumption. Many describe "sustainable consumption" as a movement in itself (e.g., Cohen, et al. [30] and Princen, et al. [31]). Following are three approaches directly aimed at raising understanding and changing consumption patterns: voluntary simplicity, right-to-know, and education for sustainability.

9.1 Voluntary simplicity

One obvious action directed at changing consumption patterns lies in the embrace of "simple living," the heart of the *voluntary simplicity movement,* involving networks, organizations and individuals across the United States, Canada and other regions. Duane Elgin's 1981 book *Voluntary Simplicity,* lays out a philosophy of this approach, celebrating "harmonious and purposeful living." [32]

"Unpromisingly rooted in an apolitical and consumerist response to social ills," explains Michael Maniate, "the Voluntary Simplicity Movement also sows the seeds of collective challenge to fundamental dysfunctions of industrial society." [33] Jerome Segal writes about the politics and philosophy of this movement in his book, *Graceful Simplicity*. "We in the United States and in other rich lands have, somewhere along the line, made a wrong turn," he says. "We have lost any semblance of graceful existence, and we sense it, even if we can't articulate it." [34] Segal is also one of the founders of **The Simplicity Forum**, an alliance of simplicity leaders committed to achieving and honoring simple, just and sustainable ways of life. [35]

The Simplicity Forum is in turn a partner in the **Simple Living Network**, which grew out of the "simplicity circles" first launched by Cecile Andrews in 1989. [36] These circles were themselves small networks of people who "gather together to help each other simplify their lives." In her 1997 book, *The Circle of Simplicity*, Andrews estimated that by the end of the century, "15 percent of America's 77 million baby boomers" will have joined the simplicity movement. [37] According to a national survey in 1995 sponsored by Merck Family Fund, 28 percent of Americans (over 60 million) are "downshifters," voluntarily making changes in their life resulting in making less money in order to simplify their lives. [38]

The Center for a New American Dream is well-known for its mission to "help Americans consume responsibly to protect the environment, enhance quality of life, and promote social justice." [39] One example of this work is their **Turn the Tide** program, involving nine simple actions individuals can take as responsible consumers to have a measurable, positive impact on the environment. [40]

In their annual report, the Center describes its main work in "urging Americans to focus on what really matters and consume wisely." In 2004 the Center increased their activist base from 35,000 to 68,000, and engaged in actions such as pressuring automakers to produce fuel-efficient vehicles. **Be, Live, Buy Different--Make a Difference** is another of the Center's initiatives, partnering with World Wildlife Fund to "teach youth to spend responsibly to protect the environment." [41]

Global Action Plan (GAP) is part of an international network of organizations targeting household consumption. As in other countries, the US office of GAP helps "empower Americans to create earth-friendly lifestyles." This is done through their **EcoTeam** program, in which a small cluster of households in a neighborhood agree to help each other develop sustainable lifestyle practices in five areas: garbage, water, energy, transportation and consumption. If there are enough EcoTeam members in a community, they can also approach municipal officials to develop a community-wide lifestyle campaign. [42]

9.2 Right to Know

Educators, public interest groups and the media can raise consumers' awareness about the dynamics and impacts of their consumption choices and practices. Yet such information is limited without political mechanisms ensuring that citizens have a legal right to know about the kinds of pollution and health risks they face in their communities. In particular, Community Right-to-Know laws in the US and those in Canada providing for Pollution Release Transfer Registers offers important regulatory mechanisms requiring factories and other corporate entities to make public information on the toxicity of their emissions. Such an important knowledge tool did not arrive as a gift, but was the result of much campaigning, lobbying and networking by community, public interest and other groups. In the 1980s, trade unions began calling for right-to-know for employees about chemical substances in the workplace. Other public interest groups and communities also joined this movement, such as Silicon Valley Toxics which in 1983 formed in response to incidents of groundwater contamination by the electronics industry there. However, it was the 1984 tragedy in Bhopal involving Union Carbide and the deaths of over 15,000 people which especially focused citizen attention and action to the need for greater transparency and monitoring of the chemical industry, leading to passage of the Emergency Planning and Community Right to Know Act of 1986.

In the US, the **Working Group on Community Right-to-Know** serves a nationwide network of right-to-know advocates and watchdogs, allowing communities to hold corporations accountable for their emissions and waste. In addition, the **Right-To-Know Network (RTK NET)** provides free access to numerous environmental databases, with information on specific factories and their environmental effects. Other organizations such as the Toxics Use Research Institute (TURI) and INFORM's **Community Right to Know More** program help to ensure and protect access to right-to-know programs.

9.3 Education for Sustainability

Public interest organizations are an important source of trusted information about consumption for citizens and decision-makers. However, educators and educational institutions have a responsibility as well as resources for raising awareness and knowledge about consumption, production and sustainability among each generation of students.

In the US, a number of states have developed consortia to encourage the diffusion of ideas, information and values of sustainability within and among the universities and colleges and their communities. The **Pennsylvania Consortium for Interdisciplinary Environmental Policy** is one example, comprised of environmental policy makers and 52 universities and colleges devoted to "improving environmental policy and understanding through government and academic cooperation that encourages interdisciplinary analysis and discourse." The main objective of the Pennsylvania Consortium is "to provide a forum for collaboration on environmental policy and education." Teaching and addressing changes in production and consumption patterns is understood as key to issues from climate change to greening the campus.

