Keynote Address

by

John A. Livingston¹

Abstract

Any review of resource management questions must address itself to the conceptual under-pinnings of the manager's attitudes. Our societies' perceptions of resources and their management, its definitions of problems, and its array of solutions all flow from its attitudes and predispositions. Attitudes and predispositions flow from the greater "paradigm" (worldview, or consensus of reality) which commands the thinking of a particular society or culture at a particular time. Paradigms whose time has passed are seen, in hindsight, as historical curiosities. Since evolutionary change appears to occur not only in species and communities but also in societies and their ideas, I assume that "paradigm variation" is in constant process. An examination of prevailing and alternative concepts sheds light on our perceptions of our activities and of our problems in respect to them. Conventional solutions may or may not be appropriate to a differently perceived set of questions. The immediate priority, it is suggested, is problem definition.

Key words: Renewable Resource Management, Philosophy of resource management, History, Future needs, Resource Conservation Strategy.

Why, you might well ask, was a person who is not a forest or wildlife manager asked to give the keynote address to this conference? Why too, you might ask, did he accept? Well, even in this sophisticated age the world is still full of mysteries, not the least of which involve human behavior. In any case, whatever happens now is not Dave Euler's fault. His responsibility ends here.

It's no news to anyone that many aspects of renewable resource management have been and are being discussed these days, perhaps more widely and intensively — and especially more publicly — than ever before. As always, much of the discussion concerns the nitty-gritty of technique, policy, administration, economics, and so forth. As long as renewable resources are as important in Canada as they are, that discussion and refinement of policy and technique will continue. Much of this conference will be devoted to those sorts of considerations, which are always necessary and always will be.

But there's an additional dimension to our contemporary reflections on renewable resource management that has begun to emerge in public discussion, and because I am to some extent involved in this other dimension, I expect that is the answer to the question of why I was invited here today.

A clue to my interests may be found in certain key words that appear in the short summary of this address in our program. The key words are "assumptions," "concepts," "evaluation," and "integration." Integration is the theme of this conference. There is a (still relatively small but growing) number of people, of whom I am one, who have become interested in resource management not as a professional activity or as a body of skills and knowledge, but rather as a historical, cultural, and social phenomenon. These people are examining resource management as an expression, a manifestation, and an example of the structure of ideas and beliefs that constitutes the cultural environment in which we live. Resource management as an ideology, you might say.

I hasten to say that "ideology" is not a dirty word, not a pejorative. It simply refers to a body of ideas that reflect the social needs and aspirations of both individuals and societies. We have to remember, of course, that all systems and ideas and beliefs come from somewhere; they evolve. They don't spring forth full-blown from some philosopher's forehead. They are conceived, they gestate, they cross-pollinate, and they intermingle and change and evolve. And at any particular instant each of us lives in and tends to be governed by whatever system of beliefs happens to be in place.

Seen from the vantage point of our contemporary sophistication, there have been some pretty funny belief systems over human history. We've had the flat earth; we've had the earth as the centre of the universe; we've had the clockwork solar system. These have become mere historical curiosities. Today, the clockwork solar system is viewed as an amusing archaism. Now that we know better, this planet is viewed as either a spaceship or as a giant information network — depending on your preference. In the days of the clockwork planet and solar system, God was still keeping the pendulum moving. Today, guess who is at the controls of the spaceship and programming the great computer. God was relieved of command by the philosophers back in the 19th century.

Now, it doesn't particularly matter whether you choose the spaceship or the computer metaphor, because both are simply illustrations of what is called "the social construction of reality" (Berger and Luckmann 1966). The "reality" is that modern technological/industrial man is in charge here, and that high technique must be brought to bear in maintaining and extending the human control over the planet — in the human

¹Environmental Studies, York University, Downsview, Ontario M3J 2R2

interest. The contemporary consensus of reality allows no equivocation here — the planet was meant to be the human vehicle; the planet is dedicated to the human enterprise.

