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The Context

> The very word environment is an abstraction, one that is wrong in this context. It abstracts the environment from the person and the person from the environment. It treats the two as different. But the so-called environment is the very source of the being of the person. The human being couldn't exist without oxygen, water, food, and so on. Therefore all this really shouldn't be called an environment. It's the wrong kind of abstraction. It separates things that are one.
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> – D. Bohm, *On Dialogue*

Although the concept of sustainable development has been around for a number of years, it was first popularized in 1987 when the Brundtland Commission published its report, *Our Common Future*. By widely promoting this concept, the commission wisely sidestepped the polarized debate over growth that was initiated by the Club of Rome's seminal document, *Limits to Growth* (Meadows et al. 1972). Since the introduction of sustainable development into common parlance, numerous variations have emerged, such as sustainability, sustainable growth, sustainable economic growth, and sustainable environmental (or ecological) development. Indeed, our attempts to generate more meaningful definitions speak to the strength of the concept. All of these variations, however, implicitly push us back into the old debate of no growth (or limits to growth) versus unlimited growth. Although different sectors and communities disagree about the usefulness of the concept of sustainable development, this concept is recognized internationally. And it does avoid most of the traditional left-right polarization around growth versus no-growth by surrounding the terms "sustainable" and "development" with a constructive ambiguity that has stimulated greater dialogue between various sectors. Despite its ambiguity, this term has succeeded in uniting widely divergent theoretical and ideological perspectives into a single conceptual framework (Estes 1993). More fundamentally, the concept of sustainable development has brought a wide diversity of industrialists, environmentalists, public policy practitioners, and politicians to round tables in their attempts to define, deal with, and actualize it. In order to provide an appreciation of context, I now offer a brief examination of some of the earlier definitions of sustainable development. Human societies, according to their ecological, social, and economic conditions, will place different emphases on "sustainable" and "development."

Historical Context

In 1980, the World Conservation Strategy, International Union for the Conservation of Nature and Natural Resources (IUCN), United Nations Environment Programme (UNEP), World Wildlife Fund (WWF), and others offered the following definitions relating to sustainable development.

- Development as the modification of the biosphere and the application of human, financial, and living and non-living resources to satisfy human needs and to improve the quality of human life. For development to be sustainable it must take account of social, ecological, and economic factors; of the living and non-living resource base; and of the long-term as well as the short-term advantages and disadvantages of alternative actions.
- Conservation as the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus, conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment.
- Conservation, like development, is for people. While development aims to achieve human goals largely through use of the biosphere, conservation aims to achieve them by ensuring that such use can continue. Conservation's concern for maintenance and sustainability is a rational response to the nature of living resources (renewability and destructability) and also an ethical imperative, expressed in the belief that "we have not inherited the earth from our parents, we have borrowed it from our children."
- The integration of conservation and development is particularly important because, unless patterns of development that conserve living resources are widely adopted, it will become impossible to meet the needs of today without foreclosing the achievement of tomorrow.

In a 1986 statement to the World Commission on Environment and Development on behalf of Canadian environment, development, and peace organizations, Ralph Torrie defined sustainable development as development that is capable of meeting peoples' needs (as defined by them) in such a way that the potential for other people and future generations to meet their needs is not diminished.

Sustainable development implies decentralized development (which would ensure that people participate in decisions that affect them); appropriate changes in lifestyles and values; strong institutions devoted to protecting natural resources and the environment; efficient resource use;

reduced arms expenditures; and changes in aid, trade, and investment practices. The Brundtland Commission defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Commission 1987: 43). With respect to the operational objectives of sustainable development, *Our Common Future* (Brundtland Commission 1987: 49) lists the following strategic imperatives:

1 reviving growth;
2 changing the quality of growth;
3 meeting essential needs for jobs, food, energy, water, and sanitation;
4 ensuring a sustainable level of population;
5 conserving and enhancing the resource base;
6 reorienting technology and managing risk; and
7 merging environment and economics in decision making.

In 1987, Barbier argued that

> as the primary objective is to provide lasting and secure livelihoods that minimize resource depletion, environmental degradation, cultural disruption, and social instability, sustainable development can be viewed as an interaction among three systems: the biological and resource system, the economic system, and the social system. The basic objective is to maximize the goals across all these systems through a dynamic and adaptive process of trade-offs. (1987: 109)

Repetto (1986: 17) expressed the idea of sustainable development as a tool for consensus.

> Sustainable development has three bases ... scientific realities, consensus on ethical principles, and considerations of long-term self-interest. There is a broad consensus that pursuing policies that imperil the welfare of future generations ... is unfair. Most would agree that ... consign[ing] a large share of the world's population to deprivation and poverty is also unfair. Pragmatic self-interest reinforces that belief. Poverty ... underlies the deterioration of resources and the population growth in much of the world and affects everyone.