University Leaders for a Sustainable Future is an international network based in Washington, DC. The network links heads of universities and colleages in North America and other regions, "making sustainability an integral part of curriculum, research, operations and outreach." One of

this network's initiatives is a **Sustainability Assessment Questionnaire**, presenting indicators designed to assess the extent to which a university is sustainable.

10. Production-oriented initiatives

On the other side of the production-consumption cycle is the production of the goods and services for consumption. Concerns here are with not only the volume and types of goods and services produced, but the process of making them, the natural resources extracted to make them, and the waste and pollution resulting from the extraction, production, and affiliated processes resulting in a particular "good." Some examples include lifecycle analysis and industrial ecology, pollution prevention and cleaner production, and extended producer responsibility.

10.1 Lifecycle analysis

Lifecycle analysis (LCA) directs attention to the inputs and outputs of materials and energy with their associated environmental impacts throughout the differents stages in the life of a product or process. During the 1960s, the concept of product life cycle was popular in marketing theory and strategies, but focusing primarily on the lifecycle of product sales. Gradually developing in the 1960s and 1970s with early efforts such as Resource and Environmental Profile Analysis (REPA), the methodology of LCA as we now know it focused on the environmental and health impacts of a product or process from extraction, production, use and disposal. After a period of minimal interest in the 1980s, major international interest in LCA by government, industry and academic groups grew especially in the 1990s. Workshops organized by the Society of Environmental Toxicology & Chemistry (SETAC) helped develop LCA methodologies and practices, later standardized in 1997 in ISO 14040. This helped to mainstream LCA as an important environmental management tool. Both Environment Canada and the US Environmental Protection Agency have programs drawing on and promoting lifecycle analysis.

A wide range of organizations and initiatives are helping integrate LCA as a priority in producer and governmental decision-making and practice. In Canada, the **Interuniversity Reference Center for Life Cycle Assessment, Interpretation and Management** applies LCA in bringing together expertise from different universities in "supporting industries and government in their transition towards sustainable development." [43] Also in Canada, the École Polytechnique de Montréal has been developing an LCA-based site bioremediation technique. In the United States, World Resources Institute, in their **Materials and Resources** initiative, use *material flows analysis* to track the physical flows of natural resources through extraction, production, fabrication, use and recycling through industrial economies. In California, the Pembina Institute developed a **Life Cycle Value Assessment** tool to help businesses to assess impacts and design ecoeffective improvements in their products.

10.2 Pollution prevention and cleaner production

In North America the term pollution prevention is used for what in other countries is often called "cleaner production." [44] According to the UN Environment Program, it is essentially "a strategy of continuously reducing pollution and environmental impact through source reduction – that is eliminating waste within the process rather than at the end-of-pipe."

Originally established by Environment Canada in 1992 to focus on the Great Lakes area, the **Canadian Centre for Pollution Prevention (C2P2)** later expanded their scope to the entire nation. The core business of C2P2 is "the transfer of P2 information." In their 2003 strategy for sustainable development, C2P2 highlights its principles of "strengthening linkages between sustainable development and pollution prevention, clean production and sustainable consumption." [45] One example of such linkages is their partnership with NASCA in developing and hosting the North American Sustainable Consumption and Production Database.

In the United States, the National Pollution Prevention Act of 1990 made pollution prevention or reduction at the source (vs. "end-of-pipe") as national policy. The **National Pollution Prevention Roundtable** provides "a national forum for promoting the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source."

Clean Production Action is a public interest organization which partners with companies and other organizations, helping them move towards designing products and manufacturing processes in harmony with natural ecological cycles. Their **Safer Substitutes Project** draws upon a transatlantic network of European and North American NGOs working to implement new innovative chemicals policies to stimulate the market for cleaner, safer chemicals.

The city of Lowell, Massachusetts is one of the historic sites in America's industrial revolution. There the Lowell Center for Sustainable Production [46], founded in 1995, hosts a number of initiatives contributing to America's sustainability revolution, such as the **Clean Production Research and Training** project, promoting approaches including technical innovations in materials, products, and facility design as well as broader policy schemes involving minimal use of resources and generation of waste that is benign and returnable into the production process. Recognizing the importance of showing how production and consumption are interconnected and interdependent, the Center developed the **Sustainable Production and Consumption Program.** This initiative promotes sustainability in *all* of the life cycle phases of a product or service — including purchase, use, manufacture, and disposal. In partnership with C2P2 and other groups, the Program organized and hosts the North America Sustainable Consumption Alliance and played a leading role in developing the North American Sustainable Production and Consumption Database.

10.3 Extended Producer Responsibility

Extended producer responsibility (EPR) focuses on the responsibility of the producer for the impacts of their product in the final stage of its lifecycle, after consumption. This principle shifts responsibility for recycling and waste disposal from local government and taxpayers to private industry. This gives producers a greater incentive to design products that minimize environmental and health impacts. [47] One aim is to shift product end-of-life recycling and health costs from taxpayers and local communities back to manufacturers.

In the mid-1990s, progress achieved earlier by North American municipal recycling programs leveled off, with improvements in recycling being offset by overwhelming increases in consumption and waste streams, as well as the complexity in extracting waste content. EPR provides an important strategy in both Canada and the US, encouraging producers to design

more easily recycled or biodegradable products. The two countries have, however, taken different approaches to implementing EPR, with differing results. [48]

In Canada, federal and provincial governments formed a series of multi-stakeholder roundtables, emphasizing a non-hierarchical "governance" approach to sustainability. In the area of EPR, this process eventually resulted in a positive track record of regulatory EPR programs operating in all ten Canadian provinces, minimizing direct government involvement. Environment Canada's **Extended Producer Responsibility and Stewardship database** was designed to educate the Canadian people on EPR policies and programs currently underway in Canada. **Electronics Product Stewardship (EPS) Canada** is one such initiative and nonprofit organization targeting electronic and electrical waste recycling programs in Canada. Their goal is to create a national electronics end-of-life program for Canada allowing for maximum provincial and municipal flexibility.

