those costs would have had, on employment in the regions, if the Government had ignored the need for railways reform.

For the regions, Railways restructuring has not been a tragedy. It has given producers there new hope and new opportunities.

However I have to say that, compared with Railways, some other equally important areas of the transport system are still back in the dark ages.

Scandinavia ships its pulp 1300 nautical miles to Britain at a cost of \$US55 a tonne.

New Zealand ships pulp 1300 nautical miles to Australia: the cost is \$US145 per tonne. The target level we need to achieve for a competitive pulp industry in the future is about \$US35 per tonne.

Transport is costing us 65 per cent of the market value of the logs. We export logs to Japan. If that figure can be cut to 35 per cent, then we double the value of our forests.

We face those costs largely because of the inefficient restrictive manning and work practices which still persist on the wharves and in ships on runs like the trans-Tasman route.

We've got to get extra productivity into our cost structures and work practices.

Some people take that as a suggestion that working people should get lower wages. But the truth is forestry workers in Canada get paid twice what our pulp workers get.

Why? Because their extra productivity results in lower labour costs per tonne produced.

Kawerau, before its big strike, used to take six man hours to produce a tonne of pulp. In Canada the figure is two man hours per tonne.

The real key to creating new industries and jobs is productivity – and it is also the key to higher wages in the future.

Let's face it: By keeping productivity down, our pulp workers have been throwing away the chance to double their own wages!

The incessant strikes at Kawerau came close to closing down the whole town a couple of years back.

Since then, I believe a lot has been learned. People are coming to understand that nothing can be gained through wild-cat strikes in an industry which depends on continuous production processes.

But if we can't shake up some of the traditional attitudes on work practices and services, then the prospects look grim.

We won't get the investment we need in new industries. The processing plants will never be built. Our present forests will be cut down to export logs and chips at one-fifth of their real worth.

The jobs will go, not to New Zealand,

but to more efficient processing plants built overseas.

As our present forests disappear, investors will find it's not worth replanting them.

A significant part of what could have become a vast forestry industry will gradually wither up and disappear.

The choice on whether we follow this road is not up to the Government alone.

It is a choice which has to be made by construction workers, foresters, mill workers, transport staff, watersiders and seamen as well.

We have all got to face up to the reality of the task before us, roll up our sleeves and get on with the job.

Otherwise we're throwing our chances for a better future and new jobs needlessly away.

## Kaingaroa: deep in the forest

A. L. Poole

Kaingaroa loomed large during student days at the Auckland University College School of Forestry. Included in the curriculum was a period of 12 months' 'practical work'. Some of the braver souls went from Auckland's balmy climate to plant trees in Kaingaroa's August frosts. A camp on the western Reporoa slopes was one destination. Being short-term 'residents' we were allocated dirt-floor tents – no comfort of a smoky fireplace or spare bedding.

As compensation we met the legendary Roderick Macrae who supervised the planting of most of Kaingaroa. He lived with his troops at the forefront of planting, ate with them, knew all that was going on, and frequently got his Tin Liz stuck on the muddy roads.

Planting speed was the essence. These were the boom planting years. At the end of a day we didn't boast about our 1000 seedlings planted. The top men had a competition. Notes were compared at grub time and 3000 was claimed. Since such figures were unaudited one suspected that bundles of trees had been discarded under monoao bushes or elsewhere

In 1930, being the proud possessor of a forestry degree, I looked for employment to the State Forest Service I knew. Apart from the short bursts of planting I had also had, after leaving school, a year in the great Whakarewarewa nursery – said to be the largest tree nursery in the world while Kaingaroa was being planted.

At that time, however, the future of the young Service was in doubt, and the future of young foresters in even greater doubt. But I could sow tree seed and I

The author, Lindsay Poole, was formerly Assistant Director of Forestry (1951-61) and Director General of Forests for the Forest Service (1961-71). In this article he recalls his involvement with Kaingaroa Forest and the Murupara Scheme.

could weed, and I could plant trees. So as a 'student labourer', a category paid two shillings per day below labourers' rates, I found myself in charge of labourers in the Wairapukau nursery in the centre of Kaingaroa.

