



McIntosh Ellis had great influence on New Zealand forest policy

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The end of World War I did not mark the culmination of any particular development in the disposal of Crown Lands or in the granting of timber cutting rights such as might have been expected as a necessary prerequisite to the ushering in of a new era in forestry. Such legislation as had been enacted over the previous 50 years, such as State Forests as had been created (one and a half million acres) and exotic plantations established (37,000 acres) and such conferences and Royal Commissions as had been convened, had been the work of enthusiasts. There was no public conviction that all was not well with forestry. It required the courage and imaginative enterprise of two individuals to arouse both Government and public from their apathy.

The first was Sir Francis Dillon Bell who as elder statesman and kingmaker of the conservative political element risked and lost his political power in forcing the Government of the day to set up a new and independent forest authority for the purpose of reducing forest waste, terminating timber exports to Australia and ensuring an adequate timber supply for the future. He appointed as his first Director of Forestry, Mr Leon McIntosh Ellis, a graduate of the Toronto School of Forestry.

Ellis was very much the ideal complement to Bell. Bell was a dour personality who spoke and acted only with a grim conviction. Ellis was a colourful personality with great public appeal. Both were courageous and determined individuals but none the less opportunists. Bell was orthodox. Ellis was unorthodox and a man of imagination, inspiration and great drive and enterprise, very impatient of red tape. Though a professional forester, he was essentially practical and impatient of the academic. Had it not been for these personal qualities of the two men, modern forestry as it now exists in New Zealand could not have been achieved for very many years. Bell's remoteness from and Ellis's intimacy with staff, combined with their mutual respect for each other's peculiar qualities, served as the ideal inspiration for the untrained staff available. Much of what they lacked in technical

knowledge was made up for by their dedication to forestry, a characteristic of staff which has so far survived the impact of orthodoxy and professionalism.

Ellis was able to win his Minister's and the Government's confidence quite early through far-reaching reforms in timber sales administration. Instead of royalty being payable only on such high grades of sawn timber as were actually sawn and readily sold, stumpage was paid for blocks of standing timber on the basis that all merchantable, and not just the best trees and logs, would be converted and not sawn just into the most readily saleable but into the maximum of merchantable timber that could be produced. This had the joint effect of reducing the forest and milling waste as desired by Bell and of substantially increasing the revenue of the newly created State Forest Service; but in thus pleasing the Government Ellis certainly incurred the displeasure of the industry.

Excerpt from "Influence of Forestry on Forest Policy and Forest Products Trade in Australia and New Zealand"
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His further administration of timber sales to give effect to Bell's desire to curtail as rapidly as possible, and to finally terminate, the export of indigenous timber to Australia, aroused enmity in both governmental and industrial circles, meaning as it did the end of a century-long interchange of New Zealand softwoods for Australian hardwoods. Only Bell's grim conviction that supplies of standing timber were so short that "*New Zealand timber must be reserved for New Zealanders*", enabled Ellis to persevere with this aspect of his timber sales administration and by the time Bell's influence had waned Ellis's colourful personality had so convinced the public of its wisdom that the Government of the day had finally to bow to public opinion and prohibit the export of indigenous timber.

Concurrently, Ellis was engaged in

training staff, in establishing higher forestry education, in organising fire protection and in promoting forest products and forestry research by cooperation with the various University Colleges throughout the country. Not only was administration decentralised as far as practicable but all these other activities as well – with the one idea of commanding as widespread public support as possible for the cause of forestry.

All this administration was but a reflection of Ellis's practical qualities. Almost from the time of his arrival in the country his imagination had been so stirred by the phenomenal growth of exotics as providing a solution to Bell's problem of assuring the country of an adequate future supply of timber that he felt impelled to resort to orthodoxy before making a final judgement of this possibility. Virtually the whole of the field resources of the department were concentrated on a National Forest Reconnaissance in an effort to decide to what extent the indigenous resource could be relied upon for a future timber supply. Not only were the results of this inventory discouraging in that there seemed to be little net growth but such professional staff as it had been possible to recruit in the interim were so defeatist over the management of the indigenous stands that Ellis had no hesitation in discarding any reliance whatsoever upon the indigenous forests for the future timber supplies to the country.

At this stage Ellis abandoned orthodoxy in a manner and on a scale in forestry probably unparalleled either before or since. I believe I can talk authoritatively because so far as it has been able to be ascertained I am the only person either alive or dead to whom he was completely frank about his activities in exotic forestry in New Zealand. Our confidences dated back to the time when we had worked often to midnight in adjoining offices – he as the newly appointed Director of Forestry and I as a junior hydro-electric engineer with private consultants. Arising out of the confidences engendered out of walking home in the early hours of the morning to "digs" – the New Zealand term for lodgings – I was able to manoeuvre

vre the Auckland University into setting up the first School of Forestry, as a result of which I joined his staff as Engineer in Forest Products, ultimately expanding this job after 18 years into the posts of Director and Director-General for 22 years.