Not too long ago, there were enormous differences in the "realities" (meaning the belief systems) of human societies and cultures. These differences are quickly evaporating. Today, the urban-technological-industrial religion of human advancement is shared across all industrial nations regardless of historic cultural positions and regardless of contemporary political ideology. The "realities" of the relationship between technological man and the rest of the planet are identical in Vancouver and Tokyo, Washington and Moscow, Paris and Peking, Caracas and Colombo. Never before, I suspect, has an ideology been so widely shared internationally as the ideology of technological/industrial progress.

There are any number of socially-constructed realities at work here, but basically the most important are two: first, that man has the unchallengeable right of proprietorship over the nonhuman elements of the planet; second, that these nonhuman elements were set in place as a warehouse of goods and commodities (resources) exclusively for human use and benefit. Nations may squabble over details of access to resources, but nobody ever argues about what resources are for.

Now these notions are not particularly modern; they have been around, in one form or another, for a long time. A newer and more current "reality" concerns the *management* of resources. Obviously if you're at the controls of either the spaceship or the great computer you've got to keep your fingers on those buttons. You've got to be in control. Management thus becomes a "must," and when this idea is combined with the fundamental social assumptions about the relationship between man and the rest of the planet, resource management, through some mysterious ideological alchemy, becomes a mission. We seem to live in an age, and within a social paradigm, in which resource management has become a sort of imperative, perpetuating itself, in some strange way, as though independent of each of us as individuals. It seems that management has got the bit in its front teeth and is running away with the wagon. Many people are wondering seriously whether anyone can ever get hold of the reins again and get runaway management under control.

I don't know about you, but when faced with this kind of monumental problem, it helps me to try to understand the origins and evolution of the problem as best I can. Perhaps if I understand the background a little better, I can feel my way around looking for answers.

We've all been brought up on the "wise use of resources." That concept is a lot older than anyone here. Wise use of resources means conservation of resources. (No, I'm not going to get into the conservation/preservation debate, which in the technocratic age no longer has the meaning it once did.) But of course "wise use" is the parent of management. Where did the whole wise use/conservation/management phenomenon come from in the first place?

The injunction to "use wisely" is more recent than the simple injunction to *use*, which goes back to the Renaissance. *Wise use* seems to have been an agricultural notion originally, that was picked up by foresters and wildlifers. This helps to explain the otherwise inexplicable euphemism "harvest" as applied to elements of nature. How we "harvest" a forest we did not plant, or a shoal of fish we did not propagate, or a trophy buck we did not raise, has always been a mystery to me, but maybe that's just my Calvinist background showing. I was always taught there's no free lunch. There's no free harvest either, if you didn't plant and cultivate and feed and water, by the sweat of your brow. Harvest applies to domesticated stocks. (I will come back to domestication.)

Back in March, Professor Henry Sharp (1984) of the Anthropology Department of Simon Fraser University wrote a very perceptive and useful letter to the editor of the *Vancouver Sun*. It was about the public debate over the wolf kill program here in British Columbia — which I'm not going to comment on. But I do want to quote one or two things he said:

Deeply rooted in the history of game management in North America is the adoption of an agricultural metaphor in the approach to wildlife. That metaphor is widely spread through the wildlife management system, is a fundamental part of the belief system of the institution, and of obvious utility as a means of explaining and justifying their actions to other agencies and funding sources. Unfortunately the metaphor has unpleasant consequences. Agriculturalists must have 'crops' to 'harvest' (read 'good animals') that serve some 'utilitarian' purpose. Agriculturalists must protect their crops from 'weeds' (read 'bad animals'). Indeed, the genesis of wildlife management is in the protection of 'good' (useful) animals from 'bad' (predator) animals.

I am not going to pursue the wolf and grizzly bear scandals here, but I do want to underline the good/bad dichotomy, which is one of the most radically important aspects of our Judaeo-Christian tradition. Absolute good and absolute evil compete for the world — including the souls of men. To be understood, our heritage instructs us, the world must be evaluated in terms of good and evil. The binary nature of things is not new.

Resources are good; weeds are terrible. Management is good; laissez faire is immoral. I am collapsing it, but that is the way it comes out. Use of resources is imperative; no use is idleness — the work of the Devil. The apogee of this mode of thinking is familiar to all of us; it goes like this: "No use is a legitimate use." That shows us the rules under which many conservationists force themselves to play. In order to be socially and scientifically respectable, the conservationist uses a utilitarian argument with which to oppose utilitarianism.