In the United States, movement towards EPR has been a much bumpier road. "After a promising start with container deposit legislation in the 1970s and 1980s, and scattered state take-back legislation in the early 1990s," explains Sheehan and Spiegelman of the Product Policy Project, "legislated EPR with physical or financial producer responsibility, transparency and accountability were absent until the environmental NGO community began to take charge of the agenda and organize public campaigns." [49] They identify three periods in EPR's evolution in the US: (1) Industry mobilization against EPR (1988-1992), (2) EPR co-opted (as in the promotion of "Extended *Product* Responsibility" -- diffusing responsibility away from producers to everyone involved and shifting from state legislative initiatives to lax voluntary initiatives, and (3) environmental NGOs putting EPR back on the US agenda (1999-2004).

One salient example of this more recent activism is the **Computer Take Back Campaign**, spearheaded by the Silicon Valley Toxics Coalition. The coalition describes its aims "to protect the health and well being of electronics users, workers, and the communities where electronics are produced and discarded by requiring consumer electronics manufacturers and brand owners to take full responsibility for the life cycle of their products, through effective public policy requirements or enforceable agreements."

The Grassroots Recycling Network (GRRN) points out that "strategies like producer responsiblity that don't rely on taxpayer dollars are increasingly attractive to policymakers facing budget deficits and revenue shortfalls." GRRN's **Producer Take Back Campaign** plays a key role in the network's goal to achieve Zero Waste.

One outcome of GRRN and other groups' campaigns on EPR and Zero Waste was the creation of the EPR Working Group. In 2003 a number of groups met in Boston to found the EPR Working Group to promote networking and sharing of information among EPR advocacy groups (the majority based in Canada and the US) and to establish EPR as a central framework for product management. One task for the Working Group was to develop a common set of clear and strong EPR principles. This has resulted in the **Extended Producer Responsibility Principles**, which describes itself as "a prescription for clean production, pollution prevention and zero waste." [50]

12. Investment-oriented initiatives

Seeing production and consumption as two sides of a system helps provide a dynamic understanding of the processes under these two umbrellas. However, when identifying different types of approaches for changing this system, it helps to examine those efforts strategically targeting intermediary processes driving both production and consumption activities.

A number of initiatives specifically target preliminary *investment* processes involved in deciding what is to be produced to serve whose needs, especially by those institutions and individuals in control of the resources. These initiatives are strategic in targeting critical moments and forces shaping production and consumption activities.

An important dimension of these investment-oriented strategies is that they call attention to the issue of control over resources, upon which consumption and production depend. It also raises the issue of responsibility by those in control. This was the point made at the Earth Summit: those industrialized countries with the affluence and power to consume and pollute more than their share had the responsibility to take the lead in reorienting unsustainable production and consumption patterns.[*] In contrast to the myth of the soverign consumer whose demand sets the wheels of production in motion, it is the investor with the power and resources who decides which wheels are to turn and in what direction. Three approaches are socially responsible investment, subsidy reform and institutional procurement.

11.1 Socially Responsible Investment

Socially Responsible Investment (SRI) is defined by the **Social Investment Forum (SIF)** as "an investment process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis. It is a process of identifying and investing in companies that meet certain standards of corporate social responsibility." [51] Three strategies of SRI include: *screening* companies according to social and environmental criteria, *shareholder advocacy* to push companies towards responsible practices and products, and *community investing*.

In the 1970s and 1980s, the first social investors such as Pax World Fund began avoiding investments in companies violating their stated values, such as weapons contracting. In the following decade, support against aparteid in South Africa expanded the movement for socially responsible investment, adding new social screens and values to investment criteria. According to research by SIF, one in nine dollars under professional management in the US in 2003 was guided by SRI principles, amounting to $2.16 trillion in assets. This represents more than eleven percent of the $19.2 trillion in professionally managed US investment. Furthermore, these funds have been growing at at rapid rate. In Canada, $38.2 billion were managed under SRI criteria.

Social Investment Forum is an association of over 500 financial professionals and institutions [52], which in turn helped create the **Social Investment Research Analysis Network (SIRAN).** SIRAN is an analyst network supporting more than 100 North American social research analysts

[*] This is the principle of *common but differentiated responsibilities* in Agenda 21, the Rio Declaration (Principle 7) and the Johanesburg Plan of Implementation.

from 30 investment firms, research providers, and affiliated investor groups working on socially responsible investment.

One example of an SRI initiative linking different investment firms and advocacy groups addressing a specific issue is the **Global Warming Shareholder Campaign**, coordinated by the Interfaith Center on Corporate Responsibility. Through dialogue and shareholder resolutions, the campaign works with corporations in four sectors most directly responsible for greenhouse gas emissions: oil and gas, electric power, automotive, and appliance manufacturing. The goals of this campaign include educating stakeholders about global warming; changing corporate behavior in reducing GHG emissions; and building corporate support for mandatory government limits on GHG pollutants.

