Our Country:Our Choice. Geoff Park

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Conservation: Extinction Wave or Healing Tide?

Geoff Park*

Time is of the essence. Two decades out into the next millennium, 2020 sometimes seems unreachable. Yet in nature's terms it is but a moment. Rewinding the tape of history back the same period of time brings me to a world without laptops, mountain bikes or videos - and few colour TVs. Winding it back another 24 years and I get to my own infancy, in a world with half as many people, but many more forests and wetlands; the beginning of the era in which the speediest destruction of the world's environments - by far - has taken place. Predicted to double again by 2035, earth's human population will be near eight billion by 2020. Can human numbers actually get that high? Does the planet have the resources to sustain them? Or will nature's ruthless laws deal, as they eventually do, with exponential population growth of that kind? Are they correct, those gloomy prophets who allege our species is causing the 'end of nature'?

New Zealand is distinguished in the great saga of humanity's spread across the world as the last occupiable landmass to be reached. That is what makes the conservation of nature here so important. Nowhere else on earth are there ecosystems whose evolution has been quite so isolated from our species' evolution. Ecosystems that still exist as though we don't.

There is of course a flip side to such seclusion from as assertive a species as us; few countries' native ecosystems have been so comprehensively ravaged by a single new species or have had such a high proportion of their native species rendered extinct or nearly so, in such a brief space of time.

In biological terms humans are just another invasive species expanding into space we couldn't previously reach and exploit, out-competing those there before us, building our numbers up slowly at first and then exponentially. Another New Zealand example of an invasive species in new space is the Australian brush-tailed possum, which has grown even more spectacularly. Estimated at over 70 million today, its population has doubled since the late 1970s. By 1996, $45 million a year was spent controlling possum numbers and the issue of adequate funding, to prevent some 1.8 million acres of native forest from collapsing from possum browsing, was topping news bulletins.

One of my most compelling memories of becoming an ecologist was when, as a teenager in 1963, I took part in a study of the kamahi forest on the lower, western slopes of Mt Taranaki. I was struck by the forest's sprawl around the great mountain and the sense of being in a vast, dark room. As each day ended we walked toward the park edge and the setting sun, shafts of light appeared between the trees. It was still like that when I returned in 1969. But when I next saw it with my son 26 years later, any prospect of reliving that teenage experience had vanished. It was a forest no longer. What Cyclone Bola hadn't taken of the spreading kamahi trees had been eaten away by possums. In the same brief span of a quarter-century, we have been able to convert a vast plain of lowland forest, such as Horowhenua had in 1880, to pasture and towns. We have dammed major rivers and totally altered their ecology. Foreign birds or plants we have introduced have been able to spread through the entire country. The coming quartercentury will inevitably bring more changes of that kind.

The conservation movement in New Zealand is no more stable than the landscapes in which it operates. Over equivalent periods of time as between now and the year 2020, the conservation imperative has vacillated from preserving water catchments and scenery to endangered bird species, wilderness and representative examples of the range of vegetation types and landforms. Do we continue on this erratic path or develop a consistent, long-term approach?

As we approach the new millennium, the key word in conservation is 'biodiversity', a word suddenly on everyone's lips but not yet in legislation. Twenty-five years ago, it was not even in our vocabulary. Biodiversity spans everything from the control of pest animals to purchases of ecologically significant but unprotected land. But the core of it, the rescue philosophy, the recovery plans, is focused on what most people understand biodiversity to be - individual, endangered species. Yet the international conservation literature is beginning to abound with ecologist opinion that we cannot even come close to attaining protection for existing biological diversity, let alone sustain its protection if we focus our efforts on species. The only way to conserve the overwhelming mass of biodiversity is to adopt larger scale approaches at the levels of ecosystems and landscapes.

A broad approach

The immediate problem for biodiversity in most of New Zealand's threatened ecosystems is not so much that we humans now live in them and that we have reduced their indigenous qualities to tiny remnants, but that in our short history we have made private land and individual property rights so central to our way of life. New Zealand may be pictured by two types of maps. The first, a biogeophysical map, displays the land's physical forms, water catchments and vegetation cover. The second, a political map, outlines land ownership boundaries, the human settlement pattern and its

transportation networks.

Superimposing one map on the other, and looking in particular at the more subdued parts of the country like the lowland plains, the basic problem for the ecosystem approach to conservation reveals itself; the land base of most lowland ecosystems extends beyond the protected bits - what some call 'the conservation estate' - to a plethora of privately owned land parcels. Plant seeds blown on the wind and birds flying crosscountry don't confine themselves inside the boundaries of the protected pieces. That is why biodiversity is a matter that concerns all land, and why New Zealanders will need to choose how to share responsibility for the stewardship of land in a way that recognises natural boundaries, not just human ones.

Holding what's left of threatened ecosystems and supplementing this by restoration will require a high level of community interaction, something I fear that by 2020 we may still not be very good at, unless we decide to adopt a major shift in attitudes and practice (and I am not talking about the land-grab of redneck fears).

The 1990s are an era of open market economics and diminishing government intervention in the way we inhabit our chosen place. They are a time too, of lessening acceptance of being told how to live in it by someone else who values it in ways we don't. At the moment, it seems to be a trend that is more likely to intensify rather than ebb by the year 2020. In the process things could be very tough for conservation.

