

Critique:

KARRI AT THE CROSSROADS

and associated paper

REDIRECTION OF THE KARRI FOREST ECONOMY

Prepared for submission to the Environmental Protection Authority
by

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CRITIQUE OF "KARRI AT THE CROSSROADS" AND ASSOCIATED PAPER
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PREPARED FOR SUBMISSION TO THE ENVIRONMENTAL PROTECTION
AUTHORITY BY THE CONSERVATOR OF FORESTS MARCH 1982

- 0.1 The first misrepresentation occurs on the cover of the publication. This is described as virgin karri forest, soon to be clear felled because the Forests Department suggested in 1976 that the Giblett area should become a flora and fauna management priority area after it has been clear felled and regenerated. This is incorrect. The statement was not made by the Forests Department but by the Environmental Protection Authority in its 1976 Red Book, vide Section 2.4 and table 2.4. This table makes it clear that the Giblett and Beavis areas were not part of the original proposal by the Forests Department but were added subsequently, viz: "These blocks are to be added to the Forest Park System following cutting and regeneration."
- 0.2 The second serious misrepresentation occurs in the foreword by Mr. V. Serventy, I quote: "Later a review committee, but not a review committee of national park experts or with any input from the voluntary conservation movement, decided the area was too valuable in terms of timber. They then proceeded to find a variety of reasons why the 1974 recommendation should not be carried out."

You will recollect that the Review Committee was established by the Environmental Protection Authority to redress the imbalance in the submissions by the original Conservation Through Reserves Committee (C.T.R.C.).

The Shannon River basin was not the only issue the Review Committee was required to consider. There were many other recommendations by C.T.R.C. which ignored the realities of the existing situation, for instance, wholesale resumption of private property in the Leeuwin-Naturaliste Horst and complete disregard of the needs of the timber industry in the entire southern half of the State forest. There was, in addition, inadequate coverage of the important Sunkland region, presumably because it lacked the aesthetic appeal of the earlier mentioned regions.

The Review Committee, chaired by Dr. Mulcahy then with C.S.I.R.O., consisted primarily of agriculture and forestry officers, as these were the land users primarily affected by the proposals of the C.T.R.C. The Review Committee did not merely knock or undermine submissions of the C.T.R.C., but attempted to strike a balance between the needs for conservation on one hand and the legal obligations of the Government to the private land owners and the timber industry on the other. In fact a number of additional areas, overlooked by the C.T.R.C., were recommended for inclusion in a more comprehensive system of reserves. The primary objection of the Review Committee to the Shannon proposal was that it was based on incorrect assumptions about the qualities of Shannon as a preservation area. It was, for instance, claimed that the Shannon Basin was mostly undeveloped State forest, whereas in fact an entire township and large timber industry were located within the basin for a period of 25 years. The Review Committee also recognised that a much better representation of the full range of karri types would be obtained by a chain of management priority areas stretched across the entire range of the karri.

This illustrates the point that the original C.T.R.C. was likewise not a committee of national park experts and was largely composed of Public Service officers and academics, expert in the field of ecology, botany and zoology.

It is relevant to point out that the problems created by the C.T.R.C. submission on the Shannon and the remainder of Systems 1 and 2 were recognized when the area with the greatest land use conflicts, namely System 6, was being considered. On this occasion, the process of original submissions as if no constraints existed, and subsequent review having regard to economic realities, were incorporated within the System 6 Committees. One committee was charged with assessing the natural resources, another utilized this assessment to propose a system of reserves and a third committee pointed out the impact

that these proposals would have on the economy of the region. The submissions of these three committees were subsequently integrated by a fourth committee which attempted to strike a balance between the conflicting demands.

It is important to note that the committee assessing the resources and proposing the reserves contained members of both the C.T.R.C. for Systems 1 and 2 and of the Review Committee, and was chaired by Dr. Mulcahy, who by then had joined the Department of Conservation and Environment.

CHAPTER 1 INTRODUCTION (Pages 1-4)

1.1 The Present Study Page 2, Para. 3

The proposal referred to in here is put forward by the authors as an adequate reservation. In terms of the world situation, the proportional area of virgin karri forest contained in National Parks, Management Priority Areas and in the road and river reserves exceeds greatly what would be considered an adequate reservation virtually anywhere in the world. By contrast, the so-called diversification of forest-based economy contained in the proposal amounts to a gross overstatement of the contribution that could be made by tourist industry and would amount to a severe blow to the timber industry, which is the present mainstay of the regional economy.

1.2 A Correct Definition of Conservation Page 3, Para. 3

The paragraph amounts to yet another misrepresentation. The multiple use management policy of the Forests Department does in fact very closely conform to World Conservation Strategy, namely:

"The management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations, while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment."

By contrast, the proposal virtually amounts to preservation in which any human activity other than tourism and recreation are excluded. It is relevant that the bulk of the current tourist and recreation activity is centred on areas managed by and serviced by the Forests Department, a fact which is recognised by the authors of the proposal. Even more ironically, it is the human activities such as the logging industry, as represented by the timber museum and forest management, as represented by the Gloucester Tree Lookout, that are some of the key tourist attractions.

CHAPTER 2 THE KARRI FOREST (Pages 5-8)2.1 Location, Climate and Area Page 5, Para. 7

Total areas given in earlier assessments are no more than delineation of the overall area within which karri occurs. Within such area there are very extensive parts of the landscape in which karri does not occur at all and others in which it is only a very minor component. It does not refer to karri forest type, which is the basis of subsequent figures criticised by the authors of "Karri at the Crossroads".

In addition, the introduction of aerial photography and improved sampling techniques has made possible the refinement of earlier estimates.

It is not surprising that differences exist and further minor changes can be expected as techniques improve in the future.

2.2 Fauna Page 6, Para. 1

The statement by White (1977) is misquoted. It should read "no species is completely forest dependent...." not karri forest dependent as shown. What he said was a true and fair statement in the light of the knowledge available at the time, and was based on seven years of studies conducted by Dr. Christensen in conjunction with the tertiary institutions. Surveys of vertebrate and plant species have been done in some sixteen different localities in the southern forests. Work done since 1977 has confirmed White's statement. None of the evidence put forward by the authors of "Karri at the Crossroads" supports their contention that there can be no justification for his statement.

CHAPTER 3 CHANGING ATTITUDES IN FORESTRY (Pages 9-18)

3.1 Some Conflicts Resolved Page 10, Para. 1

The statement about identity of interests and antagonism is a gross oversimplification which shows the writers' ignorance of the history of the Forests Department. The initial thrust of the Forests Department was to reserve a forest estate of sufficient size and to regulate its utilisation by the timber industry. The former task has now been virtually completed in that very little Crown land remains that could be dedicated as State forest. The second task has changed only in so far that the extent of the resource is more accurately known, and as a result, the timber quota allotted to the industry is being reduced in each successive management plan so as to achieve an ultimate balance between growth and cut. The so-called destruction of Australia's remaining forest by combined efforts of the timber industry and the forestry authorities is in fact no more than an attempt to utilise a greater proportion of the standing crop and to facilitate its regeneration.

