

3.0 An Introduction to Barriers

3.1 Requirements of Change in a Democracy

Ideally, local democracy encompasses a public, elected representatives and public sector employees all of whom are well informed of relevant civic issues. Good communication among these groups is essential for good decision-making and effective policy implementation (Tindal and Tindal in Nairne, 1991, 17). However, the existence of such a framework is only the starting point. It creates the atmosphere within which change may occur, but does not guarantee that any change will take place.

To understand this, the following analogy may be helpful. The institutional structures of a democratic society are similar to a bicycle. It is capable of moving the rider (society) in new directions, but remains idle if there is no push on the pedals. The source of power, or energy, required to move the system comes from the public. It is the will of citizens that acts upon this mechanism to produce the desired changes needed to move society onto a sustainable path.

Of course, different sectors of the public, by virtue of superior organisation and financial resources, are able to influence decision-makers more effectively than others. This is often the case when, for example, the corporate sector overrides the will of a localized group of citizens. If those influencing government are not pursuing sustainability objectives, then institutional structures could carry society in an unsustainable direction.

In the quest for sustainability, it is difficult in large societies to establish a homogeneous vision; however, at the minimum, the dominant social paradigm must allow room for alternative views and thoughts to be introduced and debated (Rees and Wackernagel, 1992, 5). An opportunity for different perspectives to be heard in the decision-making process becomes the first condition required for change to occur. The second condition required is the existence of individuals or groups who are willing to take action, to commit their time and energy to producing the changes they desire (Castells, 1983, 293; French and Bell, 1984, 312). The greater the support for an agreed upon vision or goal the more likely its realization (Van Rees, 1991, 96; Lees and Mayo, 1984, 11). The third condition required for change to occur is knowledge of how to use, or affect, the existing system to produce the desired outcome (French and Bell, 1984, 312). While not a necessary condition, attempts to change are facilitated by a healthy functioning of the political system, unhampered by internal strife or grid-lock due to conflicting goals (Ley, 1983, 217), and the existence of an institutional framework which is structured in a way that is able to handle the changes it is called upon to make (Van Rees, 1991, 99). Finally, while it is not essential, a political system which supports citizens' efforts to create change is helpful (Van Rees, 1991, 100).

3.2 How Social Change can be Prevented

During a meeting of some of the world's leading authorities on atmospheric change, the following conclusion was reached:

While the scope for possible action may grow with technological developments, it is very clear that the obstacles to sustainability are not technical or even economic: they are social, institutional and political (Bush, 1990, 1).

With this observation in mind, this research explores the barriers to addressing atmospheric change that exist in the political and institutional realm. The literature examined in chapter two reveals that social behaviour and institutional structures are determined in part by the desire to meet human needs. To this end, the perception of which needs are to be met and what priority they should take becomes crucial. Thus, attention is paid to the role of perceptions because perceptions guide behaviour (Stein, 1984, 122) and determine consent to operate within existing political and institutional structures. Furthermore, perceptions condition acceptance of the economic constructs which heavily influence the operations of institutions.

Perhaps it is fair to argue that all the barriers identified in this research are themselves couched in the one problematic barrier of perception. The set of ideas an individual or society has about the way the world works is the paradigm under which that person or society operates. In today's world, a particular paradigm operates at the global level; this "scientific materialist" paradigm drives the global economic system. It rests on the tenets of neoclassical economic theory and scientific reductionism. Neoclassical economics, or neoliberal economics as

