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SUPPLY AND DEMAND FOR FOREST PRODUCTS IN WESTERN AUSTRALIA

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1. WORLD

Currently there is a glut of timber on world markets. To illustrate how significant the situation is, in Canada, the worlds largest exporter of timber, so many mills have closed that production is now less than half of the country's total capacity.

Although the present world surplus is clearly due to a world trade recession, economists differ widely on whether the world is facing a long term shortage of timber.

On the one hand world resources of timber are massively more than can be used in the foreseeable future and because timber is a renewable resource, it is argued we will never be short of it.

On the other hand, there are two factors which need to be understood. Firstly, that vast areas of the worlds timber resources are presently inaccessible, e.g., forests in the permafrost region of Siberia are vey extensive, but may never yield much timber due either to the environmental effects of loggong or the prohibitive costs of that logging.

Secondly, it needs to be understood some of the major producing countries are "mining" their forest resources. By this I mean that provision has not been made for forest regeneration. e.g., efforts to regenerate the rain forests of South East Asia have so far been unsuccessful in spite of recent expensive projects. In Canada, most of their clear felled forests have not been regenerated. To face up to adequate regeneration of their forests will mean significant increases in timber prices.

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We can sum up the world situation by saying that there will continue to be short term and regional shortages and surpluses as in the past and that the long term outlook will be for increasing world price independent of whether there will or will not be a world shortage.

2. AUSTRALIA

Given a fluctuating world supply and demand situation, the planners of Australian forest industries have opted for a target of net self sufficiency in the supply of sawlogs. By net self sufficiency I mean that although speciality timbers will continue to be imported but they will at least be balanced by timber exports

In 1978 the Bureau of Agriclutural Economics predicted future supply and demand trends for Australia and these can be seen on Figure 1.

Throughout Australia there will be a declining hardwood availability but this will be more than compensated for by softwood plantations.

The prediction is for net self sufficiency early in the next century.

These forecasts are now somewhat dated and although the predicted supply and demand figures are disputed by other forecasters, a 1982 timber industry conference accepted the opinion that surplus log production would be available early in the next century. Only the level of surplus is now debated.

The important point will be the timber industries' ability to provide an economic alternative to the imported timber product. At least for the foreseeable future Australian timber markets will be controlle by price not scarcity.

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3. WESTERN AUSTRALIA

The Forests Department have predicted supply and demand figures for logs in this State.

You will see in Figure 2 that there is to be a dramatic fall in the availability of hardwood logs. This has been due in part to the inroads of reservations of forest for purposes other than wood production, such as for roads, S.E.C. lines, flora, fauna, conservation recreation, and to the effects of the dieback disease and mining in forest areas. In addition earlier predictions of resource and growth yields were not realised, necessitating a reduction in the sustainable cut.

The softwood plantation programme like that for Australia as a whole is expected to replace the hardwood reduction and also to enable the State to reach net self sufficiency.

4. SUPPLY AND DEMAND

Accuracy in timber supply and demand predictions is very difficult. The principle variables in the calculations which are likely to cause inaccuracies are :

Demand (Consumption):

1. Population Trends.

These are notoriously difficult to predict accurately and timber consumption is of course very sensitive to variations in population. Governments policy on immigration can vary causing significant errors in predictions.

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2. Timber Consumption per Head of Population.

This figure is influenced by social factors such as the value of gross domestic products affecting the earning capacity of consumers, the types of dwellings etc. Recent trends in Australia are away from single level dwellings and towards multi-storey flats and town houses. As most of the timber in Western Australian homes is in the roof, this move significantly reduces the amount of timber per living unit and hence the per capita consumption drops. In the past, the move from timber floors to concrete raft floors had a similar effect.

3. Sawlog Recovery.

How much technical advancement do you plan for?

An efficient industry uses less logs to produce the same amount of timber. Also the type of market influences the sawn recovery. Both dimension and quality are important factors.

Supply:

1. Finance for the Planned Planting Rates.

As an example the current recession has forced the Forests Department to significantly reduce the pine planting area for this financial year. This will reduce the available log supplies in future years.

