

## EDITORIAL NOTES

*The New Zealand Forest Service planting programme — an appropriate target for a "hatchet" job?*

Back in the 1930s, the economist John Maynard Keynes, while seeking to determine the causes of the Great Depression, suggested that governments should play a more active role in the financial management of national economies. This concept had been generally accepted as an important and necessary part of the activity of governments and is no doubt the basis for recent budgetary "cutbacks" including the reduced Forest Service planting programme. However, some modern economists are perplexed to find that Keynesian remedies have an effect far from those intended, and it is becoming apparent that many economic theories are merely related to a particular context, social and economic, which in the effluxion of time may markedly change. The theories themselves, and hence the principles upon which policies are based, must thus be seriously questioned.

Another difficulty faced by governments endeavouring to guide internal economies (apart from the effects of external economic forces over which they have no control) is that government services themselves impose severe restraints on what action can be taken. For example, a large part of government spending in New Zealand is for salaries of public servants. As staff of government agencies cannot easily be dismissed, the only alternative is to curtail expansion. Although this may have a small effect on finance, it can also reduce efficiency and increase staff dissatisfaction; and it is obvious that several sections of the public services are far from happy with their present circumstances. Any attempt to reduce the equality of state employees with those in private employ by withholding fair increases in salaries is fraught with peril, and can certainly not be attempted openly.

Therefore the axe falls on capital items which, frequently, are at least part of the means of production — buildings, equipment, vehicles; on such items as travel; and especially on labour. This means that departments charged with development, such as Lands, Works and the Forest Service, have their operations reduced. This has many undesirable effects, discussed in detail in this year's Annual Report of the Director-General of Forests, whatever short-term direct benefit might accrue to the national economy. Examples are legion, but a few are worth mentioning as illustrations. Reduced capital expenditure on school buildings, roads and other major items can be only deferment. But the paradox of this sort of cut-back is that these items are normally built with borrowed money in any case, which is itself a form of deferment. Thus, because they will in any case be necessary, it becomes (in our inflationary environment) a matter either of having the facilities now and paying later, or of not

having the facilities now and paying more later to get them. The only real justification for deferment of public works is not shortage of money but shortage of men and materials. To the extent that deferment acts as a brake to hold inflation in check, the policy may have merit, but there is grave danger that, in enterprises such as forestry, the "cure" may be worse than the disease. The really serious long-term effect of the 1967 "recession" was the permanent loss of a large number of skilled workers who went overseas. As this recession was followed by serious inflation, one wonders whether financial policy was grievously mistaken. The man in the street must be excused if the economists' logic tends sometimes to be unintelligible.

Deferment of purchase of necessary plant and vehicles might appear to save money, but when vehicles are kept running well past their economic life the maintenance bill must be large indeed, and this in itself ties up men, money and equipment which would be better employed on production. Moreover, staff who have to use superannuated gear which spends much of its life being repaired must suffer a good deal of frustration, the cost of which no economist seems to have deigned to notice, as well as a costly slowing down in operations. It is pertinent to observe that private enterprise buys new equipment as frequently as possible, to avoid these very difficulties, and by special depreciation allowances government frequently encourages this. One wonders why government should, in this respect, hamper the efficiency of its own enterprises.

As a third point — reduction of money for wages — it must be clear that, since the staff and facilities remain the same, the reduction in production because of lack of labourers leads to a marked increase in overhead per unit of work done. In order to increase efficiency, forestry enterprises, including the Forest Service, have encouraged contractors for silvicultural work to set themselves up in business. It is on these, often highly skilled men, that the axe is liable to fall first. Since it can take several years to build up an acceptance of this form of contracting, and to encourage the development of a skilled pool of such men, their loss can affect the enterprise adversely for several years. Indeed, the importance of experienced forest labour was dealt with in detail this year at the Institute's Annual Meeting.

