

Sustainable Development and Small Communities: Tools for Analysis and Action

**Proceedings of the Workshop
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PROCEEDINGS OF THE WORKSHOP
SUSTAINABLE DEVELOPMENT AND SMALL COMMUNITIES:
TOOLS FOR ANALYSIS AND ACTION

June 7-8, 1989, Fredericton, New Brunswick

1.0 INTRODUCTION

In June 1989, twenty people from the Maritimes gathered in Fredericton for two days to discuss the concept of sustainable development and how that concept is relevant to, and can be achieved in small communities typical of the Maritime region. The workshop was initiated, organized and hosted by the Conservation Council of New Brunswick, a non-profit environmental organization, and was sponsored by the Canadian Environmental Assessment Research Council.

1.1 The Conservation Council as Workshop Host -
Janice Harvey, President

The Conservation Council is a citizen's environmental organization supported by members and donors. There is a staff of four, and an annual core budget of \$100,000. Over the past 5 years, there has been an evolution of analysis within the Conservation Council as to the role of environmental groups, and the meaning of our work within the Maritimes. We are concerned about what happens out there on the ground, where people live and make their livings, to the point where we have decided two things:

- i) that we see ourselves as part of the bigger picture and that the environment cannot be isolated from the other political, social, economic and cultural realities that communities face;
- ii) that in order to be effective we have to start building working relationships and understandings with other groups struggling for social space and economic survival.

The Conservation Council is very involved in the CUSO-sponsored New Brunswick Environment and Development Group, a broad-based coalition of groups engaged in many struggles related to their livelihoods and in their communities. This demonstrates a broader perspective and interpretation of the work and responsibility of an environmental group than may be traditionally understood. We cannot divorce our work from all the other things that are happening in New Brunswick at this point. In order to truly grapple with the environmental problems that face us, we have to plan, strategize and learn in concert with the other groups active on broader social, economic, cultural and political issues.

The Conservation Council initiated and organized this workshop as part of an ongoing effort to come to grips with the concept of sustainable development and what it means to groups involved in social change struggles in the Maritimes. It is the second stage of work that CCNB intends to pursue over the next three years. The first was the "Sustaining Our **Communities**" conference held in March 1989. This session will hopefully help us refine some of the raw material which came out of that conference. The future work of CCNB in this area will be discussed further.

1.2 Canadian Environmental Assessment Research Council as Sponsor - Barry Sadler, Secretariat

CEARC is an independent agency which appoints a wide variety of people for three-year terms. CEARC looks at environmental assessment very broadly, as a point of entry into a whole range of planning and management processes: community development in a broad sense; natural resource management; integrated rural planning; relationships with urban based metropolitan planning; within the context of environment and development rather than just an "environment" perspective.

About two years ago, CEARC re-oriented a traditional research program on mainline environmental assessment towards a more integrated approach to research looking at processes for delivery of sustainable development. This began with addressing the difficulty in trying to bound and identify what sustainable development is. Second, once we know in a broad sense what sustainable development is, we address the question of how to start to improve the efficiency and effectiveness of a process called "**environmental assessment**" and its planning and management components and relationships in order to deliver sustainable development on the ground, which is where it really counts for communities.

CEARC has run two round tables to start this process - one on the west coast and one in Montreal - to which a diverse mix of people were invited to contribute perspectives. One key conclusion came out of the round tables, beyond traditional critiques of environmental assessment:

We need to think of environmental assessment and its siblings as more of a "**user-friendly**" tool, as things that communities can scale down and use to meet their objectives, rather than as a process visited upon them by government.

This led to **CEARC's** support for the Conservation Council's **community-oriented** workshop. CEARC sees this workshop as providing a useful angle on sustainable development from a community perspective. CEARC is beginning to see that somehow sustainable development is at the **center** of a dynamic - a dynamic tension between traditional environmental concepts (the maintenance of the integrity of the biosphere) and economic growth. Now **we're** faced with the problem of looking at environment and economy as a conjunction which have to relate to each other.

The third leg of the stool is the whole notion of "**community**" and how we bring community values and social values into the process, and try to trade-off those values for economic development. We have done a fair amount of work in the past year with native communities; in a sense this is our first venture into the small community level. We leave it to your own creative energies and insights to inform us as to how communities see sustainable development in a way that is meaningful to them.

2.0 WORKSHOP OBJECTIVES AND STRUCTURE

This workshop was designed as a round table for key researchers, academics, activists and practitioners in the fields of environment and development in the Maritimes. The purpose was to refine the concepts of sustainability and development, and the tools and processes which may be employed to achieve development which is indeed sustainable.

The specific objectives to be met were:

1. To clarify the notion of sustainable development as it relates to local economies, and social and cultural realities in small communities;
2. To examine the tools available to assess sustainability, including environmental impact assessment and social impact assessment, and the role of those tools in developing sustainability, and to propose new structures and mechanisms where existing ones are not sufficient;
3. To examine the process that would be employed to exercise these tools and to achieve sustainable development at the community level;
4. To identify further research needs, and opportunities for applying existing research within the context of a proposed pilot project.

Each participant in the workshop was invited on the basis of their experience and expertise in the fields of environment and development. The agenda was organized in order to maximize the contributions of those people.

The three workshop sessions began with a background presentation prepared by a participant, for the purpose of focussing thinking and stimulating discussion. Next, each participant presented remarks which they had prepared in response to the Key Questions posed for one of three sessions, depending on their field of interest. Finally, round table discussions flushed out points of convergence, divergence and new understanding.

The report of this workshop follows closely the structure of the agenda. Prepared presentations are reproduced in full, or as faithfully as the cassette recordings allow. Discussion sessions, which were rich and diverse, are reflected as accurately as possible. The editor, however, has taken the prerogative to characterize these discussions according to major points raised. Responsibility for the interpretation reflected in the final section (6.0) rests entirely with the editor.

3.0 SESSION 1: MAKING COMMUNITY DEVELOPMENT SUSTAINABLE: THE CRITICAL ELEMENTS

3.1 Key Questions for Session 1

1. What are the criteria by which one would measure community sustainability - environmental, social/cultural, economic, political?
2. How, in this age of increasing interdependence, can any community assume to take control of those factors which shape its reality and plan its sustainability in isolation of outside forces?
3. What are the key outside forces to contend with, and how might they be managed?

3.2 Background

REPORT FROM "SUSTAINING OUR COMMUNITIES" CONFERENCE
Memramcook Institute, St. Joseph, New Brunswick
March 3-5, 1989

Janice Harvey and George Peabody

This spring brought more than 175 adults and nearly 40 children to a three-day conference at the Memramcook Institute near Moncton, New Brunswick. Organized by the New Brunswick Environment and Development Group in cooperation with the Atlantic Environmental Network, the conference intended to explore the idea of sustainable development.

Since the Brundtland Commission popularized the term two years ago, sustainable development has become a buzzword meaning many, often contradictory, things depending on who uses it and on what occasion. For the organizers of the conference, focussing on the term sustainable development risked putting the emphasis on the wrong place. Instead, they spoke of "developing **sustainability**" or of "**developing** sustainable communities? The significant difference, a difference that was important to the planning of the conference and crucial in its success, is the focus on the community: it is communities which must be sustainable, not development.

With this in mind, organizers invited to the conference representatives from a wide range of community groups within the Atlantic region: groups active in environmental issues, in international development issues, in human rights issues; primary producer groups, anti-poverty groups, co-ops, unions, Native groups and others. The people who came to Memramcook brought their own practical experience with developing sustainability in their own communities, and were ready to share it with others. The conference program was structured to allow this sharing to happen. They spent the weekend with increasing enthusiasm and a strong sense of purpose

developing a shared sense of what sustainable communities are and how we can develop them. They left empowered and, as participant after participant expressed it, "more hopeful about the future than [they] have been for **years.**"

The details of what happened at Memramcook are almost certainly less important than the feeling which was generated there, the sense of solidarity which developed among the participants, and the firm foundation which was laid down for continuing cooperation among community groups. Exactly how this was achieved is well beyond the scope of this article, but several of the contributing factors can be identified.

First was the timing: as the work of organizing the conference went on during the fall and winter, it became clear that the subject was touching a responsive chord in people. Members of community groups in the region were receptive to the idea of this sort of conference. This created a snowball effect, encouraging organizers, increasing their enthusiasm and widening their sense of what was possible.

Second was the structure: both in the sense of living and working for three days in the same building and in the formal agenda of the conference. Opening with a short address from elders of the three major cultural communities of the region - English, Acadian and Native - set a tone which continued for the weekend. The keynote speaker, Dr. David Patriquin, blended the inspiring and the practical in a way that symbolized the entire conference. The mix of plenary sessions and small working groups provided structural variety, chances to listen, to talk, to discuss. The dozen workshops (on areas as diverse as the Local Exchange Trading System, or LETS, and **CUSO's** Nicaraguan seed potato project) were stimulating in both content and range.

A third important factor was the strong Native presence and the understanding of the need for a spiritual approach to sustaining communities which they brought and shared. For many of the participants, the traditional Native spiritual understanding of humans as part of the natural environment, related to and influenced by all other parts, supplies a crucial element in building truly sustainable communities.

Fourth, because the participants were the conference "**experts**" and resource people, there was an accurate sense of the level of analysis and action currently in place in Atlantic region communities, and a great deal of common understanding and experience threaded throughout all sessions. The initial session was a panel discussion entitled "Criteria for Sustainability? Here are the key points that some panelists raised:

Res Phalen, National Farmers Union. The solutions are more difficult to grapple with than the actual analysis of the problem. Environmentalists must not be self-righteous or morally driven in their quest for moving agriculture to a more sustainable system. Farmers need to be able both to make a living **and** to effectively consider options that they would like to follow. At this point, many outside forces are preventing farmers from doing either of these

things, and the understanding of those forces which inhibit moving as quickly as many farmers would like to towards sustainability within their sector must be developed. We need more research in the field of agriculture, but more importantly, the farmers need more control over that research. The issue of control by the people involved is critical to moving to a point where options are possible.

Michael Belliveau, Maritime Fishermen's Union. He spoke of crisis driving progress, using the example of the herring fishery in the Gulf of St. Lawrence. Must we get to a crisis point before some sort of solution becomes evident or possible, or can we jump ahead of that and avoid the crisis with creative solutions? He concluded that there is a need for more social space for primary or peasant producers. This could be interpreted as more control over the conditions that affect their livelihoods. That social space is achieved through organizing, and providing an organized voice. Otherwise, primary producers will do themselves in and destroy their resource base, through competition and over-exploitation of the resource, simply to stay alive and viable.

Heather Schneider, Mothers United for Metro Shelter. MUMS, a housing rights advocacy group, came out of a transition house, driven by battered women and children. The key element which made this group successful and sustainable was bonding - they saw themselves as a unit where co-operation and mutual dependence and support was the key to their success. They found the meaning of the word solidarity, and were sustained through this. This solidarity allowed them to break through the barriers which prevent action and involvement and to establish the political climate within which solutions to their housing problems were found. This experience has empowered them to begin organizing for more economic and social self-reliance in order to break out of the welfare cycle and to continue to provide mutual support for women.

Janice Harvey, Conservation Council. She presented eight elements of environmental sustainability (circulated as a paper to workshop participants and included as Appendix B). While it may be relatively easy to describe an ideal or desirable ecological state, she warned against imposing solutions to environmental problems from the top, without consideration of the human element of the problem. The people affected must be involved in the process of problem-solving, and governments must be prepared to support those who will be negatively affected, or those who will be required to take personal risks in order to achieve environmental sustainability of their human community.

A second element of the program which built on the "participant as **expert**" philosophy of the conference was the "**Show and Tell**" session. Acknowledging that individuals across the region are already (and have been for some time) engaged in projects which contribute to the sustainability of their communities, many of those people were given a plenary soapbox from which to talk about what they are doing, the problems and benefits they have encountered, and their rationale for

opting for an unconventional approach. The purpose for this was two-fold: to give some profile to private efforts that usually go unnoticed; and to pass on ideas and encouragement to those who may be in a position to develop their own such initiative. Lively discussions followed each presentation.

Presentors included people involved in a silvicultural co-operative in PEI which specializes in appropriate technology, selective cutting techniques and mixed species **woodlot** management; a tree nursery which specializes in species appropriate to regional climate and soils, and is employing integrated pest management strategies; a twenty-year old organic mixed farm which supplies produce and meat to local markets and is certified through the Organic Crop Improvement Association, a self-regulated initiative of New Brunswick farmers; a consumer co-operative in Fredericton which operates an organic farm and provides chemical-free produce to its members while protecting the soil from degradation and erosion, providing the farm manager with a fair wage, and educating members about the true costs of producing food; a longhouse project on a New Brunswick Indian reservation which attempts to rebuild that Indian community through the study and practice of traditional ways.

Conference participants were also divided randomly into 12 discussion groups which met in two two-hour sessions to discuss sustainability in more detail. While each group took their own unique course, many similarities emerged, and were reported on in the conference newsletter, "**Solutions**". Following are the key points of consensus from Discussion Group Six.

Discussion Group Six. They ascribed attributes to sustainability rather than static definitions. It is not necessarily something you can define, but something that has certain attributes which are not static, can be adjusted as required, and will continually evolve as our understanding and knowledge evolves. The types of attributes people assigned to sustainable development came under these headings:

Ethics/values/spiritual aspects (respect for the earth and each other)
Knowledge and communications (the need for access to reliable information and the ability to freely communicate within the decision-making and values-setting process)
Process (the need for open, participatory political processes)
Investments (economic priority-setting)

The common theme in this discussion and the panelist presentations is found in the "**process**" or political category. Ultimately, it is the "**How**" as much as the "**What**" that must be addressed. Attributes within this category include flexibility, making and learning from mistakes, connections and linkages, political and social struggle, participatory, community-based, experimental, dynamic, empowerment, etc.

(An excerpt was played from David **Patriquin's** keynote presentation entitled "**Sustainability** and Interdependence" in which he described a peasant-initiated alternative to rice production and research

undertaken as part of the Green Revolution in the Philippines. The full version of his talk available on cassette tape.)

His concluding remarks were:

"A key point here is that we should rely less and less on government, and more and more on ourselves; governments, extension agents and these sorts of people, rather than looking upon them as experts, should act as catalysts to help people do what they want to do...When I show you [the reaction of peasant rice farmers to the negative effects of the Green Revolution in the Philippines] as an example of what I call action research or participatory research, I suggest that it is cheap, it is equitable, it is socially and ecologically adaptable, it is dynamic and therefore capable of evolving, and finally, it is **liberating.**"

It is still too soon to assess the full significance of what happened at Memramcook. Many feel that it will, in the future, be remembered as a "**watershed**" event: an early indicator and impetus of major social change in the Atlantic region. One indicator of **Memramcook's** significance is that it encouraged the formation of at least two sustainability discussion and **actionngroups** in different New Brunswick communities; produced a day-long follow-up discussion on the implications for the development of a broad-based grassroots movement, and has influenced the planning of at least two other provincial or regional conferences. Memramcook sent a lot of people back into their communities empowered and energized to continue the work they were already doing and to seek new ways of involving others in the struggle for sustainability.

3.3 Prepared Remarks by Workshop Participants

3.3.1 Jim Bedell

Aboriginal groups and some pioneer communities gained their livelihood directly from their environment, which they knew how to use sustainably for all or most of their needs. Communities in **today's** industrial society are supplied with commercial products from many distant sources; and to provide these commodities the environment of many communities is put to the service of industry, usually directed from outside the community, often from outside the country. Thus the environment, deprived of committed local guardians, suffers from exploitation, while the community, deprived or neglectful of local resources, is fundamentally insecure.

Reckless world-wide exploitation has now brought the environment to a condition which puts many communities under more or less severe stress. Aggravated by other factors, the stress shows up in plant closings, unemployment, loss of markets, cut-back of services, poverty, drug abuse, anti-social behaviour and civil disorder. A community with these afflictions welcomes industrial or government projects bringing in money from outside. The investors, of course,

require to get more out of the community than they put into it, and when this advantage comes to an end they withdraw, renewing the community's afflictions.

Outside investors are not in business for the purpose of enriching a community or conserving its environment, nor can official regulations do much more than prevent the contrary effects. What is needed is to restore the bond between people and their environment. A community must repossess its essential resource base, and conserve it for dear life. One principle of sustainability is "No absentee landlord? property within the community is to be held only by people actually residing there. Another principle is "rightfully in my back yard": the community itself is the proper place for securing vital needs, for disposing of unavoidable waste products, for investing available money and effort, for making careers and for cultural expression. This is not to rule out exchanges among communities, to enhance mutually their sustainability.

But the first principle of sustainability is community spirit, the readiness of people to identify themselves with their community and serve its needs. This has to grow out of the experience of participating in various aspects of community life. It may develop primarily at the neighbourhood level. A neighbourhood is a kind of mini bioregion, and its people a potential affinity group, sharing at the very least some attachment to their common living space. By actively concerning themselves with that limited portion of their environment, neighbours may become empowered to handle broader and more difficult issues.

The neighbourhood, rather than the community, would seem to be the appropriate setting in which to initiate the process of recognizing, examining and resolving common concerns; and in particular for reaching and involving the young people who will have to live with the multiple stresses of the 21st century.