Enormous Potential

Ellis had already had experience in Europe as well as in North America and knew full well of the failures of exotics in various countries and the disasters which could well overtake them as a result of epidemic insect and fungal attack. Nevertheless, after studying for several years the growth of *Pinus radiata* throughout the length and breadth of New Zealand he came to the conclusion that the economic potential of success was so enormous for the extremely small cost involved that he had no choice but to recommend Government to establish a capital forest resource of *Pinus radiata* capable of meeting virtually the whole of the country's softwood timber requirements after 1965. By this time he had estimated that these would amount to about 700 million board feet, of which only 50 million would be supplied from the indigenous forests, 50 million by importations, 150 million from private and local body exotics and 450 million from the 300,000 acres which he recommended should be planted within ten years between 1925 and 1934. He had further estimated that even if the exotic effort was a complete failure its total cost would have been little more than the cost of one year's importation of the sustained yield for which he was striving. Clearly the risk was justified on the grounds that, if necessary, relatively large sums could be spent on research and protective measures to ensure survival against insect and fungal epidemics. Incidentally, Ellis's estimate of consumption has proved remarkably accurate.

Ellis's unorthodoxy lay in his recommendation to plant 30,000 acres annually for 10 years instead of 10,000 acres for 30 years. The reason given publicly for this decision was the urgency of establishment to allow of early treatment and management. Incidentally, it was the shortest period in which he thought it could be organised. Privately Ellis confided to me that he did not think that the wave of popularity which he had generated for forestry could be sustained for more than ten years. Even more startling was his further confidence that there would be such a reluctance on the part of the industry and of wood consumers to use rapidly-grown exotics after being accustomed for almost a century to using high-grade virgin softwoods that he was deliberately creating this enormous resource in as short a period

as possible so as to constitute an early and continuing challenge both to Governments and to his successors to export as soon as possible. It worked out exactly that way.

In actual fact Ellis underestimated his own capacity. The wave of popularity which he created for forestry still presses on almost 30 years longer than he had expected. He is still remembered as "that florid-cheeked Canadian in shirt sleeves". His colourful personality so appealed to the public that the "get-rich-Wallingford" type of promoters had no difficulty in persuading the public to get on the bandwagon and through their bond-selling companies to plant up another 300,000 acres of *Pinus radiata* at a cost of 70 dollars per acre to cover both establishment and 20 years' maintenance.

As Ellis anticipated, there have been several insect and fungal epidemics but the forests have survived and are protected by an extensive research and protective organisation for which New Zealand is indebted to another great Canadian – the late J.J. de Gryse, the eminent forest biologist from Ottawa who paid our own recently resigned pathologist, J.G. Rawlings, the distinction of ranking him as amongst the three maestros in the world of forest pathologists. New Zealand's experience proves beyond doubt that exotic forestry is not justified unless supported by both a Quarantine Service to arrest the introduction of harmful insects, etc., and a continuing National Biological

Survey to detect the early build-up of insect populations and initiate control measures before epidemics can fully develop.

As well as for his ten-year programme, Ellis was criticised for this adoption of an 8ft by 8ft planting espacement, but it was used by Owen Jones, the one-time Chairman of the Victorian Forestry Commission, for much of the private company planting of that period, and in retrospect there does not appear to have been any strong evidence against its use. It is equally certain that there is some evidence that had a 6ft espacement been adopted, the Sirex epidemic might have had much more disastrous consequences than eventuated.

It was a heartening experience to have our good friend Ed Stamm, the President of the American Forestry Association, in New Zealand some years ago to point out to carping critics that had it not been for Ellis's great courage, foresight and determination they would not have had any resource with which to expand the country's forest economy so effectively. Ellis transferred his activities in exotic forestry to Australia in 1928 and died as a relatively young man in 1941, and so he did not have the privilege of living to see how well he had planned and how he had inspired succeeding Governments and staff. I am privileged to have this opportunity of paying a tribute in Canada itself to his great achievement.

Forestry History News

The New Zealand forestry history steering group (Ron O'Reilly, Udo Benecke, Peter Smail and Peter McKelvey) met at the School of Forestry, University of Canterbury on June 21, 1996. Their first action was to attend the formal establishment of a forestry archive in the MacMillan Brown Collection of the University Library.

The initial materials deposited were old New Zealand Forest Service files which had been saved from destruction in 1981 by being sent to the late Geoff Chavasse of FRI for safe keeping. Shirley Chavasse sent them on to the forestry archive recently. They are now being examined and catalogued by a professional archivist. It is hoped that they will be the forerunner of much important material in the archive.

It is hoped too that people will advise Max Broadbent, MacMillan Brown Librarian, of other important forestry papers and where they are kept, as it is

planned for the archive to contain a register of all historically important forestry material in the country.

The steering group concentrated on a few pivotal issues emanating from the responses to the circular which was sent around at the end of last year. The first involved the nature of the subject and it was decided that "forestry history" is more apt than "forest history" because the former term covers more than the forest. It was decided also that most pre-history was out, but that anything to do with the impact of man on forests was in.

The most substantial item tackled was whether or not we should launch a formal forestry history society at this stage. In the end we were cautious and decided that one was not essential at the present time. We had in mind the tendency to proliferation of New Zealand forestry societies, with the danger of diffusing interest and support, and the unavoidable bureaucracy