The Director-General of Forests, in his Annual Report, points out that reduction in income for development places the Forest Service in a serious dilemma. Should the emphasis be on planting to the detriment of tending? Or should planting be reduced in order to maintain quality by completing pruning and thinning targets? Economists have of recent years stressed the value of tending in terms of profit, but in terms of national wellbeing an increased planting achievement may be the more important consideration. Moreover, as the Director-General points out, the Forest Service has entered into agreements with Maori landowners, and sections of the industry, which must be fulfilled; and has obligations in the field of soil conservation, and the maintenance or enhance-

ment of local economies, which it would be politically undesirable to set aside. It is also charged with building up large forest resources in those high-priority areas defined by the National Development Conference not at present being developed by private enterprise.

On the other hand, the overall national picture may still approach the prognostications of the NDC. In spite of a cut-back in Forest Service planting in 1970, the target was met although the net gain fell short of the minimum level. Conservators, always an enterprising breed, managed to exceed their publicly announced target by 5,650 acres. The figure given this year for the Forest Service planting target is a mere 28,400 acres, the idea being that the balance of 36,200 acres will be made up by companies and private planting, some of which, at least, will be partly financed by public moneys. It seems that the effects of the 1965 Land and Income Tax Act, and of the Forestry Encouragement Grants scheme, have exceeded expectations, and this is certainly a cause for satisfaction. It may, indeed, be a sound reason for reducing Forest Service planting, but certainly not for sudden or erratic changes.

One effect of reduction in government spending is, this year as in 1967, a marked increase in registered unemployed. Thus, the very men who would have been employed by the government under money voted to several developmental departments will be maintained under money voted to another department; and many will, in fact, be employed by the Forest Service under the winter employment scheme. It is perhaps not generally appreciated how bad an effect this form of jugglery has on forest costs. In 1969 the Forest Service published *Land Preparation for Forestry in New Zealand* in which some of these costs were given. For example, land clearing costs using regular labour were shown as generally below \$40 per acre, whereas similar jobs, using "winter labour", cost sometimes \$90 and up to \$120 per acre. If we are to assume that forestry must bear a compound interest rate of 7%, such great disparities in development costs, to be carried forward to rotation age, simply cannot be ignored.

Other effects on costs were discussed in a previous editorial note (Volume 15 (2) — "The end of geographical limits to wood exports?"), but the effect on people — that is, the employees of the government — has not been properly assessed. The Director-General of Forests, in a paper in this issue, quotes the views of a conservator on stop-go policies, and the reaction of his staff who "cope . . . with only a note of cynicism, stoicism, and always with competence, dignity and good humour. . . ." This may well be so, but foresters pride themselves on their planning skill and on their managerial abilities. It is too much to expect that continuous alterations to well-laid plans will not have the effect of a reduction of effort and of the standards of planning and management. What can be the point of planning if it is certain that those plans will be regularly upset by political sleight-of-hand? Therefore, although the current stop-go policies applied to the Forest Service might be legitimate in the overall national economic

context, the cost in terms of their effect on people involved cannot be entirely ignored. In effect, in spite of the status of forestry, noted by the Minister of Forests in a paper in this issue, it is still being treated much as it was in the 1930s, and certainly not as a large and potentially very efficient national business.

A sad side-effect of this year's cut-back has been the conflicting statements of a conservator and the Minister in the *N.Z. Herald*, followed by a Gilbertian sequel where private citizens offered to help the Forest Service out of its difficulties. This sort of thing does the image of forestry much harm. Now that foresters are trying to find a place in the wider context of land management, resource and environmental planning, can this induce confidence in forestry among the uninformed public? Could it not lead to foresters being denied a rightful place in these important fields?

No doubt there are ways out of this dilemma, but it would be well if those most concerned put their heads together to ensure a properly concerted national effort to build up our forest resources and at the same time the *mana* of the forestry profession.