2. Yield of the Plantation.

All of the forests in question will be producing their first crop so the yield predictions must be based on very limited experimental plots. Growth varies very widely on differing soil types, topography, rainfall and hydrological conditions.

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3. Ability to manage the forest to produce the maximum yield depends on the availability of markets for early thinnings. To predict accurately future markets and industries ability to service them economically requires a crystal ball.

I think you can see that the planning for forest resources can be subject to constant updates but because of the long duration of a timber rotation, miscalculation can be very expensive.

e.g. The Forests Department established 8 000 hectares of mallet plantation at Dryandra some 50 years ago when a thriving market for tannin existed, but before the plantation matured, the market had been replaced by synthetics. The Department was, and still is faced with finding a new market for mallet timber.

Assuming that our predictions are correct, however, does not necessarily mean that the marketing problem is solved.

We are part of a world timber market which will be fluctuating considerably in both availability and price.

In the Australian scene it will only be those forest industries which can develop economies of scale thereby achieving and maintaining cost efficiency that will survive the types of crises we are passing through at present, where world surpluses are dumped on our markets.

Figure 3 shows the predicted availability of plantation softwoods from three countries in the Pacific region; Australia, Chile and New Zealand. When it is realised that in 1982 New Zealand on its own is already a significant threat to the Australian producer, the regional increase by early next century will apply a great deal of pressure on the efficiency of Australian timber producers and processors.

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In Western Australia we are not isolated from world market pressur Softwood timber is today available in Perth from South Australia, New Zealand and North America at prices lower than local productio costs. We are at an added disadvantage because the young age of our plantations resource presently will not allow for the sophisticated sawmilling plants which permit low cost production.

The Western Australian timber industry faces a critical period in its development and is virtually dependant upon an economic upturn to establish itself in competition with other Australian states an world exporting countries.

5. TREES ON THE FARM

Moving now to a "trees on the farm" situation. From where I stan you have a number of factors running against economic timber production and very few running for you. I address these remarks for tree planting on agricultural land where the primary land use is for food production.

Against :

1. The areas planted are likely to be scattered and hence make the cost of log delivery to a processing plant very high.

2. Rainfall will generally be too low for the growth of commercia forest products within a reasonable time span. (There will obviously be exceptions to this generalised statement.)

3. Local markets will be very limited and distance to key market areas will be greater than from traditional forest areas.

For :

1. You should be able to justify the establishment and maintenance of wood lots for farm benefits other than commercial wood production. Sales of timber can then be made economically without recovering the total costs.

2. If a local market can be established for say fence posts, you will have the benefit of your resource being close to that market.

My recommendations to you are :

1. Any decision to plant trees on your farms should best be made for reasons other than an economic return for timber (obviously if your farm is in a high rainfall area near an established timber processing plant this advise would not hold).

2. Having decided to plant trees on your farm, leave your options open by selecting species which will serve the dual role of farm protection and of utilisation with the minimum of processing.

   e.g. If you can grow durable species which will serve your own requirements for fence posts, without treatment, then at least future generations will thank you. Softwood species suitable for pressure treatment requir good conditions of soil and rainfall and demand a high cost of processing.

6. COMMERCIAL FORESTRY PROJECTS

Where the primary land use is timber production, the requirements are for concentrated but extensive land areas and intensive professional planning of both supply and market demand factors if the project is to stand a reasonable chance of success.