3.3.2 Barbara Martin

I tried to relate community sustainability back to the way many of my [aboriginal] people would look at this. You cannot really extract criteria from something that should be, by necessity, whole. It is possible, to some extent, in doing an analysis to serve some purposes. A lot of my people tend to look at a community's ability to sustain itself, not just in terms of its physical environment, or its social or cultural institutions or structures, or by the economics of that community or its political activities. They look at it in terms of how communities are sustained over time and how individuals interrelate with that sustainability. You cannot have a community that is sustainable if individual members are not practising sustainability in their own personal lives. This practice is translated through behaviour, values and beliefs.

Similarly, in this age of increasing interdependence, we must start with each and every one of us as individuals. It is unrealistic to hope to become sustainable in isolation of outside forces. We are hoping that those outside forces can in time also become sustainable, but that is a process that has to work hand in hand with our own struggle for sustainability. Individuals must begin to take responsibility for what they do and what they say and how they lead their social, economic and political lives. That will be translated out to their family units, to their associations, to their communities, and by extension society itself.

We cannot look to other people to try to create that sustainability. It is unrealistic and impractical to hope that governments, experts and academics will all of a sudden define this mysterious term for us and then provide us with the cure-all for the situation we find ourselves in today. We have to work from that personal **center** outward, and by extension, every one of those things in our immediate life will also come into order and become sustainable, so we can truly hope that the seventh generation will survive and **we'll** be able to have this faith that our communities will survive unto the seventh generation.

3.3.3 Peter DeMarsh

My real interest is in the politics and sociology of sustainability. First of all, I am very nervous about the way the concept of community is perhaps being used in the process here. I think it is a dangerous concept. It mixes a number of things - the obvious one of a geographic, social entity ie. village, small town, neighbourhood in a city - with a moral value that is in many ways inherently idealistic; that is, community is something which is good to build, something that we should work towards. In this latter sense, I am personally most comfortable with the notion of community as a community of interests, for instance, New Brunswick **woodlot** owners. Community in this sense may be latent or it may be more or less developed as a reality.

That clearly raises the issue of scale and unit as a key problem. My concern is that caution be exercised - that **"community"** not be used in inappropriate or meaningless ways. Just to quote something I recently came across as an example of that, **"Rural** and small communities are awakening; rural communities harvesting wood and other resources are standing **up"**. Well, **that's** not a statement related to reality as I see reality. **It's** a nice romantic picture, maybe, hearkening back to the 19th century peasant communes in Russia where perhaps communities actually controlled production systems, but it bears no relationship to anything I see in New Brunswick today.

This leads into question two, and the issue of isolation. The links to larger structures, both structures that may be sources of support and solidarity and those which may be hostile to sustainability of community, are very much part of what defines that **"community"** in the sense of a village or town. I cannot conceive of thinking about

sustainability in isolation of outside forces, either the hostile ones or the supportive ones. Doing so is a 19th century Russian peasant commune type of idea, and many people would argue that it **didn't** even apply very well there.

It is also relevant if one assumes that at this stage in developing the notion of sustainability, there is no clear overall recipe or **plan**, and that what we are dealing with is a collection of relatively discreet issues (waste management and resource management, and so on), through which, hopefully as they are tackled, the way will become clear for the increasing convergence of the processes of developing sustainability in each of these areas. But I think it is probably fair to assume that there is, at this point, no overall, coherent plan.

That means then, as there will be defensive and offensive struggles (in the defensive sense, communities forming alliances against the local government's plans for a toxic waste dump or an energy megaproject; or in an offensive, positive sense, developing local strategies for recycling, just to pick loose examples out of the air), what we mean by community will depend in fact on the issue. It might be an issue where the community, in a meaningful sense, is the New Brunswick **woodlot** owners. It might be 6 or 8 villages fighting a megaproject. I'm suggesting, then, that scale and geographic units in fact vary with the issue.

Back to question one - criteria. Participation in developing sustainability is a pretty frequent theme. In something like the Brundtland Commission report, there is a lot of mention of participation of citizens, but not a lot of discussion of what that means in real terms. When I hear the word "participation", I think back to one of the slogans of the 1968 revolution in France - "**I, we, she, he, you participate - they decide**". Participation is, depending on circumstances, more or less meaningful, more or less of a sideshow in terms of how it fits into the power structure, both political and economic. Defining that power structure in whatever unit we choose to apply the notion of community to, and factoring it into plans that are developed is extremely crucial and an essential element of the process.

The issue is, how does the process of economic change in the direction of sustainability interact with those existing political and economic power structures at the village level, at the regional level, and so on. You need to identify it; you need to identify how it relates to the larger structures; you need to look at the production systems to which it relates in terms of distribution of income, employment relationships, who owns and controls the resources; and then you need to look at how your program of change in the direction of sustainability is going to affect these various characteristics. Will it maintain, increase, or decrease, the relative equality and meaningful political power in that unit, whether its a village or a region?

David Patriquin's comments on the Green Revolution [played to the group as part of the background presentation] lead to this sort of concern, but he's talking about Green Revolution - high yield variety [of rice] impact essentially only at the level of the family production unit. That is an important part of the analysis. But you can add to that the whole impact of Green Revolution new technologies on local social structures. There are probably examples where the new technologies that were introduced had a neutral effect on local power structures; there may even be a few where they have, in fact, contributed to greater equality of income distribution and power distribution. But there are many, many throughout the Third World where they have had the opposite effect, and that's the kind of thing I am trying to point towards.

My own bias and suspicion is that processes of moving local and regional economies in the direction of sustainability:

- a) require as a basis a relatively egalitarian political and economic power structure, relatively highly developed level of local politics in the sense of a broad sharing of leadership functions, and a lot of involvement of a very high percentage of citizens as a starting point; and that
- b) if development towards sustainability is to, in fact, be a long term sustainable process unto the seventh generation, it must not only work with those resources as they exist but it must contribute to strengthening them further. Co-operation and solidarity are themselves scarce resources that must be husbanded, that can be increased or that can be squandered, depending on how they are used.

3.3.4 Susan Holtz

An important topic that cuts across all criteria - environmental, cultural, social, political, economic - is the boundaries of the small communities that need to be addressed. Small communities, unless they are isolated communities in the north, are too small to be self-sufficient in the human dimensions and ecologically. Depending on their features and location, they can still affect others downstream and downwind, and are themselves affected by outside influences, sometimes massively, as in the recent fish plant closures in Nova Scotia.

I see a need to consciously think regionally, say in terms of an hours drive, when assessing what the community has to offer economically, culturally, and socially. I was implicitly thinking, indeed, of an inventory of what is there. This seems to be a realistic boundary when thinking of such things as shopping, visiting friends and relatives, entertainment, and commuting to a job. For many economic activities, however, unless a big city falls within that boundary, the fact is that markets are too small to support much activity. I would concentrate small community sustainable development planning on enriching opportunities within regional boundaries including enhancing transportation and communication infrastructures.

On an entirely other topic, but one that is related to criteria for sustainability, I am more and more convinced that aesthetics, or beauty, or a spiritual connection to the land, and to the built environment, is centrally important. There is no universally **recognized** aesthetic, which presents profound intellectual and political problems, but I'm personally certain that "experienced **ugliness**" has the effect of psychological numbing. It creates stress, physical stress actually, that could be measured if you knew how to do it. An article in Science several years ago documented that patients whose rooms looked out on trees healed faster than matched patients whose view was of a parking lot. I **don't** know how to go further than that right now, but I'm certain that it mustn't be ignored.

One of the first papers that CEARC ever commissioned back in the early 1970% was one by Norman Morse (Morris?) who said that an environmental ethic is fundamentally reducible to beauty. I thought it was a fascinating paper. Nobody paid any attention to it.

[Jim **Bedell** commented that George Bernard Shaw said the best reason for doing anything is the aesthetic reason.]

3.3.5 **Kay Bedell (submitted in writing)**

[These remarks address Question 3 regarding outside forces that are playing already and may play increasingly a part in decision-making affecting New Brunswick communities.]

The Business Council on National Issues (BCNI) impinges on all of our lives through its power over government decisions. Its most recent focus has been on the deficit with its attack on social programs, the CBC, VIA Rail, etc. We are all familiar with the role of the BCNI in gaining public attention in the promotion of free trade. Some of us may not be as aware of the role of the BCNI - that interest group composed of 150 chief executive officers representing major multinational corporations - in the militarization of our economy.

They had a key role in the federal government's Task Force on Defence Industrial Preparedness which recommended interdepartmental cooperation and the **institutionalization** of defence industry preparedness planning. The Task Force initiated and maintained a major level of effort relating to the North American Defence Industrial Base **Organization** (NADIBO), and in March 1987, the government signed a charter which formalized this close link between Canada and the US. A member of the BCNI was named to head the Advisory Committee for this.

Advancing militarization in New Brunswick in our economic and social lives gets little public attention. Some of its features are:

The federal government% stated policy is to use military contracts as a means of easing regional economic disparity (White Paper on Defence and the Free Trade Agreement). More and more

people are dependent on the military for their livelihoods, e.g. frigate program.

With government assistance, thirteen firms from five different **centers** in NB had enough confidence in their "**products**" that they were lined up to promote them in the huge international arms bazaar, Armex 89, Ottawa.

In 1982, a low-level flight corridor was established over NB for use by the US Strategic Air Command, and is used by B-52 bombers and other US aircraft about once a week. In 1989, this fact was unknown to **MLA's** and the general public.

Premier **McKenna** has led delegations to Boston and New York seeking out defence contracts.

Government-sponsored trade shows in NB have featured prominent defence contractors such as Unisys and Lockheed.

To conclude, if more people were aware of the basic interests, the financial clout, and the influence with government of an organization like the BCNI, they might read between the lines and critically question the source of propaganda given to us on a particular issue. Along with that, much discussion is needed within a community to get well-reasoned understandings of today's issues to view them in the light of traditional loyalties to a particular political party. As well, the unthinking, easy acceptance of participation in the arms race might give way to concern for the environment and survival itself.

3.4 Round Table Discussion

3.4.1 Definition of Community

Because of the variable references to 'community' in the presentations by participants, a good deal of discussion was directed towards this concept and how community should be defined in the context of 'sustainable **communities**'. There appeared to be broad sympathy that we have to be careful when we use the word.

Following are the major points made by participants in this context:

We have a tendency to think of community in terms of villages, towns and neighbourhoods because they are tidy, discreet, and manageable. We should define a community geographically, but we must think regionally for planning purposes. When we talk about communities in geographic and other senses, even as a network of relationships to meet human needs, the geographic dimension defines a great many of the ways needs can be met. It contains associations of interests (geography makes associations possible). All of these things still have a spatial dimension. In addition, you are more likely to be satisfied and willing to

We tried to get the Dutch students into Canada to help with our efforts, but the Canadian government refused them visas to come in. Then we decided we would do it ourselves. We held a conference in a community college in Ottawa. It took two years in the preparation, and we went on the understanding that

- a) everybody was motivated by kindly considerations; and
- b) anybody who couldn't speak other of the two official languages would have access; and
- c) that if people could not be there, it was because they had more important things to do, and so when they came they were to be tuned in.

We suggested to the media: You're not really interested in community development as such; you're interested in getting something on that **airwave** and coming out with a **2-minute** flash. We suggest that you don't even communicate with yourselves, that you don't know how to, and that you **don't** know about communicating with ordinary people. We actually ran a workshop, with the aid of the radio and TV people themselves, and for the first time **I've** ever come across, they were in actual fact saying: Why are we doing this? Are we prisoners of a certain system ourselves? Are we really reflecting what is reality?

Before the conference got underway, the federal government came to us, virtually on their knees, and said: You **can't** freeze us out. We demand to be there. The Ontario government said the same. Our Chairman said: If **you've** got to be there at all, give us a wine and cheese, and something for a children's party at the end, and **we'll** tolerate you. That is all that we needed from them. In the end, we actually ran one part of the conference for bureaucrats to look at where we were going.

As a result we had a very, very successful conference. The point I want to make is, it really proved to us that we could do things without government, because we did it totally without government help. Those who had cars took people; those who had houses had people live there; those who could cook and had food, did so; those who could look after children, did so.

Well, it was a success, but then what do you do when you run it across Canada - how do you manage to get volunteers - without any government funds to sustain it? When I was coming here today [to the workshop], I was thinking, how do you manage to get people who are volunteers, who have other lives to live, with only so much time and energy, to sustain that kind of togetherness and that kind of development, who can give the kind of time to come together to do this sort of thing on an ongoing basis? In many cases, and I work for bureaucrats, the government waits us out. They know that **it's** only a question of time before any volunteer-dependent effort is going to collapse.

Let me come onto another practical example.

I worked for the Human Development Council in Saint John for quite a long time, and we tried to do participatory research. We had twelve identified needs (which actually had been identified by a Quebec firm

work for opportunities in your neighbourhood if you have access to other things to meet your needs besides simply what is within walking distance of your neighbourhood. We organize ourselves socially to meet a lot of our needs, and our needs are better met today than one hundred years ago with the choices of communities to plug into.

You can separate the notion of "**community**" as a network with shared values, history, sense of geography, and commonality of future aspirations from "interest constituencies", which are looser issue-oriented groupings which tend to change according to the issue of the day.

It is important that communities are self-defined.

On a broader scale, the province of Prince Edward Island was described as a community in itself. It is a definite geographical entity; a community needs some sort of coherent, shared history, a shared vision of the future, and shared political power within confines of community, all of which exist in PEI.

Our society at present is very mobile; it **wasn't** always so and may not necessarily be in the future. Such mobility may be a temporary luxury and our **descendents** in the not-to-distant future may have to rely on associations within walking distance. This high degree of mobility is not the way most people live in the world. We still have the opportunity to make our livelihoods, political and social lives much closer to home than we do now. In **recognizing** the difficulty posed by the mobility of people, the question was posed: How do you get a coherent community with the degree of shared knowledge and vision that is necessary to do something as strong as working towards greater sustainability?

Changes have occurred in recent decades in the way communities define themselves. In a community of 30-40 years ago, all people shared the economic and social base, no matter what role they played. Now, even in smaller communities, stores belong to major chains. People living in communities often work for outside interests.

Communities are still evolving. They are no longer rural; they are at best semi-urban with the same aspirations as urban communities. We can define semi-urban in terms of **centralized** services. [Few rural communities provide all the services required by its residents]. Aspirations of rural people are the same as those of urban people [everyone aspires to the same material goals]. The people we find in rural settings are a mixture of rural and urban people.

There are fundamental differences between old and new rural communities. Old rural communities were where we were born and lived, with little mobility. The new rural community is where we

live now, often out of choice because of certain attributes it has. Many people do not derive economic benefits from their community, however, so they may be less concerned for the sustainability of economic development of the community. This can create conflict because of the heterogenous nature of the community: the needs of one portion of the citizens can be seen to be different from another. In order for us to come to terms with community sustainability the characteristics of today's communities have to be **recognized** and reconciled. We have to build from the bottom up, rather than the top down.

- Community is in the eye of the beholder. South end Saint John used to be a community in itself, but urban renewal has destroyed this and disenfranchised the people who used to have their own social and political structures. Suburbs are schizophrenic; they identify with the greater urban area but still want autonomy in their villages. Traditional rural communities around Saint John are being destroyed as entities because of people moving into them with jobs in city and thus have no stake in the immediate community.

Micmacs have geographic communities as well as communities of interests. And there is a certain renaissance among Micmacs trying to bring back traditional values, which has created a community of history and shared aspirations and visions. They look at all the aspects of the immediate community, and also as they interrelate in all economic, social, cultural and political areas with other Indian nations, ie. Maliseets in New Brunswick, Penobscots and Passamaquoddies in Maine, and Abenakis in Quebec.

- Traditional people also identify another community - the community of interest outside the human community - the environment, the biosphere, animals. We are not just human beings; we consider our non-human relations. Native people must go beyond these definitions of community to encompass this vision. We were warned against getting too narrow, because of the risk of losing some people in a definition of value system not shared by other people.

Regarding the concept of community as including access to networks outside the immediate geographical area in order to meet **one's** needs, one participant noted that in moving from an urban **center** [Halifax] to a very rural area [Kirkland, NB], she had to significantly expand the geographical community in which she felt she could get her needs met. We are sometimes forced to expand our community, sometimes negatively.

In overseas countries there is a definable village. But one of the axioms of international development work is that even those communities are riven with different interests and dissent. Some of those interests are compatible, others are conflicting. The

significance is that in a small community, even when those interests are incompatible, people still relate to each other on a dependency relationship **basis**. We have to look at a community as a set of relationships.

The Rural and Small Town Research and Studies Program at Mount Allison identifies rural areas as those which are not incorporated. This distinction has to do with access to resources and access to power. It is essential to look at control over decision-making, planning, development, research, management. Control over resources is fundamental to sustainability.

Note: Rural has been defined as an absence of something (political structures, electricity). Defining something in terms of what it **isn't** is a dangerous thing, and some people may be offended by such a negative definition.

3.4.2 Definition of Development

Just as there was a need to explore and possibly clarify the meaning of community, there was a need to examine the meaning of **"development"**, both in the context of sustainable development and community development. The points raised were:

- The concept of development must move away from the idea of a group of developers ready to take over and develop wherever they get a chance. One particular point of view, which operationally is a fairly good concept to pursue, is that development is process of profound economic and social change resulting in reduction of disparity between the rich and poor within countries and between countries. The human transformation that has to go on is certainly a prerequisite to institutional and functional changes to **society**.

Development is too often seen not as a process moving towards a certain end, but as the end itself.