### *Private forests, amenity and recreation*

Forest managers, faced with the obvious hazards of unrestricted public access to their forests, have for many years adopted a rigorous "Keep Out" policy. This is merely to say that they are the lineal descendants (metaphorically speaking) of those British landowners who erected countless notices stating coldly that "Trespassers will be Prosecuted" whatever the legal rights and wrongs might have been. Such warnings may have deterred the innocent, but poachers still made a living, even when they could be liable to death or transportation. No one touches his forelock to the squire any more; class distinctions are at worst blurred — at best obliterated; and, anyway in New Zealand, the public has of recent years shown itself to be generally responsible, well-informed about fire danger, and well-disposed towards forestry. This has not always been the case. Early State afforestation projects, where there was no forestry tradition and where the local population was not dependent on these developments, were perhaps regarded as a form of lunacy, misguided rather than criminal. And for many years the public looked askance at forests financed by bonds, as the promised Eldorado failed to become apparent. It must also be conceded that it is not possible to guarantee that public attitudes towards forestry will in future be as favourable as they are at present.

For many years there was a fairly sharp distinction, in New Zealand, between exotic and indigenous forests. There were no plans for sustained forestry production in the native forests and nobody worried too much about people entering them; frequently they were burnt, more often casually than purposefully. Exotic forests were much more valuable and also more vulnerable. This distinction has become, over the

years, less and less tenable, and today there are many forests that must be classed as both exotic and indigenous. This trend is likely to continue, and it is certainly time we thought of forests simply as forests, each with its particular contribution to make to human wellbeing, the local scene, recreation or any of the tangible and intangible benefits sought after by people. There are those who would decry multiple use, but pressure of popular demand mounts steadily, and, while proper planning can deflect, it cannot for ever stem this pressure. There must, of course, be safeguards, but a public welcomed is likely to be a co-operative public, understanding dangers to the forest from fire, and dangers to themselves in logging and other busy areas.

Well before the Forestry Development Conference suggested that exotic production forests should be expected to provide for public recreation, Tasman Pulp and Paper Co. Ltd. had decided to encourage the public to enjoy such amenities in Tarawera Forest as were compatible with the intensive management of a commercial exotic forest. The N.Z. Forest Service adopted a more tentative approach a year or two later, but has now gone so far as to appoint a Director of Environmental Forestry whose job will no doubt be much concerned with forest recreation. In the mean time, the Minister of Forests has championed the cause of visual amenity and "people in forests" with the result that forest headquarters, erstwhile dourly functional, are burgeoning with shrubs and trees, and amenities such as fireplaces and camping spots are being developed in many a delightful corner of State forests. This return to an earlier and more gracious policy, whose effects still delight the eye at Whakarewarewa, Hanmer, Tapanui and others of the earlier afforestation headquarters, must be welcomed.

The latest large organization to enter the lists in a big way is N.Z. Forest Products Ltd., who have decided upon a comprehensive environmental policy which foresters and the public at large must acclaim. The Managing Director of that company went on record that the extensive forests owned by them were a "major national resource" which the public should be able to enjoy and appreciate. In his view, the company has an obligation "to make this a more pleasant country to live in and visit". Apart from liberalizing access (with proper safeguards), the company is developing three major amenity areas — Mount Pohaturua, Lake Ohakuri, and an area at Whakamaru downstream from Atiamuri. These areas can, and no doubt will, be made truly delightful, and will in time be able to accommodate not only picnic parties, but also more active groups wishing to tramp, climb, swim or "mess about in boats". In addition, especial attention is to be given to landscape, especially along roads and in areas visible to the public. The company has engaged the services of Mr Hedley Evans, one of a new breed of professional in New Zealand — a landscape architect — whose job is to plan for recreation and amenity along the whole stretch of the Waikato River under the control of the Electricity Department, or within the orbit of the company's forest areas. The company is also

co-operating with the Taupo County Council in developing land around Lake Ohakuri. A concerted attack on a problem by a large company, a public body and a Government department in conjunction may be unprecedented, but it opens up exciting prospects and, let us hope, has started a precedent which will not lack followers.