3.2 Caption under Picture Page 12

The caption is totally misleading in that the Forests Department's Management Plans make it clear that clearfelling is proposed as a routine management tool only in some production management priority areas, and would be considered in the management of flora and fauna or recreation Management Priority Areas only should natural deterioration by ageing or natural disasters make it necessary, and only if it could be shown not to detract from the stated purpose for which the particular area is managed.

3.3 Management Priority Areas (MPAs)

In the Main Karri Belt Page 13, Para. 2

The quote from White (1977) is incorrect. It should be corrected to read "Option to regenerate and to use the tools required, (fire, wood harvest) must remain with the managing authority".

The term "managing authority" was deliberately used because the problem of regeneration of vegetation is common to any authority managing for conservation or preservation. The National Parks Authority and the Department of Fisheries and Wildlife will be faced with the same problem as is the Forests Department and will require the same options to be left open.

3.4 Management Priority Areas (MPAs) Page 13, Para. 4

The Forests Department's Multiple Use Management is a realistic and clearly defined approach to this difficult problem. The System 6 Committee has accepted its validity in its report on System 6 and even the environmental movement has also accepted its validity by centering their own preservation proposals on Management Priority Areas for Flora and Fauna.

3.5 Clearfelling and Single Species Forest Page 13

In the section dealing with clear felling and single species forest (pages 13-15) much is made of the prohibition of clear-felling in West Germany as described by an author named Lowenthal in 1956. He is quoted as stating that evenaged species forests damage the soil and that such monocultures suffer greater losses from insects and diseases.

When traced through the reference list it is obvious that the authors never read the reference, or, if they read it at all, did so on a highly selective basis. Lowenthal in the reference is quoted as being traced through Dasmann (1968).

Dasmann's (1968) reference is in fact only a quotation of Lowenthal from another publication by Haden-Guest in 1956. In the original article Lowenthal describes the trends in silviculture in Germany, pointing out that the opposition to clear felling, ironically, gained the greatest prominence during the Nazi regime, which used the "back to nature" movement as part of its ideology. Lowenthal concludes regarding the prohibition of clear felling: "This principle has been extended by law all over Germany, even in the northern lowlands where it hardly applies. There remain many areas however, like the summit of the Harz uplands, where spruce monoculture has continued for a century without any evidence of deterioration."

It is interesting that Dasmann, who is one of the chief proponents of the environmental movement, in fact left any reference to Lowenthal and West Germany out of the latest edition of his book published in 1976, in which he recognises clear cutting as one of the legitimate methods of forest regeneration. Quoting from the 1976 edition: "Clear cutting is particularly appropriate to forests in which the trees are of a relatively uniform age and are made up of commercially useful species." Dasmann continues:

"Prevention of waste is another important part of good timber management. Full utilization of a tree for lumber is not possible, but remnant parts may have value for other uses. The development of the pulp industry, producing paper and other products, and the plastics industry, based on cellulose, has created a demand for almost the entire tree.

Recent developments in these industries have made possible the use of many species of trees previously not utilized and, in fact, almost any kind of cellulose can now be used in one or another forest-based industry."

A statement is also made by the authors of "Karri at the Crossroads" .. "that there are reasons to believe that the long term effects of clear felling in Australian forests may be worse than those experienced in West Germany." This is based on references to Springett, Raison, Hingston, Clawson and Heyligers.

Springett's (1976) article claimed that fire, which is an essential part of the karri regeneration process, causes severe and long term dislocation of the soil microfauna. In a recent (1981) publication by the Australian Academy of Science "Fire and the Australian Biota", Campbell and Tanton of the Australian National University had the following to say about Springett's work:

"The work of Springett (1976) on the effects of fire on the forest soil-litter invertebrates should be considered cursory and superficial in the light of the information gained from our study."

Raison's 1980 article is properly called "Possible forest site deterioration associated with slash burning."

Raison's conclusions, which he himself stated in the concluding paragraph "must necessarily be somewhat speculative", were immediately attacked by Turner and Lambert (1980 Search, Vol.11 No. 10), for "using inappropriate assumptions, or selectively applying data from a limited base", and by Neilson and Ellis (1981, Search Vol.13, Nos. 1-2) for "many of the misleading and speculative statements."

Raison's article was one of the key pieces of evidence in the recent court case over the film describing the management of the karri forest, and was assessed by the Judge as just one of several opinions held by the scientific community rather than a statement of fact.

Hingston's (1979) article is most relevant in that it involved study of the karri forest commissioned by the Environmental Protection Authority. Hingston's conclusions are:

"The quantities of nutrients removed in clear felling are not large when compared with those annually applied in fertiliser programmes. However, if there is a future need to manage these forests more intensively, for example, by short term rotation for fibre or solar energy harvesting, the nutrients removed in harvests and the effects on soils will be important considerations in the management programme to maintain productivity of the forest."

Heyliger's 1975 report, also quoted as proof of the objections to clearfelling, contains the following statements in its final summary:

"An immediate result could be increased run-off mainly from the tracks with the possibility of soil erosion. Through cross-draining these tracks according to specified rules, these effects can largely be prevented, and no serious erosion was observed during field inspections of the working group. Data are lacking to assess the influence on the nutrient status of the soils."

Thus the authors of "Karri at the Crossroads" cannot claim that the studies of Springett, Raison, Hingston and Heyligers provide any support for their claim that "there are reasons to believe that the long-term effects of clearfelling in Australian forests may be worse than those experienced in West Germany".

Much is also made of the size of the clear felled coupes. A comparison is made with the United States, Austria and New South Wales. What is not mentioned is that in the United States the maximum area of 4 hectares may be acceptable to the conservationists, but has been proved to be virtually unworkable by practising foresters, in that it creates very large boundary effects and involves high subsequent fire risk. This is also true, of the New South Wales experience with coupe size of 5-15 hectares.

Sneeuwjagt (1981), who is quoted as one of the authorities, examined the situation in New South Wales and concluded that it was utterly untenable with respect to fire protection, in that it created an unmanageable mosaic of logged, regenerated and unlogged areas. His assessment was confirmed by disastrous wildfires in the Eden area in 1980. The New South Wales Forestry Commission was unable to fight the wildfires under these conditions and large areas of regeneration (11 000 ha) were destroyed by the wildfires.