It is a transformation of resources, whether human or natural, towards value being added; it implies enhancement of situation and productivity of something that is gained or transformed into something of more value, not necessarily dollar value.

In most cases, it is tied up with technology driven change which has an economic base and produces more and more goods and services. It is essentially destructive as it is generally understood and cannot be sustained in current state.

Rationally, development is desirable, but limits have to be imposed on how far you can grow - maybe small is beautiful.

New things have to be continually created - insights, visions - which start small and grow. In this sense, it would be good to

be able to use fresh words which mean exactly what we want them to. We may agree on what development means to us, but if we're going to use the term outside this group we will have problems.

3.4.3 Conditions for Sustainability

Throughout the discussion on "criteria" for sustainability, it became evident that many of the points were more appropriately defined as "conditions" required to achieve sustainability. These conditions include:

- a) Participatory political processes which provide the means and vehicles of participation by the greatest number of people within the community, however it is defined, so as to create a useful and operable consensus . This includes participation of all ages, fields of interest, occupations, cultures, and income, and with a bias towards those historically disenfranchised and powerless. [The old approach to community development was towards the poorest segment to try to improve their condition in life. The middle and upper classes were not involved. Sustainable development will require participation from all sectors of the community.] We are too much inclined to overlook the need to involve young people in developing awareness and values necessary for any kind of tolerable social life, especially under the conditions of stress that are bound to evolve over time.

NOTE: Participation is not to be measured by attendance at a meeting. It involves the sharing of concerns relating to all aspects of social life and requires some kind of vehicle within which people can feel free and confident to express themselves, enunciating their ideas and values, comparing them, resolving to some extent the differences among them, and creating the bond within the social unit that will make it possible to be effective in shaping the future of the community. You cannot go to large groups and get that kind of participation. The most appropriate social unit within which that can occur is the neighbourhood where people know each other and share some common attachment to the physical space they occupy, and in which they can develop some kind of common understanding and sense of direction that can then be combined with other neighbourhoods to give the consensus of whatever you choose to regard as community.

- b) Empowerment and local ownership of the decision-making process is central. This requires a well-developed sense of local politics, an analysis of existing power structures and the development of strategies for how sustainable development can be pursued (and participation meaningful) in that context. Note: current situation - "We participate; they decide?"
- c) For participation to be meaningful, people require information and knowledge. There is a distinction between informed participation and reactionary participation (in response to

something vs. proactive). To be able to participate, you must have information. You have to be informed and conscious of how far the process and tools can carry you.

- d) There must be an awareness of values, ethics, spirituality, aesthetics. Spiritual connection with the land is a basic condition for sustainability. Individuals must live in a consistent way with community sustainability, **recognize** the contradictions between individual lifestyles and goals of the larger group, and reconcile those contradictions.
- e) There must be social structures which encourage mutual dependency, cooperation, solidarity and bonding; and a need to identify with the whole as something bigger than ourselves in order to address problems of contradictions between individual and group aspirations. Social structures must encourage responsibility of current generation on to the 7th generation.

3.4.4 Criteria for Sustainability

The following points were acknowledged as criteria which would constitute a definition or description of sustainability. However, it was noted that we cannot maximize all the criteria simultaneously. Politically, it comes down to the integrity of the political process (see Conditions for Sustainability) through which those trade-offs are determined.

- a. Meeting human needs in ways which are sustainable in the ecological sense and improving quality of life. The starting point is the question, what is the need? and then, how best can it be met within geographic and other kinds of constraints?
- b. Social justice and equity. We must identify who has the needs and who defines them, who experiences conflicts and who has power to solve them. For any kind of social sustainability, those who lack the power have to be empowered.

Note : The greater degree of social justice and equity a society achieves, the less control one has over one's personal choices.

- c. Environmental soundness and biodiversity
- d. Economic efficiency - maximum output for minimum input
- e. No absentee landlords - local ownership of land and resources
- f. **"Rightfully in my back yard"** - local responsibility for back-end impacts of consumption

- g. Self-reliance. This means making the best of existing resources within a supportive environment and facilitating broader networks and partnerships, in an open, co-operative system, going beyond geographical confines to meet needs if desirable.

Note : In environmentalist circles, there has been a worship of the notion of self-sufficiency. You have to look at the particular issue or problem in order to determine whether or not that is true. It **isn't** the automatic answer. We have to make the distinction between self-reliance and **self-sufficiency** (depending on own resources, limited, little emphasis on outside partners).

3.4.5 Addressing Outside Forces

There was consensus that sustainability within communities cannot be pursued in isolation of outside forces, but that those outside forces must become sustainable. Participants identified the need to explore partnerships as one means of addressing outside forces and developing a realistic strategy.

Several key outside forces that have to be reckoned with in the context of community sustainability were noted as follows:

- a. Federal and provincial government policies
- b. Free trade, the international economy and markets
- c. Interest rates and lending policies of chartered banks
- d. Business priorities which shape political issues
- e. Increasing militarization of the regional economy

Note: A lot of what is happening in the world is not something that outside forces have done. Our actions and behaviours are linked into this. How do we shape this insane economy into something sustainable? It is easy to externalize solutions, when ultimately you and your value systems are part of the equation as well. How we act is linked to our vision; we have to deal with our own personal inconsistencies. Our actions have to become consistent with our goals. Culture and values have a great deal to do with it, no matter how hard we try to put it into an intellectual framework.

3.4.6 Issues Arising from Discussion

Individual need as defined by the individual, and the collective need may be in conflict, and must be seen as distinct. Once we have determined whether we are talking about an individual unit or a collective unit, we lack a process of identification of goals. How do you get to the point where you can define

collective goals, and within the framework of the neighbourhood? Community development principles (identifying the **"most felt need"**) may be in conflict with ecological imperatives. Once we have a vision, how do we deal with the very constrained ecological situation we find ourselves in? Do we accept that there are ecological givens, that science is not predictive and therefore we must err on the side of caution or do we allow our communities, self-defined and self-directed as they are, to make the kind of trade-offs that could be ecologically disastrous? Are we purists in the sense of bottom-up, grassroots directed planning, when we look at the local area in the global picture? How do we deal with the contradiction of having to work within international constraints, unless you have processes which allow individuals at a local level to participate in international standard-setting?

It is perhaps a case of choosing which set of contradictions you want to live with. This discussion is useful if we can draw out some of the contradictions around this kind of social project so we do not jump off the train too early, just because we run into problems we didn't expect.

- There is a distinction between 'sustainable **development**' and 'developing sustainability - 1) sustainable development means jobs with reduced environmental costs; and 2) developing sustainability means meeting basic needs while consuming less, wasting less, and improving qualities of life. We should deal with them as polar opposites. Practically, the work to be done must contribute to laying the basis for the reorganization along ecological limits.

The list of criteria for environmental integrity could be defined on the 'sustainable development' side of the line, as well as the 'developing sustainability' side of the line. It is changing the nature of the work relationship itself that makes the necessary distinction. You can have lower environmental costs, without really changing that relationship.

- Regarding meeting human needs while consuming less. Does this mean reduction of incomes or reduction of throughput (the transformation of materials from resource base and environment through various processes to waste, which is produced at every step of the process due to laws of thermodynamics; the rate of throughput is a critical cause of environmental deterioration, both as sink and resource exploitation itself)? People **aren't** willing to earn less, but it is possible to increase economic activity while reducing throughput.

Does allowing the poor to consume more require new wealth or redistributing existing wealth, given ecological constraints. This seems to be the debate. We should not say in global context we needn't have growth. Redistribution might not do it for the world's poor. In Canada, it is not clear what redistribution of wealth will accomplish either. It is not clear how far

increasing growth while reducing throughput will take us. We should not be arrogant enough to feel that sustainable development means consuming less. For some it will mean consuming more.

Debt situation in which people and corporations find themselves indicates that income is out of line with throughput - an unstable situation which is unsustainable. A lot of disposable income is going into wasteful and meaningless expenditure, a squandering of available funds, and there is in almost any community a lack of local investment. Investment comes from outside sources rather than local sources. This implies that if we reorder our personal, community and corporate spending, there would be a great opportunity for redirecting the local economy.

4.0 **SESSION 2: TOOLS AND PROCESS FOR ACTION**

4.1 Key Questions for Session 2:

1. What is the capacity and knowledge of (a) local institutions and (b) outside institutions which influence or direct change?
2. What are the processes through which sustainability can be achieved?
3. What tools exist for application within those processes?
4. Where are the gaps (within tools/processes) and how might they be filled?

4.2 Background

ADAPTING AND CREATING LOCAL INSTITUTIONS

Colin Stuart, Coady Institute, Antigonish, NS

Some preliminary comments: The title is "**Tools** and Processes for Action? I **don't** have any sure-fire tools or guaranteed processes for action in moving towards sustainability. But I did put together some thoughts that flow fairly well with the kinds of things we talked about [in Session 1].

In developing tools and processes, I make the assumption that we are doing so for the benefit of all, but with "**an** option for the poor? That does not exclude anybody, but it does say there is a preferential relationship. When we begin to talk about participation, participatory research, and so on, the context is one in which we assume that there is this bias...towards the poor, disadvantaged, marginalized - whatever terminology you prefer. The reason for that

assumption is that from experience, (certainly from almost all of the students we get at the Coady), there is no such thing as sustainability without the participation of the majority, the majority usually being relatively disadvantaged in this situation.

I have five points that I would like to put in front of you for discussion:

1. In considering what local actions we can take, whatever is done has to be seen to work. That may seem a bit trite, and it was coincidentally very useful that the tape we heard this morning from David [Patriquin] was, in fact, the example I was going to use.

I was in the Philippines a year ago and I met some of the people who set up this counter-agriculture in relation to the International Rice Research Institute (IRRI). In talking with one of the young farmers involved in the organic rice agriculture that they were developing, I raised the question, "How do you make what you are doing transferable; how do you spread it?" There were a couple of things he raised, but the main point was that people have to see it. It has to be out there in front. To do it in isolation off in the woods is insufficient. You have to go beyond just practicing a good idea; there has to be attached to it some mechanism for putting it forward. I'm going to put a qualifier on that, which is really my second point.

2. Not only does it have to be seen to be done, whatever innovation or change is being put forward has to be acceptable within the risk calculus of the individual or group.

Again, using the discussion with the farmers at the workshop in Manila, what it came down to was a process. If you ask a small farmer who has one or two hectares of land whether he will revert back to traditional rice growing, or whether he will take on some other new crop, whatever it may be, his answer is probably 'going to be "no". If he has 1.5 hectares, he cannot risk doing that, because next year if that crop fails, he and his family may be in the slums in Manila rather than in the fields at home. But it is possible to get a perception of what an individual's or even a small group's calculus of risk is. You may say to that person: You have 1.5 hectares; maybe we can plant .5 hectares. If it works and is a benefit, next year you may plant .75 hectares or another farmer down the road may take on .75 hectares.

That risk calculus is deceptive - it seems simple - but an individual farmer, and presumably by analogy the people in our locales and communities, have the same kind of risk calculus. They do not look at [risk] purely in economic terms. It is risk calculus in terms of time, money, resources, and relationships. To come back to a more concrete example closer to home:

I have talked to a number of municipal councillors in Antigonish about the waste disposal [problem]... and I find that it is easy to get into a confrontational position with local politicians. You have perceptions of what should be done...but the politician (or the

bureaucrat, for that matter) is looking at it in terms of his or her own life. They say: You've got a good idea there, but what are the risks in me personally propounding that and putting it forward in the context of a county council?

A more useful concept [rather than confrontation] is one of "Vulnerability", and I use that in a technical sense. Where are the councillors, politicians, the group as an institution, most vulnerable? [County councils] don't have the resources...but they are under tremendous pressure to increase allocations to old age homes, to solve the problem of too much garbage, to increase the education budget within their council. Rather than push them against the wall, pose for them an alternative. It will have to be an alternative that will be seen to work, and which is acceptable within their risk limits...

Back to the dump site example: There have been two groups form; one group of very irate ratepayers who are putting a lot of pressure on the council, but at the same time, within that group is a core of people who are saying: Now is the time to be looking at blue boxes [for curbside recycling pick-up], or whatever alternatives there are around that. I think we have to see how the politician calculates the risk, not only in terms of time and money but also his relationships. That's not always as easy as it seems.

A balancing, or working out of the relationship between practical needs and strategic interests is needed. This idea comes from some of the feminist experience and literature. It is easy to put practical needs (which could be as basic as improved shelter, clothing) up against strategic interests. We have to be conscious that the two are not necessarily the same, but that it is possible to bring them together. A classic example of this is a very local handicrafts or textile project overseas which historically has been related to women's production... It solves some immediate needs, but within the larger strategic context, it further promotes traditional stereotypical production relationships. The task that seems to present itself is how, without destroying or undermining traditional culture, to include but move beyond those practical needs so that the strategic interests are also met.

3. Participation is the third point. The wisdom of the people is an expression that has often been used in terms of participation. We have to rely on the traditional wisdom of the people. We cannot assume that they do not have any expertise.

I was struck by a paper (part of documents of FEAR0 - 1985 - still used as a major handbook) which talks about environmental impact assessment (EIA) in a way that puts aside popular wisdom and knowledge. It says,

The approach to environmental management is essentially a top-down process and the key to progress lies in convincing the decision-makers of the importance of economic and enviromental planning as the basis for continuing optimal development.

Impact assessment, as propounded here from people who are well-educated, literate researchers, is assumed to be top-down. I am suggesting that we should be looking at precisely the reverse. The methods they are talking about here are patronizing:

While public participation at the review stage might be beneficial in some cases, it may be omitted in others. Given the low level of awareness of environmental issues in the general public and developing countries, public review of EIA studies may not be opted for except when the projects affect directly a large segment of the population.

Popular participation rests on an assumption that the people have a certain set of knowledge and wisdom. It may not be the same that we have, or that researchers have, but it is there. They have their own expertise.

4. If we start from that kind of operational assumption, we then have to ask another question related to competence and knowledge, which is the fourth point: In a combination of expertise from the so-called experts and from the people's wisdom, a body of knowledge and understanding can be built up about local situations...I'd like to discuss participatory research and how that body of knowledge can be built up.

There is no one methodology for participatory research. Generally there are three principles involved:

- i the research becomes the researchers. The people who have the needs, the people on whom you are focussing, also become the researchers - not exclusively, but they become the researchers as well.
- ii They control the direction of the research - not completely...it's a cooperative effort, but they have a significant degree of control.
- iii The research is action-oriented. It is focussed in a particular direction - it is not research in the abstract, or research "a la census research" - for whatever change is required or that the people feel is needed.

There are a whole welter of methods that have been built up around this, but the methods for popular research start out from a number of operating principles.

The research begins by listening - hearing what is being said rather than preconceiving what should be done.

The research is iterative. It is not a once-only, in-and-out process. You work with people so that you gain depth of understanding of their situation, what it means to them in their own terms. To do that you are learning once, perhaps through a

mapping exercise, and then you begin to work with them to deepen that understanding through further questions. It is classical research methodology, often called probing.

Offsetting biases. There must be a self-consciousness about the biases of outside researchers, and an offsetting of those through a team approach to doing research.

The principle of being "**unimportant**". This means moving into villages or local contexts, and not being hosted by officials or put into elite situations, but being unimportant and inconspicuous.

Optimal ignorance. Know what you do not need to know. Classical research methodologies, in particular social research and certainly some of the EIA research, at times tends to get a fetish on strictly the gathering of data - data which may not be useful in that context. In some ways this is the same as "**scoping**", but it goes a bit beyond that.

Appropriate imprecision. **Don't** be more precise than you have to be in gathering your data. If you need regression analyses, fine. If you don't need them, it **isn't** necessary to collect the data.

Indicators of sustainability. The operative principle would be participant-based indicators; that is, not indicators that are developed on the outside and imposed. What do the people say would indicate to them that certain things have happened, and that certain problems have been solved? It's not that they are the sole determinant of indicators, but that it's worked out jointly with them, and is essentially based on their experience.

Whatever tools, analyses, processes are used or devised should be gender sensitive. I mention this because so much of what is involved in sustainability is rethinking the economic base upon which sustainability can be built. It depends not only on an economics which looks at the productive cycle, but also looks at its reproductive cycle, or reproductive labour. There is within the cycle of labour within the home - within the domestic environment - a sensitivity to sustainability that has been ruled out of conventional, or masculine, economics.

For example, take the case of rice production in the Philippines. What David [Patriquin] described to us on the tape was a classical system of inputs - seeds, fertilizer, labour. But that farmer cannot live without domestic labour inputs as well. Generally speaking, that domestic labour of the home is taken out of the picture completely. We have to consider that labour in the total context of sustainability, and I call that reproductive labour. For years, in the African context, the fact that women produced most of the food was completely ignored, never mind what else they did in the home to keep the whole system going.

The experience of exploitation of the environment as perceived by men is very different than as perceived by women. Some would say that the experience of women lends itself better to exploring possibilities for sustainability. Whether that is accurate or not, the argument has been made. Even without that, being gender sensitive is important, particularly when working at a local level.

There is a fair bit of literature on research that assumes people's participation and a fair body of information and experience on the methodologies for that. It goes under the rubric of rapid appraisal or rapid rural assessment.

I'll conclude here.

4.3 Prepared Remarks by Workshop Participants

4.3.1 Andy Secord

We all have some understanding of how the social system works in the world generally. It is tremendously successful in its primary objective of economic growth. It has become too successful, in that part of the throughput that the social system maximizes is the planet itself and the air we breathe.