### *Industry and pollution*

In the absence of a righteous war, people seem to find it essential to have something to battle for. They are currently aided by what are now simply called "the media" which, justly and rightly, continue to take up the cudgels against officialdom — that all-pervasive fog — to combat whatever seems wrong with their world. Not least among the current crop of targets for public alarm is the question of pollution, a portmanteau term embracing not only the effects of industrial operations, but also assaults on the senses such as offensive sights, smells and sounds. On this bandwagon have jumped conservationists of every colour, some of whom would preserve the natural environment at any cost, ignoring, in their apostolic fervour, that man is a rather obvious component of that environment who, probably for worse rather than better, is expanding at an alarming rate and demanding not only food but also increasing amounts of consumer goods whose production causes so much of the pollution they deplore. Man is indeed self-accused as the dirtiest and ecologically the most ill-mannered of earthly creatures, but has so far not found any solution commensurate with the vast scale of the problem. Those suggested would be either extraordinarily difficult, or wellnigh impossible to apply. One could perchance halt the increase in world population. One might ensure that most of the world's population remain so poor that their demands on resources and manufacturers are minimal. One could insist that the products of industry are of such high quality and durability that replacement is rarely necessary, thus halting much industrial effort in its tracks. One could rationalize living to avoid waste of heat and power — perhaps a sort of human battery system. One could collect and re-use or harness the gigantic volume of waste products man so liberally scatters in his wake, not forgetting the fantastic quantities of carbon dioxide he breathes out. Perhaps all this will come in a future which promises to be intolerable. In the mean time we are left with the horrifying prophecies of Gordon Rattray Taylor in *The Doomsday Book*.

It is worth noting, in this context, the benign influence of forests. Unlike other forms of land use or human occupation, forestry makes positive contributions to anti-pollution. Forests produce great quantities of oxygen; they hold the soil in place and heal the scars of previous misuse; they store water and release it gently, pure and clear. The world, and New Zealand, has seen enough of unbridled farm development to appreciate these qualities. But some forestry operations are under scrutiny. Liberal use of chemicals to control



weeds and insects is common practice in nurseries and forests. Burning in preparation of planting has not yet been questioned, but in the U.S.A. and Canada it is not only frowned upon but sometimes abjured altogether. Perhaps we are fortunate to lie athwart the westerly winds, so that, when we burn, the smoke quickly disappears out to sea. If these practices are curtailed because of public opposition (and they well may be in future), land users who have spent much time and trouble in developing economical techniques for clearing may be understandably annoyed; but one man's meat is another man's poison — superphosphate on the farm is excellent, but once its residues reach the lake it is a pollutant.

Belching chimneys were once a welcome sign of industrial progress, but now industry is the real villain of the piece. Forest industries, in the past, have been major offenders in disposing more or less indiscriminately of vast quantities of polluted water, and in dumping sawdust and other waste products. No doubt some leeway may be permitted a new industry which shows promise of attractive economic returns, but disposal of wastes in the early days of the pulp and paper industry in New Zealand left much to be desired. We are still liberally endowed with water and no one has to accept the unpalatable fact New Yorkers endure (according to news reports); their drinking water has passed through seven toilets, before it arrives, a trifle jaded one would think, at the domestic tap.

Recently, however, the large forest industries have done much to mitigate whatever ill-effects might arise from disposal of their effluents. The latest plans to be made public are those now being carried out by Tasman Pulp and Paper Co. Ltd., for which the company should surely be commended by the forestry profession. This is a large scheme, indeed, capable of handling not only present wastes, but whatever increases might be met in the future. Tasman's Managing Director stated that the "Company recognizes the responsibility of good corporate citizenship by investing heavily in pollution abatement systems". Not only will the scheme cost \$1,500,000 but there will be continuing operating and maintenance costs. At a time when industry is unpopular, such a positive contribution to maintenance of the environment is one of the soundest possible exercises in good public relations, deeds in that field being far mightier than words.

### *What sort of farm forestry?*

For several years now the economists of the Forest Research Institute have been advocating new silvicultural methods — wide rectangular spacing, early heavy thinning, precisely executed pruning, and short rotations. Most foresters, nurtured in traditional schools, still regard these suggested innovations with sceptical eye and hesitate to adopt them. Because of rapt attention to the potentialities and needs of radiata pine, most foresters do not seem to have observed that what the economists have been moving towards is some-

thing very like European poplar culture. To point the similarity, work is proceeding at FRI on the implications of a combination of tree culture and grazing. This, too, is of more than passing interest, and several forest land owners, including Tasman Pulp and Paper Co. Ltd., are thinking of working on projects of this type.