By contrast, virtually no karri regeneration has been lost in Western Australia because the coupes are large enough to be surrounded by adequate fuel reduced buffers.

Recher et al (1980) also recognises the possibility that coupes at Eden in New South Wales may be too small for certain species of fauna.

A further major quotation is that from Clawson, describing a report of a United States Senate Committee on clear cutting. Clawson introduces it by "On the propaganda front, the opponents of clear cutting have generally won." He follows it by his view of the clear cutting controversy:

"A nonforester and an outsider, such as the present author, cannot help but wonder how far the clearcutting controversy was efficient. As in many an emotional issue, there is grave doubt that right questions are being asked and debated, let alone that the right answers are being made. Admitting that clearcutting produces aesthetically and environmentally distressing results - at least temporarily - in many if not all cases, would some other method of timber harvest actually have been better in the long-run history of the forest?"

Other authors used as authorities against clearcutting as a means of regeneration are Loyn and McFarlane of the Victorian Forests Commission. Their conclusion is that intensive utilisation of mature forest does lead to reduction in abundance and diversity of fauna, but that their survival can be ensured by reserves of both gully and plateau forest nearby. These are measures which are an essential part of the wood chip programme in Western Australia.

It is far from true that the clear felling techniques are relatively new in Western Australia and that inter disciplinary research is lacking, as claimed in "Karri at the Crossroads".

The development of silviculture in the karri region is traced in "Conservation of the Karri Forest" on pages 17 to 20.

Apart from the above, it should be noted that karri is a natural monoculture over a substantial part of its range and that forest management techniques, even with planting, make no substantial changes.

3.6 Fuel Reduction Burning Page 15, Paras. 1-3

In these paragraphs, the authors claim that fuel reduction burning is criticised by the members of the scientific community and is seen as having adverse effect on both plants and animals. There is in fact, no conclusive evidence to that effect. The recent publication by the Australian Academy of Science entitled "Fire and the Australian Biota" contains several reviews of the effect of fire and generally does not reach a clear cut conclusion. It does however, regard fire as the natural component of many ecological types. The arguments put forward with respect to fire as a tool for regeneration of forests are equally valid with respect to fire as a tool of protection. The claim that fuel reduction burns differ from natural fires in almost every respect has no factual basis. The so-called natural situation can only be inferred from sketchy historical records, and inferences from pollen studies, and even these agree that fire has been an integral part of the Australian environment for a very long time.

As regards the claim about the excessive regularity of prescribed burns, we would like to refer you to Underwood and Christensen (1981) who have stated:

"However, within any large prescribed burn there is a wide range of fire behaviour, resulting from variations in the forest, the fuel and the topography within the burn area. For example, in a study of 25 aerial burns carried out during 1976, it was found that the rate of spread of fire ranged from 15 to 65 m an hour and up to 32 per cent of burn areas remained unburnt. Typically, a burn produces a mosaic of burnt and unburnt areas and of sections burnt at mild, moderate and high intensities, and these patterns change with successive burns over the same area."

CHAPTER 4 PRODUCTION AND EMPLOYMENT (Pages 19-26)4.0 Introduction Page 19

Some of the most far-reaching accusations against the Forests Department are made in Chapter 4, dealing with production and employment. They can be summarised under four points:

- a) The inability of the Forests Department to regulate the timber industry.
- b) Excessive levels of cutting.
- c) Jeopardising of future hardwood supplies.
- d) Unstable employment in the timber industry, which has bleak future prospects.

4.1 Sustained Yield Page 19

The argument is based on the concept of sustained yield, but it is obvious that the writers have failed to comprehend this basic concept because they have ignored what was explained in Appendix 1 of the publication "Conservation of the Karri Forest". The definition used by them, namely, that in sustained yield, the volume of timber being extracted for wood production is equal to the volume being added to forests through growth is only applicable to a forest that has been subject to management for a considerable time. The writers do recognise that in mature virgin forest this is not possible as increment is negated by death and decay, and that annual growth increment will not match timber harvest until the regrowth trees become mature enough to be harvested. By definition, it is impossible to determine what the cut should be when utilisation of virgin forest commences. It is, in fact, only as an increasing proportion of the forest is cut over, that the permissible cut can be estimated from the performance of regenerated stands. It is, therefore, not surprising, that only in recent years, has the Department been able to define the permissible cut with greater precision, and to use it in the control of the timber industry.

Turning now to the tables on pages 20-21, the annual increment estimated at 206-207 000 cubic metres, refers only to timber of size and quality suitable for sawlogs, and does in no way take account of the additional material suitable only for woodchips. By contrast, the figures quoted under the karri cut in table 4.1 combine both sawlog cut and extraction of chip wood. The base line for matching cut with increment is the year 1976, the last year prior to the formulation of the General Working Plan under which the Department operated in the period 1977-1981. It was in this Working Plan that the Department stated its intention to reduce the karri sawlog cut by 67 000 cubic metres, by the conclusion of the Working Plan period. As table 4.2 shows, this base line was 310 063 cubic metres, and the cut of sawlog material of equivalent standard was reduced by 1981 to 251 071 cubic metres. The reason for the markedly smaller total karri cut prior to 1976 is that logs which did not match sawlog specification could not be utilised, whereas after 1976 it was possible to utilise this type of log for the production of chipwood. This, in the opinion of the Department, is correct conservation strategy, in that it amounts to fuller utilisation of the resource, as well as facilitating its regeneration.

The artificiality of table 4.3 is attributable to the authors of "Karri at the Crossroads" and not to the Forests Department, in as much as the statistics provided by the Forests Department in its annual reports are those of the total woodchip log cut and the percentage by species (rounded to whole numbers in 1976-77-78). In no instance has a karri woodchip log volume been given. It was presumably calculated by the authors using the total cut and the percentage of it going into chipwood and naturally the three figures match as they are merely three components of an equation.

4.2 Hardwood Resources Estimates Page 21

The initial overestimate in 1955 is not surprising, as the resource assessment of that time was based on field work by a small number of officers working from the ground. The use of aerial photography had at that stage only begun and the improved subsequent estimates are attributable to the better coverage and greater accuracy made possible by combined use of

aerial photography, better ground sampling and use of computers in the processing of field data.

In the earlier estimates there was also a tendency to extrapolate from the high volumes per acre observed in the western higher rainfall zone where timber harvesting was then occurring, to the entire area of the forest. Subsequent assessments and experience in utilisation of the eastern forests have shown that not only the total volume, but also the proportion of that volume suitable for sawmilling, is very much lower. By 1975 much more precise estimates were therefore possible. The 1977 General Working Plan was based on these and initiated the process of adjusting the cut to the size of the resource. As the utilisation standards change, further minor changes in the estimate of the resource can be expected. It is probable that they will move upward as the standards of utilisation are continually improving.