There followed a deepening depression and slow recovery; then the war. All this meant forestry on a catch-ascatch-can basis. My next main involvement with Kaingaroa was in the 1950s when the Murupara Scheme was being designed and consummated. This involvement could also be described as catchas-catch-can because the scheme was the brain-child of the then Director of Forestry, A.R. Entrican. Nevertheless, there were some very important differences expressed at the time. If they had been taken note of, and incorporated into the scheme, the recent happenings to the forestry world might have been quite different and perhaps have helped to mould a more hopeful-looking future for fore-

By the 1950s Kaingaroa was 'packing on wood'. Its future nature and potential could be envisaged. It was certainly growing wood but there were great differences in forest quality. The early plantings in northern Kaingaroa, and those at Whakarewarewa, and Waiotapu done by the Forestry Branch of Lands, produced good stands. Central and southern Kaingaroa showed all the defects of rapid planning and planting; poor, even wrong species and seed selection, incorrect siting, malformation and almost total lack of tending.

About that time developments set a course, various aspects of which have, in turn, affected what had happened to the management of forest land recently. Development commenced with the State mills, and with NZ Forest Products. To use the great volume of central North Island wood, spoken of colloquially as 'coming out of our ears', we had to have

industries that showed profits, even if that meant putting wood into them at any price. If you didn't 'give' it to industry then what would you do with it? So the value of forest land and of forests growing on it was fudged in company and mill accounts. Wood was valued at concession rates. One by one all the afforestation companies, and there had been in excess of 50, that had been planting during the afforestation boom years followed down the same road or were absorbed by the utilization companies. None stopped to become owners of profitable forest.

The Murupara scheme, launched in 1951, was seen as a glamour enterprise. Here was undoubtedly the mightiest plantation forest in the Commonwealth, ready for harvesting. It would feed a great, new industry, providing woodbased products for local consumption and for export. It would provide substantial employment in both the construction and the running. A new harbour was needed, as well as efficient roads and rail. The scheme would tap natural heat.

All New Zealand watched this glamour scheme unfold. Government itself produced much of the development money. Even Treasury supported it, and rubbed its hands thinking of the money that would be returned later, in company and related taxation. In their mesmerized state they must have forgotten about 'creative accounting', or that Governments change taxation laws from time to time. And so the wood was given at concession rates for an excessive period to the Murupara scheme. As one journalist wrote in the June 1988 issue of 'Personal Investor': "Even today the company still pays only a fifth of the market value for its State pulpwood supplies."

Forestry to John Citizen was by now clearly Kinleith, Kawerau and Waipa. Of the forests supporting them, even the unique Kaingaroa, he knew next to nothing. Some foresters threw in their lot with John Citizen. This concept of forestry is that of the more recently developed countries. In North America, in particular, a huge pulp and paper industry has been based on huge natural forests. The industries had to be profitable, so the God-given wood was provided for a long time at a minimum value, and the forests were raped. In New Zealand the native forest was simply manipulated so the economics were rigged according to Government policies, the need for industries to show profits and the need to clear land for farming.

The concept was not the European one where land must pay and the owner makes a living from his forest. Industry thrives on this basis and is even rapa-



The planting at Kaingaroa, 1923.

cious for more high-priced wood. It is pertinent to recall that Canadian Forestry Consultants, Schultz & Co, engaged in 1952 to examine various aspects of the Murupara Scheme, recommended a basic stumpage of 1 penny per cubic foot, less than 27 cents per cubic metre, plus adjustments made in accordance with an index based on newsprint mill price. Heads I win, tails you lose!

The use of land to produce a crop of little value is now being questioned in this country. And Government has ceased to pay money to grow non-profitable forest crops. Foresters who created all this undoubted wealth are dubbed as inefficient growers and sellers of wood.

