

COUNCIL'S REPORT ON THE UTILISATION OF SOUTH ISLAND BEECH FORESTS

Abstract

The N.Z. Ecological Society considers that the proposals for utilizing the South Island beech forests are not ecologically acceptable in their present form, and urges the Government to hold them in abeyance until sufficient information is published on which to base a properly informed decision. Further, the Society finds serious deficiencies in the Environmental Impact Report to the Officials Committee.

The Impact Report should be more informative. For instance, it lacks any bibliographic information and even a date of publication; the full terms of reference of the Working Committee and the names of the authors are not given, and modifications to the scheme since the 1971 White Paper was published should have been given greater prominence. Throughout, the Impact Report appears to seek to justify the beech utilization proposals; it fails to report on some pertinent areas of environmental impact, is often manifestly biased in its comment, fails to expose many of the weaknesses in the proposals and often lacks precision, glossing over or simplifying many potential environmental problems; thus it lacks the objectivity and close scrutiny that are essential in any impact report. Despite their importance in determining the acceptability and viability of the scheme, economic aspects are not considered, and possible alternative areas for timber production are not discussed.

The Report should have stressed the need for more ecologically-based forest-type maps for all the project areas, to permit more sensible delineation of zones for logging and for reserves.

The Report does not note that about 100,000 acres of "class VIII erosion 8" country is proposed for beech management, despite the protection forest classification in a recent Land Capability Survey.

There is insufficient information on the effects of both clear-felling and burning on freshwater enrichment; only vague assurances are given that the effect upon aquatic fauna will be investigated.

The Report omits any real evaluation of the impact of chemical fertilisers, pesticides and herbicides in the project.

The Report fails to develop the possibility of afforesting the large areas of pakihi soils in the project areas; recent Forest Service trials indicate their possible potential for growing exotic trees.

Information about the extent of different soil types throughout the West Coast project area is confused. There is no discussion of the poorer soils in Southland, especially on the Waitutu and Longwood units. Areas of

steepland soils are admitted to be under consideration, yet the Report does not mention the problems they create.

There is little discussion of the nutrient loss through cropping and burning from these impoverished soils, with only an assurance that the "ash bed effect" and fertilisation will overcome most problems. There is no discussion of the transient nature of the "ash bed effect", or of the undesirable environmental impact of fertilisation. The possibility of severe weed competition is not mentioned.

The Report presents an unduly optimistic view of beech management. Areas zoned for beech management and "enrichment" are not evaluated according to their soil and forest types. The Report does not mention that most of the "enrichment" is scheduled for the Waiuta/Okarito complex of high terrace, gley podsol soils. This form of management is really experimental and is fraught with problems hardly mentioned in the Report. No mention is made of the suitability of the Blackball Hill soils (scheduled for conversion) for beech management.

There is no real evaluation of the loss of habitat for fauna, and this should be stated; in reality we do not yet know the likely effects, so the scheme should be held in abeyance until the necessary soil, forest-type and fauna surveys are complete. Wise management can only proceed after this information is to hand.

The Report fails to comment on the suitability of existing biological reserves and we have no knowledge of the "broad but acceptable criteria" by which such reserves were chosen (White Paper p. 5); this matter warrants critical examination by the Working Committee. A very small total area of reserves exists in West Coast lowland forest and clearly final designation of adequate reserve areas can only follow once appropriate surveys are complete; considerable concessions may be necessary before adequate areas of forest can be reserved.

List of Recommendations

The Ecological Society urges the Government to consider its main recommendations, summarised below:

1. The beech utilization proposals should be held in abeyance until sufficient information is published on which to base a properly informed decision.

2. Before any of the remaining indigenous timber, wildlife and recreational resource is reduced or further modified, an independent resource utilization study should be carried out as a matter of urgency—perhaps by the University of Canterbury collaborating with other organisations and government departments; and this should include appropriate cost-benefit analyses of the more highly recommended forms of use of the forests (see McHarg's "Design with Nature").

