WORKSHOP SESSIONS Environmental Preservation

8:30 – 10 a.m., Wednesday, June 22, 2005
Sustainable Forest Management

Who Owns the Forests?
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"The highest-yielding, least labor-demanding source of products that humans have ever known." Scott Aran, forest anthropologist.

Do I need to go into detail about how necessary forests are to all life?
Water management, oxygen transpiration, soil building, habitat for every kind of animal and bird, bacteria and flower to medicinal and edible plants. We can't live without them. They're melting off the earth like snow. Why? It has to do with who thinks they own the rights to use forests, or, to use the technical term, who has "tenure" of the forest, and within the themes of this conference, we need to determine what kind of forest tenure is actually sustainable. In many countries and especially in Canada, tenure over enormous tracts of forest has been given to our governments, both federal and provincial, with the understanding that they would hold them for the common use and benefit of the citizens, because we all know that private owners might just chop them all down at once for a fast shot of cash. But governments are also very vulnerable to corruption and pressures demanding fast cash, especially if we have a society that sees the forest as a commodity to be exploited over a short time, rather than a resource to be continually used more or less forever. *So: if private ownership most commonly leads to liquidation of the asset, and common ownership through governments is no longer working out, who should have the power to decide what to do with our forests?*

Just recently, Western experts have begun studying something they call "traditional agro-forestry." It has revealed to them (obviously, the people actually doing it knew it all along), that for at least several thousand years, there have been few "natural" forests, at least in tropical and temperate zones on this planet. In other words, human beings have always managed forests for their own purposes. Local people—aboriginal at first, semi-agricultural later—used their forests by managing them with fire, slash-and-burn agricultural patches, favouring the growth of certain plants and trees by sheltering or planting their seeds. In this system, you would still find what you might call "primeval" forest in certain remote areas, but within a day's walk or so of people's habitations and villages, there grew what botanists call "secondary forests." Here there are not only small swiddens or community gardens, which in the tropics are planted with such a wild riot of species that they are hardly recognizable as gardens to us. There are also invisibly but carefully cultivated nut or fruit trees, or species with great value as timber, in far greater numbers than they would naturally occur.

What is most interesting is that some of this forest is shared, and some is "owned." Usually, each of the most useful fruit, nut or timber trees "belongs" to whoever has planted or is taking care of it. Tenure of the whole forest is generally held "in common,"

in that almost anyone can go in and gather berries, medicinal plants or small amounts of bark, honey or wood; but valuable nuts, fruits or timber are known to be the "property" of the specific families or individuals who care for them. If they abandon that care—weeding, pruning and planting their trees—for a noticeable period of time, the tree or plant can be claimed by a new user. These systems are not casual; each village in a large forest will make sure the others know which part of the forest is "theirs." And infractions or conflicts within a village will go before the elders for review. People who are caught poaching large amounts of fruits or timber can be severely punished, just as in our systems of tenure. Widows, orphans or sick people, however, are allowed wider access than the general population to smaller types of forest products, and are allowed to come in and gather herbs, berries, honey and even small game, because of the general recognition of their society that this is a survival need for them. I should also mention selective burning. Used in temperate forests especially, this has been practiced for millennia by native groups from the Eastern to the Western seaboard of North America. Yearly burns in selected areas kept forests from becoming too dense and therefore subject to catastrophic wild fires caused by lightning. This is a major problem with forest restoration today. Our forests contain tree species that evolved so closely with minor fires that their bark is nearly fire-resistant and their seeds are only fertile when heated. But they can be utterly destroyed by the kinds of major fires that over-management have now made common on this continent. The agro-forestry of native groups, however, was a part of the ecology of the region and not only helped the fire-dependent species like sugar pine and Douglas fir and kept the forests from becoming too packed with flammable materials; it created edge habitat that favoured more species of game and provided meadows for more species of plants, like edible berries and medicinals. All this has been gradually lost as we took natural human management out of the mix.

I give you these examples to show that for millennia, forests have been recognized as a good of great value to human communities, which traditionally manage them in these two ways: as a commons and privately managed. This system was exceedingly stable and sustainable. Until only a couple hundred years ago, due to this almost universal system of forest management on the planet (also used in feudal Europe, Africa and Asia), the earth's forest cover was almost completely intact. However, when agricultural land came to be considered a commodity that could be bought and sold and held entirely by one person or group, forests became the natural next commodity.

I don't need to tell you how that's worked out. Let's look at the most horrendous example of what happens when you don't follow the ancient, mixed form of forest tenure. Back as recently as the early 1900s, if you traveled in this part of the world, say right from here down to Boston, as far west as the Ontario border and the western side of the Adirondacks, you would have found a barren landscape, skinned to the bone of trees. In New England especially, by the early 1800s, nearly all the game had been hunted out of existence, and most of the forest had disappeared. In another generation, by 1840, except for the most mountainous, northern reaches of Vermont, New Hampshire and Maine, bear, elk and lynx were gone, beavers virtually extirpated, and those ubiquitous little rascals that raid our gardens and garbage cans, raccoons, rabbits, skunks and deer, had become so rare that they were seldom seen. The settlers converted forests to farms and

towns, hunted and fished rapaciously, dammed rivers and polluted lakes with smelters and timber mills. Employing a form of both private and common tenure that saw the forest not as a valuable resource to live with but as a commodity to cash in, in less than 150 years the early settlers managed to almost destroy the lush forests of the eastern seaboard, that had been kept intact under the old tenure system for millennia.