In 1988, the National Task Force on the Environment and Economy, a body established in Canada to examine the findings of the Brundtland Commission, generally defined sustainable economic development as development that ensures that the current use of resources and the environment

does not damage prospects for future use. This means that our economic systems should be managed so as to maintain or improve our resource base, with the result that future generations will be able to live as well as, or better than, we do. Sustainable economic development does not require the preservation of the current stock of natural resources or any particular mix of human, physical, and natural resource assets. Nor does it place artificial limits on economic growth, provided that such growth is both economically and environmentally sustainable. Sustainable economic development implies that resources and the environment must be managed for the long term, taking into account both their future and current value.

By utilizing advanced and integrated planning, sustainable development would minimize environmental impacts and future clean-up costs. In a phrase, the current remedial-reactive approach to development would be replaced by an "anticipate-and-prevent" approach. The goal of sustainable economic development cannot be attained without making significant changes in how we plan and supervise our economic initiatives. This makes it a challenging goal, especially in Canada, because it will require different approaches in different economic sectors and political jurisdictions (although, of course, the same underlying principles should apply to every jurisdiction).

In 1989, Bill Rees offered the following definition of sustainable development:

> Sustainable development is positive socio-economic change that does not undermine the ecological and social systems upon which communities and society are dependent. Its successful implementation requires integrated policy, planning, and social learning processes; its political viability depends on the full support of the people it affects through their governments, their social institutions, and their private activities. Sustainable development:
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> 1 is oriented to achieving explicit ecological, social, and economic objectives;
> 2 may impose ecological limits on material consumption, while fostering qualitative development at the community and individual levels;
> 3 requires government intervention, but also the leadership and cooperation of the private sector;
> 4 demands policy integration and coordination at all spatial scales and among relevant political jurisdictions, and depends on educational, planning, and political processes that are informed, open, and fair. (1989: 3)

The IUCN (1991) notes that sustainability refers to a process that can be maintained indefinitely. Pronk and Haq (1992) argue that sustainable development refers to the need for natural resources to be used in ways that do not create ecological debts by overexploiting the earth's carrying and productive capacity. Costanza (1991) further argues that a minimum necessary condition for sustainability is the maintenance of the total natural capital stock at or above the current level.

Meadows et al. (1992) define a sustainable society as one whose informational, social, and institutional mechanisms are able to keep in check the positive feedback loops that cause exponential population and capital growth. In other words, birth rates roughly equal death rates, and investment rates roughly equal depreciation rates, unless and until technical changes and social decisions justify a considered change in the levels of population or capital. In order to be socially sustainable, the combination of population, capital, and technology would have to be configured so that everyone's material living standard is adequate and secure. In order to be physically sustainable, a society's material and energy throughputs have to meet economist Herman Daly's (1991a) three conditions:

- its rates of use of renewable resources do not exceed their rates of regeneration;
- its rates of use of nonrenewable resources do not exceed the rate at which sustainable renewable substitutes are developed; and
- its rates of pollution emission do not exceed the assimilative capacity of the environment.

Thus, the concept of sustainable development has been constantly evolving (although all its definitions are decidedly anthropogenic). There is growing consensus that the term "sustainable development" implies the integration of the environment and the economy, but there is little consensus with regard to what it implies in terms of social dimensions.

> A conserver society is a society which promotes economy of design, favours re-use, recycling, and reduction of resource use, questions the ever-growing per capita demand for consumer goods, and recognizes that a diversity of solutions in many systems, such as energy and transportation, might in effect increase their overall economy, stability and resiliency.
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> *(Science Council of Canada 1977: 14)*

The term "sustainable development" has provoked much criticism from a wide variety of scholars. Lele (1991) points out that the mainstream formulation suffers from an incomplete perception of the problems of poverty and environmental degradation as well as from confusion about the role of economic growth and the concepts of sustainability and participation. O'Riordan (1988) notes that current visions of sustainable development are messy and politically treacherous. Others (Redclift 1988; Norgaard 1988) argue that part of the definitional confusion surrounding the concept is not really about its meaning, but rather about which values should take precedence. The ongoing debate over language and definitions may have contributed to the politics of sustainable development being notable by its absence. Indeed, the nature of sustainable development, both conceptually and in practice, also contributes to a fragmented constituency and a lack of coalitions, in a country characterized by solitudes, silos, and stovepipes (see Chapter 7).

Qualitative research is an interdisciplinary, transdisciplinary, and sometimes counterdisciplinary field. It crosscuts the humanities and the social and physical sciences. Its focus is multiparadigmatic and its practitioners are sensitive to the value of the multimethod approach. They are committed to the naturalistic perspective, and to the interpretative understanding of human experience. At the same time, the field is inherently political and shaped by multiple ethical and political positions.