It is important to keep in mind that the success of that system is not driven primarily by an impersonal logic of the market... Rather, people and business are organized over the issues of the distribution of the material output that is produced. Battles are won and lost over issues of tax policy, subsidization, who controls technological change, who controls research and development on rice species, and so on.

Relating this to community development, for a community to think about sustainability, they have to think about how the economy works generally, and how vast quantities of resources are distributed in fairly unsustainable directions at the present time. Then they have to ask the question: how we can engage in that process of redistribution of resources towards other social projects? There are risks in community development, and risks in various social projects. You build a nuclear reactor and it may or may not work. You spend the two billion dollars on small energy projects and some of them work, some of them don't. There is risk in either alternative.

One thing economists can do in thinking about sustainability in community development is start to identify for a community what its resources are (in terms of labour, the people, energy, wood resources, skills) - a kind of resources audit of a community. Along with that they can look at the material throughput - what goes into and out of a community - a kind of economic audit of that community but at a micro level; this thing is done in some community planning exercises, I believe, and there are different techniques for doing that.

Within the process, this economic audit would be related to the question of who gets what and why in that community; the question of the place of that community in the larger system; questions about where the economic surplus is coming from, how is it presently being distributed, and to what social projects is it currently being distributed or redistributed through the government.

From an economist's point of view, that is a likely starting point. My last comment is that perhaps in thinking about a pilot project in one community, an initial analysis might indicate that some communities are more likely than others to be good demonstration projects.

4.3.2 George Betts

I will address the first question.

Some years ago I went to a conference in Yugoslavia. In those days we weren't looking at sustainable development; we were looking at citizen participaiton in community development, along the lines of housing, employment, etc. It **was** an international conference hosted by the International Union of Local Authorities, a rather stuffy, establishment-minded organization.

When we arrived there, the Chairman of the Greater London Council stood up in his white collar, blue tie and suit, and proceeded to get along with a very theoretical paper presented on behalf of the British bureaucrats. There were a lot of people from Holland there, mainly students, who had been very involved in the attempt to protect downtown Amsterdam and downtown The Hague. They had succeeded in stopping the traffic input by ringing the place with bicycles and umbrellas. As things got underway at the conference, these chaps stood at the back - they didn't have bicycles, but they had umbrellas - and they raised their umbrellas.

So around inside this massive hall at the People's University in Zagreb were all these multicoloured umbrellas. The students said: We **don't** accept the terms of reference for the conference. We should be talking to the people of Yugoslavia. We should be out there in the shops and the factories seeing **what's** going on. It is for them to tell us, not for us to tell them.

The Chairman of the Greater London Council threw his paper high into the air and said: So be it, then. We trooped out into the streets, and for the next week we spent our time in the pubs, in the shops, in the factories, on the farms, listening to what the people had to tell us. We Canadians, and there were six of us, thought: How can we take this kind of conference back to Canada saying: Look, there are other people who have succeeded in controlling their lives, in doing things without government, (transportation, garbage collection, and a whole slew of things which we learned the Yugoslavs were about), **who've** succeeded in other things given the fact that a Communist hierarchy largely determines what they do at the local level.

which Social Planning had brought in) and over a period of 18 months we tried to get the people to identify for themselves, not what their wants were - that's a different thing - but what their needs were. We prioritized them through three methods:

1. having people from the community who were trained and were **non-threatening** to the community visit entire families (we regarded children as just as much part of the exercise as the adults), and when it was convenient for the families.
2. conferences and roundtable sessions for bureaucrats and other people in the system (bureaucrats, often, have never met developers or volunteer groups other than in confrontational situations). We had charts around the wall and we said: What are the biggest problems (ie. environmentally) in Saint John, in your opinion? Then we ran them on closed circuit TV.
3. questionnaire. This was the worst thing we did; only certain sorts of people fill out questionnaires.

(City Council was very down on this. It was not the way they wanted to go. They had prioritized the needs of Saint John neighbourhoods already, as had the provincial government.)

One of the things that came near the top of the list was citizen participation. They wanted to be able to have that political input that they do not have now. I went around as an individual researcher and talked to a lot of the people. They said: We know where we are; we know our survivability; we're not going to raise our heads because at some stage they might get cut off or other people associated with us might get cut off. Why should I get involved? The risk factor is too high. **We've** done between us a marvellous exercise in participatory democracy but the people at the top are not going to help. And **that's** precisely what happened.

I am not at all impressed by the capacity and knowledge of local institutions as they exist to influence or direct change. I am very sceptical and cynical because I do not think the people (and **I've** done a big study on this) who actually go into these institutions are any more than on a treadmill. The past Deputy Mayor of Saint John said to me: Nobody tells me what's expected of me; I don't know what the problems are; when I get onto it the bureaucrats say, You've got to do this. ..Before you know where you are, you're following exactly the same mistakes and exactly the same kind of power and parallels that other councillors elected before you have travelled.

In Saint John, there is a council of 10 and a mayor, and 241 people self-selected by council on over 41 boards and agencies. Behind that, there is what I call the local community power group which very much sees that the kind of people put into place to do things (**you'll** never hear their names) are people who work within the parameters of that which is laid out by the local notables and the local elite.

Behind that, in Saint John you have to ask: What are the Irving interests in this? I have argued the worst/best example with Saint John because the Irving presence is always invisibly there, but their physical presence very rarely, if ever, unless their interests are directly threatened. They have now got to the stage where they are sufficiently canny. They **don't** necessarily work by political means, but by legal means and extraterritorial forces.

To answer the first question, local institutions could have the power, but the people involved in them have to be changed. The concept of neighbourhood, defined narrowly in terms of community neighbourhoods, has to be reinvigorated as it was 50 or 60 years ago. Today, the question of participation is responded to with "**At** election time **we'll** talk about **it.**"

There are a lot of outside institutions that influence and direct change, but it is change in their own image. **It's** not change to the betterment of the populace as a whole, and it is at a certain cost. In the Human Development Council we got harmless things going; obviously if **you're** teaching people to read and write, that's seen as useful. But if you are into community development, helping people to do things for themselves, this is very threatening to the status quo. It eventually means that you might take over council; you might want neighbourhood town halls and you might want people themselves running the town halls rather than the people the elite has chosen. I don't have an answer, but by God, there are plenty of problems in Saint John. It is not me, but the people who are suffering. I can walk away from it. As an academic, one can always retreat into academia. As a person who is down there, you **can't** retreat; you're in the system and you'd bloody well get used to it, or find somebody **who's** going to go along with you before anything is seriously done.

4.3.3 Auguste **Gallant**

I'll start off by saying that everything is relative to the way we see things; it is based on experience that makes us arrive or prevents us from arriving at some form of conclusion. **I'll** put forward four or five words as the insight that I have.

One of the first words that comes to mind when **we're** talking about tools and processes is saturation. In the French area of Prince Edward Island, there was a very high population increase. The saturation point as far as agricultural land goes was reached very quickly, **so** they had to farm them out to New Brunswick, Quebec, and so on. When we talk about sustainable development, within a geographic area there is a saturation point for what you can do based on the people and the natural resources that are there.

The second word is limits - the idea of limits within systems and processes. When the co-operative system started, it had all kinds of good intentions in terms of helping small producers. They organized them in a group, got them a place to market their products, and thus the means to be able to survive. As the co-op system moved into

something more desirable, all of a sudden a central warehouse was established, and it became Co-op Atlantic. It is now not only feeding small communities, but the entire Atlantic region by shipping from a **centralized** place. They have practically eliminated the small farmer from the operation because the small farmer is no longer desirable to them.

So an idea which started off as a co-op movement, as it went through the process, suddenly changed. Why did it change? Because of competition - they now compete with **Sobey's** through the central warehouse. There are other reasons. All of a sudden, it is easier to order your supplies from Boston, your goods from Florida and California. This basic idea had all the apparent good at first. Some place along the process it got changed and it became negative to the people it was put up to help.

The third is planning. **Let's** take Belledune [the proposed 450 MW coal-fired generating station to be located on the Bay of Chaleur at Belledune]. NB Power decided, in their planning stage, that Belledune should be the place for a new power station. Do we need extra power? No. If we **don't** need the extra power, do we need that plant? At the local level, if I go there and tell local people that a billion dollars spent in conservation or new technology, instead of putting it into raw power, would have a greater impact economically over time and would save the environment by preventing pollution, do I get any support on the whole north shore? **I'm** not so sure. If I say to farmers that with the pollution from the new power station, in addition to the smelter we have there, your inputs in the ground are going to cost you a small fortune, I **don't** think **I'll** get too many farmers or communities to back me up if I want to oppose this generating plant.

If I go to fishermen and say, We're throwing a lot of crap into the sea, how many people will I get? How do I mobilize people around that area? Right now the only issue that is viable on the north shore is the environment. With that, I can go to the mayor and say, We have to go with the jobs because **we're** going to get shot if we **don't**, but we have to fight to make it as environmentally acceptable as possible.

The point is we **don't** need the coal generator. We **don't** need the power in New Brunswick; **it's** all for export market. We have to compete against hydro from Quebec. But I cannot fight on a solid basis the idea of not having a coal generator there because I will not get any support. All I can say is, 1990 - environment - very hot **stuff** - let's talk about that. Let's get the Mayor to put in a brief to the EIA process; **let's** get organizations to submit briefs calling, at least, for scrubbers on the plant. There is no way you can build support around the fundamental issue - do we need a power plant in Belledune, or in the province.

Systems and Priority. Priorities, too often, are so local that they have no meaning within a planning process. This is one of the problems that we encounter. In one area, within 5 miles, it might be a dump that is the issue, and NIMBY comes up. The priority next door

might be fish for a fish plant, at a time when there are no fish. These issues do not merge. When you talk about systems, and try to establish priorities within regions, regional planning becomes very, very difficult. Every little village or neighbourhood has to have its own priority, and rightly so.

Permanency. If we are going to have something go forward, you have to approach it on the basis of some form of permanency. People who try to do it freelance - within their spare time - normally, within a very short period of time, are kicked out, de-tracked, tired, burned-out. Unless there is some kind of permanency within processes, we cannot even start planning for the future.

Having said this, I'll come back to what I said earlier. I really believe that in the 1990's it is time to redefine what development is, where it is going and for whom, for what purpose we have development. Right now the type of development we see around has nothing to do with us and we too often feel that we have no say in that development. Whether it happens to be K.C. Irving, or some big outfit from the States, or within Canada, we feel that we do not have even the basic tools to fight them. They will come in and install themselves, and environment is the last thing they will talk about. They will go with the expert in front of the public meeting and say, This is our EIA and the project is good for the environment, it is good for the region. Normally, the people do not have even the basic tools to start fighting them.

4.3.4 Bonny Pond

I am going to talk about the program I am working with, Community Futures, a federal government program through Employment and Immigration. While I am doing this, I want you to keep in mind two things. First, as far as I am aware, this is probably as close to a community development program, broadly based, that the federal government operates, so if the federal government has a concept of community development, presumably it is along these lines. Secondly, keep in mind that there are seven Community Futures areas which cover about one-half to two-thirds of the province and a level of funding of \$39 million over five years.

Context of the Program:

In September 1985 the federal government introduced the Canadian Job Strategy, the mechanism through which federal support for labour market adjustment measures are now channelled. This strategy is composed of six distinct programs, each with its own set of sub-programs or "**options**".

The Community Futures Program is one of these six programs and it in turn is comprised of five options: Business Development Centers; Self-Employment Incentive; Relocation and Travel Assistance; Direct Purchase of Training; and Community Initiatives Fund.

Each of the six programs of the Canadian Job Strategy has a particular element within the labour market which it is targetting. The Community Futures Program was designed to address the special needs of communities with chronic high unemployment located outside metropolitan areas. In New Brunswick, we are not including Fredericton, Saint John, Moncton and **Edmundston**, but just about everything else is included.

Structure of the Program:

In each "**designated** community" across Canada (there are 202 of them), a local Community Futures Committee is formed of representatives of local organizations (eg. Chambers of Commerce, women's associations, major industries, labour councils, native organizations, etc.). It is this committee which decides, usually based on the results of an independent consultant's report which it commissions, what mix of the five available options would best meet the requirements of their community.

The options themselves are administered and monitored by a variety of means, not by this committee but by the local Canada Employment Center, the regional/provincial office of CEIC, or in the case of the Business Development Center, an incorporated non-profit body.

Implementation:

Both the planning and processes used by the program are very much "**top-down**", at least until the point is reached where the local Community Futures Committee is operational. For example, the following decisions are made prior to the first meeting of any local Community Futures Committee:

- the definition of "**community**"; implicit in the designation of such under the program
- the criteria upon which the community is chosen
- the role of the committee
- the organizations that will be represented on the Committee
- the level of funding the Committee will have to carry out its mandate
- what options the Committee can choose for its community
- the parameters of these different options
- the structure for implementing these options

While these may be seen as formidable pre-determined elements of any community development program, in the short period since the Community Futures Program has been operational (three years is the maximum so far), examples could be given where most of these decisions have been subsequently altered by the actions or decisions of local Committees (if they are good and active). However, they are up against the structure when they first come in.

Reality and the Ideal:

Introducing any new program at the community level runs into the realities of that particular community at that particular time. Besides the cultural, social, economic, and political elements of which one must be conscious there is also the **organizational** element. In other words, the inheritence of prior programs and the **existence** of current ones.

Community Futures, for example, will be viewed in northern New Brunswick where I work, in the context of the failures and successes of ARDA, FRED, CYC, CRAN, CPR, LIP, LEAP, LEAD, GDA, DREE, DRIE, ACOA, ERDA and all the other acronyms that have had a direct impact at the community level in the area in the past 20 years alone. No matter how wonderful an idea we come up with, or how well defined it is, we are not working in a **vacuum**. When we go out into a community, this is the legacy that we are carrying with us, whether we know it or not.

Question: Have the Community Futures Committees with which you have been involved begun talking about integrating environmental considerations into economic planning at that level.

In one of my committees, I don't think the term "environment" has ever come up; in the other one, I have brought up the work of the Conservation Council in this area and asked if they were interested, and they are. What is interesting is that at the time that I asked the question, my chairperson, who works for the Industrial Commission, the planning body for the province, had never heard the term 'sustainable development'.

4.4 Round Table Discussion

4.4.1 The Capacity of Local Institutions to Direct Change

There seemed to be a general consensus that the current capacity of local institutions to influence or direct change is low. Factors cited were lack of knowledge and understanding, few visionaries and an underdeveloped sense of responsibility at the local level for greater societal goals. Potential to change this was acknowledged, but this could only be realized if permanency is developed within local groups and institutions, particularly those community groups dependent on volunteers. It is important to sustain human interest and energy in small community groups. We must also understand risk calculus of individuals and groups and strategically address those, being sensitive to their vulnerability and basically try and balance off practical needs with strategic interest.

Following are several major points of discussion:

We have given everything over to representative democracy rather than participatory democracy. To turn it around a lot of work has to be done to educate people to get to the stage where they

feel their voice counts and they can make a difference. On a short term basis, they can, but sustaining it over the long term is something else again.

In the short term, we can adapt existing institutions. In the long term, we can look at creating new institutional structures. One of the existing structures which exists is municipal governments. This is the best place for participatory democracy to happen, not only at council level but with planning and development **comissions** as well.

Is there responsibility for local agencies to go beyond the law? Global constraints are translated into what local folks can and cannot do at the level of international treaties supported by national and provincial legislation. In the absence of any such treaties, agreements, and legislation, is there an obligation for local governments to act, ie. ban automobiles as an extreme example?

Municipalities should be looking for permissive legislation. The object of a good city manager, of a good executive, is to identify areas in which they should be moving on behalf of the citizens and make recommendations to Council. It can do this. Everything depends on the kind of officials, both elected and appointed, that you have to carry out that kind of mandate. Good ones are constantly prodding for the loopholes and opportunities.

- In dealing with environmental problems, a lot has to do with being visionary in the absence of well-thought-out, proactive government policy which gives direction to decision-making and development. We allow ourselves to be very lazy in the face of an absence of environmental guidelines or directions or regulations. Most of the visionaries are not at the local level, nor are they in positions of power at regional or national levels.

Most environmental groups do not focus on municipal governments, perhaps because municipalities have not exerted their role as elected representatives, or because of a parochialism within the local decision-making process itself in terms of what its role and relationship is to the global picture.

- How will existing institutions deal with the scientific uncertainty and uncharted territory in the environmental dimension? How does the decision-making process deal with things that previously did not have to be factored into planning and development equations? Traditional planning and development models are very predictive - the real challenge is in going beyond what we know and into unpredictable situations in terms of the environment globally.

4.4.2 The Role of a Plan

The question was posed: What are the tools and processes that exist for application in the process of generating a sustainable development plan. Rather than elicit a prescriptive agenda for generating a sustainable development plan, a more fundamental question was asked: What is the role of a plan? The role of planning as a specific professional field, then, generated the following discussion:

In many cases the attempt to generate regional development plans or municipal development plans is disempowering. In theory, they ought to provide a nice framework; in practice the good aspects never become operational and the bad aspects become restrictive. There are serious questions to be raised about the role of traditional planning models and making a plan for sustainable development, even if it is a participatory plan.

We must take an entirely new approach to planning and development which involves new and different values. It includes ways of making decisions in groups, ways of establishing a vision, coming to a consensus on what is good and hopeful for the future, setting goals and objectives, and setting priorities, and ways to monitor and evaluate that.