The utilitarian imperative is a sort of secularized religion that in the olden days seems to have been uniquely North American. But with the increasing dominance across the northern hemisphere of science, technology, and industry, the religion came to be shared by all technologically and industrially oriented societies. The reality shared across technologically oriented societies is that technological development is progressive; its opposite is primitive and destructive of the human purpose — which by extension is God's purpose. This shared reality turns out to be an ideology.

I would like to turn for a moment to a document that all of you will know about, and which most if not all of you will have read. The World Conservation Strategy (WCS) was prepared by the International Union for Conservation of Nature and Natural Resources (IUCN) (1980), aided by the United Nations Environment Programme (UNEP) and the World Wildlife Fund, with additional involvement of the Food and Agriculture Organization of the United Nations and the United Nations Educational, Scientific and Cultural Organization.

As this conference proposes the integration of forest and wildlife management, the WCS proposes the integration of conservation and development. Indeed, if I read it correctly, the WCS sees conservation and development, as it were, as the two sides of the same coin. If conservation means wise use of resources, which it usually means, and if development means resource management, then the two are not merely the two sides of a coin, but the same thing. In these terms, conservation is development.

This is not new. As one might perhaps expect, Gifford Pinchot (1947) said it first. "The first great fact about conservation is that it stands for development. . . . The first principle of conservation is the use of the natural resources now existing

on this continent for the benefit of the people who live here now."

Here is the "use" imperative loud and clear. There are of course other definitions of conservation that do not mesh with concepts of use and development. But that's not part of the mandate here; I raise the point just as a reminder.

I am not sure that I can perceive quite so close a relationship (virtually a mirror image) between forest and wildlife management, as Pinchot and the WCS have seen between conservation and development. But let's have a try. If, as I have suggested, both forest and wildlife management have their roots in an earlier (agricultural) worldview, and if they still function within that "reality," then in some ultimate sense, both would be dealing with domesticated stocks. Clearly the total and final extension of the agricultural paradigm would mean farming the planet.

If the total domestication of the planet in the human interest is seen as a desirable goal, then let us acknowledge the goal, and get on with working toward it. Certainly we have the means. But I am not at all sure that everyone gathered here — or even anyone here — would see that goal as entirely desirable. So then we must ask ourselves, "What *would* be a desirable goal?" How far short of planetary domestication should we stop? How could we know where, or when or how to stop? What might our actual goal turn out to be?

I cannot find much help in the WCS, even with the best of intentions, because the WCS does not address human population. It acknowledges the problem in a few places, but suggests that population should be the subject of a separate study and future strategy. When you consider that population is growing in a country such as Kenya at a rate that will see it double in less than a generation, you must recognize the formidable implications this will have for a conservation program whose stated goal is "the integration of conservation and development to ensure that modifications to the planet do indeed secure the survival and wellbeing of all people." That is a tall order.

The WCS seems to be not so much a world conservation strategy but rather a set of environmentally-oriented development principles, especially for the Third World. I think that is a fair characterization. And we can readily understand why, given the cultural, social, economic, and especially political and geopolitical "realities" by which IUCN and UNEP are enveloped. Given those constraints, the finished product could not have been other than it is. It went as far as it could.

But if one takes it literally and projects it sufficiently far into the future, the WCS does point to the management (or the domestication) of the entire planet — at least by implication. There are many people who like this idea. I would have expected it to appeal to René Dubos, who used to talk of the "enhancement" of the planet by way of "humanization." It would also no doubt appeal to the Alvin Tofflers and the Marilyn Fergusons, among others. Not, however, to any foresters or wildlifers whom I know. But given the human population factor, one cannot imagine an alternative. In recommending that population be the subject of a separate strategy, the WCS recommends similar studies of peace strategies, international economics, poverty, food supply, and so on. All would have to be mutually sustaining, mutually supporting, and integrated. The result, as I see it: the final domestication of Earth.