4.3 Karri Production and Management Objectives Page 21

In Table 4.5, the authors have used a 1975 base to show that there was no actual reduction in the karri sawlog cut by 1981. However, if 1976 which was the year that General Working Plan No. 86 of 1977 was compiled, is used as a base line year, a substantial reduction is evident (see also Section 4.1 of this critique).

The statement that "Since the rate of overcutting in karri is higher than the main hardwood species (jarrah and marri), it follows that karri will be exhausted in less than 25 years" is a misinterpretation by the authors of "Karri at the Crossroads". Figure 3 on page 39 of "Conservation of the Karri Forest" shows a continuing supply of karri sawlogs.

4.4 Exports Page 22

The criticism that the karri resource is to a significant and increasing degree exported is misleading. Comparison of

Tables 4.2 and 4.7 shows that the percentage of karri sawlogs ultimately exported as sawn timber was only 24.4% in 1980, which is less than prior to the commencement of the wood chip operation. The apparent subsequent increase is solely due to the export of wood chips for which there is no significant local market. Under the Commonwealth Constitution (Section 92) interstate export could not be restricted even if this were desirable. The overseas component of sawn karri exports has not exceeded 20% in the last five years, i.e. only 5% of the total sawn production. Due to W.A.'s isolation, an export component is valuable to provide some stability in the sawmilling industry during periods of downturn in the building industry.

4.5 Employment Pages 23, 24 and 25

The decline in employment that has occurred since 1965 reflects the increased mechanisation of the timber industry, as recognised by the authors. It is a trend that is common to all industries, as failure to mechanise results in loss of economic viability.

The decline in actual employment in the bush and sawmills has to a degree been compensated for by employment in workshops and reprocessing plants. A recent check of direct employment in the Woodchip License area based on Manjimup showed a total of 1105 employees. To this must be added the Forests Department workforce of 219 persons.

The arguments about the deficit between revenue and expenditure of the Forests Department are spurious, in that they ignore the changing role of the Department. In 1970 the Department was primarily orientated towards production and protection of the forest estate because of the method of funding then provided by legislation. While the benefits to be derived from multiple use management of forests had been recognised for many years, the revision of forest policy approved by Government in 1976 emphasised the need for multiple use management of State forests and Timber Reserves. This change in emphasis received added impetus in the 1977 Working Plan. These are the significant years in figure 4.3. Since 1972, the Department had increasingly

taken up wider responsibilities arising out of its multiple use policy. These include the preservation of flora and fauna, recreation, catchment protection and utilisation and services to the public, together with a major increase in responsibility in research and management associated with expansion of bauxite mining operations. It has also greatly built up the softwood resource, essential for the future timber supplies for anticipated larger population of the State. To attribute all departmental expenditure to the servicing of the present day timber industry is therefore misleading. The recent (1980-81) study of departmental expenditure has shown that expenditure relating to fire protection, preservation of flora and fauna, recreation and catchment protection amounted to \$12 535 077. This exceeds the deficit listed in the Table 4.8 by more than \$1 500 000.

4.6 Employment based on the Shannon River Basin Page 25

The importance of the Shannon Basin lies in the size of the timber resource contained in it, and in the importance of that resource to the survival of the timber industry in that region. Cessation of timber production in the Shannon River Basin would therefore have a large impact. Preliminary assessment of the impact of all proposals within "Karri at the Crossroads" indicates that this would amount to immediate major dislocation of the timber industry.

4.7 Suggestions for a New Management Plan Page 26

The proposals put forward by the authors for a new management plan, in some aspects, merely duplicate the aims of the Forests Department, but they do so in an unrealistic way. For instance, it is the intention of the Department to match cut of timber to the increment, but for socio-economic reasons, it is necessary to do so gradually. It is the intention of the Department to maintain adequate supplies for the local market, but the Department does not constrain itself to do so through cutting of hardwood. Much of the future supplies will come from the departmental pine plantations, thus making it possible to reduce the pressure on the remaining hardwood resources. It is the intention of the Department to maintain and improve

the levels of employment within the South West region, though it is realised that this is not equivalent to keeping all present sawmills operating where they are. It is the intention of the Department to finance forestry operations as far as possible from royalties, but it is not intended to do so for all operations, as many of these have no relevance to timber production. To insist that all costs of forest management be borne by the timber industry could only force it into bankruptcy.

The following comments can be made on the objectives set out by the authors of "Karri at the Crossroads".

The General Working Plan reduces the permissible cut, though it is realised that the State Government cannot control interstate exports. Sawlog specifications cannot be divorced from the economic state of the timber industry and are therefore not subject to arbitrary decisions which ignore economic realities. However, over the period of the last Working Plan, marked improvement in log utilisation has occurred. The Department has been actively engaged in the promotion and management of recreation and tourism, but it considers the authors' assessment of the economic benefits is grossly overstated as will be shown in comments on the next chapter. Over the period of the last Working Plan there have been considerable increases in royalty rates, but it is not the intention of the Department to load the cost of all the operations on to the timber industry as many of its multiple use activities have no relevance and can in fact be a constraint on the timber industry. In the Southern Region where timber production is a major component of Forests Department activities, the income from royalties does, in fact, more than cover the expenditure for regulating the timber industry. This is not the case in the Northern Region where the chief emphasis is on catchment protection, recreation, flora and fauna preservation and the rehabilitation of mine sites.

CHAPTER 5 TOURISM AND RECREATION (Pages 27-32)5.1 Economic Aspects of Tourism Page 27

The arguments in this section are based on Tables 5.1 and 5.2.

The source of the figure giving the contribution of the tourist industry to the West Australian economy (\$785 000 000) does not come from the Western Australian Year Book as stated.

We have however attempted to arrive at some comparable figure by using the Western Australian Year Book. By summing up the turnover of hotels, caravan parks, ferries, rail and bus transport, we have come up with the figure of \$72.4 million, which is greatly at variance with the figure of \$785 million quoted above.

Recent assessment of value of tourism by the Department of Tourism estimates the value of tourism in the Manjimup region at \$3 468 000. This is slightly below the estimate for existing value of tourism in "Redirection of the Karri Forest Economy", where it is quoted at \$4.02 million.

The same Year Book gives the gross value of forestry as \$27 612 000, which approximates the figure given in "Karri at the Crossroads". This figure is described as wholesale price at principal market prior to processing and therefore amounts to no more than royalty (\$10.5 million) plus felling costs. The Year Book gives other values which can be directly related to the timber industry. The turnover for the manufacture of wood, wood production, furniture is given as \$221.3 million and the value added of wood, wood products and furniture as \$110.8 million.

Equally serious errors occur in Table 5.2, which compares the budgets of the Forests Department and the Department of Tourism.