Community ownership of process is important so that it does not become sole domain of professional planners/experts. The community has control over experts who serve function of providing information, tools, advisory roles.

The experience has been as soon as you put in some sort of planning body, the community passes off the responsibility to the body. Delegation to experts is the problem. Has to remain within the community.

Planning still gets into certain types of hardware - analytical **tools**, ways of looking at the world that treat blueprints as prior conditions to actions; the tools and skills required to create those blueprints carry a lot of baggage with them. It is not clear that people involved in planning have escaped some of those limitations.

In Prince Edward Island, '**planning**' meant a plan was drawn up and then people were supposed to participate. There is an implicit assumption that public is to participate in something that is already underway. Perhaps we should speak of "citizen initiative", where it is clear that the initiative is coming from below, energy comes from there and ownership is there. The principle of "**small scale**" is to be kept in mind, so that individuals are involved and their contribution is important. It is critical to build in sustainability of human interest. You cannot set something up and hand it over.

New definitions have to come with the '90's. Until now, unions were strong enough to take care of their members, and government dollars were at least supposed to create more jobs. When automation came in, all that balance was thrown out of gear. DREE put money into development to reduce jobs - to make companies viable (competitive) and thus to maintain a certain minimum of jobs. The game changed. When they built the crab fishery in northern New Brunswick, they **"overplanned"** - fishermen were not informed enough or did not want to be informed enough to stop overplanning. Fishermen made a windfall for ten years; now we have a crisis of supply, created basically within 10 years, with processing plants and highly **capitalized** boats sitting **idle**.

4.4.3 Tools and Processes for Achieving Sustainability

Tools and processes are difficult to extract from each other, since each is dependent on the other. Depending on the desired outcome and the philosophy driving the initiative, processes will be undertaken which reflect that, and tools will be selected which are consistent with those processes. The following discussion, therefore, reflects thoughts put forward in respect to both tools and processes, and builds on the discussions in Session 1 regarding participation in decision-making.

As a fundamental starting point, we have to acknowledge that **all tools, processes and bureaucratic structures in place for planning get their direction from the political process. We cannot neglect the political process which gives direction and specific guidelines to these other processes. Depending on the integrity of the political process, the tools can be effective or not.** The following points illustrate the concrete implications of this reality:

One of the most important consideration of all processes is the inclusion of all **"stakeholders"** as equal partners and through a process of negotiation reach consensus. Full **"stakeholder"** participation is good in theory; however, there are practical limitations. If the focus is fishery policy, for example, fishermen should be at starting gate as central players. But what about port development where fishermen are only secondary players, but will probably suffer the most serious impact? It is not so obvious that fishermen will be invited to participate as primary players, or if they are, will have the same kind of clout in terms of establishing ground rules. Where do the fishermen get the social space they need to affect indirect processes? What is their role in the establishment of pulp mills, or forestry practices which have a direct negative impact on fisheries? Current processes dictate that they only get input through confrontation and in a totally disadvantaged position. Fishermen and even local councils play a very secondary role to the interests of the importers and exporters in port development. Political processes serve the ends of the merchant king - so **has** it been for many years.

There is also a bureaucratic process. One major shift in the political balance is the main accrual of power to bureaucrats. Increasingly, politicians depend on bureaucrats to be knowledgeable. The insistence of the environmental movement for public participation processes has resulted in essentially undercutting power of bureaucrats, or at least to make them share it with other people. We have not attacked the political process but we have attacked the **unelected** tradition of bureaucrats having substantial chunks of power with no ability by local people or interest to influence it. This has happened primarily at the federal, and to a lesser extent, provincial levels. County and municipal power structures still remain largely controlled by bureaucrats without the participation processes for making them accountable and responsive.

4.4.3.1 Strategic Planning

Integrated strategic planning was put forth as a tool currently being used by planners and municipalities to develop long term planning directions. Discussion arising from this raised these points:

- Saint John is developing a "**strategic planning process**" to establish the goals and objectives for the future of the city. It has been done expensively, elaborately, and rather **non-participatory** in terms of prioritizing. It isn't obvious where the strategic plan will go but it is one traditional mechanism that has identified environmental problems as never before, and caused a lot of excitement throughout official and unofficial circles.
- Within the strategic planning process, we use tools such as SIA, EIA, action research, action learning, coalition building, conflict management, negotiation, and most importantly, an early warning system that will allow a community to identify problems coming up in the future. This avoids dealing with problems on a crisis management basis. Planning provides important lead time.
- Strategic planning historically has not include environmental sustainability as part of the evaluation. Can it? Are local bodies involved in strategic planning capable of involving that environmental dimension which we now acknowledge has to be there in order to to achieve that environmental integration? Do strategic planners and traditional development agencies know how to deal with environmental criteria/dimensions?

4.4.3.2 Environmental/Social Impact Assessment

To date, environmental and social impact assessments have been the federal and provincial governments' response to integrating environmental considerations into development plans. Issues raised regarding the adequacy of this tool, and its potential include:

Unless existing institutions can integrate an environmental framework into the decision-making process, we are thrown back upon using EIA as an addendum to that, in a patchwork approach. If this is what we are left to, what does that EIA look like? The current experience with EIA is unsatisfactory, both federally and provincially (although for different reasons).

It is not enough to leave consideration of the environmental dimension of development in the hands of environment department. It will be years before that department has the political clout and resources to compete on equal level with development departments and agencies in terms of status within the **decision-making** process.

Local people know what is going to be the impact on their land, water, locales. EIA is something that should be manipulated by those people. That local wisdom should be the starting point for assessing environmental impacts, not formal EIA processes.

4.4.3.3 Task Forces, Round Tables, and Commissions

There are various task forces and development agencies throughout the province. We could set one up on sustainable development. In Saint John there is an economic development task force, and it is taken some notice of.

The tendency is to select as members those "influential people" who are seen as able to make things happen. There is a circle of people that is acceptable to the politicians. This happened on the New Brunswick Round Table, with the involvement of the most influential industrialists and politicians. Because of the vested interest in the status quo that such influential people represent, they can be roadblocks to sustainability. Round Table membership reveals a misunderstanding of community and economic life in this province, at the same time as it mirrors political reality. Key questions are, how are interests identified, and who guarantees balance?

At the local level, the selection process must become **democratized**, with a broader identification of interests and players. What is missing at official level is information, knowledge, and understanding of what really happens out there - who the players are, and what impact they have, why they are important and how to get them in. How do we elevate their profile to the point where they are seen as important players to include in the process? Who are the people advising this process? The officials are uninformed about who represents the public interest beyond the obvious political players. Somehow we have to tap into that network.

When you want to establish a body such as a task force, identify group members instead of identifying individuals. As a representative of the group, they are responsible for going back to their constituency which then broadens out the information base and networking.

Depends on process whether you ask representatives of groups or whether you try to get influential or useful people. When you have an actual well-defined process (pesticide registration review) you need specific groups involved. But for something like a Round Table or Task Force whose role is to be catalyst for change, the risk of having the wrong individuals on is greater than the benefits of a democratic representation process. If you have someone on a Round Table whose primary role is to defend a predefined interest, you are in big trouble. They have to be fluid bodies that are in the business of **catalyzing** change.

4.4.3.4 **Socio-Economic Summits**

Quebec has just come through a 3-4 year round of socio-economic summits. The model starts at regional level and goes down to community level, with every community identifying priorities. . Rules are set up for different regions and all communities **have** representatives on a council where economic and social programs are selected. If local and regional associations set up the criteria for selection of development projects, it might be a mechanism with broad community representation for final selection and approval. Environment would not be a hard issue to get integrated into that process in New Brunswick right now. In pre-planning for a social-economic summit on the Acadian Peninsula, they did establish an environment committee.

New Brunswick is studying this model in the Acadian Peninsula. Here, **17** different committees were set up to identify priorities. It may be that environment will be the filter through which projects would be screened. It is up to the region to decide on the approval process and criteria for acceptability. The end result is economic project with social and economic value rationalized according to this criteria.

The process does not appear to be planning process but a project prioritization process based on local determination of what is a priority. In that sense it is good since local people decide. But in terms of holistic planning, it is a project-by-project approach.

One of the problems with this model is that somebody else offers a project with money; the summit decides whether or not the region wants it. In reality that is not the way development takes place. In many cases, a private developer who does not

need anyone else's money comes forward first, and the local community reacts. The community has very few, if any, mechanisms to proactively encourage the developer to take on a project that is sustainable.

4.4.3.5 Other Tools

- a. **Cost/Benefit Analysis:** Mechanisms for inserting other than economic values into a cost/benefit analysis are underdeveloped at this point, thus minimizing the usefulness and appropriateness of this tool in determining what is sustainable.
- b. **Environmental Liability:** Recently, environmental liability (civil penalties) has become a major economic criteria for industry. Costs of incurring liability is becoming part of development planning within corporations (the basis for their own internal EIA). There are weaknesses, but when a company is incurring financial liability it impacts on planning. In essence it is preventative as company decides whether risk is worth going ahead.
- c. **Traditional Skills:** In some sense, the tools already exist in the community to assess and act upon sustainability imperatives. In particular the older people in the community have many of the skills needed. What is missing is the capacity of younger generations to implement those skills. We do not know how to get at those traditional skills, not just practical, technical skills but the organizational skills as well. The informal economies in rural areas have been submerged for a long time but historically were an essential part of traditional economy; these informal relationships must be revived.
- d. **Government money and programs:** We cannot assume this will always be available but such assistance can be seen as seed money; if we are looking for self-reliance we have to assume we have to cut off the dole.
- e. **Partnerships and Coalitions:** Efforts can be strengthened through partnerships rather than separate or redundant programs. There are several initiatives going on now which relate in some way to concepts of sustainability. These include the Healthy Communities movement which is a joint venture of the Canadian Federation of Municipalities (CFM), Canadian Public Health Association and the Canadian Institute of Planners; the Community Crossroads program of the Canadian Association of Single Industry Towns (CASIT) and the CFM (the emphasis is economic but with some social and environmental components).

4.4.4 Gaps within Tools and Processes

Several gaps with respect to tools and processes for action were identified:

- a. **Bureaucratic Accountability:** Mechanisms for ensuring bureaucratic **accountabilty** for institutional decisions, as well as political decisions which are directed by bureaucracies, are missing or drastically underdeveloped.
- b. **Understanding of Concepts:** There is a serious gap between the conventional political understanding of **"sustainable development"** (creating jobs while reducing environemntal costs), and the emerging popular understanding which could be **characterized** as **"developing sustainability"**, or meeting basic human needs while consuming less. It was suggested that there are mechanisms to address this gap, but it is obvious that the gap exists.
- c. **Experience in Integrating Environment:** It was acknowledged that we are struggling with inexperience within (and past failures of) traditional planning and development institutions and processes to incorporate an ecological framework in their work. It is not clear that, without major restructuring, this integration can happen within conventional structures and institutions.
- d. **Appropriate Expertise:** There is a distinct lack of professionals such as ecologists and biologists who understand the nature and function of ecosystems, and related principles, in positions of responsibility within development agencies, commissions, and even environment departments.
- e. **Analysis of Major Trends:** There is the assumption that we will always be working within current political and economic framework, not to mention biophysical **condistions** which are changing. We are proceeding as if the relatively stable economic and political situation we are in now is normal and likely to continue; that we can take our time to plan, experiment. We presume that if we do the right things, we and people like us can move governments and industry in the direction of greater responsibility for the environment and for sustaining communities. In next six months or so, if recession hits and restrictions imposed by deficits become more stringent (people laid off, services suspended, boards and commissions become impotent), what is possible for local people in local communities to do to begin the process of rallying and organizing the community for its own survival? It has happened in the past that suddenly a paralysis descends on industry and government structures on which people depend. When government is no longer willing to appropriate millions out of the federal budget to rescue a community in distress, what does community do? The analysis of tools and processes must take this into account.

4.4.5 Issues Arising from Discussion

4.4.5.1 The Bottom Line for Community Sustainability

In order to be sustainable a community has to be prepared to face a lot of different kinds of stresses over an extended period. You can see the kind of panic that descends on Summerside with the closing of the military base, but what have they got in way of local resources, spirit, organization on which to build a replacement economy? The only visible recourse is political pressure on the federal government to put in place a substitute industry. The same holds true for fishing communities on the Acadian Peninsula. These communities are not really sustainable if they have no indigenous resource base. They are at the mercy of outside forces.

We have been talking **as** if things will remain the same. A lot of the structures propping up the Maritimes will be removed as economic stresses build. We need to come up with viable ways to enhance our communities in the face of losing those structures which have been propping up the region.

There are two kinds of stresses we are talking about in local communities. One of them is based, ultimately, on the success of our economic and political institutions. The other kind of stress is caused by the catastrophic failure of our political and economic institutions. Both are real and both have to be dealt with simultaneously. For example, near Halifax, a local school, originally financed and built by the people in that fishing village, has been closed and may be torn down by the city. The loss of the school has to do with the success of the system to provide a certain level of educational service. However, the failure of the system may ultimately result in the need to rebuild schools. The skills now required to save this building are those necessary to deal with bureaucrats and the system, very different skills than those which built the school in the first place.

One response is to try to anticipate and direct change to maximize positive and minimize negative impacts.

It is important in thinking about sustainability to distinguish between types of change. There is a need to identify, analyze and distinguish between inevitable change (good or bad) and change that should not happen and action should be taken to prevent. If it is change away from sustainability, then it does not do much good to try to make the best of a bad situation. Important to that analysis and action is the empowerment process, to establish that people can have some control over undesirable changes.

The fixed link is a good example of potential major change in the region. It is a megaproject narrow in focus which will in many ways undermine sustainability. The **"Monctonization of PEI"** is a real possibility, as it leads to regional concentration of economic activity as opposed to **decentralization**.

There are micro and macro questions about sustainability in response to change. **ACOA's** analysis of the Atlantic region suggests it could supply jobs and an economic base for 500 thousand to 750 thousand people on its own. As it is, transfer payments allow us to support about 2 million. The current federal mechanisms of transfer from the whole to disadvantaged areas are important institutional structures. Is that sustainable? **Isn't** it? Should it be? Theoretically, the country is committed to this and in general it is a good thing.

Others suggest that federal transfer payments and regional development programs has created a dependency syndrome that neutralizes people and removes sense of personal responsibility. One of the inhibitors to developing community self-reliance is a sense of false security inherent in the transfer payment system. Could there be a direct relationship between that and the fact that people are not acting in their own self-interest?

5.0 SESSION 3: RESEARCH, DEVELOPMENT AND DEMONSTRATION: GETTING READY TO ACT

5.1 Key Questions for Session 3:

1. What critical conditions need to exist in order to successfully implement a development process at the community level?
2. What examples or experiences, good or bad, can we bring to bear on this discussion?
3. What research may be required in order to meet the needs of sustainable development implementation models?

5.2 Background

5.2.1

EXAMINING THE ARK: A DEMONSTRATION BEFORE ITS TIME

Dr. Katherine Clough, PEI Department of Agriculture

The Ark was the inspiration of a group of people at the New Alchemy Institute in Cape Cod, notably John Todd, who at that time directed the activities of the Institute. The idea was spawned in the heady days of the late sixties and early seventies when alternate energy sources were a preoccupation of a population that was starting to pay significantly for fossil fuels. Solar and wind energy were touted as alternatives to fossil fuels for domestic energy needs. The Trudeau government was willing to fund, through its Department of Energy, Mines and Resources, research and demonstration projects on alternatives. The PEI Government under Alex Campbell was also receptive to these ideas. These three agencies made it possible to construct and run the Ark.

Initially, the Ark was described as a self-sufficient energy and food producing unit for a family. The building was constructed in the mid-seventies at Spry Point, a spectacular wind-swept site near the community of Little Pond. In its first years, the Ark was always much better known to people from outside PEI than it was to Islanders. Many Islanders never knew of its existence. People in the surrounding communities looked upon it with a mixture of **curiosity** and mistrust, mostly the latter. A very few, mostly those who were employed there, were friendly to its aims and objectives. The overriding attitude was that it was a government funded project, run by Americans that really had little relevance to their lives.

The structure consisted of a 3-bedroom living space with domestic solar greenhouse and a larger "**commercial**" greenhouse for raising food, plants and fish. Heat from an active solar system was stored in a water reservoir beneath the living room. A battery of fish tanks and rocks stored the heat collected passively in the commercial greenhouse. New Alchemy staff from Massachusetts came and spent

various periods of time at the site during the construction. Local people were employed to do carpentry, plumbing and wiring.

For the first few years, small quantities of fish, some salad greens and tomatoes were produced but not enough to feed more than the Ark inhabitants and friends. It quickly became apparent that the structure required more than an average family to run it. An experiment horticultural and aquaculture facility of its size required 24 hour a day care, not to mention the grounds and garden and the constant stream of visitors from all over the world who wanted to see this phenomenon to which so much media attention was paid. The solar panels frequently required maintenance and the windmills never became operational. A full time maintenance person was eventually hired to keep the building working. Throughout its operation, the Ark ran on power from Maritime Electric [the provincial utility].

In 1977, the management of the Ark was transferred from the New Alchemy Institute to the Institute of Man and Resources in Charlottetown. Emphasis shifted away from the concept of the Ark as a self-sufficient family unit towards a research and demonstration site for small scale technologies in horticulture, greenhouse production and aquaculture. It became known as "**The Ark Project?**" Factsheets were produced, workshops were offered and public tours were formalized and scheduled. Produce from the gardens and greenhouses was sold in Montague and Charlottetown.