it is also called, embodies such familiar beliefs as: the invisible hand of the market and the trickle down effect work to the benefit of all in society. Thus, consumer sovereignty must not be compromised. In fact, the economy satisfies only that demand which is supported by an ability to pay (Keynes in Heilbroner, 1980, 268). Witness the fact that starvation among the poor is common, yet so is the sight of heaps of food being destroyed or stored because of inadequate market demand. A second belief is that market pricing mechanisms are the most accurate and efficient way to determine resource values (Heilbroner, 1980, 52-65; Samuelson and Scott, 1980, 51-52). However, this overlooks the point that most natural life support systems and their products, such as clean air, are not commodities in a market system and thus no pricing cues exist for them (Rees, 1994d, 5). Furthermore, prices are determined at the margin, meaning that the inherent value of something is not reflected, only its current status of availability. Such a system is better suited to the pricing of finite, or non-renewable resources, rather than renewables whose status of availability can be difficult to predict (Victor, 1991, 206). Pricing at the margin sends false signals to society, overemphasizing the value of certain things, e.g. oil and platinum, and undermining others, e.g. air and water. The market pricing mechanism is influenced by scientific reductionist theory which fails to appreciate biological relationships and non-reversible chemical reactions that are common in natural systems. Thus, the market system also assumes reversibility. If it is discovered that society's pricing mechanism has erred, and a resource such as clean air has been underpriced, then economic decisions can be adjusted, and actions reversed in order to promote its newly realized scarcity. Unfortunately, society's actions can be reversed, but the impact of those actions in many cases cannot. The impacts leave the sphere of human influence and enter the realm of environmental consequences, an area where humanity has often proven ineffectual.

Finally, since the scientific materialist paradigm considers natural and human-made capital to be interchangeable (Simon, 1981), it does not accept the argument of limits to growth (Daly and Cobb, 1989; Christensen, 1991, 78). The scientific materialist paradigm argues that human ingenuity gives rise to technology, a form of capital input which is able to circumvent the restrictions placed on production by scarce resources. Thus, resources are no longer considered a limiting factor, either to production or to human survival (Simon, 1981). It is interesting to note, however, that although technology has been able to temporarily overcome trends of resource depletion, it has not been able to reverse these trends in the long term. For example, while fertilizers and hybrid seeds mask problems of land degradation in the short term, the natural productivity of agricultural land continues to decline (Smith, 1986, 9), causing the global loss of twenty-four billion tons of topsoil and six million hectares of land annually (Brown, 1990, 3; Postel, 1989, 21).

Furthermore, those operating under the scientific materialist paradigm claim to be promoting sustainable objectives efficiently and effectively (Dasgupta and Heal, 1979; Simon, 1981; Block, 1990). However, as noted above, there is increasing evidence that this may not be the case (Brown, 1981; Daly and Cobb, 1989; Milbrath, 1989; Pearce et al., 1989; Brown et al. 1992). Current dominant economic paradigms may not be compatible with present biophysical realities (Rees and Wackernagel, 1992, 5). Continuing to act in accordance with these paradigms may prevent the adoption of alternative actions which would place society on a sustainable track. Given the scientific materialist paradigm's dominance in twentieth century society, it becomes very difficult to act in a manner that favours sustainable development. Governments which have co-evolved with scientific materialist beliefs unwittingly become their defender. Thus, defensive actions used to by-pass embarrassment and threat prevent opportunities for learning and change in government (Argyris, 1993, 20). As a result, the status quo is maintained. One sees the accumulation of knowledge and the conceptualization of ideas and initiatives to promote sustainability, only to have them stymied and prevented from being translated into actions.

Therefore, it is important to track the specific point at which such initiatives are blocked. The literature has uncovered many ways to think about these points of impediment. The most common, however, is to use a three tiered approach. The first tier examines the individuals; the second, the organisation itself; the third, the culture or system in which the organisation is embedded (Weiss, 1972, 311; Robinson, 1993, 44). In the following sections, I categorize the barriers in this research into three types which approximate the above: Perceptual/Behavioural, Institutional/Structural and Economic/Financial. The barriers listed concur with those found in the literature (Altman, 1985; Argyris, 1993; Castells, 1983; Hultman, 1979; Lees and Mayo, 1984; Ley, 1983; Rees and Wackernagel, 1992; Van Rees, 1991). In this analysis, the market system is viewed as the cultural setting within which the institution of government operates. While process and goal oriented barriers are discussed, their delineation within each category is not strictly pursued.