It is difficult to determine where the figures were obtained from, but actual budgets allocated to the Forests Department in the financial years 1975-76 and 1979-80 were \$14 242 000 and \$23 045 000 respectively. This amounts to an increase of 62%, or less than half of this when corrected for inflation, which during this period of 4 years averaged about 10% per annum. Nor does it take into account the broadening of the Forests Department's activities in line with the multiple use concept, and a rapid increase in the softwood planting programme.

5.2 Tourism and Recreation in the Karri Forest Page 27

The assessment of the increase in the recreational use of State forest shows the biased use of figures by the authors of the publication.

The 1975 assessment of recreational use on State forest by Hewett was based on two regional surveys in the Northern Region, and therefore, amounted to a first rough estimate. By contrast, Schmidt's 1978 survey, published in 1980, was based on extensive field observations and questionnaire returns from visitors contacted throughout the State forest. It was carried out over a 12 month period, and involved participation of 70 officers of the Department. During the course of this study, officers travelled nearly 15 000 km, while distributing over 2 000 questionnaire forms to nearly 14 000 forest visitors. The two surveys are, therefore, not comparable and cannot be used as a basis for estimating the increase in recreational activity between 1975 and 1978. For this reason, Schmidt's estimate of 7% annual increase is to be preferred, even though it has to be realised that any long term projection is only a projection, subject to changes in the cost of travel, leisure time availability, population growth, disposable income, none of which can be projected with reliability. Schmidt's estimate is greatly superior to the estimates of Neville (1981) whose interviews are inferior, both in the terms of the number of people interviewed (13) and freedom from bias. For this reason, the Department continues to base its planning on Schmidt's figures.

5.3 Recreation Areas and Facilities Page 29

The statement that the Forests Department neglects development of recreation and tourism is false in that recreation and extension is one of the areas of higher growth within the departmental activities. Even before this increase in activities, many of the tourist facilities in the Manjimup/Pemberton region were located in State forest. The development is certainly not limited to provision of picnic spots and includes facilities, the need for which is emphasised by the authors of "Karri at the Crossroads" such as long distance walking tracks, signposts, and short forest walks with information on the ecology of the forest. As the silviculture of the karri forests is one of the most outstanding but least understood successes of the Forests Department, information boards giving details of those operations are entirely appropriate. There are ample information boards dealing with historical and ecological aspects of the forest as well.

5.4 Research and Planning Page 30

The Forests Department makes no apology for its level of planning for recreation. The fact that it is not confined to classified recreation MPA's likewise needs no apology as it is the Department's stated policy to provide recreational facilities throughout the State forest. The Big Brook forest and the Rainbow Trail, which are denigrated by the authors, merely support the Department's claim that young forest is acceptable to the public as an area suitable for recreation. The authors ignore the fact that the Rainbow Trail development occurred in response to public demand and was originally initiated by local residents. The Forests Department is fully aware of the principles enumerated by Gobby (1979), and its recreational planning incorporates both of them. As enumerated earlier, Schmidt's 1978 survey was of major proportions, and the Department now utilises the services of two trained landscape architects. By these means, the Department is already fulfilling the needs put forward by the authors as an

original idea. The authors' criticism of Bradshaw and Lush reflects their refusal to recognise that forest does not have to be 300 years old in order to have a recreational value. The proof of this is the Rainbow Trail, already discussed above. The constant reference to Neville (1981), can only be based on the assumption that E.P.A. will not examine this study. By contrast to the very broad spectrum of public contacted in the Department survey by Schmidt, Neville's rating of the 100 year forest and natural karri forest is based on the opinion of only 13 people. Thus, the authors go against their own recommendation that "the recreational rating should be based on the opinion of a large cross-section of the people". Neville's study, and the implications drawn from it by the authors, therefore are not a valid basis for concluding that young forest is inferior in terms of its recreational value.

5.5 Conclusions Page 31

The repeated assertions by the authors of "Karri at the Crossroads" that wood production and recreational use are in perpetual conflict throughout the length of the rotation are, therefore, unjustified, as is the accusation that the Forests Department is neglecting recreation in its research, planning and promotion. Nor is any substantial evidence presented that preserving larger areas of karri forest will substantially increase economic benefits from tourism and recreation.

CHAPTER 6 EXISTING RESERVES (Pages 33-40)6.1 Management Priority Areas Page 34

The criticism of the lack of criteria used to decide which of the major roads, rivers and streams are worthy of protection and of the fact that the choice is made by Departmental officers is unrealistic. There are complete continua from minor bush tracks to major highways and from ephemeral streams to major rivers within the region and the cut-off point as to what will or will not be included has to be made by someone on the basis of the best available information. The choice of the various streams and roads surrounded by stream or road reserves has been reported in the Environmental Impact Statement submitted to the Environmental Protection Authority. The initial selection was subject to review by other knowledgeable officers, including those with special expertise in recreation, such as Gobby, and changes were made. The criteria quoted for dimensions of stream and road reserves by Bradshaw and Lush are developed from those initially given by the Forests Department to the E.P.A. in the Environmental Impact Statement for the wood chip project. The criteria quoted in the Senate Committee on Science and Environment did not refer to the wood chip project but to specific areas in the remainder of the State forest. For instance, that at the top of page 35 refers to filter strips to be left in the process of pine plantation clearing.

The claims regarding discrepancies in the names and size of management priority areas can likewise be only interpreted as unwillingness to accept bona fide information. It is difficult to see why a conservation organisation should object to the addition of new scientific study and education Management Priority Areas. The reason for the change of classification of Beavis and Giblett MPA's from flora and fauna to scientific study and education simply arises from the fact that these were to be added to the forest park system following cutting and regeneration in accordance with the recommendations of the Environmental Protection Authority in Conservation Reserves for Systems 1, 2, 3, 5 published in 1976. As such, they do not meet the exacting criteria for MPA's for flora and fauna.

The Giblett MPA will be logged and regenerated over a long period so as to provide a demonstration area of a wide range of age classes.

The supposed differences in the size of the MPA's amount to no more than rounding off of figures on improved area determination. The critical comment on the Dickson MPA that it contains only 3% of karri is incomprehensible as it was set aside as an example of virgin jarrah forest. What karri is present is purely incidental.