3. So as to maintain a balance on the world scale, it appears more sensible to manage the regenerable resource of beech in New Zealand rather than replace it by softwoods that have other areas both in New Zealand and overseas to which they are better suited environmentally.

4. Government should sponsor a full and independent economic appraisal of other areas, regardless of present tenure, that may be suitable for exotic afforestation, using a systems approach with soil and climatic data provided by relevant organisations. Such an appraisal could be made, for instance, by the Economic Research Institute. An inventory of land could thus be drawn up and impartial decisions taken on the future use of our land resources—whether for pastoral, agronomic, forestry, conservation or other purposes. Such a survey could provide a useful model for land use conflicts.

5. We urge the Government to make public the modifications to the scheme as presented in the White Paper and to publish the substantial amount of scientific data to which the working party had access; this will enable independent scientific appraisal of the scheme and its likely environmental impact.

6. The Ministry of Works (Water and Soil Division) recommend that many resource units of the West Coast scheme should be protection forest, but the Forest Service plan to utilize the beech there. Many of the valleys concerned are recognised to have other multiple-use values and we strongly urge their removal from the scheme.

7. We urge that the ecological consequences of burning after clear-felling be examined, not only in terms of nutrients lost from the ecosystem, but also in terms of destruction of soil fauna.

8. The question of fertilizer application and chemical spraying is so important that we ask that research be initiated immediately to quantify amounts of these substances likely to be used and their possible effect upon the environment in the project areas. The matter is sufficiently urgent to require much more than mere "consultation between interested parties". (Recommendation 20).

9. We urge the Forest Service to reconsider its proposed use of some of the steep-land soils in the course of its "refinement of . . . generalised criteria (to) follow more careful appraisal of forest, geological, and soil types" as promised in the White Paper (p. 10).

10. Detailed soil surveys of the Southland project area and still much of the West Coast project area are necessary before final zoning of the beech utilization scheme, whatever its final form.

11. We recommend that the Forest Service should evaluate weed control in its management regimes, and include this in a cost-benefit analysis of the scheme.

12. Government should initiate a 10-20 year research programme on regeneration, growth rates, nutrient-cycling and soil/water relationships for red, silver, hard and black beech; in the meantime the Society reserves judgment on the practicability of ensuring beech regeneration on all of the soil types and situations proposed for the West Coast project area.

13. The Society strongly disagrees with recommendation 26 of the report "that it be noted that the proposals should not lead to any major problem of forest health," and emphatically endorses the following comments of R. H. Milligan (1972 N.Z. J. For. 17 (2): 201-211): "Forest managers in other parts of the world have learned to call in their research teams and field experts during the planning stages of operations—not after the action, when the damage has been done . . . now is the time for management to demand that the necessary research be done."

14. While there is an undertaking to accommodate any need for additional reserves, we note a *limit* of ca. 10% of total wood value has been withheld from sale for further reserves, etc.; we wonder on what basis a figure of 10% was chosen, and ask for assurances that this 10% margin will not be eroded by alternative demands from other quarters, such as increased requirements for timber to sustain production targets.

15. The Society requests that the Government should issue clear guidelines to the proposed Scientific Coordinating Committee as to what broad lines of research are regarded as a *sine qua non* to acceptance of the beech proposals; together with a strong recommendation to the Government that additional resources needed to undertake this research must be forthcoming. The same committee must recommend who will be responsible for allocating the funds available, and for advising the Government when (given the resources) the necessary studies may realistically be expected to be completed.

16. Government should initiate full ecological surveys of all project areas before the scheme begins operation; such surveys should include soils, fauna and forest-typing based on ecological criteria, and should:

- (a) Evaluate those areas already designated "biological reserves";
- (b) Concentrate on those areas first scheduled for milling on a patch-cutting basis with a view to creating "tentative reserves" until the entire project is surveyed and representative permanent reserves (preferably including entire catchments) are designated.

17. We support the report's recommendation (39) for greater scope for public notification and objection before reserve or protection forest areas are withdrawn or amended, and further urge the Government to consider more permanent legislative protection for such areas.