Paul Hawkins, author of *The Ecology of Commerce*, recently voiced his skepticism about SRI, criticizing the movement for not having stronger criteria for investments labeled "socially responsible." While he notes some investment firms (e.g., Calvert) are making real contributions to corporate reform and accountability, he nevertheless argues that too many unqualified companies are using the SRI label to greenwash their misbehaviors. [53] Others reply that the problem is the larger system, giving priority to the highest rates of return and not the good of society. [54]

11.2 Subsidy reform

Of the $30 trillion of goods and services produced each year by the global economy, one-fourth of that amount ($7.5 trillion) flows through governments and back out as public investment in roads, armies, medical research, public housing, education, promotion of commerce and trade, and other services.

Of those government expenditures, observers estimate that $650 to $1,450 billion is spent each year on "perverse subsidies" to industries and activities harming the environment -- an amount far exceeding what is now spent to protect the environment. [55]

Whereas SRI initiatives target both individual and institutional investors, subsidy reform initiatives target government, calling attention to the how they are spending tax revenues entrusted to them by citizens.

In the United States, one coalition of groups transcends political parties to unite around a common concern with wasteful and environmentally destructive government spending. This is the **Green Scissors Campaign**, led by Friends of the Earth, Taxpayers for Common Sense, and the US Public Interest Research Group. The campaign fights to eliminate environmentally harmful spending in the budget and to reform the federal tax code to ensure that incentives for wasteful and environmentally harmful practices are removed, while incentives for environmental conservation are increased.

Three main areas of subsidies are agriculture, energy and transportation. Focusing on wasteful US agricultural subsidies, the Environmental Working Group launched the **Farm Subsidy Database**. This project "lets people know who is receiving the conservation and crop subsidy money provided under the old farm statute and under the newly enacted one." **Green Track** is a

US public interest organization especially committed to raising awareness and developing knowledge about government subsidies and "interventions" in energy markets. Their main work involves conducting direct research and analysis (e.g., their analysis of the recent US energy bill), and developing partnerships with organizations around the world. Addressing transportation subsidies, the initiative **Road to Ruin: the Fifty Most Wasteful Roads in America**, illustrates how taxpayer-financed road projects increase sprawl, harm communities and damage the environment. The 1999 report was produced by Taxpayers for Common Sense and Friends of the Earth.

11.3 Institutional procurement

A somewhat different approach to government (and other) spending is the targeting of government and corporate procurement processes. In North America, government procurement amounted to $2 trillion in 2002. In the United States, colleges and universities spent $250 billion in 1999 on goods and services. "Although not a panacea," says Worldwatch Institute's Lisa Masny, "harnessing institutional purchasing may be one of the most powerful tools available for shifting patterns of production and consumption in a more sustainable direction." [56]

According to Scot Case from the Center for a New American Dream, the institutional procurement movement in North America took off in the mid-1980s when public concern about a landfill "shortage" led to local governments to "buy recycled" to reduce pressure on landfills. [57] Promoting recycled-content purchasing was seen as a successful waste reduction and resource conservation strategy. Green purchasing was also seen as a strategy to promote energy efficiency. Purchasers are now beginning to work together cooperatively to make unified demands and to lower prices. Green purchasing advocates are also presenting common demands through networks such as the **North American Green Purchasing Initiative**.

The Center for a New American Dream also operates an **Institution Purchasing Program** which "helps intitutions incorporate environmental and human health considerations into their purchasing decisions." The Program coordinates working groups on specific environmentally preferable products and services, maintains a list of over 2,000 members, and provides a website with purchasing source information. The Center is also currently helping to develop a major new institutional procurement network.

In its **Greening Your Government Program**, Greenseal has provided federal, state and local government with services for greening purchases. These include environmental criteria, lists of green products, operational manuals, evaluation and design, and service contract language.
In Canada, **GIPPER (Governments Incorporating Procurement Policies to Eliminate Refuse)** is a government initiative to reduce the quantity of waste by government bodies and associated agencies by developing and promoting purchasing policies and practices. One tool they provide for this is GIPPER's Guide to Environmental Purchasing. The **Centre for Indigenous Environmental Resources (CIER)** is a Canadian indigenous-owned environmental non-profit organization working to facilitate adoption of green procurement practices by the Canadian government. CIER offers an on-line procurement database of green products and services (Procara) and workshop for public sector procurement professionals.
In Mexico, the National Commission for Energy Conservation (CONAE) launched the **Program for Government Energy Efficient Product Procurement** to assist Mexican procurement

officials to analyze total lifecycle cost and strengthen energy efficiency purchases by federal, state and local government.

12. Distribution-based initiatives

Between production and consumption lies an intermediate zone of activities and actors often labeled "distribution." Initiatives in this realm target a range of processes from physical packaging and transportation of the product to consumer to the sales and marketing involved in persuading consumers to buy. Distribution-based initiatives may also aim at influencing product pricing, mass media advertising, and trade policy and agreements -- all activities mediating between producer and consumer. Following is a brief glance at three strategic approaches: advertising reform, eco-labeling and fair trade.