September 15th 1982

FIG 1

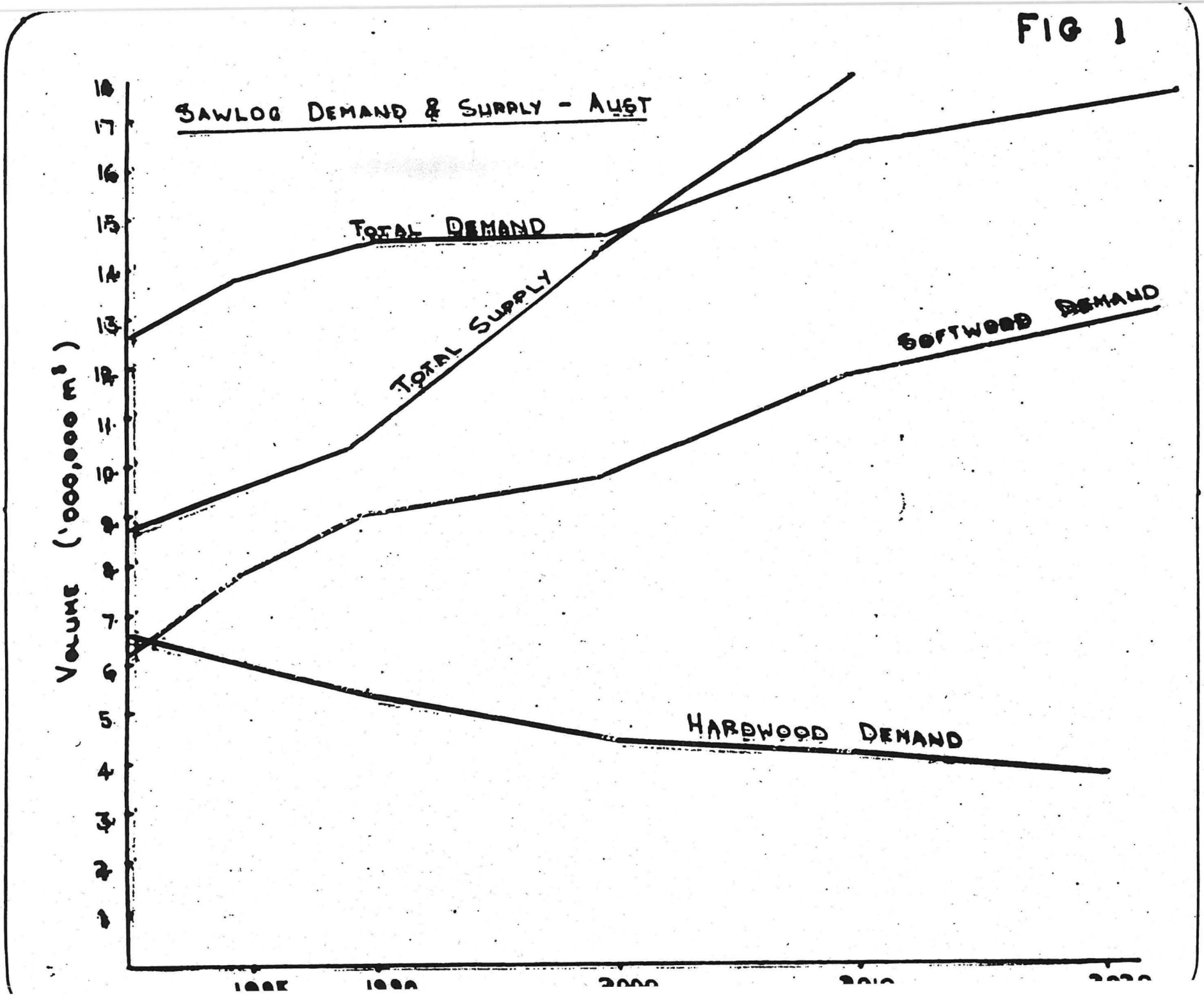

SAWLOG DEMAND & SUPPLY - AUST
TOTAL DEMAND
TOTAL SUPPLY
SOFTWOOD DEMAND
HARDWOOD DEMAND
VOLUME ('000,000 m³)
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
1995
2000
2010