It would seem more appropriate to combine grazing and cropping with hardwoods than with conifers. Large forest owners, including the Forest Service, until recently, have tended to leave hardwoods out of account, notwithstanding excellent growth, in many parts of the country, of some eucalypts, poplars and a few other hardwoods from the northern hemisphere. A few champions have been voices crying in the wilderness, and it has been the farm foresters who have shown most interest in these species.

Farm foresters, however, may be thinking in quite unrealistic terms. There are those who are more interested in shade, shelter and amenity; those whose ideas of a woodlot do not stretch beyond an acre or two in the occasional gully or unusable corner of the property; and those who advocate the occasional production of a single beautiful walnut. The concept of the one-man farm, arising from the British agricultural revolution and "horse-hoeing husbandry", was an excellent social and economic innovation — in 1830. In the mean time, horses have given way to tractors, and the farmers' arm is to that extent lengthened. Unless farmers can join in a regional scheme for wood production on a suitable scale, the chance of really worthwhile industry based on small single-man farms seems pretty remote. Poplars, planted at final crop density, and subjected to rigorous silvicultural attention, grown in conjunction with crops and grazing animals, have rejuvenated farming in many parts of Europe. There is no reason why they should not do so here. In Queensland the match industry has been buying up farms for some time now for production of valuable veneer logs, and has found that this can be combined with some forms of animal husbandry; economically a far cry from marginal dairy farming, heavily subsidized by the State, formerly practised on the same sites.

It seems that at least one farming concern has got the message. Pouto Forest Farm Development Ltd. is planning large-scale forestry combined with beef raising and fruit production and, an innovation indeed, "forward growing contracts" for the timber crop — a sort of lay-by system which could greatly benefit the purchaser and the grower. The company intends to plant at 12 ft  $\times$  6 ft spacing, to adopt intensive silviculture, and to fertilize as a matter of course. But the crop is not poplars — it is radiata pine. Will the company take the final step and establish their pines at final crop density, using elite clonal stock? Surely this is the logical extension of their present policies. Some farm foresters have acted as a gadfly to more traditional (hidebound?) foresters. It looks as if, once more, farmers have beaten the professionals to the punch. At least we can watch developments with more than casual interest.



## *Local body forestry takes off*

Most local bodies in New Zealand have dabbled in forestry from time to time; few have taken the matter seriously. Even where a local body has planted considerable areas, as in the case of the Dunedin City Council, forestry has gone by default until such time as a commercial enterprise entered the lists to acquire the timber. Councils come and go, and it is understandable that the average councillor, dealing with short-term matters, is not keen to invest money (always less than appears necessary to maintain and enhance the development of the city or county concerned) in an undertaking that may not yield results for several decades — or indeed ever. Rarely have local bodies been set up especially for growing trees — such as the Selwyn Plantation Board; and even these have not proved anything approaching a bonanza. Gradually emerging from this rather joyless picture has come a faint ray of encouragement, now burgeoning into a warm glow of enthusiasm. For several years now, for example, the Christchurch City Council's plantations have yielded a modest profit to the ratepayers. More recently Dunedin's large holdings, approaching maturity, have turned out to be a valuable community resource — to the extent that the City Council actually competes with the Forest Service for forest land. Elsewhere, stands small and large, good or bad, have been eagerly sought after by log buyers, and have frequently fetched a particularly good stumpage.

In 1970 was passed "An Act to provide for the constitution of the Marlborough Forestry Corporation". This Act establishes the Corporation, defines its powers, permits it to purchase and dispose of land, to prepare working plans, and even to make grants for research. The constituent authorities are the Marlborough, Kaikoura and Awatere County Councils, the Blenheim and Picton Borough Councils, the Marlborough Catchment Board, and the Marlborough Harbour Board. Attempts to put forward Marlborough as a locality for one of the big national afforestation areas have been made for some years, and indeed a good case for this has been made out. As far back as 1964, the first planning officer of the Marlborough Regional Planning Authority, S. E. West, suggested that a committee should study local prospects for afforestation. R. S. Macarthur, a member of this Institute, and for many years the Chief Soil Conservator of the Marlborough Catchment Board, was appointed chairman of this special committee, which reported to the Minister of Forests, only to be informed that, although Marlborough was a suitable locality for large-scale afforestation, it was considered to have a low priority in the national programme. This setback united the local bodies, who again approached the Minister with proposals for a local forestry corporation. Land was acquired, a forestry encouragement grant was secured, and planting commenced in a commendably businesslike manner. The Corporation is looking forward confidently to a revenue (at present-day money values) of \$240,000 per annum from about 1997 onwards.