3.2.1 Perceptual/Behavioural Barriers

For purposes of this research, perception and behaviour shall be defined in the following terms. Perception is the recognition and interpretation of a set of circumstances. Perception usually leads to a behaviour, which is

defined as the aggregate of observable responses of an organism to internal or external stimuli (Stein, 1984, 122). It should be noted that behaviours observed in response to institutionalized systems of governance or economic pressures shall be listed under the categories focussing on those issues. The barriers that fall under the Perceptual/Behavioural category are:

Lack of Understanding about the Issues. The public has a shallow ecological perspective. Constituents do not understand the gravity of the situation. Consider this perspective, typical of those who feel uninspired to act: The radical environmentalist draws attention to policy issues that, aside from a derivative entertainment value, would not normally command such attention. People naturally devote most of their serious reading time to issues that have more personal impact, such as the weather report or a Consumer Reports article. The individual does not have the remotest control over whether mankind will survive the next decade, and only if a report is sensational enough to be discussed over cocktails will it be scanned along with the ball scores (Block, 1990, 129).

Overwhelming Complexity of the Issue. An issue spanning many factors of cause and effect becomes very difficult to understand (Van Rees, 1991, 100), and hence difficult to address with a management strategy (Tindal and Tindal, 1984, 190). Often, the complexity of an issue is so overwhelming, that people avoid dealing with it.

Uncertainty. When there is uncertainty about how to deal with an issue, the default is often to accept the status quo (Rees, 1994d, 19), or to move ahead at a very slow pace taking only small actions. Often, scientific data can be commandeered by political interests. As environmental issues become more prominent, the question of what is fair analysis and what is industry-generated propaganda will become increasingly difficult for policy makers to determine (Bush, 1990, 34).

Competing Issues. Depending on how society perceives and values things, some issues will continue to take precedence over others. The resources dedicated to addressing a particular issue are competed for by newly evolving issues which are not always successful in securing adequate support. Thus, competing issues can create conflicting goals within an institution, adding to the difficulty of implementing a specific policy (Ley, 1983, 394).

Differences in Perception. Different perceptions cause people to respond differently to incoming information (Hultman, 1979, 15). Differences in perception about the state of the ecosphere, impacts of the global economy and present health and welfare conditions for the majority of the world's inhabitants make it difficult to reach agreement about what action, if any, should be taken in the interest of sustainability. Furthermore, differences in perception about which is the most effective way to take action to deal with the above mentioned problems inhibits opportunities for cooperation (Ley, 1983, 230; Argyris, 1993, 23).

Acceptance of the Status Quo. Current ideological/political realities - such as the acceptance of dominant social groups and the rapidly emerging consumer-oriented care and happiness market - are preventing structural solutions and mean that there is little more to show in this arena (of welfare) than well intentioned programmes and projects with limited consequences in relatively isolated circumstances (Van Rees, 1991, 96). Thus the acceptance of ideas such as consumer sovereignty, the right to drive automobiles and "enjoy the good life" are directly conflicting with efforts to move in a sustainable direction.

Perceived Lack of Empowerment. If one believes that one's own actions will produce little consequence in improving sustainability, one readily asks the question, "why should I bother to put in an effort?" This type of barrier often manifests itself as apathy. Many urban policymakers are stuck in the paralysing belief that our market society and our bureaucratic nation-state system cannot be changed in any basic sense. To play by those rules means that both the environment and the less fortunate members of society always lose until eventually everything is lost (Roseland, 1992, 336).

Perceived Inequity. This barrier produces the "free rider" phenomenon seen commonly in public good problems (Castells, 1983, 293; Van Rees, 1991, 100). Action which supports sustainability is usually not adopted in a society when it is perceived that the personal sacrifices required to adopt the action are greater than the benefits both to the community at large and to the individuals themselves. If one feels that one's own sacrifice will be abused by the over-consumption of someone else, motivation to act is dissuaded. This barrier manifests itself in daily decisions to drive one's car rather than bicycle (which sacrifices safety) or take public transit (which sacrifices time) etc. This barrier also allows abdication of personal and civic responsibility. People find it easy to excuse their consumptive lifestyle because their contribution to the problem is minor and their

ceasing to contribute would either have negligible effect, or more likely, would only allow others greater consumptive options. Thus, with the existence of this perceptual barrier a reason why not to adopt actions that support sustainability exists.