6.2 Inadequacies Page 35

The arguments raised in this section regarding the legal status of Management Priority Areas are merely a repetition of old arguments. In terms of security of tenure, there is no difference between National Parks and Management Priority Areas, as in both cases tenure can only be changed by resolution of both Houses of Parliament. The Forests Department has expressed a desire to ensure security of purpose of management by requiring changes to be approved by resolution of both Houses of Parliament. The finalisation of this matter awaits the deliberations of the System 6 Committee and resolution of conflicts with Agreement Acts. The envisaged threat to National Parks by logging attributed to a statement by Dr. Beard cannot be blamed on the Forests Department. As the authors know, salvage logging for regeneration purposes has taken place in the Walpole and Warren National Parks and logging of MPA's for flora and fauna would only be envisaged under the same conditions. This is the rationale for the statement in the Forests Department's 1977 General Working Plan (which refers to land use as a whole and not to specific MPA's) criticised by the authors. The reasonable interpretation of that statement is that any plan must recognise that future changes may require appropriate response, e.g. if a particular area of forest is destroyed during catastrophic circumstances, it will need to be regenerated or, if socio-economic conditions change sufficiently Parliament may alter the tenure of National Park area or Management Priority Area. It would be futile to predict that any generation can make

decisions which cannot be altered by future generations. It does not reflect a lack of trustworthiness or bias towards wood production. Wood production is only one of many forest uses provided for both in the past and the current working plans.

The picture and caption on page 36 is misleading. The plantation shown on the photo predates the establishment of the Soho MPA by several years. It could have been presumably excluded in delineating the MPA, of which it is an insignificant proportion. The proposals put forward by the authors for creation of additional national parks and reserves, not only include numerous similar trial plots, but also extensive areas of bare gravel and grass in the former Shannon township, and large areas of clear felled and regenerated karri forest.

6.3 Physical Page 37

This section can again be either interpreted as an expression of ignorance or deliberate manipulation of information. The area of 20 000 hectare was defined by Main and Yadav (1971), who referred to the area of islands off the north-western coast of Western Australia which would be expected to maintain a full complement of marsupial species as genetically viable populations.

To apply the same reasoning to forest reserves in higher rainfall surrounded by forest and to consider even such a provision inadequate, is hardly a logical extrapolation of facts. It is even more extraordinary to insist that such an area should be all of the same forest type or of the same species. This attitude perhaps accounts for the criticism of the statements of White (1977) that ecological diversity is desirable within areas set aside for the preservation of flora and fauna. Similarly, there is no ground for the criticism of White's statement that the reserves should not be confined to over mature virgin stands but should contain younger, healthier and less fire damaged stands. This is ecologically sound as such stands would be more viable in a long term perspective. It could be interpreted as a let-out option for timber production only with deliberate ill-will.

Similar ill-will is obvious in the criticism of the stream reserves. Their primary purpose is to protect the most vulnerable, and at the same time most valuable portion of the landscape, and not to achieve the lowest possible area to perimeter ratio. Similarly road reserves are not intended to mislead the public but to provide aesthetically pleasant margins for the road system. The authors of "Karri at the Crossroads" have proposed a similar system of reserves.

6.4 Administrative Page 38

The question of allocation of funds to the various authorities is outside the scope of this discussion, however attention is drawn to the statement made by the Hon. Minister for Forests on the subject and appended hereto. Management intentions for various questions raised on page 39 of "Karri at the Crossroads" are covered in pages 25-33 of "The Conservation of the Karri Forest".

In the remainder of the section yet another attack is made on the Departmental technique of prescribed burning. The Management Priority Areas do not, by virtue of their tenure, have any guaranteed protection against natural forces, so that some form of fire management is the only alternative to periodic severe wildfires. However, it is recognised that a full range of prescribed burning strategies may need to be provided for and research into this is well advanced, as shown in Special Focus No.1 titled "Forest Fire Management in Western Australia".

CHAPTER 7 KARRI RESERVES PROPOSALS (Page 41)

7.0 As this section is on the whole concerned with creation of additional preservation areas over and beyond those proposed for the Shannon Basin, it will not be commented upon other than to point out that the implementation of these proposals would amount to immediate and severe disruption of the timber industry in the Manjimup, Pemberton and Walpole areas.

7.1 Area Reserved Page 53

The area covered by the existing system of Reserves is misrepresented, and the various percentages do not add up to a meaningful figure. The area currently covered by the various Reserves, (National Parks, Management Priority Areas for Flora, Fauna, and for Recreation, Road and Stream Reserves) is grossly understated. Similarly, the impact of the new proposals is grossly understated. The new proposals amount to a major locking up of the karri forest from production, as the areas left out of the new proposals are, to a large degree, forest already cut over and regenerated, either under the selection or uniform regeneration systems. The amount of timber still available to the industry would be totally inadequate, and certainly could not sustain any more than a small proportion of the current timber industry in the region.

7.2 Management and Security of Purpose Page 53

This is yet another deliberate distortion of the Forests Department's policies. Clearfelling is not a normal management option in Management Priority Areas for Flora, Fauna or for Recreation and would only be undertaken should a major natural disaster create a need for regeneration, as pointed out earlier. This, in no way differs from the practice already applied by the National Parks Authority in the past.

CRITIQUE OF "REDIRECTION OF THE KARRI FOREST ECONOMY"

