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Consumption Indicator Framework in Vancouver, Canada

The central aim of this paper is to conceptualize a consumption indicator framework that will take into account the relationship between reducing local consumption practices and effective municipal and regional policy making. The objectives of this paper are threefold: 1) to conceptualize a consumption indicator framework that links consumption from a global equitable perspective to individual actions, 2) to develop local consumption indicators in such arenas as housing, energy, mobility, food, and solid waste; 3) to highlight innovative tools within the British Columbia Lower Mainland pertaining to individual action to reduce consumption levels. Three related research questions help inform this paper: a) What are the main challenges to shift policy towards reducing consumption levels within the Vancouver region? b) What innovative policy instruments are being piloted within the region that may be applicable to other jurisdictions? c) What cultural factors and behavioral change strategies are most applicable to shift attitudes towards more sustainable lifestyles?

Regional Vancouver's Consumption Levels and Livability

Historically, two landmark initiatives have helped shape the Vancouver region, reduce regional consumption levels, and instill a relatively high quality of life. The first initiative occurred when the Province of British Columbia established a growth boundary in the form of a 4.7 million hectare Agricultural Land Reserve (ALR) in 1974, where farming and agriculture were recognized as having priority use over non-agricultural uses[1]. Pervasive sprawl throughout the Fraser Valley was somewhat curtailed with this designation and at least indirectly promoted more compact land use planning. The second initiative was the creation of the Livable Region Strategic Plan in 1996, which encouraged municipalities to adopt growth management strategies in the Greater Vancouver region by advocating for protection of the green zone, developing complete communities; and diversifying transportation options from single-occupied vehicle usage in order to minimize highway infrastructure[2]. These initiatives have helped reduce regional land-use consumption patterns compared to many other North American jurisdictions.

Nevertheless, the B.C. Lower Mainland region is confronted by impeding ideological challenges towards maintaining a high quality of life and reducing consumption levels. For instance, the provincial government recently proposed a mega project to double highway infrastructure into and around Vancouver's downtown core to combat increasing levels of vehicle congestion and gridlock[3]. Real estate prices jeopardize the ability for lower and even middle income residents to find adequate accommodation within the region. Known for its mild and wet climate, Greater Vancouver has recently faced a series of summer droughts and remains one of few North American jurisdictions that does not meter water usage on a household unit basis. These dynamics present threats as well as opportunities for moving towards more sustainable lifestyles.

Developing a Sustainable Consumption Indicator Framework

In recent years, there has been a growing interest to research policy interventions oriented towards environmental concerns about consumption rather than simply emphasize eco-

[1] For more information, see http://www.alc.gov.bc.ca/ and http://www.smartgrowth.bc.ca/index.cfm?group_ID=3503
[2] See http://www.gvrd.bc.ca/growth/lrsp.htm
[3] The Gateway Program, a controversial three billion dollar 'top-down' mega-project currently proposed by the province focuses on highway and arterial road expansion. It remains to be seen whether the region's livability will escape unscathed from the proposed induced traffic flow. For more information, see http://www.th.gov.bc.ca/gateway/FAQs.htm

efficiencies and supply-side debates (Murphy 2001; Princen and Conca 2002). Whereas many European municipalities are implementing Local Agenda 21 plans and are at the forefront of identifying sustainable consumption patterns, integrated sustainability plans have just recently been announced as a new initiative for Canadian municipalities (Godfrey 2005) and may provide a launching point for targeting consumption interventions.

Sustainable consumption requires realizing the biophysical limits within which consumption can take place; although this is currently difficult to measure and define at the global level(s) (UNEP 2002). Michael Carolan's recent critic of ecological modernization's "productivist" orientation (Carolan, 2004) centers on the question, "What motivates individual action?" (Carolan, 2004:269). I argue that the concept of "environmental space", developed by the Wuppertal Institute in Germany and Friends of the Earth - Netherlands during the mid-1990's (Spangenberg, J.H., (Ed) 1995) may provide a fresh vantage point for entering this debate. Environmental space articulates the notion of equitable distribution of global space by offering the crucial element of equity into its working definition; that each person has the right to use an equal amount of the Earth's natural resources. Environmental space calculations and necessary reductions (at least in Northern industrialized countries) have been calculated for such resources as nonrenewable raw materials, land use, wood, energy, and water on a national and per capita basis.

There may be compelling reasons to present indicators comparing quantitative targets for resource consumption globally and nationally, as an indicator framework of present disparities and potential progress towards reducing current consumption levels in a variety of consumption clusters. Nevertheless, there may be greater efficacy of reducing individual consumption levels through developing a subsidiary path linking consumption targets to tangible behavioral change primarily at the household level (Spangenberg, Joachim H. and Lorek 2002; Moll, Noorman et al. 2005). The notion of "environmental space" may provide a useful framework for making stronger connections regarding individual motivations for reducing consumption levels and contributing towards consumption discourse within environmental sociology. Individuals and policy makers alike may benefit in setting targets and assessing progress towards reducing consumption levels, which will be investigated further in attempts to connect social processes related to consumption behaviour.

I argue that regulatory, financial incentives, expenditures and voluntary policies being demonstrated in particular jurisdictions within the Vancouver region also provide an ideal and rich backdrop for policy examination and replication in other jurisdictions to reduce consumption levels, particularly aimed towards a North American context. I contend that some of these policy instruments must not stand alone, but should be used in unison with cultural factors and social change strategies that heighten public awareness and connect macro consumption issues to individual wellbeing in order to maximize their impact (Hobson 2004; Sanches, 2005).

This paper conceptualizes a consumption indicator framework in such arenas as housing, energy, mobility, food, and solid waste linking consumption indicators from a global equitable perspective to a local scale, which connects consumption levels to individual actions. Pilot projects in local jurisdictions within British Columbia's Lower Mainland will highlight these linkages. This analysis is timely, given the ways that projected increases in the volume of consumed and discarded goods and services continue to strain our abilities to effectively deal with them (Zacarias-Farah and Geyer-Allélyeyer 2003).

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