(Denzin and Lincoln 1994: 3-4)

Research Context

Just as there are many ways of viewing sustainable development, so there are many ways of doing research. Research methodology is context-dependent, in that the issue being studied informs the choice of methodology, just as the choice of methodology influences research outcomes. It is important to me that, wherever possible, my work mirrors the changes that I experience and write and talk about. Both the process and the product must have integrity, as both are informed by and inform one another. My choice of methodology is, therefore, dependent upon the overall contexts within which I am working as well as upon the context of the particular domain under study – in this case, sustainable development. Critical to my thinking are new process models of continuous learning and action, processes that contribute to critical consciousness, collective action, and common meaning (DeMello et al. 1994) as well as exposing the assumptions underlying our dominant paradigms. I recognize the value-laden nature of inquiry, and I believe that all forms of knowledge are important – not only propositional knowledge, but also practical knowledge and

experiential knowledge (Heron 1996; Reason and Rowan 1981b). It is important to me, therefore, that my own experience as an executive within the federal public service be integrated into my research. Hence my concern with praxis; that is, with "theory both relevant to the world and nurtured by action in it, and an action component in its own theorizing process that grows out of practical political grounding" (Buker forthcoming, cited in Lather 1991: 11).

The principles of sustainable development described in this book were developed by bringing together a number of diverse methodologies – namely, participatory action research, soft systems methodology (SSM), systems thinking, and strategic questioning – through an electronic collaborative inquiry.

Inherent to SSM are the concepts of *Weltanschauung* (or worldview) and holon (Koestler 1978). Human activity is meaningful in terms of a particular image of the world, which, in general is taken for granted (Michael 1993). The methodology teases out various world-images and examines their implications (Checkland 1981). Systems thinking attempts to expose our underlying subconscious frameworks, making us self-conscious about our intellectual pigeonholes (ibid.). Thus, systems research is concerned with wholes and their properties. Indeed, the research methodology itself is regarded as a holon. SSM is concerned with both the natural and human spheres, and it is the interaction between the two that is of interest. In my chairing of the electronic dialogue, my objective was to ensure that any potential changes identified for the implementation of sustainable development be defined to meet two criteria: that these changes be both desirable and feasible (i.e., systematically desirable and organizationally feasible).

Collaborative inquiry is often grounded in dialectical thinking, as this is an effective means of dealing with contradictions and paradoxes. Dialectical theories are always looking for contradictions and paradoxes (within both people and situations) in order to determine what is likely to happen on three levels: the interdependence of opposites, the interpenetration of opposites, and the unity of opposites (Rowan 1981). Dialectic thinking informs us that any value, if held to in a one-sided way, will eventually be shown to be an illusion. Contradictions are never "resolved"; rather, an ongoing movement between opposites is an inevitable part of the human condition. We can no longer talk about simple "growth" as the basic need of the human being, for growth always exists within a dialectical relationship, which is itself part of a dilemma that can never be fully resolved (May 1974). The final aim of a dialectal dialogue is to distill a consensus construction that is more informed and sophisticated than any of the predecessor constructions, including, of course, the etic construction of the investigator (Guba and Lincoln 1994).

Electronic Inquiry

I chose electronic collaborative inquiry as a research tool because it satisfied four sustainability criteria. First, it saved on transportation costs, both economic and biophysical, by accommodating participation from across the country, allowing for the factoring in of diverse geographical perspectives. Second, it eliminated unnecessary transcription costs, as the electronic record was the immediate product, and allowed participants to have a direct voice. Third, it allowed for voices to be directly recorded as citations in this book, thus removing the filter of the researcher. Fourth, it addressed aspects of equity by considering such factors of inclusion as age, regional representation, gender, and sectoral representation (with the exception of the business and labour communities). It cannot be denied, however, that our research group was comprised of elite, White, middle-class experts.

Dialogue has the potential to alter the meaning each individual holds and, by so doing, is capable of transforming the group, organization, and society. The relationship between the individual and the collective is reciprocal and is mediated through talk. People are both recipients of tacit assumptions and the creators of them. In this way dialogue results in the co-creation of meaning. The meaning that is created is shared across group members; a common understanding is developed.

(Dixon 1996: 24)

Prior to starting the electronic collaborative inquiry in September 1997, I led two workshops in order to test the robustness of the models I had developed in my research proposal – one in Vancouver, British Columbia, at the David Suzuki Foundation and the other at the Centre for Policy Alternatives in Oslo, Norway.