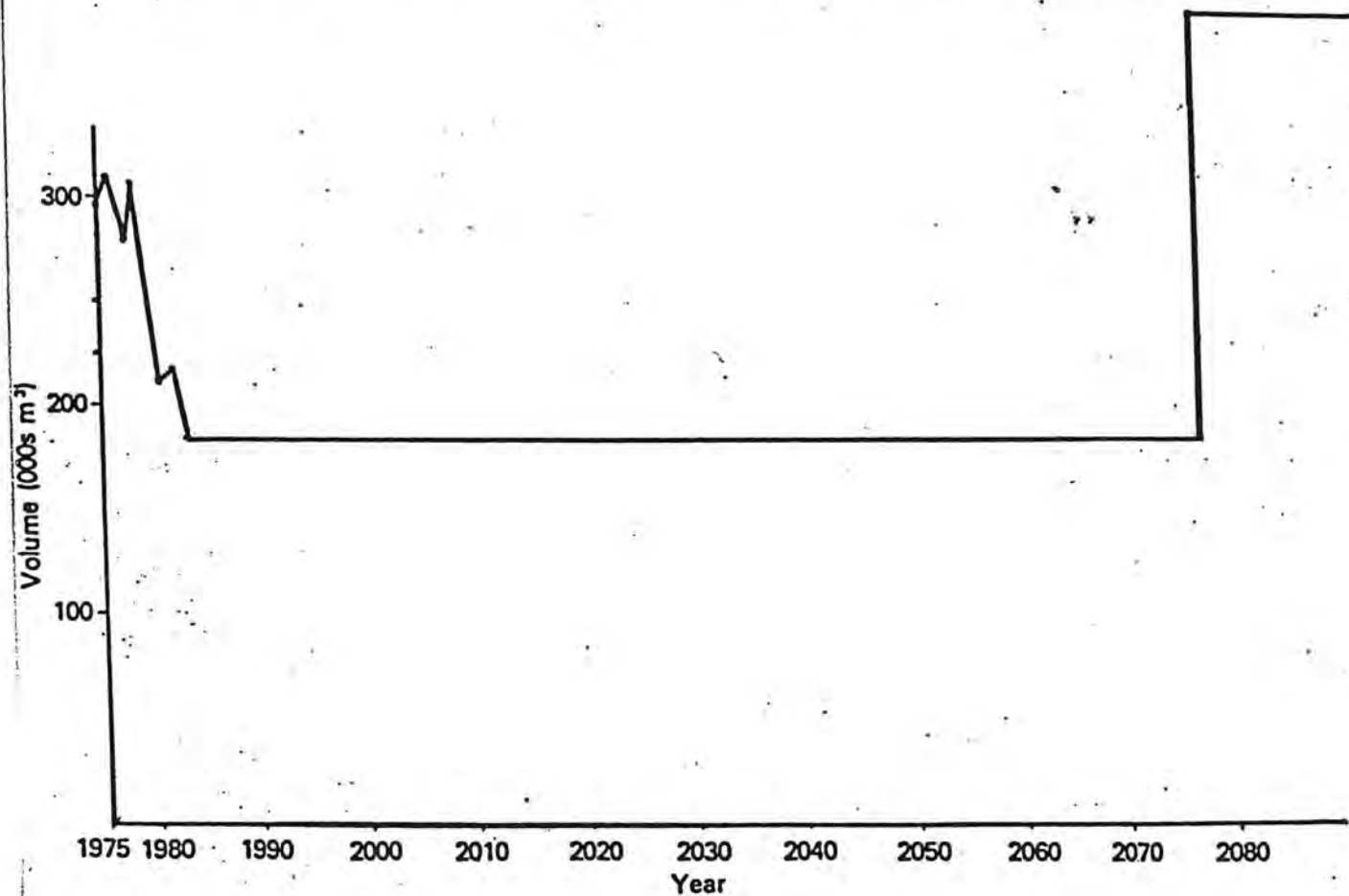
As there is a considerable overlap between this publication and the earlier described "Karri at the Crossroads", only the most significant aspects of the redirection proposal will be referred to.

- 1.0 (1) Incorrect. Refer to page 39, fig. 3 of the "Conservation of the Karri Forest".
- 2.1 Incorrect. Refer to page 39, fig. 3 of the "Conservation of the Karri Forest".
- 3.0 The figures quoted for the number of workers employed by and dependant on the timber industry in the karri region is incorrect. Correct figures are 1105 employees in the timber industry and 219 in forestry.
- 3.1 The estimate of the wages paid by the timber industry in the karri region is seriously underestimated. Correct figures are \$16 million for the timber industry and \$2.9 million for forestry.
- 4.0 The inadequate and biassed data base of Neville's (1981) study has already been commented upon. Any estimates based on this study can therefore be only considered as unsound. The differential rates of increase for the three alternatives likewise have no factual basis, and are based on the unwarranted assumption that the area of virgin karri forest is the chief determinant of tourist activity.
- 4.1 As the projections of the value of the karri tourist industry are based on unsound data from section 4.0, compounded by purely arbitrary apportioning of the estimated total number of visitors to various accommodation categories, it lacks credibility.

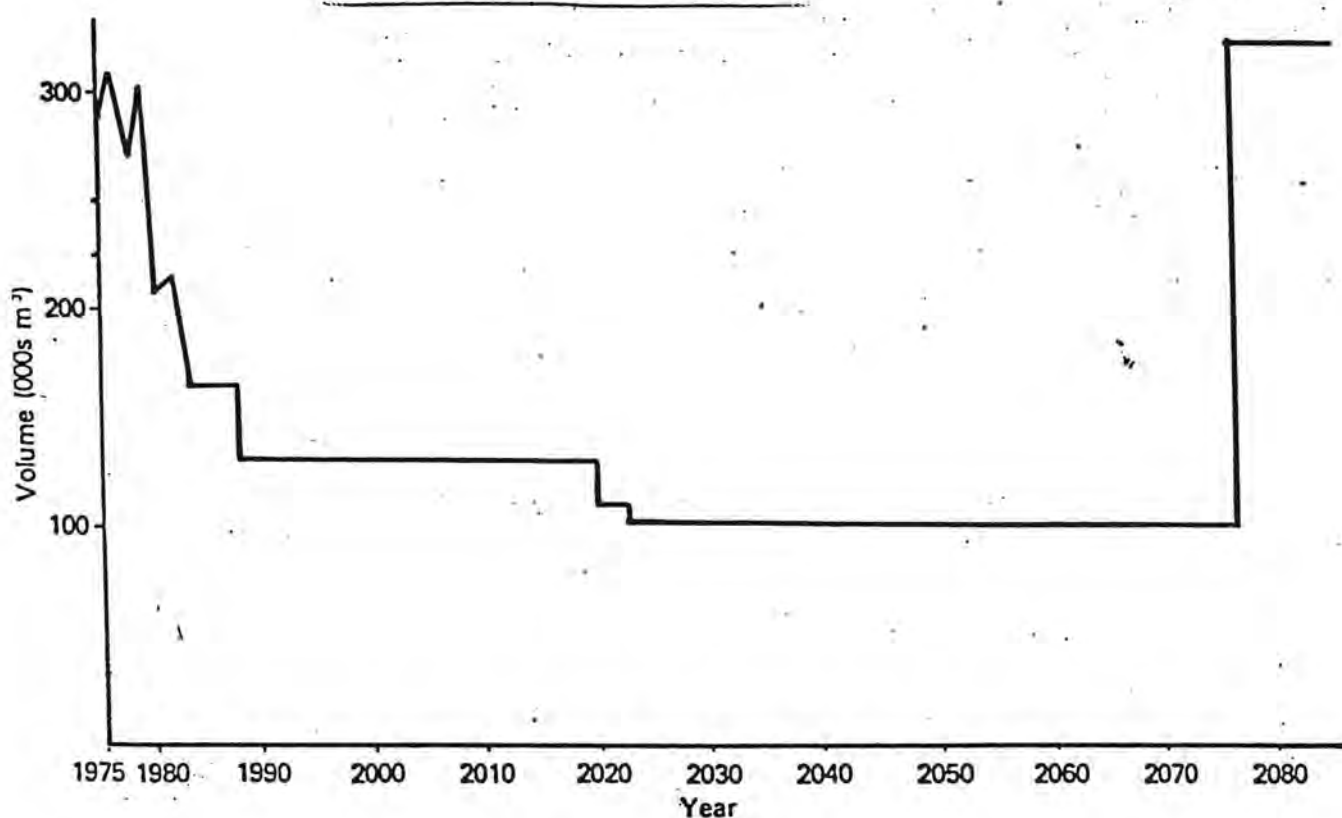
- 5.1 In light of comments on previous sections, the predictions about karri economy are considered unsubstantiated.
- 5.2 In light of the importance that Forests Department plays in the tourist industry, the assumption that under its proposal the tourism will decline cannot be sustained. The reduction in the timber industry would be markedly less than proposed by the authors (see attached graphs and point 5.3).
- 5.3 Even ignoring the additional impact that the "Redirection of the Karri Forest Economy" would have on the jarrah sawlog yield, its impact on karri sawlog would be far more severe than estimated. The karri sawlog yield would be reduced after 1988 to 69 800 m³, not 95 000 m³. The Forests Department plan would lead, first to stabilisation of the karri cut at 132 000 m³ for the period 1988 - 2200, 100 000 m³ for the period 2020 - 2075 and finally to 315 000 m³ after 2075, as the bulk of currently regenerated stands begins to yield sawlogs.