Throughout its existence, the Ark was a mecca or a magnet to people from many parts of the world. The beauty of the site, the building itself and the fact that one could be amongst flowers and fruits and greenery in the middle of winter was part of its appeal. The alternate energy component was also very attractive even though it never became fully operational. It was **publicized** widely by journalists from across the country and overseas, articles appeared in glossy magazines, TV programs scanned luscious tomatoes, vivid geraniums and grapevines forming a canopy over the dining table.

The reality was much more than what was presented by the media. Once the idea of it being a working family home was left behind, it became a question of a rescue operation. The logical step at that time was to convert it into a research and demonstration site which the public could visit. This is what happened and for 3-4 years it was run successfully in this capacity. Thousands of people visited the Ark on guided tours. The workshops on topics ranging from cornposting to "**build your own solar collector**" were well attended.

The clientele remained national and international. Islanders attended workshops but in general they were people from Charlottetown rather than nearby communities.

Its demise as a research and demonstration project can be linked to a number of factors - termination of funding, staff burnout, and inappropriateness of the site for research and demonstrations. Against that historical background, I would like to make a few general

comments related to the title of the presentation.

The Ark was, from the start, a dinosaur - appealing and much **publicized** but like the **Cretaceous** beast doomed to extinction. As a community project, it could never have worked as originally conceived, mostly because it was not developed locally, it had little or no relevance to the surrounding community. The concept was essentially an urban one.

However, it did have significant impact on many people. In Prince Edward Island, the increase in garden composting, non-chemical pest control, solar hot water heaters were influenced by the Ark. The knowledge of that local impact and its international reputation as a tourist attraction was not lost by the local community group which is now sponsoring a revival of the Ark. The group plans to restore and convert the building into a restaurant and motel with exhibits on the earlier activities of the Ark.

It is also worth noting what some of the people formerly involved with the Ark are now doing. The architects, David **Bergmark** and Ole Hammarlund are on PEI practising their professions. They have designed passive solar houses and have been involved in restorations of historic buildings, and they are now involved with renovations of the Ark. Nancy Willis, who lived at the Ark, remained in the community and now writes for a local newspaper. Linda Gilkeson who ran the greenhouse got wrapped up in the world of insects and went off to **Macdonald** College to study a predatory mite she had found devouring aphids in the Ark greenhouse. She got a PhD in that subject and now does research and development for a company in British Columbia that raises beneficial insects for greenhouse operations. Wayne van **Toever** who developed the recirculating aquaculture system has incorporated some of the Ark into his trout hatchery at Brookvale, PEI. And there were others, too numerous to name, who played a role in the development and operation of the Ark and who carry a bit of **that** experience with them in their lives today.

The Ark was not a blueprint as many hoped it would be but what was done there, the people that worked there, and those who visited it have gone away and on to do many things in the intervening eight years which are helping to turn the tide towards the development of sustainable communities. Fragments of the Ark concept live on and are being applied in many parts of the world.

It is all very well to put a technology in place but maintenance of that technology just as important. The windmills were not operational because of lack of expertise, appropriate technology inappropriately applied. Passive solar technologies, in the form of attached solar greenhouses, were appropriate and have been duplicated in homes. The windmills were moved to the Atlantic Wind Test site at North Cape.

It is significant now that the general feeling in Little Pond is a sense of missed opportunity with drop off of cars and visitors. This has probably resulted in the current local initiative to revive the Ark.

Contributed by Harry Baglole:

The demand started coming from the community as many people wanted to use it to attract tourists. Eventually, the Minister of Industry, who is very strong on co-operatives, took it on, and passed it on to Frank Driscoll who helped set up a local co-operative with over 30 members. They are sensitive to what would be an appropriate tourist use of the Ark. The Province gave them a long term lease to the Ark, and they have received funding from ACOA. The Institute of Island Studies was involved in drawing up plans for ACOA, and suggested that they hire an expert in interpretations because it is critical that it continue to be a demonstration and serve organic food, much of which would be grown in gardens, etc. The original architects were employed to do renovations. One hundred thousand dollars was set aside for interpretation, with a committee to design it to ensure integrity of the restoration. Finally the community is involved in the Ark, and **that's** healthy. If it can help the community, with the education aspect preserved through the interpretation **center**, it seems to be a better use than falling into ruin.

5.3 Prepared Remarks by Workshop Participants

5.3.1 Harry Baglole

My initial remarks are a quick overview of some of the developments in the past two decades in Prince Edward Island that could be described as falling within what we think of now as sustainable development. In many ways I think the island has been a leader in this area in Canada, perhaps more than anywhere else.

For over two decades now, PEI has taken the lead in Canada toward a program of thought and action which has come to be termed sustainable development. On the island it has been fostered by both Liberal and Conservative governments and has been viewed as either hopelessly reactionary or fearfully progressive, depending on **one's** point of view. There has, however, been a good deal of consistency. Indeed, on such major issues as the proposed Lytton plant [a military installation], and the fixed crossing, the progressives and the reactionaries have tended to be on the same side.

Together they make up a powerful coalition of two groups which are perhaps relatively better represented on the Island than elsewhere in Canada: the rural, native-born Islanders, descendants of those peasant visionaries who gained notoriety in the early **1900's** by attempting to ban the automobile from Island roads (they are famous across Canada for this, and I think they should be viewed much more positively for their insight than people have tended to view them); and a substantial contingent of **"CFA's"** - Come-from-Away% - well-educated professionals and back-to-the-landers, many of them attracted by the allure of the nebulous but potent reality known as **"the Island way of life"**. In the past few decades the Island has had more people coming in than leaving which most people **don't recognize**. There is also quite a large artist community there, so there are a lot of people who really come for the

best reasons - they appreciate the best qualities of the Island and they have a lot of savvy when it comes to the media, and so on. So when campaigns come about for things like Lytton, there is quite a force to be mobilized.

The first major expression of what could be called sustainable development thinking was the "**Small is Beautiful**" campaign of Premier Alex Campbell launched in 1973. (This was in part a reaction against the Comprehensive Development Plan which Premier Campbell brought in after the 1960% promise of a fixed crossing fell through, and I think he was doing some atonement at the end of his regime.) Premier Campbell was much influenced by E. F. Schumacher% Small is Beautiful, published in the same year. This rhetoric was transformed into action, largely by Andrew Wells, Premier Campbell% principal secretary and founder of the Institute of Man and Resources. Mr. Wells was also responsible initially for bringing the Ark to PEI, and the Institute of Man and Resources eventually took over the Ark project.

In the book Small is Possible, published in 1981, Schumacher% colleague George **McRobie** referred to the Institute of Man and Resources as "**one** of the most carefully planned and well-structured efforts in energy and food self-sufficiency in existence anywhere in the Western **world.**" He may have been exaggerating somewhat, but still it was viewed at the time as very significant.

A different, but complimentary agenda, was pursued by the Conservatives under Premier Angus McLean elected in 1979. Here the emphasis was on rural renewal and the vitality of small communities. Again, rhetoric **outpaced** action (and I know all about the rhetoric because I wrote a lot of it). Again, however, there were significant results. Legislation was brought in to curtail the growth of large shopping malls and the purchase of land by corporations; the province rescinded its Point Lepreau nuclear power agreement with New Brunswick; the Department of Community and Cultural Affairs was set up so that in programs that have to do with municipalities, the emphasis was on community (again, this didn't really result in all that much; the thinking was straight); and a small farms program was put in place.

Today, the Liberal government of Premier Joe Ghiz continues its emphasis on sustainable development, although the term itself is not widely used by Island politicians. The theme of local community development has been inherited from the Conservatives and in the recent election campaign they promised to put more emphasis on that and to re-mandate the Department of Community and Cultural Affairs.

The environment is now a top priority with the Island being the first province in Canada to adopt a Conservation Strategy. One of the most promising developments is in the Department of Agriculture where sustainability broadly defined is now the official policy. Again, a lot of it is rhetorical, but in some ways I think we are advanced as far as demonstration projects and emphasis is concerned.

While I'm not, of course, claiming that PEI or any of its small communities is self-sustaining to the degree advocated by participants in this workshop, it is worth noting that progress has been made. The lesson for members of other Maritime communities may be the potential for common ground between environmentalists and local long-time residents. That may be an important insight.

A few additional comments and some comments about some projects that our Institute has been involved in.

In looking at the Island as a community (and I made the statement yesterday that the essential community action that I am involved in is PEI itself), there are several attributes which make the kind of action I am talking about more possible **there, apart** from the political reality and the sorts of people who are there, and their agendas.

One is the geographic entity, being an Island which gives it a visibly distinct character and the historical record of a shared history. A man called Mark Lapping, who was born in Canada and now living in the States, has written several articles about PEI land use policy; he thinks we are quite progressive and that Americans have something to learn from us. One of the points he makes is the shared history of the PEI land struggles in the 19th century and the way this is remembered gives a lot of political momentum and support to what amounts to now as a bi-partisan policy of Conservatives and Liberals for land use controls. In this sense the history is very important in contemporary policy, and how it affects it.

Politically, we have a fair amount of political autonomy in that we have a provincial government. Also, the shared culture is extremely important. Even within PEI, in things like local community development and co-operative development, the Acadian areas which are very distinct culturally and have a strong history of supporting each other are the most self-sufficient of all our communities. They use culture in a very positive sense.

The Institute of Island Studies is four years old. I have been the first director, working part-time the last three years. I will be made full-time, and I am the sole staff so our capability in that sense is not tremendous. We are located at the University of PEI in Charlottetown. We have a four-fold mandate:

1. research related to islands in general
2. research related almost anything to do with PEI
3. public policy
4. an extension function

We do not go around saying explicitly that we are in favour of sustainable development or stating a very definite philosophy. Part of the reason for that is we represent the whole university, and we cannot be involved in things that have political overtones. But a lot of our research and initiatives have certainly been in that direction.

We have **involved from the beginning George McRobie, who was a** colleague of Schumacher and wrote a sequel to Small is Beautiful called Small is Possible. He was a member of our founding board, and we have him visit at least once a year; he received an honorary degree from the University this past year. He spent a full month on the Island a year ago last June, and with his help, we have identified some interesting research projects.

After his visit a year ago last June he wrote down what he called some "notes" of what he saw as potential in PEI for an overall program for the future. He called it "Towards Sustainability and Self-Reliance: An Island Future", which the Institute has published. His vision is that PEI would be a chemical-free island, which would be very nice, and one can always look towards it. It would have nice applications from everything from tourism to aquaculture, and add value, and so on. It is something that we have to keep in mind as an ideal.

Some specific projects of the Institute include:

production of a book on the history of the co-ops and credit unions on PEI; we've given a fair amount of support to the co-operative movement.

land use planning. There's now a Royal Commission on Land set up on the Island and we held a series of 40-50 information meetings across the Island before the actual hearings were held; we produced a lot of background information so that people and groups would know what the issues were and have good information for their briefs.

sustainable agriculture. We have undertaken a project called "The Best of the Past: Traditional Sustainable Agriculture on PEI". We have tried to make the critical point that the best of traditional agriculture was indeed sustainable in contemporary terminology, and that chemical agriculture was really a discontinuity, an aberration; it was going away from what had been evolving over all these years. The report will be printed today and I hope the Department of Agriculture will be releasing it before too long. Basically, it consists of 50 interviews with older farmers or agricultural workers. There is also an annotated bibliography. It is traditional agriculture looked at from the point of view of sustainable agriculture.

The leading practitioner of traditional agriculture as sustainable agriculture on the Island is a man called David Lien (?), who 4-5 years ago on a traditional mixed Island farm was appalled at the state of his soil and decided to go, as he called it, cold turkey into organic farming. He has been very successful. David Patriquin has been working with him the last year or two. His farm has become a bit of a demonstration project, and many people are beginning to visit and keep him from his work. He found that even in the first year,

although his crop yield was down about 20%, at the end of the year his income was still up because the inputs were so much less and his soil has revived beautifully, and so on. We're now thinking about writing him up in a book as a demonstration.

We organized workshop just a few weeks ago with a group that McRobie set up (the original group that he and Schumacher set up was the Intermediate Technology Group in London, and there is an Intermediate Technology Group in North America.) They were so impressed with David Lien (???) that they suggested a co-publication and they would buy half the copies. They thought it would have a lot of application in the US.

5.3.2 Keith Cossey

The scope of my work at the Rural and Small Towns Research and Studies Program is the Atlantic region, in which 60% of the population live in communities of less than 5000. So we are basically talking about a region that is predominantly rural and small town.

Regarding Question 1 (see Key Questions), I think there is a critical mass that is required that can be described as community recognition, public and political will to change, and also that involves a common vision of hope for the future. People in the community need to see that there is a problem that affects them directly and they need to be able to articulate that and move towards resolving it. Part of that has a lot to do with leadership, so that critical mass requires leadership training and development.

Some examples, good or bad, that we can bring to bear on this discussion: We have heard of some of them here. ..from New Brunswick we have community based planning and development organizations; the rural development corporations from Newfoundland; community development corporations like the one in Sydney; the Human Resources Development Association (HRDA) in Halifax; and Community Development Co-operative in Antigonish. Another interesting example is the Voluntary Planning Board in Nova Scotia, a very broad-based organization which has just celebrated its 25th year. This has representatives from all sectors of industry, government and community-based organizations sitting on sector committees - environment and development, free trade, construction, fisheries, manufacturing, covering the whole scheme of things.

How is sustainable development different from earlier community development experiences? It builds on those past experiences. Hopefully the lessons that we have learned from both the successes and failures from earlier community development models and experiences we can use and take advantage of in sustainable development. A key difference is that sustainable development is more integrative in nature in **recognizing** that there are social, economic concerns as well as environmental concerns in a way that perhaps earlier community development models did not **recognize**.

In terms of research that may be required in order to meet the needs of sustainable development implementation models, I should mention that our program perspective on environment is quite broad. We look at environment as including the natural and physical environment as well as the built environment, the socio-cultural environment, the economic and the organizational environment. So in our integrated approach to sustainable development, and to strategic planning, we consider a very broad definition of environment that includes all those.

I think the most important area for research, and most important opportunity is in conducting case studies; that is, taking communities in their broader environmental context and studying how they work, identifying problems and working with the community. I see a need for a series of these types of case studies, not just of success but of failure because there are lessons to be learned from both. We can look at specific community environments like that; we can also look at the types of examples that I mentioned before - the local planning and development commissions, the Community Futures initiatives, **CDC's**, and other community development organizations, and as well as non-profit housing development groups and how they have dealt with the challenge of sustainability in their communities.

Another area that I think is important to look at is work on an early warning system; that is, a way to predict and anticipate crises. There has been some work done on that. The Federation of Canadian Municipalities in its Crossroads program has prepared a vulnerability checklist which is basically a kit that can be given to a community and people trained in the application of it to assess the community's vulnerability to change and to crises (in conjunction with the Canadian Association of Single Industry Towns - CASIT). This vulnerability checklist is predominantly economic in nature, but it does cover some social, physical, natural, environmental factors as well. A more comprehensive kit could be prepared to be given to municipalities and local community-based development organizations on the broader area of sustainable development as we have been talking about it (environmental, social, economic).

I think it is important to help people understand that we no longer have the luxury of considering the bottom line as the dollar - that it also has to include environmental soundness, biodiversity, social justice and equity.

The methodologies that we have been talking about are very important to these case studies and case settings, and the application of action research models, anticipatory, transactive planning models that involve the constituency, the interest group that is going to be impacted by the change of policy or programs. That also involves a social or mutual learning component. That is, learning is substituted for control and domination that have been the mainstay of traditional and conventional approaches to development.

It involves things that we have been talking about - deemphasizing the expert as the person that designs the research project in the first place, and the person that directs it and the only person that does the analysis. The expert is a participant in this process and the other participants are the other stakeholders that can be identified who will be impacted by the intervention that is being considered (program or policy changes). They have an equal stake as stakeholders in this process, so they need to be involved in the research design methodology as well as the implementation, as well as the analysis, as well as the evaluation and monitoring.

The other area for research and application is in developing networks, building partnerships and coalitions for the full range of stakeholders involved: governments, universities and colleges, private business, co-operative business, other small enterprises, **community-**based organizations; and also linking with the other initiatives underway: the Healthy Cities movements, the FCM/Crossroads vulnerability criteria, community economic development movement, intermediate technology group . . .

There are several tools available: integrated strategic planning, EIA, SIA. There is a need to put together packages and workshops that will assist municipalities in dealing with important problems that face them.

5.4 A Pilot Project to Achieve Community Sustainability: How Ready Are We? Janice Harvey

The Conservation Council is interested in pursuing a community-based project which, in essence, introduces an environmental framework into a community development process. This idea proceeds on the premise that in order to achieve sustainability in development a community must first be able to determine degrees of sustainability or unsustainability within that community and its economic, social, cultural and political structures. The starting point would be an audit of current conditions, or levels of sustainability.

Once such an evaluation is done, opportunities for investment of time and resources in sustainable development can be explored. Research is needed to develop further specific process of developing sustainability, and to develop the appropriate tools for measuring sustainability within a New Brunswick context. The basic objective is to try to transfer the notion of integrating an environmental framework into existing activities of groups that are at work in development of one sort or another at the community level.