12.1 Advertising reform

Following the post-war surge of marketing research into consumer motivation, Vance Packard's 1957 best-selling book *The Hidden Persuaders* [58] raised widespread attention to the "manipulative dangers" of advertising in using consumer anxieties and insecurities to boost sales. [59] The following year, in this book *The Affluent Society,* Canadian economist John Kenneth Galbraith criticized the advertising industry for its production of desires, its efforts "to bring into being wants that previously did not exist." [60] Such works and others helped inspire the critique and efforts to offset the negative effects of advertising and consumerism in the following decades. "Restraining the excesses of marketers and limiting commercials to their legitimate role of informing consumers," Durning pointed out in 1992, "will require fundamental reforms in the industry, changes that will not come about without a well-organized grassroots movement." [61]

Such a movement to reform advertising covers a wide range of issues and groups. Groups such as Consumers Union have since the 1930s been counteracting the persuasive messages of advertising with independent assessments of products and services marketed to consumers, such as through their magazine **Consumer Reports**. Other more recent efforts have taken a more aggressive approach, such as the Canadian Adbusters, who describe themselves as "a global network of artists, activists, writers, pranksters, students, educators and entrepreneurs. We are downshifters, shit-disturbers, rabble-rousers, incorrigibles and malcontents. We are anarchists, guerrilla tacticians, neo-Luddites, pranksters, poets, philosophers and punks. Our aim is to topple existing power structures and forge a major shift in the way we will live in the 21st century." Their **Culture Jammers Network** is an initiative linking together over 82,000 individuals agreeing to participate in this toppling effort

One important part of the movement to reform advertising has focused on advertising's influence on children. Each year, over $12 billion is spent by advertising targeting the youth market, with children viewing in that year more than 40,000 commercials -- dramatic increases since the 1970s. [62] A number of initiatives and coalitions have emerged to protect children from the destructive impacts of advertising.

Describing its mission as "to keep the commercial culture within its proper sphere, and to prevent it from exploiting children and subverting the higher values of family, community, environmental integrity and democracy," the nonprofit group Commercial Alert spearheads a

campaign promoting **The Parents' Bill of Rights.** [63] Arguing that "an aggressive commercial culture has invaded the relationshp between parents and children," the document calls for a series of government actions to help parents protect their children from harmful advertising campaigns.

Another initiative, the **Campaign for a Commercial-Free Childhood** describes itself as "a national coalition of health care professionals, educators, advocacy groups and concerned parents who counter the harmful effects of marketing to children through action, advocacy, education, research, and collaboration." [64] One recent action of the campaign is lobbying the US Congress to restore the FTC's authority to regulate advertising to children.

12.2 Eco-labeling

In contrast to the persuasive methods of advertising, **Consumers Union Guide to Environmental Labels** aims to help consumers make more informed choices in the marketplace, and participate more effectively as citizens in important decisions that affect the environment. The purpose of the project is to provide information to consumers, regarding eco-labels, products that carry eco-labels, the organizations that produce eco-labels, and government and private standards for "green" products.

According to the Sustainable Business Institute, the **Seal of Sustainability** "honors those businesses and business leaders throughout the world who have proposed or implemented noteworthy sustainable business practices." The Institute defines "sustainability" with regard to actions by business that "in some way enhance ecosystem health or reduce resource consumption, while meeting the broader expectations of society."

Green Seal's **Product Standards and Certification Program** awards its seal of approval to products that "cause significantly less harm to the environment than similar products." This assures buyers that certified products have been thoroughly tested, work well, and are among the most environmetnally responsible ones available.

12.3 Fair trade

Fair trade builds an important bridge between consumer and producer. Challenging the current system of unequal relations between small-scale producers in the South and the international trade system, fair trade is "one small avenue toward reclaiming a sense of engagement and empowerment in the modern world," for both producers in the South and consumers in the North. [65]

Fair trade is a global movement involving over a million small-scale producers and workers organized in as many as 3,000 grassroots organizations and their umbrella structures in over 50 countries in the South. [66] Most of these umbrella groups have agreed on the definition of fair trade [67] as

> a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers -- especially in the South. Fair trade organisations (backed by consumers) are engaged actively in supporting producers, awareness raising and in campaigning for changes in the rules and practice of conventional international trade.

The fair trade system involves four types of organizations:

- *producers* – collectives, small farmers, artisans and other workers in Southern countries,
- *importers and wholesalers* – previously known as Alternative Trading Organizations,
- *retailers* – "world shops," stores or mail-order catalogs, including the 7,000 supermarkets in the US and Canada carrying fair trade brands, and
- the fair trade *labelling initiatives* – which certify the chain of supply to guarantee adherence to fair trade practices; these are coordinated internationally by Fairtrade Labelling Organizations International-FLO. TransFair Canada and TransFair USA are among the 17 national labelling initiatives coordinated by FLO.

The fair trade concept began in the late 1940s when a number of religious groups began trading with poor and refugee communities, eventually setting up "world stores" to market their handicrafts. In the 1960s and 1970s NGOs, such as Oxfam and others saw the need for fair marketing organizations to provide "alternative trade" support and assistance to southern producers.

In the 1980s an international system of fair trade certification and labelling was introduced. Products included tea, chocolate, bananas, sugar, honey, and especially coffee. In 1986, Equal Exchange was founded to import fair trade coffee into US markets (consisting of about 150 million coffee drinkers). However, in the past three decades world coffee prices have declined, putting increasing pressure on small Southern coffee producers to find new strategies for selling their harvests. By 2000 the price of coffee had hit a 30-year low, lower than the costs of production, devastating the livelihoods of 25 million coffee producers around the world. Fair trade has been one of the few strategies available to small farmers caught in this crisis. [68]

In 1994 nearly 100 wholesalers, retailers and producers operating in North America and committed to alternative trade principles formed the **Fair Trade Federation (FTF),** an umbrella organization providing networking resources to members and acting as an information clearinghouse on fair trade issues. [69]

In 1997, many of these organizations came together to create the international umbrella Fairtrade Labelling International (FLO), now responsible for setting international fair trade standards.