There was some muted opposition to the Murupara Scheme. The Minister of Forests himself, the Hon. E.B. Corbett, was opposed to it. He was a Taranaki dairy farmer and to him big was not



A.L. (Lindsay) Poole, Assistant Director of Forestry (1951-61) and Director General of Forests (1961-71).

necessarily beautiful. Moreover, he had a distrust of industry. He used to tell a story of his donation, to an appeal, of a large, hearty rimu tree at the back of his farm. It was to be sawn by a local miller and the timber sold on behalf of the appeal. He happened to see the sawn timber stacked before it was sold. There was no heart content at all, only sap!

He was also Minister of Lands and his private view was that most of the Kaingaroa Forest should have been in grass and animals. Lands at the time were busily engaged in developing farmland all around Kaingaroa and even got as far as extending into the enclave known as Butchers Block which was gazetted State Forest.

The most serious objection to the Murupara Scheme was about the concession price of the wood; threepence per cubic foot, 88 cents per cubic metre, for all categories of wood for 25 years and pulpwood for two further 25-year periods. Such a prescription had serious short-term, and long-term implications for forestry. Eighty-eight cents per cubic metre in, say 1955, when the original Tasman mills were in operation was worth in relative terms about 20 cents per cubic metre 25 years later. It is an indictment looking back at the original sale proposals and reading:

"The basic concept of the sale is to sell logs carrying as low a stumpage as possible, consistent with the recovery of growing costs, so that the enterprise itself may operate at high profit rate and form as attractive an investment as possible. The real value of the raw material will be secured to the Government by sharing in the manufacturing profits through appropriate capital participation." (Proposals for the sale of logs from Kaingaroa State Forest, New Zealand, 1951. N.Z. Forest Service)

Recently the Forestry Corporation expressed concern at the continued sale of cheap wood from Kaingaroa and has been endeavouring to negotiate for something better. The most strident criticism has, however, come from within the House. Senior Ministers of Cabinet lose no opportunity of rubbishing the former Forest Service and the 'Nats' who allowed such things to go on!

At the time a few senior Forest Service officers voiced their objections to aspects of the Murupara Scheme. They were, however, a weak voice in a great sea of excitement and activity. The Minister of Forests on one occasion, when the Director of Forestry was overseas, asked for alternatives to some of the issues he particularly disliked. These were produced. When the Director returned he was faced with the budding revolt. It and the perpetrators were quickly incinerated with the hellfire and brimstone that was belched forth, and the Minister was 'brought into line' by his Cabinet colleagues.

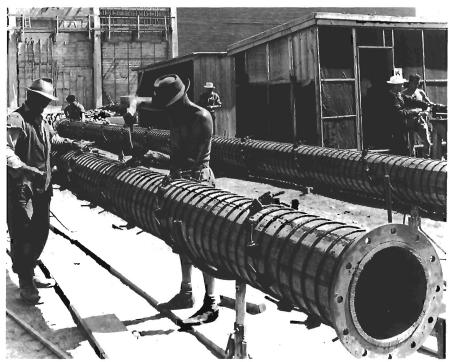
Once the scheme was in operation unions soon found that there was a yawning gap between the price of wood in the forest and the end product. Their accountants were much more down-to-earth than were Treasury's. By a series of well-orchestrated strikes they capitalized on this situation. The strikes grew in intensity until the Kawerau mill came within an ace of permanent closure.

By 1961 the Kawerau mills were well into production. It was pointed out that an analysis of costs showed the following:

Stumpage 3.00 (pence per cubic foot), logging 12.06, freight 2.64, woodroom 1.92, chemicals (for chemical pulp) 5.90, power 10.24, steam 2.06, water 1.40, labour 7.42, repairs and materials 8.16, supervision and overheads 7.16, depreciation 19.68.

Little wonder then that strikes could close the mills for weeks or even months on end.