The electronic medium allowed for continuous cycles of inward and outward contemplation, analysis, and reflection on the part of all participants. It also allowed for alternating spirals of strategic questioning, critical reflection, and action inquiry, followed by information consolidation and then further rounds of critical reflection, strategic questioning, and action inquiry through a peer review process. This led to establishing a common framework for governance. My choice of research methodology allowed me to examine both the product (i.e., the eventual framework) and the process; was it possible to have a long-term substantive dialogue? In some ways, an electronic collaborative inquiry is a form of extended interview survey, although it probes on multiple levels. My methodology was designed to facilitate meaningful social action and change by influencing the co-researchers both individually and collectively, and, through a peer review process, by influencing the systems under study.

> The electronic means of communication explode the space-time limits of messages, permit the surveillance of messages and actions, complete the process of automation of production, despatialize certain kinds of work, enable signifiers to float in relation to refer ads, become a substitute for certain forms of social relations, provide a new relation between author and text, expand infinitely human memory, and undermine the Cartesian ontology of subject and object.
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> *(Postel 1987: 121)*

The three sectors from which I drew my co-researchers – public policy, academe, and non-governmental organizations (NGOs) – were deliberately chosen to enable me to identify emerging leaders who would be committed to the process of framework development and who would work as advocates for change in each of their respective domains. I cannot overestimate the importance of effective facilitation and leadership in chairing electronic collaborations. It took all of my management skills, paradoxically calling upon most of the interpersonal skills I have developed through my twenty-three years of management experience and expertise in multi-stakeholder processes. It was critical to know when to prompt the group and when to hold back. The silence was sometimes deafening; yet, as chair, I often sensed lurking active, albeit unexpressed, interest. I found that a variety of communication styles seemed to facilitate motion and that alternating professional and personal messages often eased "sticky" points. Although I had known everyone previously, I neglected to take into account the need for more interpersonal meetings. In hindsight, I should have scheduled the first face-to-face meeting after the first month of dialogue instead of mid-way through the process. I also should have held at least two other workshops, one half-way through the dialogue and one at the end, to facilitate the development of a more synthetic framework.

Another technique I employed involved asking one of my colleagues to play the role of agent provocateur. Occasionally, when the dialogue appeared to be flagging, he would come in with some provocative statements in order to stimulate or at times re-activate discussion. Although I generally avoided going off-line, upon occasion I did so in order to remind people of their commitment to the collective research process. One surprising barrier to effective dialogue was the tendency of a minority of my academic colleagues to go off-line to make individual comments (although, in many cases, I was sent a blind copy of these comments). There would appear to be a gender dimension to off-line communication, although my sample is so limited it is not meaningful to draw conclusions: all of the off-line communication was by male participants. This behaviour is not

surprising, however, given the academic culture and its emphasis on individuality and individual research. Another barrier to free-flowing engagement was differing levels of seniority. As one academic co-researcher commented, "Given the level and quality of the other co-researchers, many of whom are in a position to hire me, there is a level of intimidation."

Aside from off-line communication and intimidation, there were at least five significant barriers to effective dialogue: literacy, language, trust, intersectoral communication, and disciplinary structure. With regard to literacy, in two cases people had self-identified and asked to be part of the dialogue but ended up being inactive participants. In one case I suspect the barrier may have had to do with age and typing ability – a major impediment to engaging in a deep, information-rich computer dialogue. In the other two cases, although both individuals were very literate verbally, I subsequently learned that they did not have a corresponding written literacy. In terms of written literacy, another interesting phenomenon emerged: academics place inordinate importance on the written word, and I frequently exhorted the group to allow the spontaneity of the medium, rather than the written word, to take over. This was one of the major sticking points when we lost the immediacy of the medium, a critically important compensatory mechanism for the emergent spontaneity and synergy that often develops in face-to-face interaction.

What does dialogue require of people? Those who engage in dialogue must come to it with humility, love, faith, and hope – a formidable list of characteristics, but one that exemplifies a relational, rather than technical perspective.

(Dixon 1996)

Freire (1970: 77-78) envisioned dialogue as the creation and re-creation of meaning and saw creation as an act of love. Love is at the same time the basis of dialogue and dialogue itself.

Language was another major barrier to participation, particularly between the three sectors. Many of the public policy participants found the level and tone of debate too academic, whereas the NGO participants were intimidated by the jargon (one of them withdrew). Even the use of the word "sector" shows the importance of language, as it is both divisive (connoting hard and demarcated differences between groups) and, yet, given its widespread acceptance, easy to use. The culture of vertical stovepipes is very much a macro-problem, and communication between sectors appears to be problematic. The academic sector, as was often reiterated by one of the co-researchers, must simplify its language in order to communicate

with the wider public. The inability to take complex concepts and communicate them in clear and simple language proved to be a strong barrier to effective communication between the three sectors. Of course, in order to overcome this barrier, we need to overcome our beliefs that complex language and intelligence are somehow causally linked. This would require nothing less than a paradigm shift.