In 1998, Transfair USA began certifying fair trade coffee. They describe themselves as "the only independent, third-party certifier of Fair Trade practices in the United States." In their **Fair Trade Certification** initiative, TransFair works in partnerships with US companies and fair-trade labeling organizations, regularly visiting Fair Trade farmer cooperatives, verifying that they were paid a fair price for certified products.

In 2002, total sales for the fair trade industry in North America were $180 million, an increase of 44% from 2001. The highest proportion of total FTF sales (29%) was from certified fair trade coffee -- an increase of over 50% from the previous year. [70]

13. National policy frameworks

Signing off on *Agenda 21* at the 1992 Earth Summit, governments including the US, Canada and Mexico agreed to "develop a domestic policy framework that will encourage a shift to more sustainable patterns of production and consumption." [71] While most governments have official departments or agencies tasked to develop policies and strategies addressing two of the three overarching objectives of sustainable development (i.e., poverty and natural resources), few have established similar frameworks and institutions for changing production and consumption patterns [72].

Thirteen years after the Earth Summit, most industrialized governments have difficulties taking the lead on sustainable production and consumption. Today neither the US, Canada or Mexico have national strategies or policy frameworks dealing with sustainable production and consumption. Nevertheless, there have been some efforts in past years to begin a national dialogue and attempt to move in the direction of some kind of national framework.

13.1 United States

In 1994 the US Environmental Protection Agency commissioned the National Research Council to help define "a research agenda on the global environmental impact of US consumption." [73] The same year the President's Council on Sustainable Development (PCSD) created the **Population and Consumption Task Force** chaired by Dianne Dillon-Ridgley (Co-chair, Citizens Network for Sustainable Development) amd Timothy Wirth (Under Secretary for Global Affairs, U.S. Department of State). [74] The Task Force report recommendations outlined many of the key themes and points of focus now characterizing the various streams of action currently shaping the sustainable production and consumption movement: labeling and certification; life-cycle analysis; government procurement; public education; reduction, reuse and recycling of packaging materials; efficient and clean technologies; reducing harmful subsidies; among other approaches.

As an overall policy framework, the Taskforce recommendations were for the most part ignored, along with the broader recommendations of the President's Council (the latter closing its doors in 1999). While there appears no recent effort to review those recommendations or develop a new consultative or other process to develop a national framework on production and consumption, the US government continues to participate in the international discussion of the Ten Year Framework for Sustainable Consumption and Production raised at the World Summit on Sustainable Development.

13.2 Canada

The Canadian goverment also admits they have "no current over-arching regulatory or policy framework that deals with sustainable consumption in Canada," although pointing to "considerable activity...that contributes to the goals of reaching higher levels of sustainble consumption and production." [75] In 1996-97, Environment Canada’s National Office of Pollution Prevention was designated as the federal lead for sustainable consumption and production, providing policy advice and technical support in the preparation of Canada’s position at the United Nations Commission for Sustainable Development. [76]. Also in May 1997, Environment Canada hosted a workshop on Sustainable Consumption and Production in Ottawa.

Acknowledging that "the movement towards sustainable consumption is still in its infancy," the background paper commissioned for the workshop reaffirmed that "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." To meet this commitment, the author pointed out, "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," a process requiring extensive discussion with all stakeholders.

In their report to the World Summit on Sustainable Development, Canadian delegation highlighted their promotion of pollution prevention, Extended Producer Responsibilitiy, and other approaches, as a response to sustainable production and consumption. Yet in Environment Canada's Sustainable Development Strategy for 2004-2006, there is still no overarching strategy or policy framework for achieving sustainable production and consumption. [77] Nevertheless, the government has acknowledged the need to "develop a federal policy on sustainable consumption and production" as a next step.[78]

13.3 Different approaches

James Meadowcroft, in an Environment Canada Policy Research Seminar in 2001, explained the differences he sees in the approach to sustainability by the US and Canada. In the study, "Implementing Sustainable Development Strategies and Initiatives in High Consumption Societies," Meadowcroft identified three types of government: *enthusiastic* nations (Netherlands, Norway and Sweden), governments considered *cautiously supportive* (Canada, Germany, European Union, Japan and the United Kingdom), and the *disinterested* (United States). [79] According to Meadowcroft and Lafferty [80], "sustainable development has gone largely unnoticed and non-supported" in the US. Not only has sustainable development had "virtually no significant impact on the operations of the US federal government," they explain, but that the core values associated with sustainability have failed to gain formal political acceptance. Instead, "US environmental policy remains largely frozen in the conservationist, regulation/compliance, industry-versus-environmentalists, and pollution-clean-up patterns that took shape either prior to or during the 1970s." [81]

For those working to raise awareness, understanding and adoption of the values and practices associated with sustainability in general and sustainable production and consumption in particular, such reluctance and resistance presents a serious obstacle and challenge. What will it take to make the transition from disinterested to enthusiastic?

14. Dialogue and networking

In addition to the discussions with and within government, other stakeholders in the region have initiated dialogue and networking on production and consumption practices and policies. As individuals around the country gathered in simplicity circles to discuss personal values and ways to lead the simple life, representatives from various organizations organized workshops and conferences to discuss changes needed in institutional and corporate policies and processes and to assess the challenge of making the social and cultural transition from an entrenched and vigorously defended consumer society to a sustainable society.