Attention Pressure. Where "Competing Issues" addresses the issues themselves, "Attention Pressure" addresses the process of dealing with those issues. Whichever issue an organisation is pressured to attend to is the issue to which the organisation will be most progressive, i.e. take most immediate action (Ley, 1983, 217). Government shows the tendency to feel the pressures of local interests more keenly than those that are more broadly based. Attention pressure is also witnessed by the tendency to be more sensitive to short-term interests than those of long-term duration, where the results will only be realized many years in the future. When two interests compete directly, those of local concern and immediate results win more often than not. Responding to attention pressure results in a council that is "adaptively rational rather than omnisciently rational" (Ley, 1983, 210). It is true that in the interest of survival an organisation must be adaptive and responsive to changes in its external environment. However, sustainability requires that governments develop methods to discern between which issues deserve their attention independent of which ones they are being pressured to focus upon.

Lack of a Catalytic Personality. Catalytic personalities can facilitate tremendous change within an institutional structure. They are key to the effectiveness of an organisation (Argyris, 1993, 31). Through their actions they are often able to motivate others. If such a personality does not believe in the value of certain policies, then implementation may not be as thorough as if such a person was championing them among his/her peers.

Citizens Disunited/Not supportive. If citizens share no common bonds, philosophies, or interests, or if they do not face similar problems spatially, economically, and/or socially, then there is no consensus regarding which items are priorities that need to be addressed. There is a lack of shared vision and values; thus, initiatives supported by one group are fought by another (Van Rees, 1991, 96; Lees and Mayo, 1984, 11).

Media's Presentation of Information. The selection of media content can create tremendous barriers to the implementation of policies. Because the media shapes public perception and therefore plays a crucial role in the functioning of democratic systems, failure to present information comprehensively leads to biasing of the readers, and issues that are omitted have less chance of becoming part of public consciousness (Rees and Wackernagel, 1992).

Disjunction between Verbal Support and Willingness to Take Action. "Values all tend to sound good and noble on the surface. Consequently, people can verbally state that they have a value, even though that value has no impact on their behaviour" (Hultman, 1979, 29). Policies that are verbally supported by the public often fail because in practice citizens do not comply. There is a tendency to support environmental initiatives without taking into consideration what will personally be required to implement them.

3.2.2 Institutional/Structural Barriers

The term 'institutional' pertains to organised societies. It denotes an organisation or an establishment devoted to the promotion of a particular objective, usually of public concern. Institutions are characterized by established laws and customs, which form a structure within which behaviour occurs. The types of barriers identified under this category also deal with decision-making and information management structures of institutions. Institutional/Structural barriers are:

Lack of Information Sharing. Lack of cooperation and information sharing among the "different agencies of knowledge" creates a barrier (Ley, 1983, 365). These agencies consist of government council members and civic employees who have knowledge of the whole system (the city politic), academics who have knowledge of specific issues that affect the city, and community organisations who have knowledge of how specific issues affect certain sectors of the city; other stakeholders might also be considered. Without integrative consultation of these three agencies, policy making remains a process of applying incomplete knowledge to problems, or remaining ignorant of them all together, and thus deriving rather ineffectual results.

Weak Linkages between Government and its Constituents. Government provides the medium through which public will is translated into public action. However, until the public will is known, government action cannot commence. Thus, responsive action in the public sector is dependent on strong linkages between the governing body and its constituents. When these links are weak, there is often considerable disjunction between what the public would like its government to do, and what that government actually does. When these links are weak, a barrier to action also exists because government is left without a clear directive from the public

on the course of action it is expected to take to deal with a particular issue (Sale, 1980, 495).

Inappropriate Structural Framework of Government (Vertical). The structural framework of the institution is ill suited to the task at hand, e.g. the fragmented structure of municipal departments does not match the highly interconnected nature of the community/city and its problems (McAllister, 1979, 36; Roseland, 1992, 6).

Inappropriate Structural Framework of Government (Political Term). This barrier applies specifically to the length of political office for council members which is perhaps too short to give initiative to politicians to embark on the long process of implementing actions that support sustainability. The relatively short term in office allowed between election periods "tends to encourage decision-makers to approve quick gain initiatives while shelving longer-term less results-oriented projects" (Nairne, 1991, 17; Rees, 1994d, 18).