The new industrial cities popping up everywhere in the area depended on a canal system to ship their goods back and forth, and by the 1870s, early researchers were realizing that without forests, there was no water to keep commerce going or even for the new towns to drink. Once the relationship between forests and watersheds was established, it became easier to persuade legislators to remove some of the territory from development and preserve it from loggers. In 1883, certain lands in the Adirondack watershed were removed from the real estate market, Finally, in the 1890s, after two severe droughts and many fires, the state constitution was amended to include the following statement: "The lands of the state now owned or hereafter acquired, constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed." It was the beginning of the most successful official forest protection system in modern history. And interestingly enough, in no time at all, it began to mimic traditional agro-forestry.

The original tenants of the lands, the Indians of the area, had long since been expelled or confined to reservations. However, by the 1890s, the Adirondack watershed had a brand-new and much larger human population. It was awash with towns, farms, settlers and especially very rich and influential landowners like J.P. Morgan and the Rockefellers. Expelling them from the new forest preserve was simply not possible. So a way of living in some sort of harmony with the current local users of the forest, without cutting the forest down, had to be evolved. It was a fascinating process and there are many books on the subject. Right up to the present, the Adirondack preserve is a weird mélange of poor folks living in shanties while millionaires hunt and fish from mansions next door. One area might be protected by rangers from any sort of incursion, and just down the road cut-and-run loggers would be savagely exploiting what was left of the edge of a town property. But gradually, the people living in this area began to see themselves as a community whose interests in the forest—whether for scientific, conservation, tourist or business reasons—overlapped.

Today the Adirondack Park system—comprising a chaotic array of state lands, private lands, park lands and protected areas, covers 6 million acres—one of the largest forest preserves on earth. Every single animal and plant native to the region, except for elk and wolverine, is present once more, even the big cat and wolf populations, although they have remained small. There are also towns, amusement parks, huge roadways, hunting and fishing camps and millions of casual visitors, camping and hiking the famous Adirondack Trail. Many of the animals, like wild turkeys, turkey vultures and beavers, had to be intentionally reintroduced. But mostly, when the trees came back, so did everything else—and that wildlife has spilled out the borders to reanimate Vermont, Pennsylvania, Maine, Quebec and Ontario, and probably hasn't done the Maritimes any

harm either. Without the huge, prime habitat available to large animals along the entire spine to this mountain chain, the American northeast today would probably be like Europe, with certain birds, some bunny rabbits and squirrels, but no big predators, large flocks of game birds or wild nuisances like beavers and coyotes.

The system of forest tenure that has worked out so well for the bears, foxes, eagles and deer is far too complicated to go into here. Suffice it to say that in almost every detail, it mimics traditional agro-forestry, starting with a relatively pristine core forest, with increasing amounts of activity from hiking and birding to hunting, gathering and even logging allowed in other parts. Some people with homesteads or hunting camps in the preserve were granted leases that ran a hundred years or until their deaths; sometimes they were allowed to keep the place in the family, but not sell it. Expansion of the towns is severely limited; landowners are still subject to many regulations that keep them steaming and complaining to this day. Yet many support the park and its conservation efforts so much that properties are continuously willed to it when the owners die. These users get together regularly to try to come to consensus about various goals and pressures. And people who violate the rules are still punished by their society's authorities. The park has been in existence, right in the middle of some of the most prime industrial and urban real estate on earth, for one hundred and fifty years and counting. Some things don't change because they work.

I've spent so much time on the Adirondack Park because it's become a metaphor all over the world for how to manage forests in the modern age, and is known as the "Adirondack Model." In a recent research trip, I found its precepts repeated with incredible sophistication in several enormous wildlife preserves in India, and I know of others in Africa and South America. It would be by far the best way to protect the Boreal forest in Canada, and right now, the same model—adapted with great flexibility to local circumstances, of course—is being used to protect huge tracts of forests in the western U.S. and especially in British Columbia.

I can give you examples of 18.5 million acres being managed along this general model in British Columbia, as well as a relatively new program that has resulted in the purchase of a 26 million-acre ecosystem spread across your neighbouring states of Maine, New Hampshire, Vermont and New York. This area, under the management of a huge group of interested parties calling themselves the Forest Conservation Initiative, will be managed on the same basic Adirondack model, with preservation and wildlife habitat cores, sustainable logging, recreation and other carefully monitored activities, and an overall goal of stewardship of the entire forest entity. The complex tenure agreements include easements, leases and rentals as well as public ownership typical of a park. I'm hoping to hear about similar initiatives here in the Maritimes. God knows you need it, ever since the area was shaved of its huge white pine forests in the 18th century; every time I come here the trees are smaller and the forests more degraded. So I'd like to spend the remainder of my workshop time asking the audience what they know about forest tenure and preservation initiatives in their areas.