This workshop was proposed and funded within the context of Phase One of the project, which is a process of extensive consultation and research to develop the tools required for the community work. Also contributing to this Phase were the 'Sustaining Our Communities' conference held in March at Memramcook, and the Mt. Allison/CASIT Rural Consensus workshop.

The other aspect of Phase One is a review of the tremendous body of literature being produced right now. At the same time, there are a lot of interesting things happening in rural areas or developing countries that are not being written up and a literature review would never catch them. Therefore there needs to be much more on-the-ground surveying and talking to people about what is happening, not only in North America, but around the world.

Ultimately, the project proposes to provide a database for research and information in the field of community-based sustainable development that is accessible to communities themselves. This would involve a system that a community can access for very specific concrete and specific project or task-oriented information.

Models of institutions in either the public or private sector which possess this sort of development orientation or expertise will be examined. Two North American models are the Institute for Local **Self-Reliance** in innercity neighbourhoods and the Economic Renewal Project at the Rocky Mountain Institute (Amory Lovins). The latter takes an economic efficiency approach to get energy and environmental considerations into economic development considerations.

In particular, research will be directed towards the development of criteria for measuring sustainability and identifying indicators of those criteria. That is at a very specific level of narrowing generalities down to specifics so there can be some measurement. The potential for measurement is limited because of the ecological uncertainties. The criteria will be integrated into a tool for evaluating sustainability which would be used in a process like an audit that expands on the original community energy audit model that was employed **10-12** years ago. This process will be called a sustainability audit. The tool for auditing must be put together before the pilot project can begin. The auditing process will also allow the community to develop a framework within which development can take place by identifying community values and priorities.

The pilot project itself will be community-driven with facilitation and provision of information from or through the project team. A process of grassroots community participation is central. The demonstration would include the sustainability audit and then a process of developing a sense **aof** opportunity for improving sustainability within the community at all levels - public and private sector investment, adjustments in current activities, and development of infrastructure. It would include the service end of government - education, waste management, water, energy. These areas will be examined once the audit has been completed and once participants have identified community values and environmental objectives.

The seeds for Phase Three - the information transfer, providing the opportunity for replication, and evaluation - should be planted in the early stages of the project.

5.5 Round Table Discussion

5.5.1 General Observations

Adopt the David Ling model rather than the Ark model, where you build on something that is traditional and local with indigenous knowledge combined with contemporary insight and build on that. Sustainable development should be rooted strongly in experience and culture of the community. Schumacher said for people who view themselves as community developers or agents of change to find out what people are doing and help them do it better. At **some** level you have to look at what is historical in the community and build on the tradition within the auditing process.

Consider the co-operative model for local business.

The Ark teaches the need for a flair for public relations. Choice of name is half the battle. The "**ark**" is a powerful metaphor. If you want to spread the process, there must be some concern for public relations to excite people imaginations.

Difficult to reconcile the theory and definition of sustainability and its application in groundwork. Once projects are identified, how does sustainability fit onto them?

You are trying to change people's attitudes and value systems, particularly regarding consumption. Current values penetrate all society. When did clearcutting start? I am the only person left in my community who has not **clearcut** the land, including **so-**called elders.

Important to cover existing literature and cement linkages. CEARC will be bringing out an evaluation, matrix, or at least a checklist of some kind. Without saying there will be models for what **you're** doing, there will at least be points of departure. Links of this project to community development may be the strongest contribution to what CEARC is now doing.

5.5.2 Community Selection **and Credibility**

Ultimately the project team and advisory committee will select the community for the pilot project. Some communities are better suited than others. We will have to have a community willing to buy in at various levels. The original idea was a 10 km boundary around a community that is not too large (competing forces make it difficult to do anything quickly) but which has enough resources, people, economic activity, **and land** base that a number of options can be explored at the **opportunity** level -somewhere between **7-10K** population.

Consideration of rural and urban communities: many communities have industrial aspects but these are ultimately based on local natural resources. The project would look at the **level of value added to the resource base in the area to allow for diversity and options to be developed.**

There are **official** structures within incorporated areas through which to work. Unincorporated areas have none of these formal structures, but they do have informal community structures as defined by institutions such as churches. In reality, one lives side by side with other and often the unincorporated areas consider themselves part of incorporated community.

Project proponents must identify key individuals/leaders within the community, present the project to them, and get their support so they can sell it.

There may be some groups at provincial level that ought to be tied in. Who are those groups as partners or people who could get excited about what you're doing who would send it through their networks into the grassroots in small places. For example, Women's Institutes and peace groups might be some interesting networks that have not been tapped.

Identify not just prominent people but those people who are into their neighbourhoods, known and respected at that level within the community, and get them individually to sound out the neighbourhood. You might have to approach a dozen or 20 people representing and living in different neighbourhoods; you would then have a much better sense of what the community as a whole is prepared to do or accept than if you went to largely **self-**appointed leaders who are ambitious on own account and who have their own agendas - personal, party or career purposes. This is a way of **decentralizing** it and getting it away from special interest.

Clearly there are local actions underway that in some way have something to do with sustainability (waste management commissions which have taken control from provincial government). The first audit that needs to be done is that of existing struggles, and approach the people who have already identified an interest.

There are several techniques for communicating with the community: individual interviews with movers and shakers, focus groups formed around interests in community (sectorally, public issues), **town** meetings (open for anyone and everyone) with opportunities for oral and written presentations as well as informal opportunities to drop in and discuss.

There are a lot of constituencies already developed in small towns whose concerns are affected by development. It will take a series of consultations with easily identifiable constituencies, and working up to the integration of the community as a whole. Tools will come from those people telling you what they know.

Consider being hired by a local community organization already involved in supportive programs to give the project credibility and to get the door opened.

Try communicating with senior citizens to identify the soul of the community.

The first question a local group which you might approach for support would pose will be, "**How** can you help **me?**" or "**Do** you have resources that I can use?" Within that context, it is easy to raise false expectations.

Young people need to be involved. They are a great source of strength and enthusiasm if you can design your approach so young people have a place in it. The area should have a high school, because the junior and senior high students are much more politically aware, and they are coming up fast. Sustainability means jobs in the local community and they will be interested in that.

We need to use creativity and imagination. Some exciting ways to engage people in process include festivals, fairs, street theatre, puppetry; such creative approaches produce critical mass and gets people engaged and involved.

5.5.3 Economic **Criteria**

It is important to examine export markets within the economic portion of the sustainability audit.

Economics is still the bottom line, and not necessarily opposed to environment. There must be some business people who have caught on and who can be hauled into it. There would be nothing better than a Chamber of Commerce sponsor as long as there are the right people who think the right way.

Traditional development driven by business interests. We want this to be driven by the majority of the people, which includes business but also workers and people who do not own business, etc.

5.5.4 **Support Systems for Project**

One of the support systems for project is an advisory committee which would act as a sounding board and source of feedback, ideas, expertise and experience at an objective level.

Whenever you go into projects, you lose sense of bigger picture. It is important to have someone strong in theory on an advisory committee to bring you back to objectives, especially if you are very strong in local community. Then you need experience in the field as well.

- It might be interesting to have smaller groups which are more focussed. There are five possible groupings (not exclusive) - research methodology; theory (environmental); theory and/or practice of community development; participation; and **communicatons**. While there is a danger in segregating things (environmental means integration of all these things), such groups would be used primarily for feedback on an informal basis. You would then bring everyone together in several months to work on the integration.

An advisory committee is useful if you need a point of reference, but emphasis should be on community.

5.5.5 Other Experiences

- A consulting group went into a New Brunswick community (Lorne) whose selection was based on certain criteria and did audit of resources with a view to identifying community development opportunities. **The invited** everyone to meeting, armed with experts, charts, and good public relations. Their initial approach was good because they sold a lot of people on the idea of identifying opportunities, but stopped short at government in terms of local involvement (although the Bishop was involved in helping to choose the community in the first place). The audit was undertaken in such a high pressure atmosphere that citizens were not effective, thoughtful participants.

They got as far as they did not because of the sophistication of the analytical tools but because of their high pressure, cult style animation approach to public relations, which is also why they were ultimately kicked out.

Perhaps the project should build on something already there that is an appropriate structure to what you want to do. CEARC has provided seed money to northern native communities to allow them to develop appropriate environmental and social indicators that are relevant to them (development of local conservation strategy in Old Crow, Yukon which fits into Yukon Conservation Strategy).

5.5.6 Global Criteria: The Larger Context

We have to take our actions beyond the local level. The project should start looking at the necessity for global institutions, actions, and a language which describes what we are trying to do.

How do you reconcile local needs, as identified locally, with global requirements when the two do not come together? Do the people in Belledune go without their coal plant because carbon dioxide is a problem globally? How do you take the principles of

bottom-up, locally controlled processes, and deal with the very real ecological limits within which we are working. It is tempting to say that this can only be dealt with through a top-down approach.

There is also the perception among people that those problems are solved from the top down, and that if it hasn't been regulated **yet**, it does not need to be. Many people see the environmental problem as simply an absence of legislation or lack of regulatory enforcement.

In any action, there are always structural limits which imposed implicitly if not explicitly. It is very hard to act as God, which is what limits are.

You have to start by **recognizing** fact that natural boundaries are larger than local communities, and that communities cannot solve certain classes of environmental stress by themselves. The issue of habitat protection for species and biological diversity cannot by definition be solved within municipalities, because the bioregions are larger than municipalities. This is true with fish stocks, etc. A range of actions necessarily, will have to be undertaken by levels of government that are jurisdictionally more able to encompass larger things. It may mean inventing organizational structures that **don't** exist now. In Nova Scotia, we not **able to achieve certain kinds of water quality protection without a provincially based land use framework. In the US there is a wetlands policy which says no net loss of wetlands - that is a framework for local development. Fisheries policy in Canada says no net habitat loss. Implementation of such policies involves trade-offs, but trade-offs which probably have to be negotiated among communities.**

On the other hand, some of the big problems are still contributed to by each and every point source throughout the globe. That class of environmental stress called pollution is very much a locally amenable thing. Even if we froze in the dark in Halifax county, it would not come close to solving the global warming problem, and would interfere massively with basic human needs.

Ask the question, What are the human needs that are causing the problems and how does the organization of local systems contribute to the problem and what can be done about it. For example, the major contributing factor to CO₂ is the transport sector. Local transport or lack thereof can be affected by human settlement patterns and human transportation systems in the locality. As long as it is not addressed in locality, we will still continue with proliferation of automobiles and fossil fuel consumption. The regional or community level is a good place to address transportation systems, housing systems with furnace combustion and industrial pollution.

There are only a small number of absolute environmental imperatives - these are the ones where the global ecosystems are threatened. There are dimensions of these which must be

negotiated locally in order to deal with these issues (ozone, co2, acid rain). There are others where even the goal needs to be negotiated (restore a river to what level of quality). Few municipalities even think to ask whether there are any appropriate ecological reserves in our area, are we doing what we could do. Opportunities are being lost partly because of the perception that municipalities cannot do anything.

5.5.7 The Environmental Bottom Line

Clearly environmental integrity is the basis of approach. The project team must provide leadership in that area, with firmness, clarity of purpose and education. It is not community development, per se, but a specific kind of development.

We have to be aware of our own preconceptions, and hidden agendas, and be careful not to impose that on other people. There is a fine line between influencing and manipulating. When you engage people in a community in a democratic process, you do not always end up with what you want. Communities interests and desires are not necessarily ours. There is a struggle of interests and values. If we talk about going in to enhance the environment, we should **realize** that the goal is value laden and political.

We should not pretend democracy where there is none. This should be clear at the beginning of the process. Do not go in and say "**what** do you want?" when there is clearly something you have in mind that is absolutely essential to the project. Sustainable development process is democratic within a certain definition.

Anybody approaching a community should go in with a clear focus on improving the environment, and that should be the key word all the way through. We are not here to make this a prosperous or moral or educated community; we are here to make it a community with an enhanced environment, in the interests of the community. The focus is on the environment, except insofar as the other aspects are in accessory to environmental enhancement.

You have to accept that it is a problem about which you will know more at the end than you know now, and for which there is no '**answer**' at least in our lifetimes probably. You do not need an answer at the outset in order to do useful work. Also, you will not be the only person in that community with that awareness. That problematic reinforces the importance of keeping geographic limits flexible in terms of specific issue you and the community happen to be working on at any point.

You should not assume a fundamental contradiction between what people say they need and sustainability.

We **recognize** that the major contributor to environmental degradation is the economic structures in place. If we are to continue to have economic activity, we have to rationalize the two. A lot of that is a negotiative approach, but at the same time there are limits the point of which are not appropriate for compromise. It is not obvious what those limits are and they may change depending on the community. The project goal is to integrate an environmental framework within this huge area of development that is heavily financed with no real sense of how environmental integration happens. It is important to make our agenda explicit. The community that buys into it also has to buy into that premise. The community must see, at some level, need for that kind of framework.

6.0 CONCLUSIONS

6.1 Directions for Future Research and Examination

- a. Over and over, the message that **"social space"** was required in order to allow ordinary people to fully participate in the struggle for sustainability. This social space can be defined as legitimacy and respect within the decision-making process. **Reg Phalen** of the National Farmers Union said,
"Farmers need to be able to both make and living **and** to effectively consider options that they would like to follow. At this point, many outside forces are preventing farmers from doing either of these **things.**"
The same can be said by all primary producer groups in the Maritimes. To date, sustainable development rhetoric has not dealt with the practical applications of theory as it relates to forces which inhibit primary producers who own their own land, or boats, to participate in the movement towards sustainability. We know, theoretically, what they should do, but an understanding of the forces that prevent them from acting must be developed.
- b. Much attention was given to the concept of "participatory or action research", a technique that is being practised, albeit in a limited way, in villages in developing countries. Environmental and social impact assessments should adopt this approach; EIA practioners should engage overseas community development specialists in an effort to transfer those skills to the Canadian context.
- c. EIA practitioners should also engage popular education experts (usually found buried within non-government organizations involved in overseas work) and community animateurs to develop appropriate processes for engaging the real public in developing sustainability within their communities. Traditional consultation methods are not appropriate for the level of involvement that must be achieved.

- d. Two points that Peter **DeMarsh** made in his prepared remarks bear repeating:

"Processes of moving local and regional economies in the direction of sustainability:

i) require as a basis of relatively egalitarian political and economic power structure, relatively highly developed level of local politics in the sense of a broad sharing of leadership functions, and a lot of involvement of a very high percentage of citizens as a starting point; and that

ii) if development towards sustainability is to, in fact, be a long term sustainable process unto the seventh generation, it must not only work with those resources as they exist, but it must contribute to strengthening them further. Co-operation and solidarity are themselves scarce resources that must be husbanded, that can be increased or that can be squandered, depending on how they are used.

The integrity of the local political systems, and the involvement or lack thereof of a broad base of people in those systems was raised time and again as critical to achieving community sustainability. Everyone more or less agreed that this aspect of community life is tragically underdeveloped. Attention should be put to the nature of local politics, and how this serious shortcoming can be overcome. (See 3.4.3 Conditions for Sustainability)

Also, several participants stressed the tenuous nature of volunteer groups and citizen efforts that depend on volunteers. They also stressed how important these efforts are to truly achieving kind of participatory processes and solidarity of purpose necessary to build sustainable communities. Examination of this structural problem would contribute to **"official"** understanding of the importance of **"husbanding"** such vital resources within communities.

- e. In order for local communities to appropriately deal with issues which relate to global environmental integrity, and to distinguish these from those environmental problems the impacts of which are felt locally and can be controlled locally, guidelines to direct such analysis would be useful. Understanding of the environmental dimensions within which communities must work at the micro level is, I believe, underdeveloped, at least in the sense that it is accessible to local decision-makers. A **"handbook"** which more fully elaborates on the discussion in Session 2 about how local priorities are played against global imperatives, written for community leaders, would be a very useful tool.
- f. Two criteria for sustainability were raised that have probably not appeared on previous lists: i) no absentee landlords - working from the premise that local control of resources is

essential for a community to fully realize its sustainability potential; and ii) rightfully in your own back yard - **recognizing** that local communities must deal with the impacts of local decisions and actions. The full implications of these criteria should be explored in order to determine ramifications for policy at all levels.

- g. Frequent mention was made of the need to redirect personal, and by extension community, value systems in order to achieve sustainability. This is in sharp contrast to the suggestion that by making certain adjustments in the status quo, we can arrive at a sustainable level of current activity. Can the competitive nature of our society direct a sustainable future, or will competition have to give way to co-operative principles? This appears to be a major issue to be resolved. Related to this is the need to develop skills required for making consensus decisions in groups. Individual interests must be subsumed by the the collective interest, according to participants. How is this shift in perception and action achieved?
- h. How sustainable is the militarization of the economy, particularly as a tool for regional development? We have a case study in United States through which to examine this current direction.
- i. The issue of redistribution vs. the creation of new wealth is still with us, and is more and more frequently raised in relation to sustainability. What is the real potential for new wealth creation, based on ecological limits and the laws of physics? How far will redistribution get us? Just what kind of sacrifices will our privileged society have to make in order to achieve the global equity which sustainability ultimately demands? How does the current level of personal, private and public debt affect the sustainability of communities, and thus of our society? What changes in economic thinking need to take place to address the issues of capital and ecological shortages? How must the Gross National Product be overhauled to account for this?
- j. The distinction was made between informed participation and reactionary participation. Most citizen action that we are now witnessing as it relates to environmental problems stems from the latter **category**. Attention must be given to how to foster and nourish informed participation in the fullest sense.
- k. How appropriate are conventional community planning and development tools, such as integrated strategic planning for application in the quest for sustainability? How informed are their practitioners in the area of environmental, cultural and political integrity? Do we "green" the grey mare, or foster a new foal? (This includes examination of newer models such as socio-economic summits.)