FIG 3

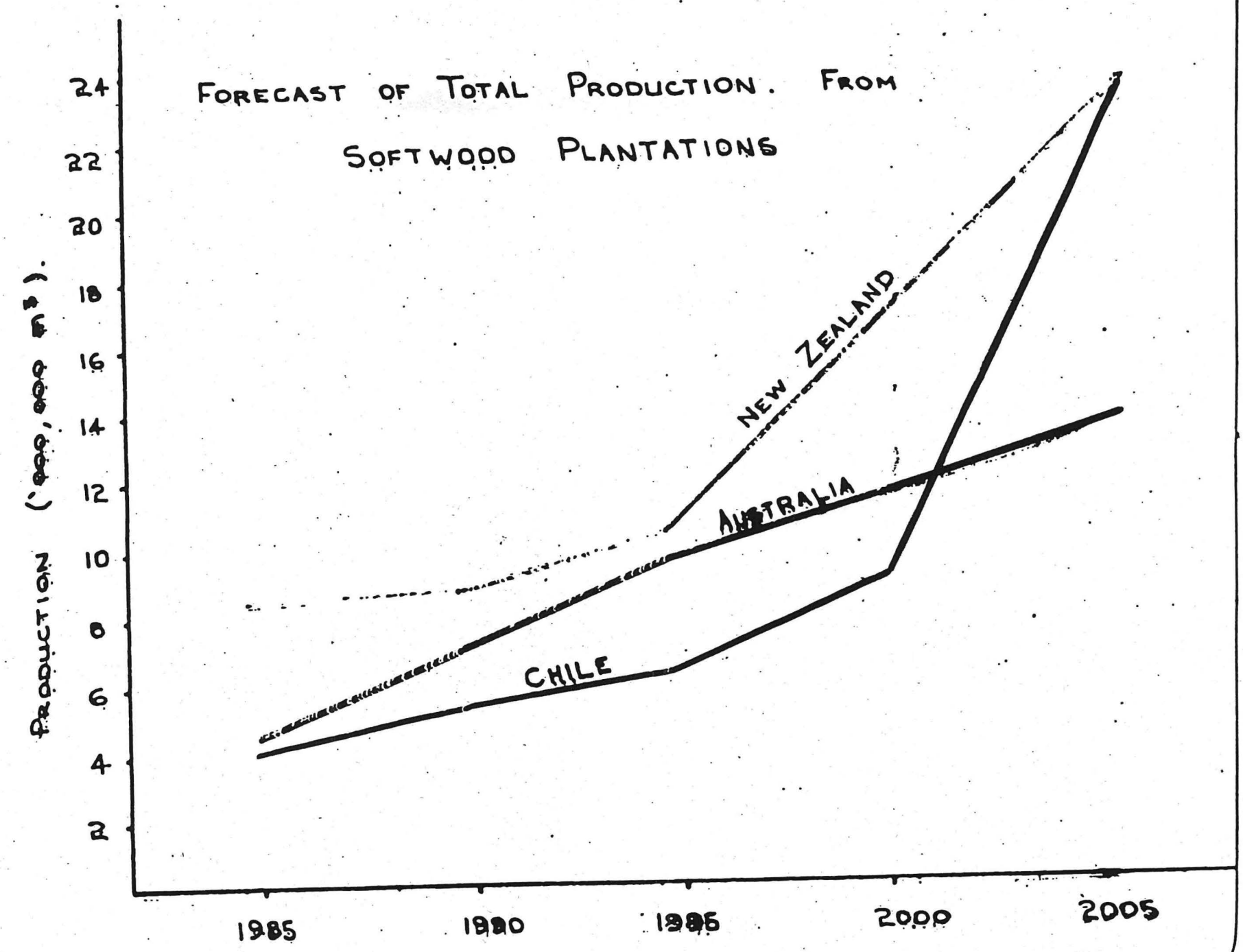
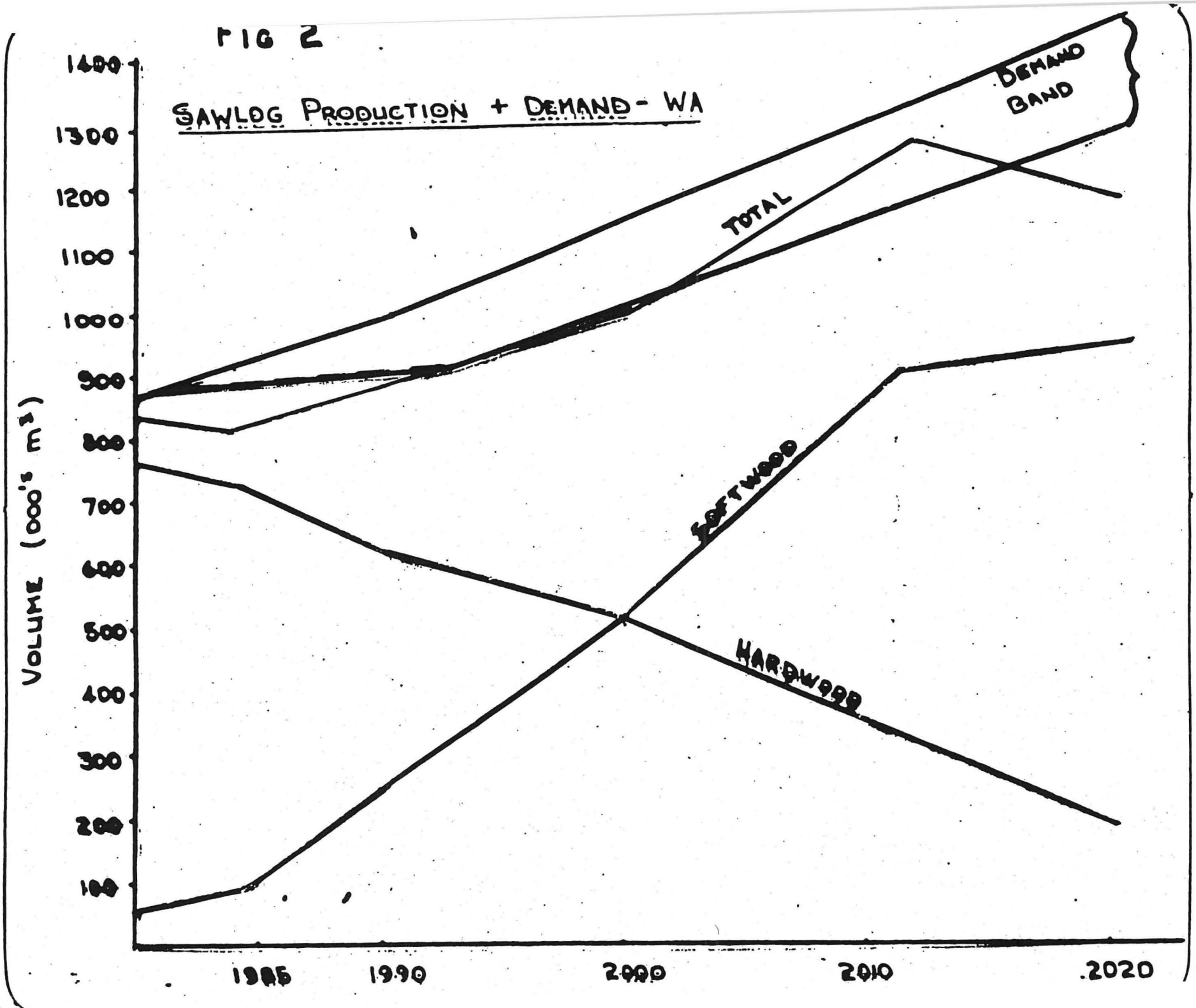

FORECAST OF TOTAL PRODUCTION. FROM
SOFTWOOD PLANTATIONS
PRODUCTION ('000,000 m³).
24
22
20
18
16
14
12
10
8
6
4
2
NEW ZEALAND
AUSTRALIA
CHILE
1985
1990
1995
2000
2005

FIG 2


SAWLOG PRODUCTION + DEMAND - WA
DEMAND BAND
TOTAL
SOFTWOOD
HARDWOOD
VOLUME (000's m³)
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
1985
1990
2000
2010
2020