A further objection to the Murupara Scheme wood sale had to do with its timing, insofar as foresters had been given a totally insufficient period in which to assess growing stock and sustained yields, even within wide limits. The original sale was for a total of 23 million cubic feet (65,100 cubic metres). By 1960, just five or six years from the commencement of operations, updating of Kaingaroa growing stock showed that there could be at least as much saleable wood again, possibly a good deal more. While the Director of Forestry was preparing to sell some of this wood to Tasman he retired, but remained on the company's Board as one of the Govern-



Assembling wooden pipes for carrying pulp. Construction of Kawerau pulp and paper mill, 1954.

ment's directors. The way was now open for the State to seek a realistic stumpage, at least for the large amount of additional wood but the ex-seller was now one of the buyers. A show-down was inevitable. No muted statements, especially as Government itself was having doubts about wood concessions. The then Minister of Forests, the Hon. Sir Eruera Tirikatene, had had the experience of selling to millers logs he himself had grown.

The original glamour of the Scheme had diminished. Strikes were beginning to bite. Much of the management was inexperienced. The lower Tarawera River, a superb flow of sparkling, clear water, was being polluted. It was also clear that there was even more wood on the way. The question was posed: were Governments in the future going to finance the tending of this huge forest while the buyer of wood paid concession rates? In 50 years' time, when the original pulpwood sale would only be twothirds the way through its total span, the price of 3 pence, or similar cheap rate, would be infinitesimal compared with the cost of running and tending the forest.

Kaingaroa is a forest from which wood, in various forms, could conveniently be despatched in several directions and so encourage regional developments. This was an obvious thing to plan for from the beginning if only the total quantity had been known. The main sale could be supplied with enough wood for industry to become firmly established in the Bay of Plenty. That enterprise could then be left to its own devices to grow

forest on the ample potential forest land in the region. This was in fact done on a large scale. There was no need to tie up the bulk of Kaingaroa's large resources in one direction.

Hawkes Bay was an obvious region to which to direct wood as early as possible. The afforestation potential in the hinterland of the Bay was considerable and was already being utilized. North of Hawkes Bay, on the East Coast, there was looming a desperate need for very large-scale planting for erosion control. Some of these plantings had the potential to yield commercial wood because the soils were fertile, even though unstable.

Yet another assessment of Kaingaroa did reveal extra wood available at the southern end. This was an opportunity for a much more open tender. It might be possible to salvage some diversity and competition; even perhaps a realistic price. The wood was advertised and this offer, more than any other, put the lie to the oft-stated supposition that it was going to be difficult to find anybody to bid for 'wood that was running out of our ears'. There were a number of tenderers.

Not to direct this wood straight to the Kawerau plant received almost universal opposition. Even the Institute of Foresters produced arguments in an editorial in the Journal of Forestry, on not taking such an obvious – and economic? – course (N.Z. Journal of Forestry 1971, 16(1): 5-7. Not many years before that it had produced a stinging indictment,

(The N.Z. Journal of Forestry 1967, 12(2): 84-86) about the Forest Service not getting adequate royalties for its wood. This schism within the forestry profession was thus apparent at an early stage - that forestry is a land use that must be profitable versus forestry that must ensure, even at the price of a concession, that the industry receiving the wood is profitable.

In the circumstances the offer from southern Kaingaroa became a 'hot political potato'. The first thing that had to be done officially was to clear the air with Treasury and the then Department of Industries and Commerce. Both were vehemently opposed to open tender. Six months of torrid meetings got them to admit, somewhat reluctantly, that there was possibly something to competition in selling wood from Kaingaroa and something in the effects on regional development.

The Minister of Forests by this time, the Hon, R.G. Gerard, had trouble with his colleagues too and decided to test the resolve of the Forest Service to do something better by Kaingaroa. He instructed a meeting to be called of all tenderers at which their claims could be presented and explored in one another's presence. A surprising development by that time was that the main tenderers, Tasman and NZ Forest Products, decided to make a joint claim even though the amount of wood was small relative to their proposed need. They conducted inspired press and political campaigns. Carter produced a plan of utilization at Whirinaki and a letter from proposed Japanese partners stating their joint intentions of a timber and pulp plant in Hawkes Bay.

