## <u>as judged by your Piers</u>

## Clean and green?

uring a conference-break in Germany, a local grabbed me: "I thought New Zealand was advanced in environmental thinking, but I have a friend on a farm there. He heard the farmer discussing with his wife the best place to dig a hole to bury their old fridge!" I replied that the farmer was probably some sort of environmentalist: many New Zealand cockies would have just tossed it down a handy bank or gully, without thinking to mention the fact

A steady stream of Germans makes the pilgrimage to New Zealand, seeking their environmental Nirvana. Many return bitter and disillusioned. I'm glad they don't stay, at least not in sizable numbers. The fanatical gleam in the eyes of these modern "Greenshirts" scares me, and brings recollections of the horrors caused by their predecessors: the Redshirts and the Brownshirts. Nonetheless, we need their skills, and at least some of their environmental awareness.

Sure, our country is relatively pristine. This is because there is a low population density and because humans did not set foot in the place until recently. And for the first half-millennium, the inhabitants did not own livestock. Even though the Maori had no modern tools, they managed to eliminate many bird species and burn one-third of the forest, which was not a bad effort. But - as we foresters but few others know - you don't usually destroy a forest merely by burning or logging it: it will regrow. Permanent destruction needs livestock - which required the Pakeha.

Oh wasn't it bad luck, that storms damaged so many southern North Island hillsides? Actually, not bad luck at all - entirely predictable, and it has happened many times before. Rather than getting taxpayer handouts, the farmers on much of that Class VI land should politely be cautioned to plant their land or sell it to those who will. Nice people, they work hard, and we all benefit from their products, but it doesn't require hundreds of scientist-years of research to realise that tree-roots are the only thing that retains the soil on a lot of our steeper slopes. The land should never have been cleared - in former times we didn't know better, but this is no longer an excuse - and we must return it to trees as soon as possible.

Of course, farmers will always vehemently argue against change. As Al Gore said in his excellent documentary An Inconvenient Truth, "it is difficult to get a man to understand something when his salary depends on his not understanding it"! If people continue to graze these hillsides, rather than being compensated they should be prosecuted for the downstream damage that occurs to bridges and beaches, houses and harbours. I wish all farmers were as enlightened as the Farm Forestry Association, which has for a long time now set an excellent example of how best to manage land. Their emphasis is on small-scale thinking: pockets of land can be intensively farmed while others need to be retired or planted.

The deleterious effects of farming, as we all realise, are not restricted to soil erosion. Farming has a major and negative effect on the water quality of aquifers, lakes, rivers, and the seashore. Once again, complex issues can sometimes be simplified to single sentences without danger of too much distortion: you cannot have infertile waters draining from fertile land. (Thank you, Kevin O'Connor). Below the rooting zone, extra-soluble nitrogen will eventually find its way to the waterways, unless intercepted by carboncontaining wetlands. Cows will urinate 1-3 litres in a single patch, ensuring that, in many regions where cattle are grazed, nitrogen does indeed penetrate below the roots of pasture species.

Nobody can deny that we need farming. We should openly and unashamedly accept that this will cause some degree of water pollution, and live with that. Dairy farms are indeed green - even with regard to the colour of their waterways - but they are not clean. The problem arises from those with a vested interest continuing to deny that there are any consequences whatsoever of farming that need to be avoided, remedied or mitigated.

Getting away from farming, New Zealand has an abysmal record in housing, transport and waste. Our buildings use primitive insulation techniques - haven't we ever heard of double-glazing? Our vehicle emissions were, at least until recently, whatever the Japanese imports allowed. Our waste disposal and recycling systems are improving, but have still a long, long way to go. New Zealand's quality environment is by luck not judgement. Our soil, water, air and other resources were once outstanding, but are slowly and steadily deteriorating.

What needs to be done? The forestry message: we need wood pellets or "firelogs" in our houses and industries, and biofuels in our cars. There are exciting prospects for biodiesel from pyrolysis of wood, using small mobile plants. Widening the picture, our whole country could be based almost entirely on renewable energy sources. Our valuable supplies of oil, gas and coal should be used sparingly - and then mainly for manufacture of essential chemicals or products. We have an abundance of potential "renewables" in New Zealand, and wouldn't it be great if could wean ourselves totally off fossil-fuel imports?

With such a large and greedy world population, the global prognosis does not look good, but we live in a remote and fortunate corner of the planet. My dream is that one day even German fanatics will be impressed by what we have achieved here. If we can't achieve sustainability in New Zealand, who can?

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