Earlier we looked at several types of initiatives arising over the past few decades, each initiating a history of discourses, dialogues and social networks addressing specific elements and aspects of sustainable production and/or consumption. We also note the wider discourse, dialogues and networking efforts addressing the more general topic of sustainable production and consumption, viewed as an interconnected web of issues and activities, and ultimately all parts of a broad regional and global social movement.

14.1 Redefining the dream

In 1994, the year the President's Council for Sustainable Development launched its **Population and Consumption Taskforce**, the Pew Global Stewardship Initiative organized a conference near Washington, DC on "Consumption, Global Stewardship and the Goodlife" where economists and sociologists sparred over assumptions about utility, need and ethics. That December in Boston, the Massachusetts Institute of Technology hosted with OECD an "Experts Seminar on Sustainable Consumption and Production Patterns," which discussed how meaningful changes could be achieved "without jeopardising economic growth, business profitability or personal well-being."

In the beginning of 1995, the PCSD held its Roundtable on Consumption held in Chattanooga, Tennessee, resulting in a series of goals and policy recommendations to the President's Council to improve efficiency, provide information to consumers and clean technologies to producers, and raise overall awareness about the relationship between consumption and quality of life. [82] A few months later, in Airlie, Virginia, the Merck Family Fund organized a three day conference on "Redefining the American Dream: The Search for Sustainable Consumption." This conference laid out many of the important themes to be explored over the following decade: the difficulty of agreeing on a common definition and vision, the paradox of Americans torn between consumerism and a "better quality of life," the struggle to find "words that will engage Americans in the discussion," the friction between "making do with less" and the need to do more to reduce poverty and inequality, tax policy, advertising, among others. Although the conference focused mostly on sustainable consumption, they acknowledged that this was "possible only in an economy and culture that provides incentives for sustainable production of goods." The Airlie planners described their conference as "a small step in a transforming process that is likely to take 20 years or longer." However, one immediate result in the follow-up to this conference was the creation of the **Center for a New American Dream**.

Some of the questions raised in the Airlie meeting were taken up that November at a National Research Council workshop on "Environmentally Significant Consumption: Research Directions," commissioned by the EPA to identify a research agenda on the nature, causes and impacts of sustainable consumption. [83] Acknowledging that the workshop was "only a small step toward useful knowledge," Stern and others proposed a criterion for research, that the top priority should to to "identifying the most environmentally disruptive human activities and then searching to explain them and to account for how they affect the environment." [84]

14.2 Sustainable America on hold

In the following decade, the discussions and campaigns throughout North America continued, yet the topic of sustainable production and consumption, along with sustainable development, still remain on the edges of the mainstream. In the US, when the President's Council on Sustainable Development shut down, the recommendations of the Population and Consumption Taskforce were shelved along with most other PCSD recommendations promoting a "Sustainable America."

The new century thus began with North America still locked into the unsustainable habits, values and policies of 20th century consumer society, with resulting impacts on the health and quality of communities and ecosystems. Dialogue, networking and action to promote sustainable production and consumption clearly needed greater effort and involvement of groups and individuals taking the lead. According to Blackman and Luskin [85], the issue of sustainable consumption "barely appears on the public agenda in Canada, the United States, and Mexico." What was missing was "a formal mechanism to facilitate collaboration and the exchange of information among the three countries."

14.3 Building a regional alliance

The same year the PCSD ended, the University of Massachusetts at Lowell published an overview of sustainable consumption initiatives in the United States. In 2001, they followed this effort by organizing a workshop, supported by Environment Canada and the North American Commission for Environmental Cooperation, involving a number of civil society organizations and representatives from Canada, the United States and Mexico active in production-consumption issues, resulting in the founding of the **North America Sustainable Consumption Alliance (NASCA)**. Participants agreed on the common aim of "working to promote more sustainable consumption patterns" in the region, doing this by facilitating "information exchange, communication and outreach and collaborative action."

NASCA members met again the following year in Montreal to formulate a network strategy to "move sustainable consumption onto the North American political agenda." Among the proposed projects was an exploratory survey of sustainable production and consumption initiatives in the three countries, a regional conference on sustainable production and consumption, a campaign promoting national policy frameworks in each country, an interactive website, and other activities.

On January 15, 2004, NASCA launched its public online database of initiatives on sustainable production and consumption, providing an opportunity for different groups to view the diversity of activities taking place within the three countries. Only a small share of the total activities operating, the database reveals an inspiring window into the broader movement at work transforming our society. Also that year NASCA organized two national experts workshops, one in Washington, DC with Worldwatch Institute [86] and one in Ottawa, Ontario [87], further exploring priorities of different groups in developing a collaborative North American strategy for promoting sustainable consumption and production.

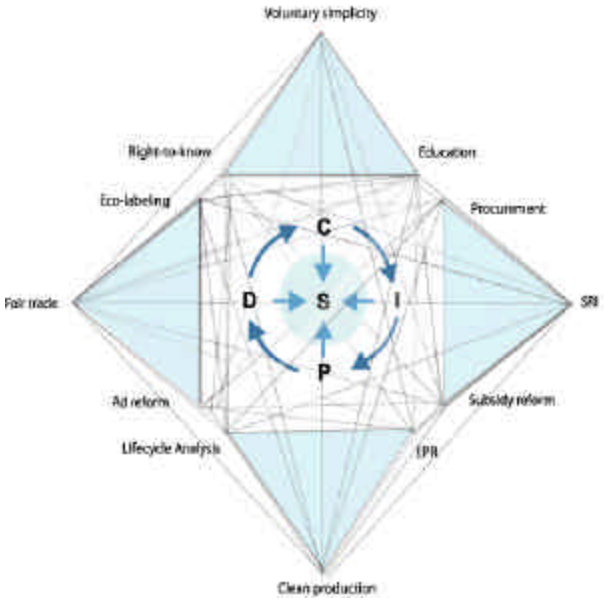
14.3 Towards a regional framework

Other groups have also convened civil society and academic groups, government and business representatives and others to discuss priorities, visions and strategies to move towards sustainable production and consumption. The SPAC Working Group in the Citizens Network for Sustainable Development, for example, has organized a number of public issue forums, roundtables and strategy discussions in Washington, DC and at the United Nations. [88]