The meeting was certainly 'torture on the rack' for the Forest Service. However, later developments in Hawkes Bay amply justified the decision made as a result of that meeting and the many prior departmental meetings.

A succession of competent foresters has changed the face of Kaingaroa and increased the yield substantially since the days when the dwarf-growing variety scopulorum was planted for Pinus ponderosa and other forestry errors were committed.

The Murupara Scheme has had a profound impact on the public conception of forestry and foresters, and has helped to form the schism referred to amongst foresters themselves. At present both forestry and foresters are maligned from all quarters - by the public, Government, the press, and of course by conservationists. Scorn is poured on them because of their inability to produce profitable forests. But people really don't know what the term means.

Although there may be no more Kain-

garoas, or for that matter, large tracts of idle country such as gave rise to NZ Forest Products, the potential for increasing afforestation remains very substantial. The Editor of this Journal posed the question in the May 1988 issue: "Does the Institute of Foresters have a role in promoting reforestation of New Zealand?" If the potential is to be realized, there can only be one answer.

However, somebody has to analyse the position, and somebody has to discover how to crank things up again. This time it will have to be based on profitable land use just as agriculture must be. A lead by the Institute to ". . . develop the clear policies, objectives and practical guidelines", could help to reverse the Institute's, and forestry's, "low public profile"-the Editor's words, not mine!

## A comment on forestry taxation

E.M. Bilek

"The hardest thing in the world to understand is the Income Tax."

- Albert Einstein Current tax system buzz words are "neutrality" and "transparency". But the current tax system discriminates against forestry investments.

New Zealand is perhaps the world leader with respect to plantation forestry. We have the climate and the technology to produce wood fibre as efficiently as anyone and more efficiently than most. We have a competitive advantage in this respect and are envied and emulated by many other countries.

The majority of New Zealand's forests are being grown for export. In order to compete on the export market, we will have to compete not only against the production capabilities of other nations, but also against their tax systems. If all things were equal, ceteris parabus in economic terms, we would be able to compete successfully. However, what is easy to theorize away in the classroom may not be so easy to eliminate in reality. If other countries wish to subsidize their timber (for whatever reason) and our timber will compete in those markets, it's rough for our producers.

It's not fair. It's not fair for our producers who must bear the true costs of production. It's not fair for the consumers in other countries who must pay higher costs for their products. And it's not fair for producers of other commodities in those countries who must also bear the cost of the subsidies. But there is nothing in economic or political theory about competition being fair.

While the international marketplace may not be "fair", the domestic market should be fair for an industry that promises to be so significant with respect to foreign exchange earnings and jobs. But I am not arguing for subsidies or special tax treatments for forestry invest-

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ments. These tools do distort the economy's investment structure and encourage more investment in the favoured industries than would be economically desirable. In this respect, I fully support the directions Treasury has taken in removing these distortions. But in removing the deductibility of planting and tending expenses from current income, I believe Government has gone too far.

There are many risks involved with forestry - insects, disease, fire, windthrow, on the cost side and market outlets and prices on the revenue side 30 years or so from planting. The risk of owning a forest increases the longer the forest is held. The tax system does not recognize the true loss that occurs when a stand near maturity is destroyed. The deduction is limited to the historical cost of that stand, the "cost of bush", which usually bears no relationship to the stand's true market value. Current tax policies do not recognize this risk.

There are many other reasons for forests besides timber production - soil and water protection, recreation, wildlife habitat, are among them. We have a tax system which ignores all but timber production for any group but farmers. The production benefit comes last – at the end of the rotation. Yet it isn't until that last benefit is achieved that any of the costs of planting and tending the forest may be deducted.

It might be argued that these benefits do not occur when the expenses occur. Certainly there is little or no benefit of soil stabilization and erosion control in the first few years of a stand's life. Recreation and scenic benefits also are minimal in these early years. However, all of these benefits occur before the stand reaches maturity for timber production purposes.

The "cost of bush" should not exist. Planting and tending costs should be deductible against current income, or at