Limitation of Jurisdiction. Limitation of jurisdiction often blocks agencies which are appropriately informed on how to deal with an issue from being allowed to apply their knowledge to the problem. Furthermore, agencies which are best suited, and in some cases even mandated, to address an issue may not do so because of limited authority. This improper balance of power between local and provincial governments hinders local government's ability to carry out expanded social or environmental services (Tindal and Tindal, 1984, 200).

Unequal Balance of Power and Resources Among Community Organizations . This problem is exacerbated by lack of shared vision and values. The result is that certain communities enjoy greater influence over municipal decisions, thus undermining the benefits of participation processes. Equity in power sharing should be maintained even if some communities lack the social and financial resources necessary to lobby their issues effectively (Ley, 1983, 307).

Weak Understanding of Action Roles . The public believes that once a report is approved or adopted by council the public's job is done and the initiative will be implemented, i.e. it is government's job to bring about the changes (push the pedals). They do not realize that their role involves demanding or ensuring that these changes are in fact implemented (Ley, 1983, 306).

Fear of Losing Control/Power. Once established, agencies tend to guard what power and resources they have for purposes of fulfilling their mandate and ensuring their own perpetuation (Altman et al., 1985, 625). Fear of ceding power to another group can block efforts to work cooperatively in the interests of sustainability. In government, fear of letting the public have the final say on the outcome of a particular decision may exist if the governing body feels that such a decision could jeopardize its standing with key constituents or create other unfavourable consequences.

Fear of Losing Constituent Support . Fear of embarrassment or threat to one's position leaves politicians unwilling to make firm decisions (Argyris, 1993, 22). Desire for promotion or re-election can become a barrier to action-taking if segments of the constituency are averse to the adoption of such action. Such fear produces an attitude among political figures which is best summarized by the phrase "not in my term of office." This saying represents the tendency of council members not to introduce radical changes while in office for fear of losing public support at the next election.

Weak Diversity Among Those in the Decision-Making Arena. If council members come from similar socioeconomic backgrounds, they may not be exposed to the full range of problems that other communities (poorer ones, culturally mixed, those located close to industry etc.) experience. Homogeneity of decision-makers could cause barriers to the adoption of actions that support sustainability (Ley, 1983, 306; Nairne, 1991, 18).

Union Regulations. Predetermined contracts can inhibit opportunities for change (Altman et al., 1985, 626). Thus, adaptations that would support sustainability may not be implemented until contracts expire and opportunities for re-negotiation occur.

3.2.3 Economic/Financial Barriers

Economics is concerned with the production, distribution and use of income, wealth and commodities (Stein, 1984, 418). The term financial refers to the management of funds and revenues (Funk and Wagnalls, 1983, 290). Barriers under this category shall also consider monetary or resource constraints that prevent or limit desired activities. The barriers that fall under the Economic/Financial category are as follows:

Financial Gain Motive. Desire for financial gains can become a barrier to adopting actions that support sustainability (Ley, 1983, 304). For example, if an automobile retailer believes that s/he can sell gas engine automobiles more readily than vehicles powered by alternative fuels then, in response to economic pressures to maximize income, that retailer will carry more gas engine vehicles in her/his inventory, despite knowing that this type of automobile is less oriented towards sustainability.

Marginal Pricing and Economic Valuation. Because we live in a global system where the agreed upon exchange medium of value is money, government and society feel the pressure to preserve money generating activities more strongly than the pressure to preserve life sustaining networks. This confused perception of importance and its consequent pressures on decision-makers to protect short-term economic interests over long-term sustainability interests represents a major barrier to the adoption of sustainability oriented action (Rees and Wackernagel, 1992).

Inadequate Funds. Inadequate funds to support the implementation of environmental initiatives can prevent their realization (Ley, 1983, 361).

Existing Funds Already Pre-Allocated to Other Initiatives. Once funds are committed to a project, their re-allocation becomes difficult (Altman et al., 1985, 625).