1. Although there has been some work in assessing the appropriateness of cost/benefit analysis in determining sustainability, such work needs to be packaged and put in front of those decision-makers now depending on that tool to make ecologically appropriate decisions.
- m. What are the mechanisms available to ensure bureaucratic accountability? Strong public participation processes are the obvious answer. However, there appears to be a need for further analysis of this phenomenon.
- n. Is there an emergence of a popular understanding of "**sustainable development**" which differs from the official line? (See discussions of sustainable development vs. developing sustainability.) How can those two visions of the future be reconciled, if at all?
0. How are traditional wisdom and historical experience accounted for in the struggle for sustainability? Those propounding such considerations in non-native communities are often accused of back-to-the-land romanticism, yet most acknowledge the legitimacy of traditional culture within the context of Indian and Inuit cultures. What aspects of non-native traditional value systems must we draw upon as we move into a sustainable future?

6.2 Conclusions

The points raised under "**Directions** for Further Research" by no means provide an exhaustive survey of issues yet to be resolved within the context of "**sustainable** development? They are questions or issues which arose within the context of a small group of Maritime analysts from various backgrounds being directed by a specific agenda. However, they are representative of the range and scope of considerations that come into play in the struggle to define, and ultimately to achieve, a sustainable future in this region and globally.

The resolution of these issues may never be accomplished. Nonetheless, such discussions are central to their identification and consideration. As we expand our understanding of the concept of sustainability, new questions will arise. Opportunities to continue to examine those questions and explore their potential are critically important.

CEARC plays an important role in providing such opportunities. CEARC also has an obligation to respond to issues raised, and to contribute to the furthering of understanding and knowledge which is a prerequisite for informed, rather than reactionary, participation. Partnerships between CEARC and such groups as the Conservation Council of New Brunswick will be critical as this effort continues to reach into all regions of Canada and all communities in those regions.

As host of this workshop, the Conservation Council trusts that this discussion from a Maritime perspective has contributed to the overall understanding of what faces us, as Canadians, as we move towards a sustainable future.

APPENDIX A

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APPENDIX B

EIGHT CRITERIA FOR ENVIRONMENTAL INTEGRITY:

A PROPOSED FRAMEWORK
FOR EVALUATING COMMUNITY SUSTAINABILITY

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Introduction

This short paper is a crude attempt to characterize the breadth of scope which must be incorporated into policy agendas if our natural environment and component ecosystems are to be maintained in a state which can support human life, as well as economic activity.

I have attempted to capture most environmental "issues" within each of the eight categories. Undoubtedly there are gaps which will become apparent as the paper is **scrutinized**.

The categorization itself may seem awkward on first perusal. My defense for it is an effort to characterize policy "sectors" which can address specific problems in a broad sense rather than to deal with the problems individually and out of context. For example, air and water pollution are not dealt with specifically. They are addressed as either toxic by-products of industrial and commercial processes under #1 where a "zero pollution" target is the guidepost, or in #2 as waste products where the "three R's" drives a waste minimization priority. Vehicle emissions are dealt with in the transportation section.

There is, undoubtedly, inconsistency in this categorization, with some problems addressed as economic sectors (renewable resources), and others as pollutants (toxic chemicals). There is also a tremendous amount of overlap between and among categories. Fossil fuels are referred to in three sections: transportation, **energy**, and non-renewable resources. Transportation and energy are closely linked, but because of the breadth of the issues involved in both, I judged it better to separate them into specific policy areas. (They could appear as sub-sections of an energy-and-materials efficiency **category**, as could waste management, but it might be awkward to then deal with the "pollution" end of each of these three.) A system of **cross-referencing** is probably the most comprehensive way of dealing with such overlap.

There is no attempt here to go beyond strict environmental policy; that is, I do not consider process questions or principles such as self-reliance, import substitution, etc. These should be considered within the context of an overall development plan to achieve community sustainability.

To conclude, this paper is meant to be a point of departure, not a definitive statement. Comments and criticisms are eagerly sought.

A Proposed Agenda for Environmental and Resource Sustainability

1. CRADLE-TO-GRAVE MANAGEMENT OF TOXIC CHEMICALS AND RADIOACTIVE MATERIALS. Of prime concern to everybody, on a personal or individual basis, is the seemingly ubiquitous presence of toxic chemicals, and less obvious, of low level ionizing radiation, in our environment. These contaminants end up in our environment as a result of the products and services we consume, and from the by-products generated during their production or provision. While we are all users of hazardous products, we are confounded by the fact that they are now in our drinking water, food, air and soil. Most alarming is the realization that science cannot answer questions regarding the possible long term effects of these contaminants on human and environmental health.

Consequently, the first component of this agenda is a management regime for toxic chemicals and radioactive pollutants that keeps them out of the environment - a "cradle to grave system". This includes stringent measures which are designed for a "zero pollution target" at all stages of product life, from development in laboratories, commercialization, transportation and distribution, retail, consumer use and disposal: and at the point of emission from vents, smokestacks or effluent pipes. It is unrealistic to suggest that we eliminate toxic chemicals, and we already have stockpiles of radioactive materials which will be with us for thousands of years, but we certainly have to manage towards the goal of keeping them out of the environment.

At the same time, we must also acknowledge that there are some products the hazards of which are unacceptable to society, and which cannot reasonably be isolated from the environment and humans. These should be withdrawn from commercial use or prevented from being introduced.

A major category of toxic products falls outside such a management scheme. Chemical pesticides, synthesized as poisons to be applied to living organisms within their natural habitat, by definition do not fit within a "closed loop" policy framework. While they may be carefully managed up to the point of use (except for experimental applications), they are then deliberately dispersed into the environment. Obviously, the goal of "zero pollution" is antithetical to the very nature of pesticides. Other policy options must be brought into play to account for the widespread contamination by pesticides and chemical fertilizers (see #3).

2. INDUSTRIAL, COMMERCIAL AND HOUSEHOLD WASTE MANAGEMENT. The second component is to get our waste under control. These wastes may be those which are disposed of in landfill sites or sewers, or are spewed into water bodies as effluent, or the atmosphere as emissions. We must incorporate at every level of society, the Principle of the Three R's:

Reduce waste as much as possible by avoiding its creation;
Reuse whatever we can;
Recycle what's left back into useful products.

A fourth "R" - recovery - could be added to this list to "capture" problems such as waste heat, and now more recently light pollution. While land use problems are not at issue here, inefficiency and potential ecological impacts are.

The benefits of the 3 R's Principle go far beyond the land use and pollution burden of garbage dumps and industrial waste systems. It is an integral part of the efforts to move towards a materials-and-energy efficient society (see subsequent criteria). Being energy-and-materials efficient requires that the "3 R's" be applied to all aspects of our production and lifestyles. The benefits range from extending the life of non-renewable resources on which we depend, to reducing acid rain and carbon dioxide build-up in the atmosphere.

All waste management systems should address each of these three components in the order they appear, since, in general, it represents a declining order of value in terms of economy, resource and energy efficiency, and environmental benefit. If we think of our environment as an association of ecosystems that work in cycles, we can understand that what we throw behind us as we go is going to confront us face on in the form of a major problem down the road.

3. RENEWABLE/REGENERATIVE MANAGEMENT OF PRIMARY RESOURCES. The next component that is necessary for a sustainable environment is the renewable management of our forests, agricultural soils and fisheries. To maximize environmental and social benefits of these resources, we must exploit them in such a way that they essentially retain their ability to renew or regenerate themselves. (The ecological problems associated with tree planting and aquaculture cannot be dismissed.) Specific areas of concern must be the level of resource harvesting and the use to which resources are put.

With forest resources, we must be concerned about the volume of paper products manufactured from trees (raw fiber) rather than from post-consumer products. We must also look for alternatives to paper or biomass disposables (see the "reuse" category under waste management).

Renewable management of agricultural soils requires attention to cultivation practices which prevent soil degradation (or conversely build soil health and fertility) and erosion. This encompasses methods of tilling, crop rotation, cover crops, mixed and companion planting, use of green and composted animal manures, and biological pest control, among others.

Policy development in both forestry and agriculture is necessary to deal with the pollution and ecological problems related to the use of pesticides and synthetic fertilizers (see #1).

Overharvesting of fish stocks, like forest and agricultural resources, is a problem endemic to the patterns of industrialized fishery exploitation. Because the resource itself does not lend itself to the same degree of spatial bounding, human intervention, and thus observation, measurement and planning as trees or soils, fewer policy directions to achieve renewable management seem to exist. The introduction of aquaculture as a means of resource supply has yet to be properly evaluated for potential ecological impacts on marine species and environment; thus, we are not able to draw confident conclusions about its appropriateness.

4. MINIMIZATION OF RELIANCE ON NON-RENEWABLE RESOURCES. This refers to both indigenous and imported resources. They include minerals and liquid fossil fuels. It is not practical to totally eliminate this dependence in our lifetimes. Transportation fuels pose a nearly intractable problem in the near to medium term. Substitution of electricity for fossil fuel applications cannot be reasonably considered as long as electrical generation continues to pose extreme environmental disruption and risk.

As well, a significant portion of our economy is based on mineral extraction and processing. Although economic considerations have occasionally been put aside (ie. asbestos), this overall economic dependence will remain high. Nonetheless, policy development should acknowledge the finite nature of such resources, and in some cases the extreme environmental impacts of their consumption (ie. climate change), and plan accordingly. The environmental impacts of extraction must also be considered, with continual improvement of waste/tailings management technologies, and site recovery techniques.

5. A LOW-POLLUTION TRANSPORTATION SYSTEM BASED ON EFFICIENCY. The greatest single contribution to the global warming problem, and a significant portion of acid rain-causing pollutants, not to mention ambient air pollution, comes from vehicular traffic. This is a global problem felt most acutely in megalopolises such as Mexico City, as well as in Europe. As average temperatures continue to rise, pollution problems such as confronted Toronto last summer will begin to encroach on smaller centers.

The demise of Via Rail and the phasing out of rail freight traffic in favour of truck traffic is a tragic step backwards. Public transit systems within our cities and towns, and throughout the country are essential infrastructure from an environmental policy perspective. Vehicles proliferate because of a combination of relatively cheap fuel, inefficient public alternatives, an obsession with personal convenience, and a cultural mystic which surrounds the private vehicle. Technological breakthroughs in vehicle mileage efficiency are being delayed from entering the market place.

The environmental and health costs (including land use and loss of habitat) of this inefficient, individualistic transportation system is staggering. Consumer or individual awareness in this area is extremely low and must be an area of emphasis in environmental programs. Policy initiatives should include dramatically improved fleet efficiency, promotion of self-powered modes of transportation, aggressive development of public transportation systems with convenience and ease of access as a focal point, and continuing research into alternative fuels and clean technologies.

6. AN ENERGY INFRASTRUCTURE BASED ON EFFICIENCY AND RENEWABLE RESOURCES. In addition to the transportation sector, we have no choice but to develop an energy efficient society if we are to stem the global warming and acid rain trends that threaten our very survival. It is also important on an immediate local level, since power plants contribute significantly to ambient air pollution. Nor can we rule out the potential for another Chernobyl closer to home or ignore the legacy of radioactive wastes which we are committing to our children. Internationally, we must acknowledge that the developed world consumes far more than its share of energy-related resources (80% of resources for 20% of the global population), and that if underdeveloped countries are to achieve their development targets, we must do with less here in North America.

In the case of energy, the same "3 R's" of waste management, plus recovery, are the cheapest and most accessible sources of energy service. Energy that we can avoid producing is pollution and ecological disruption we can prevent. We must set efficiency targets and make serious investments in order to continually reduce the amount of energy required per unit of output, and on an individual basis, to maintain a reasonable quality of life. In more intensively industrialized and populated countries, the value, and indeed the necessity, of doing more with less, is widely recognized. This awareness has not yet been realized in Canada. A major barrier to fully instituting energy efficiency as a national goal is the view of electricity, as well as primary energy sources, as commodities to be broadly marketed rather than as essential services to meet broader societal goals.

In terms of increasing supply, the first most obvious source is waste heat/steam from industrial processes. Several American utilities are now required by law to invest in cogeneration (after efficiency) before any new source supply is brought on line. Investments must also be made in appropriate scale technologies that harness or capture renewable sources of energy. These include biomass, solar, geothermal, water and wind. The deliberate starving of research and development in these areas contributes directly to the inability of such technologies, often developed by small businesses, to compete with conventional energy technologies and sources. (Why wasn't the same degree of excitement generated when electricity was produced by a photovoltaic cell - perhaps the ultimate liberating technology - as we have recently witnessed with the apparent faulty discovery of cold fusion?)

In order to achieve the kind of fundamental restructuring of our current energy supply orientation, wholesale government commitment must be realized, with accompanying massive investments in energy efficiency, cogeneration and renewable energy technology development.

7. MAINTENANCE OF ECOSYSTEMS AND SPECIES DIVERSITY. We must protect those ecosystems which act, essentially, as vital organs of the planet. These include estuaries, salt marshes and the continental shelf, as well as rainforests. We must also protect the habitat of non-human species that provide the genetic diversity necessary to keep our natural systems strong, vibrant and ultimately stable. We must better understand and acknowledge the process of ongoing destruction of species habitat, and thus the loss of species, and what that means in terms of weakening natural support systems. For example, what will be the ultimate

impact of dumping sewage, toxic and radioactive materials into the ocean, or the destruction of salt marshes and estuaries, on the ocean's ability to support life, and to function as a vital part of our climate control system? We are ignorant, as a species, of the way the earth functions as an organism, and therefore we continue to compromise that functioning, with our own demise as a potential consequence.

As far as forest habitats are concerned, many beneficial impacts can be realized by promoting the renewable management of the resource. Mixed farming and the minimization of chemical inputs on farms can also enhance wildlife habitat, as can an efficient transportation system. Prevention of toxic contamination of species and their habitats will undoubtedly improve their ability to play out their co-operative roles in ecosystem cycling. Of course, we can encourage the consumption of products made from native wood species rather than exotic imports, thus indirectly educating about the nature of rainforests and our connection with them. Ultimately, however, this category is about preservation and non-consumption of critical natural areas, a policy area that is woefully underdeveloped in spite of a much-lauded national parks system.

8. A PROCESS OF DEMOCRACY AND PARTICIPATION. We have to be able to address each item on this agenda deliberately and with urgency. But it must be achieved within the context of our human communities. There will be disruptions and dislocations as we move towards these goals, but we must have in place appropriate transition mechanisms to make sure that people to be affected are participants in the process of agenda-setting, and are in control of how the transition is to be achieved. Such participation requires good information and understanding, as well as the power to make good decisions.

SUMMARY

1. CRADLE-TO-GRAVE MANAGEMENT OF TOXIC CHEMICALS AND RADIOACTIVE MATERIALS. We need a management regime for toxic chemicals and radioactive pollutants that keeps them out of the environment - a "cradle to grave system". This includes stringent measures which are designed for a "zero pollution target" at all stages, from development in laboratories, commercialization, transportation and distribution, retail, consumer use and disposal.

2. INDUSTRIAL, COMMERCIAL OR HOUSEHOLD WASTE MANAGEMENT. The second component is to get our non-toxic waste under control. We must incorporate at every level of society, the Principle of the Three R's: Reduce waste as much as possible by avoiding its creation; Reuse whatever we can; Recycle what's left back into useful products.

3. RENEWABLE MANAGEMENT OF PRIMARY RESOURCES. The next component is the renewable management of our forests, agricultural soils and fisheries. To maximize environmental and social benefits of these resources, we must exploit them in such a way that they essentially retain their ability to renew themselves.

4. MINIMIZATION OF RELIANCE ON NON-RENEWABLE RESOURCES. This refers to both indigenous and imported resources. They include minerals and liquid fossil fuels. Policy development should acknowledge the finite nature of such resources, as well as the potential for extreme measures to be necessary (ie. in addressing climate change), and plan accordingly.

5. A TRANSPORTATION SYSTEM BASED ON EFFICIENCY. Vehicles proliferate because of cheap fuel and inefficient public alternatives, and machismo. Technological breakthroughs in vehicle mileage efficiency are being delayed from entering the market. The environmental and health costs (including land use) of this inefficient, individualistic transportation system is staggering. It must be turned around.

6. AN ENERGY INFRASTRUCTURE BASED ON EFFICIENCY AND RENEWABLE RESOURCES. We must set efficiency targets and make serious investments in order to continually reduce the amount of energy required per unit of output. In terms of meeting future demands, investments must be made in appropriate technologies that harness or capture renewable sources of energy. These include biomass, solar, geothermal, water and wind.

7. MAINTENANCE OF ECOSYSTEMS AND SPECIES DIVERSITY. We must protect those ecosystems which act, essentially, as vital organs of the planet. These include estuaries, salt marshes and the continental shelf, as well as rainforests. We must also protect the habitat of the species that provide the genetic diversity necessary to keep our natural systems strong, vibrant and ultimately stable.

8. A PROCESS OF DEMOCRACY AND PARTICIPATION. There will be disruptions and dislocations as we move towards these goals, but we must have in place appropriate transition mechanisms to make sure that people to be affected are participants in the process of agenda-setting, and are in control of how the transition is to be achieved.