PROJECTED KARRI SAWLOG YIELD -

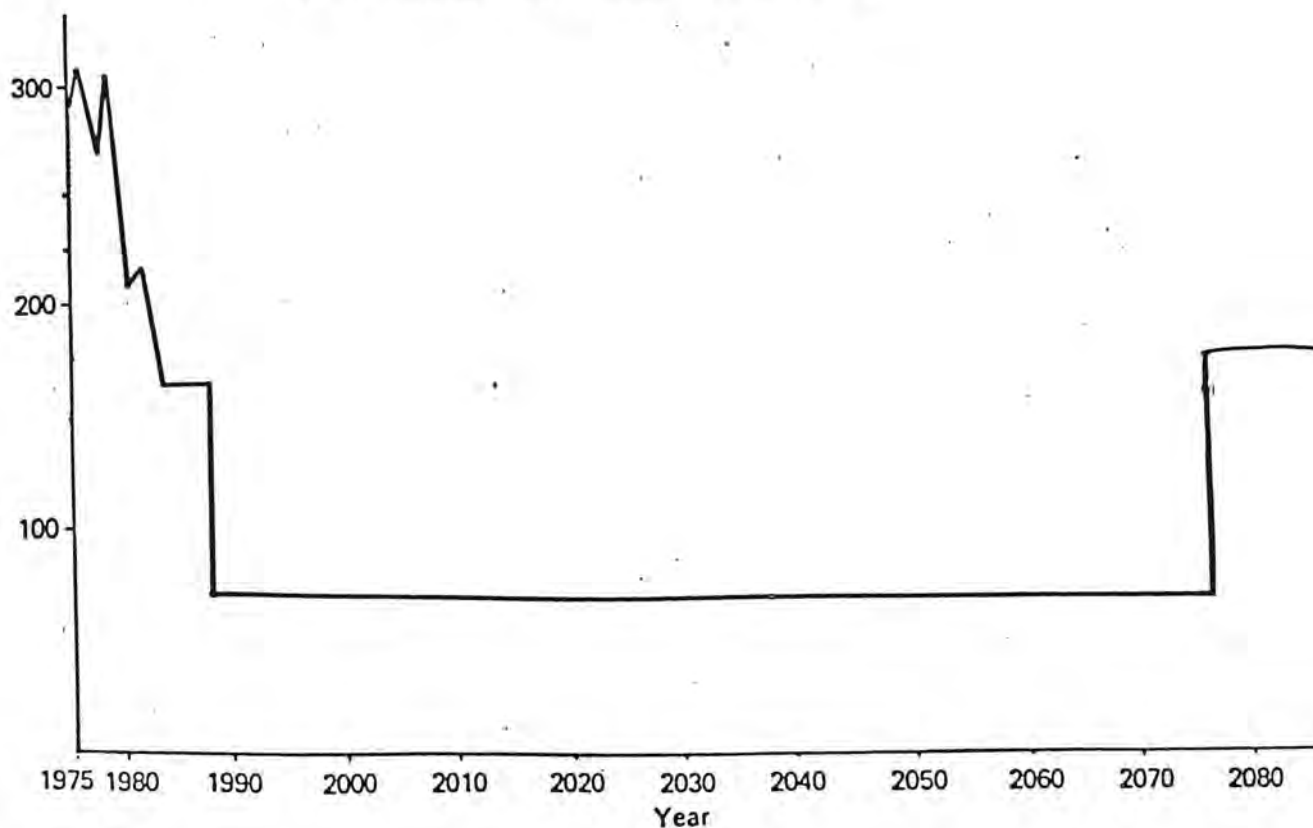
Assuming no reserves other than existing National Parks



PROJECTED KARRI SAWLOG YIELD -
under current Forests Department Proposals



PROJECTED KARRI SAWLOG YIELD -
as a result of SWFDF Proposals



PRESS RELEASE

HON. MINISTER FOR FORESTS - 19.3.82

A proposal by conservation groups for the re-direction of State karri forests was riddled with inaccuracies and distortion, the Minister for Forests, Mr. Laurance, said today.

"There are so many gross errors in the quoting of statistics and reports that I have instructed the Forests Department to correct every error and to present accurate figures to the Environmental Protection Authority," Mr. Laurance said.

"The conservation groups want the E.P.A. to back their ideas, but I am very disappointed that they should present such a distorted picture to support their case.

"The E.P.A. is prepared to listen to all points of view before making recommendations to Government, but it deserves greater respect than to be asked to consider such gross inaccuracies.

"The amateur conservationists' report distorts almost every aspect of the karri forest - its history, its area, its value, its management - and also sadly misquotes Government expenditure figures in relation to forestry and tourism.

"The errors begin with the description of the cover photo and continue through the document with almost frightening frequency.

"The authors are even guilty of misquoting what are allegedly direct quotes from forestry reports.

"They have confused the area of karri forest with the area of forest in which karri is known to occur, and the two are vastly differently things.

"Their figures on Forests Department budgets for 1975-76 and 1979-80 are simply wrong. They give figures of \$4.6 million and \$16.7 million when the correct figures are \$14.2 million and \$23.0 million. Figures they used two pages earlier in their document should have shown them that error.

"Assessments of the value of the timber industry relative to tourism in the karri area are grossly inaccurate.

"There are numerous other serious errors and distortions."

Mr. Laurance said that he would make no effort to influence the E.P.A.'s opinion on the general idea of re-direction of forest management away from the Forests Department to the National Parks Authority or others.

"However, I will not ask the E.P.A. to make recommendations to Government on any matter without ensuring that it has accurate information on which to base those recommendations.

"One thing I can tell the conservation groups is that their suggestion that \$1.5 million be taken from the Forests Department budget will not succeed. "That is not an E.P.A. matter and can be dealt with immediately."