Successful launching of the Corporation has not gone unnoticed by other local bodies. The *N.Z. Herald* of 1 April 1971 reported that the M.P. for Hobson electorate, L. F. Sloane, was suggesting similar action by Northland local bodies. The prospects for sales of forest products to our near and not so near north appear so attractive that, as far as new planting is concerned, one can say "the more the merrier". However, capital resources for afforestation are by no means unlimited, and there has been a regrettable tendency to dissipate effort by attempting forestry development in all parts of the country at once, rather than concentrating on a few major schemes at any one time. If large industry is to be established in any one centre as soon as possible and with sufficient resources, the local rate of planting, from the inception of the scheme, should be something of the order of 5,000 acres per annum, with an eventual target of at least 200,000 acres of fully stocked radiata pine forest. The Marlborough Corporation is thinking in terms of perhaps 15,000 acres for the completed scheme — too large for local supplies and rather too small for a worthwhile forest industry. Many such schemes, scattered about the country in a more or less haphazard manner (according to local pressure or political considerations not firmly based on economics), could well mean undue delay in establishing major forest industries on a well-defined national plan. Maybe Marlborough will in time become the location for such a scheme; the Corporation's forests will by that time form a nucleus, and will have led to the formation of a local cadre of forestry staff and labour for both establishment and utilization. Whatever the future may hold, the local bodies concerned must be commended for their initiative and congratulated upon the success of their representations.

### *What price steel houses?*

In July, three New Zealand delegates attended the World Consultation on the Use of Wood in Housing. This was held in Vancouver, with the aim of improving the use of wood in housing and other structures. Timber people spend some time nowadays expressing their dismay at the inroads being made into "traditional uses" of wood. One of the more recent ones is the development of steel framing by a Wellington company. One doubts very much whether steel is a better material for the purpose than wood; it rusts, it can do unfortunate things in a fire, and after an earthquake it would probably lead to the house being a write-off. The point is that it is an engineer's material, fabricated to fine tolerances and easy to assemble (shades of one's early Meccano set). In a word, a house can be easily made in a factory, like any other consumer article.

Instead of hand wringing over this, or optimistically assuming that "she'll be right", timber interests could well take a long hard look at their practices. Do they treat wood as the superb engineering material it undoubtedly is? How many merchants supply wood true to length, width and thickness, with square corners and square ends, and with a guaranteed

moisture content and grade? There have, of course, been many improvements over recent years, but for the wood merchandising and fabricating industries timber is still a material to be handled and dealt with piece by piece — simply another example of a historical hangover. When will furniture makers be able to push logs in one end and pull out duchesses and tables and chairs the other, perfectly finished, untouched by human hand — the whole process controlled by a few highly paid specialists, sitting in armchairs in front of a battery of push buttons? A horrifying thought, perhaps — for it is the touch of the human hand that makes a perfect craftsman's product; but realistic, surely. Similarly for houses. At least one New Zealand company looks at wood as an engineering product, and designs and assembles houses accordingly. But the rest seem to be ignoring the message so potently delivered by the continuing increase in the use of so-called substitute materials — plastics, metals, glass. Perhaps wood deserves to fall back to a lowly place in our economy; advertising and gimmickry will do no good. New practices, worthy of the material, and much new thinking, are the only way the image of wood can be improved, not as a traditional material, but as the best material for serving countless needs of humankind.

No doubt this was one reason for the World Consultation, and it is apparent that timber people in New Zealand are aware of the problems involved, even if they have as yet no answers. The Sawmillers Federation's move into the research field, and the setting up of TRADA, are at least steps in the right direction.