I would like to go back for a moment to the evolution of forest and wildlife management out of agriculture. Some thousands of years ago, a few plant and animal species became crops. And nothing changed significantly until our own time: now things are changing by orders of magnitude. Very few foresters and biologists, I suspect, find high-tech agriculture ecologically acceptable. There are however those who would say that high-tech agriculture is ecologically irrelevant, and

should not be evaluated ecologically. The geopolitics of dollars, to say nothing of other geopolitical factors, transcends ecology. Ecology is nice, but world affairs are "real."

That statement of "reality" is one more insight into the cultural belief systems. But surely, one might say, although high-tech agriculture is more important than environmental concerns and is thus ecologically irrelevant, that does not mean that high-tech agriculture should be allowed to transcend ethics and morals. The ethics and morals of high-tech animal "factories" are visible for all to see, but I will leave that for another forum. The ethics and morality of high-tech management of cereal crops is relevant here, however, because it leads us immediately to questions in high-tech forestry and perhaps even wildlife practices.

How we evaluate chemical-dependent, genetically manipulated exotic cereal or fruit species must show the way to how we will evaluate chemical-dependent, genetically manipulated indigenous species. When it comes to these, I do not think we can duck the ecological evaluation. Bioengineered poplars or spruces are bound to have ecologic repercussions, especially in single-age monocultures. Here the ecologic evaluation cannot be separated from the ethical evaluation. For me at least, the two become one and the same.

I have no doubt that high-tech wildlife husbandry has a future in the minds of some. Others find this both ecologically and ethically unacceptable. In my worst moments, I find high-tech anything — but especially renewable resource management, downright terrifying. Not for me (I'll be long gone) but for whatever remains after me.

This is why rhetoric calling for intensified managements makes me uneasy, not so much for the statements themselves as for their implications, and of course for the humanistic assumptions that underlie them. It is not at all difficult to see those portions of the planet that remain relatively natural today, gradually brought into the human domesticated orbit, transformed into bioengineered monocultures. At that stage, natural selection will be long since over, and all will be genetic manipulation.

Well, not quite all. We seem to have ample evidence to show that diseases, disease vectors, and so-called "pests" will be able to proliferate in overwhelming profusion. They will be much more successful than they were in the bad old prechemical days. If I were reborn a mosquito or a *Plasmodium* or a corn borer or a birch miner or a boll weevil I would be looking forward to a new terrestrial paradise.

The ecologic implications of this are obvious. But that is the direction that we can expect if the agricultural tradition is permitted to be carried further forward in forest and wildlife management, and in environmental management generally.

I hope that a good number of you know Rifkin's (1983) book, *Algeny*. Two leading ecophilosophers, Devall and Sessions (in prep.), have done a better summary of it than I possibly could:

Jeremy Rifkin points out that the Darwinian view of natural evolutionary processes is now being replaced by Algeny — the genetic manipulation and development of species to conform to human purposes and desires. The computer/information revolution is a mere prelude to, and has made possible, the genetic transformation of all life on Earth. New Age futurists are now planning for newly contrived biological organisms to provide the energy base for the expanding industrial society as the fossil-fuel era phases out. By redesigning life on Earth, this conveniently eliminates the natural evolutionary process for it was too slow and inefficient anyway. Similarly, natural ecosystems are not geared to the modern pace of industrial production and efficiency, although some representative samples can be preserved in museum-like settings as a luxury item to satisfy the esthetic and recreational tastes of certain elite minorities. Rifkin however does not count himself as a believer in the modern cult of the technological omnipotence and wisdom of

mankind. He pleads for us to move instead toward an ecological paradigm.

What would an ecological paradigm look like? Well, I think it's first and foremost about integration. But not technocratic integration. I think that integration cannot be created on flip charts or flow charts or printouts. I think there are two places where integration occurs. As a thinking activity it takes place inside the individual human cranium — not on paper. What appears on paper is the result of what goes on in the cranium. As a biological activity integration takes place constantly and without interruption, as communities merge and mingle, change and evolve. But there is a difference between the two. Intellectual integration is purposeful; it's about problem-solving. It's about means-towards-ends. Biological integration is an end-in-itself, because it's about continuing coexistence.

Or perhaps more accurately, biological integration is about coexisting through change. It's active, not static. And the forms that coexisting may take would appear to be infinite. Natural communities are, as it were, integrating all the time — with every respiration of every individual organism.