Ecology, with its counsel that all land should be cared for as though it's everyone's, is called the subversive science. Its philosophers, like Thomas Berry, believe that Western civilisation with its aggressive, plundering, male domination is declining and we are now entering an ecological era with more, nurturing, feminine qualities. New Zealand's Resource Management Act, he'd say, is one of many signs that, as a result of the skyrocketing demands placed on resources by our society, we have learned of the intricate bond of interdependency between ourselves and the biosphere that gives us life. From it what Theodore Roszak calls an ecologically informed vision of biospheric wholeness is emerging. An intelligence as deeply rooted in the foundations of the psyche as the sexual and aggressive instincts Freud found there.

Challenges ahead

In New Zealand's modern culture, no task is more central, more paramount, to that objective than ecological education of the kind now active in the Australian 'landcare' movement: pushing ecologically disruptive land uses outside the bounds of private ownership rights; helping landowners see the harm they can cause and the scale and cost of the patch-up; designing and implementing the patch-up, the restoration effort; helping planning authorities and judges to see how nature's ecosystems work - how one parcel of land is inevitably linked to the next, and how far and wide ecological processes can spread the ripples of a particular land use.

New Zealand's Resource Management Act is admired internationally because it has the potential to give a legislative base to ecosystems, life support systems and their sustainability. The next quarter century through to 2020 will reveal if, in the reality of land use decision-making, such a radical shift from the ethics of private land rights can itself be sustained.

Is it possible, Roszak asks, that the personal and the planetary are pointing the way toward some new basis for sustainable economic and emotional life that, until now, our preoccupations with growth and technology have prevented? Until just a few years ago, the possibility would have gone unrecognised. Environmentalists preoccupied with preserving the wild and indigenous against humanity's exploitative demands, have gone about their organising, agitating and educating without much thought to the prospect that the real work is with ourselves; that behind the human love of nature lies the potential of a more sustainable psychology.

But can the anger and negativity of blaming and shaming so pervasive in the conservation movement be converted, in time, into the co-operative energy needed to bring it about?

Richard Leakey believes that what is about to happen to the life of the world is unprecedented. We are, he says, on the brink of a major spasm of biological extinction. It has had its equivalent before in the 3 5 billion years of life on earth - five times in fact. But this time the cause is not alterations in the global climate or an asteroid strike, but a species, homo sapiens. Humankind now consumes a staggering 40% of all the productive capacity of the earth's biota. It also confines itself to cultivating a very narrow band of plant species - a mere seven of which provide 90% of our diet - making us highly vulnerable to diseases that affect these species. By 2050, if the trends of alteration to the world's ecosystems continue, over half of today's existing species will be extinct. Madhav Gadgil, an Indian ecologist, fears a prospect even more frightening within our psyche - the ancient, biblical imperative to own and control the other species with which we share the planet. As a culmination of this process, he thinks, the world is entering a new phase as, with the advent of molecular biology, humans learn how to create an entirely new kind of artefact: the genetically engineered and corporately-owned living organism.

The New Zealand landscape already contains plantations of cloned, genetically identical pinus radiata trees - something that nature would not create but humans can. That's just one example of the extraordinary developments in genetic engineering now going on. Developments that 24 years ago were unheard of but, by 2020, will be that much more part of

our life.

Paralleling them has been a flurry of international debate to create global agreements to stem the tide of species extinction. And when the 1992 Convention on Biological Diversity and GATT (the General Agreement on Tariffs and Trade) revealed the power of corporations relative to the store of natural biodiversity that is their raw material, they aroused the fears of indigenous people worldwide at what they could lose.

Aotearoa's indigenous people have been as active in the debate as any. Maori have recognised biodiversity as a taonga and thus an issue of sovereignty under the Treaty of Waitangi. Like the booming tourist traffic through our primeval forests, the force that this will have on conservation in the next few decades, is something we have not had to face before.

New Zealanders' 'conservation estate' of scenic and scientific reserves, national parks and nature reserves is built on essentially Eurocentric concepts and the subjugation of Maori environmental knowledge. An integral aspect of the colonial project, its legal root is English common law. Those who foresee it remaining that way should not fantasise that Maori insistence that Aotearoa's forests and birds are taonga - and theirs by reason of the Treaty of Waitangi - is a temporary circumstance. And will Polynesia's other contributory cultures - Tokelauan, Tongan, Samoan, Nuiean - seek in conservation what they seek in broadcasting and education? Will the current pace of immigration from Asian countries bring with it, by 2020, influences on conservation as well as the economy?

Part of our difficulty in confronting the future of conservation is that as we have always thought of utopia, we think on too grand a scale. Nor are we very good at conservation strategies without imposing simplistic formulae that ride roughshod over the country's natural and cultural diversity. How do we make conservation meaningful for the range of cultures living in New Zealand without discarding the cherished successes of British colonial domination? One thing for sure is that many more New Zealanders love and belong to their places and what nature intended for these places than they did 25 years ago. And more will be expressing that sense of place by 2020. I don't know if it is possible to love ecosystems, but I am confident that the rediscovery, restoration and reconnection I sense going on now will be stronger in 2020 than now, and ever before. What we call 'conservation' might be happening less by government intervening than via what Jacquetta Hawkes once described as "a patient and increasingly skilful love-making that persuades the land to flourish." It will need, for one thing, a different kind of conservation movement than we have now. What the American philosopher of ecology Gary Snyder calls finding our place and digging in. These things are possible.

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