In 2005, after noting that a series of intergovernmental consultations on sustainable production and consumption were taking place in Europe, Asia, Africa, and Latin America – but *not* in North America, Integrative Strategies Forum, in cooperation with NASCA, National Wildlife Federation, Worldwatch Institute and other civil society groups organized a two-day experts workshop in Washington, DC on May 31-June 1 to span this gap. Also designed to follow up on the meetings previously initiated by NASCA, Citizens Network and others, the workshop aimed to move closer "Towards a North American Framework for Sustainable Production and Consumption."

The workshop began with the assumption that there is an "informal but strong movement on sustainable production and consumption in North America" involving a range of different stakeholder networks and communities of action and discourse addressing a range of issues and involving a spectrum of strategies and initiatives, as examined in this paper. Many of the workshop participants were invited especially because they represented a particular network or community of practice (e.g., socially responsible investment, extended producer responsibility, eco-labeling, procurement, voluntary simplicity.) One question of the workshop was what ways different networks communicate and collaborate with each other. As might be expected, some had worked together in broader networks, such as NASCA, while others saw their particular movements as following its own separate path.

Despite a slowly emerging vision and discourse on sustainable production and consumption, there is no central organization or institution defining, directing, or coordinating this movement. Rather, the movement consists of a number of communities or networks, linked and overlapping with each other in various ways. Many of these networks and communities collaborate in campaigns or in exchanging information and viewpoints. Nevertheless, there was a general agreement that communication, sharing of information, and opportunities to collaborate and better coordinate around common aims could be greatly improved. Thus the interest in developing a regional "cooperative framework" to enhance that improvement.



One outcome of the workshop was the the collective statement *Producing and Consuming in North America: A Call for Action and Leadership on Sustainability*, [89] released on Labor Day (highlighting the view that citizens are producers as well as consumers). In the statement, workshop participants agreed to develop a framework of action and cooperation to [90]:

- Engage our fellow North Americans regarding our role and responsibility here and in the world regarding our pursuit of the good life and the sustainable production and consumption practices and policies that will provide it.
- Help build public support for government and business policies and practices which protect and promote human and environmental health and well-being, encourages sustainable livelihoods and lifestyles, and reduces our region's ecological footprint.

The statement was presented in San Jose, Costa Rica at the International Experts Meeting on Sustainable Consumption and Production [91], where representatives from governments around the world met to review their progress towards the overarching objective. Given the reluctance of the US and other industrialized countries to "take the lead" on sustainable production and consumption, as they had agreed at the Earth Summit in 1992, it is clear that much of this leadership needs to be and is coming from North American civil society. While there has been little movement within government, a larger movement is taking place outside among citizens and citizen organizations.

15. Conclusion

The movement for sustainable production and consumption is different in approach from those "new social movements" of previous decades. Rather than organize around a unique community or identity (such as gender, race, class, or place), or issue (environment, social justice, peace), the sustainable production and consumption movement organizes around a growing understanding of the common factors driving environmental degradation, climate, economic injustice and poverty in the current system of production and consumption. The common aim is to improve the quality of life for everyone, not just one community, class or special interest. Assuming the interdependence of issues and actions as one of the guiding principles of sustainability, the vision involves commitment to the broader common interest. Rather than compete with other movements or networks, it invites cross-cutting alliances and collaborative strategies around interconnected problems and priorities.

Mostly nongovernmental, there is no central leader providing the official lines, rules and membership directory from which to distinguish norms and outliers. Yet the participants in this movement include governments (from national to local), business (from multinationals to small neighborhood firms, as well as investors to trade unions), academics (from universitiy networks and consortia to individual scholars), public interest organizations (environmentalists, consumer rights groups, health advocates, social and economic justice groups), and individual concerned citizens.

Mapping this movement is an ongoing task, as organizations, campaigns and projects come, go or evolve. Participants in this mapping effort may argue about the scope, definitions, and emphases. Some believe the movement is strictly about changing consumption patterns; others

see production and consumption as two sides of a dynamic system. Another part of the problem is differences in definitions of "sustainability." In turn, definitional authority vies between the international intergovernmental agencies at the top looking down, such as the UN Environment Programme and the UN Commission on Sustainable Development, and the grassroots organizations and networks directly engaged in education and advocacy campaigns to challenge and to change the system from the bottom up.

In North America, the concept of sustainability has a ways to go before it is taken seriously by the mass media and many politicians. The discourse on sustainable production and consumption remains constricted, almost but not quite a taboo. The quest for common terms and categories is slow, following the gradual diffusion of the practicies and principles of sustainability. While academics and activists argue over language, tactics and timing, the movement will continue to grow and develop its many forms and features. Various practitioners and theorists will contribute to developing the map as well as tools and methods for the mapping. Hopefully in time the path to the "overarching objective" will become clearer to everyone.

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