I do not think the analogy would hold with integrated management. Because if integrated management means no more than intensified management, then from the ecological point of view, it's a mug's game. It's high-tech agriculture. We all claim to have learned about the techno-fix; that more of the same isn't the answer. It might follow that intensified management is no answer to the sorts of management that are already savagely reducing the options of biological integration. Perhaps forest and wildlife managers should be deliberately kept apart, lest the integrated force turn out to be more than the sum of its parts and thus too much for nature. That's one way of looking at it. On the other hand, Devall and Sessions (in prep.) are proposing something they call interim management. They share my view that intensified resource management/conservation/development, if unchecked, will eventually bring down the biosphere, but how to move from today's dilemmas toward the goal I mentioned a moment ago, the goal of an ecological paradigm?

The first step is to understand the existing paradigm, which rests on the materialistic, expansionist ideology of the exploitation of nature in the human self-interest. We already know that nothing grows forever, not a population, not industrial production, not an economy. If we cannot begin to get those simple and obvious facts built into our working paradigm, not merely our theoretical fancies, then there is not much more to say.

But if we agree that human technological expansionism must be stopped, then we have something to talk about. No doubt we shall all agree that the human development holocaust is not going to be stopped without some species of management. But we won't be managing nature; we shall be managing ourselves.

And we can only manage ourselves in an integrated way. It will be difficult, because the industrial-technological society is also the society of humanism, individualism, free-will, unfettered self-interest, and all the rest. The challenges are absolutely enormous. But that is feeble excuse for not starting.

A piecemeal effort will not do — not this time. As the WCS so properly points out, none of its recommended strategies — for development, conservation, food, poverty, economics, peace, whatever — has much of a chance of success unless all of them are mutually reinforcing. Assuming that a mutually reinforcing, integrated effort is possible, or may become possible — we have to assume that — what should be the goal?

You know, goal setting is an unfamiliar enterprise in our society. In spite of the fact that we hear about goals and

targets all the time, all are economic, all are short-term. Whether the time horizon is that of the financial statements of the forest industry or the survival kit of the politician, all of our time horizons are remarkably near. We are unfamiliar and a bit uncomfortable with goals and ends, because the technocratic society is preoccupied with means. Our thinking is technique-oriented; our rationality is instrumental. We are incredibly good with tools and devices and tactics, toward goals that are ever more infrequently defined. Most of our stated goals — conservation, development, stability, well-being — are so slippery as to defy close scrutiny.

I have said we must begin to manage ourselves. Managing is of course a means, a tool, not an end. What is the end, or the goal, of managing ourselves? I could suggest that the goal might be to manage resource management out of existence. Don't panic; it will take at least a couple of generations, probably a lot more. Now there are two ways of doing this. One is to go on the way we are, by means of which high-tech will undoubtedly manage us out of existence in due course. The other way is to manage out of existence the need for ever-intensifying technical manipulation of the biosphere. The goal is to lighten the hands of man in the affairs of natural communities.

Such a goal indicates means that are quite different from those to which we are accustomed. The means will not be more and more sophisticated and costly tools and energy sources, not ever more Frankensteinian manipulation of life process, not increasingly complicated and suffocating technocratic management, not intensification of government regulation. On the contrary, the means will be the simplest and most basic of all, common sense. I realize that common sense can be made to sound little more than fatuous, but I assure you that this is deadly serious. Surely it is common sense to know that a chemically saturated environment is not a habitable environment, that energy-consumptive heavy industry is self-defeating, that laboratory-manipulated artifacts are not ecologically self-sustaining beings. It is common sense to know that a change of direction is essential.

It will not be easy. It seems to me that common-sense goals, and especially common-sense means, are uncommonly difficult to implement. There are always the vested interests, for whom common sense is a threat of exposure. The political and economic obstacles, and the sociocultural resistance, will be horrendous. But the longer we wait before setting new goals and addressing ourselves to them, the greater those obstacles will be.

So, onward and upward! Integrated management, not of forests and wildlife, but of ourselves, and of the technoculture! The greatest challenge, possibly, any of us has ever faced. Perhaps our descendants, looking back one day, will see the 20th century paradigm for the bizarre archaism human common sense will have revealed it to be.

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