CHAPTER ONE

INTRODUCTION AND INDUSTRY OVERVIEW

Terms of Reference

1.1 On 27 June 2002, the Senate referred the following matter to the Rural and Regional Affairs and Transport References Committee for inquiry and report by 12 December 2002:[1]

Taking into account the findings of the Private Forests Consultative Committee's review of 'Plantations for Australia: The 2020 Vision' which is due to report to the Primary Industries Ministerial Council in November 2002:

(a) whether there are impediments to the achievement of the aims of 'Plantations for Australia: The 2020 Vision' strategy;

(b) whether there are elements of the strategy which should be altered in light of any impediments identified;

(c) whether there are further opportunities to maximise the benefits from plantations in respect of their potential to contribute environmental benefits, including whether there are opportunities to:

(i) better integrate plantations into achieving salinity and water quality objectives and targets;

(ii) optimize the environmental benefits of plantations in low rainfall areas; and

(iii) address the provision of public good services (environmental benefits) at the cost of private plantation growers;

(d) whether there is the need for government action to encourage longer rotation plantations, particularly in order to supply sawlogs; and

(e) whether other action is desirable to maintain and expand a viable and sustainable plantation forest sector, including the expansion of processing industries to enhance the contribution to regional economic development.

1.2 On 25 September 2002 the Senate agreed to extend the time for presentation of the report until the last sitting day in August 2003.[2] Subsequent extensions to the reporting date were provided by the Senate, with the final reporting date being 2 September 2004.

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1 *Journals of the Senate,* 27 June 2002.

2 *Journals of the Senate,* 25 September 2002.

Conduct of the Inquiry

1.3 In July 2002, advertisements calling for submissions to the inquiry were placed in *The Australian, The Sydney Morning Herald, Queensland Country Life, The Mercury* (Hobart), *The Examiner* (Launceston), *The Land* and the *Stock Journal*.

1.4 The inquiry was also advertised in the national press, as well as the *Albany Advertiser* and *The West Australian*, in September 2002, prior to the Committee's hearing in Albany on 11 October 2002.

1.5 Advertisements were also placed in *The Advocate* (Burnie), *The Examiner* (Launceston) and *The Mercury* (Hobart) in November 2002, prior to the Committee's Launceston hearing on 29 November 2002.

1.6 In addition to advertising in the press, the Committee also wrote directly to a number of interested persons and organisations advising of the inquiry and inviting submissions. The Committee also extended the date by which submissions would be received to allow all parties the maximum opportunity to contribute and respond to the issues raised. Submissions continued to be received throughout the inquiry.

1.7 The Committee received 90 written submissions[3] on the reference. A list of submissions is provided in **Appendix 1**.

1.8 Approximately half of the submissions received were from organisations, groups and individuals in Tasmania. Submissions were also received from Western Australia, Victoria, New South Wales, Queensland and the ACT.

1.9 Following referral of the inquiry, the Committee held a series of eight hearings in the following locations:

Albany	11 October 2002
Launceston	29 November 2002
Canberra	20 February 2003
Canberra	21 February 2003
Canberra	5 March 2003
Hobart	29 April 2003
Launceston	6 August 2003
Canberra	8 October 2003

3 This number includes Supplementary Submissions.

1.10 The Committee notes that a hearing in Launceston on 6 August 2003 had to be abandoned due to a lack of cooperation from the public, including a member of the Tasmanian House of Assembly. The Committee took a decision to hold the hearing in camera to receive the evidence from one witness, Mr Bill Manning. The Chair informed the hearing of this decision and Senator Brown indicated his objection. The Chair's request to vacate the hearing room was met with resistance. The Committee believes that such disorder detracts from its work and is therefore regrettable.

1.11 Mr Manning gave evidence in public in Canberra on 8 October 2003.

1.12 The Committee anticipated completing its hearing program following the hearing held in Hobart at the end of April 2003. However, following the Committee's consideration of further submissions to the inquiry and the response to these submissions by the Tasmanian Government, the Committee decided to pursue those matters as part of its inquiry.

1.13 This part of the Committee's inquiry process proved to be a lengthy procedure. As a result, the Committee did not complete its hearings and various follow-up inquiries until the end of 2003.

1.14 The Committee worked with draft versions of the *Plantations for Australia: The 2020 Vision* document until July 2003 when a copy of the final pre-print draft was made available to the Committee. A final version of the *2020 Vision* was released on the Plantations 2020 website in November 2003.

1.15 The *Hansard* transcript of all public hearings is available on the Hansard website at www.aph.gov.au.

1.16 The Committee took evidence from 52 witnesses, including individuals with an interest in the plantation forestry industry, representatives of industry organisations, conservation groups, local councils and community organisations. The Committee also took evidence from representatives of government bodies – both Commonwealth and State. A list of witnesses is provided in **Appendix 2**.

1.17 During the inquiry, the Committee undertook several days of inspections and briefings in Tasmania. On 28 November 2002, the Committee's inspection tour included: forest operations at Ulverston; a meeting with members of the Preolenna community at the Preolenna Hall; a visit to a Timber Veneer Mill at Somerset and a guided tour of the Moorleah, Preolenna and Meunna areas. Part of the Committee's tour was hosted by representatives of Timber Communities Australia, Private Forests Tasmania, Gunns Plantations, Forest Enterprises Australia and Forestry Tasmania. The afternoon's inspections were hosted by Ms Colleen Bibley and Mr Malcolm Ryan.

1.18 The Committee notes that Mr Alistair Graham, who appeared before the Committee in Hobart on behalf of the Tasmanian Conservation Trust, suggested that the residents who met the Committee on its visit to Preolenna had been bussed in. He indicated that only "three were residents; the rest were not.".[4]

1.19 The Preolenna community responded to Mr Graham's comments, and the Committee subsequently took evidence on the matter. It was assured that "the 13 community members that were here [in Preolenna for the Committee's visit] were not bussed in and we are certainly not play actors".[5] The Committee is satisfied by these assurances and places no reliance on the initial evidence in this regard.

1.20 On 30 April 2003 the Committee, hosted by Mr Frank Strie and Ms Margy Dockray, toured areas of Tasmanian forestry operations. The itinerary involved travel via Nunamara, Patersonia, the Lisle Valley and Scottsdale. The Committee inspected a second-rotation pine plantation, a former cable logging coupe on the eastern side of Weld Hill and several areas that had been converted from native forest to plantation forestry coupes.

1.21 On 1 May 2003, the Committee undertook an inspection tour of areas between Launceston and Lorrina, accompanied by Ms Geraldine de Burgh Day. During this tour, the Committee inspected a number of coupes that had been clear-felled for plantation conversion, as well as an area of forest that had been selectively logged in 2000 for use in the construction of a residence.

1.22 The Committee also visited the University of Melbourne’s Forest Science Centre at Creswick (Victoria) for an inspection and briefing on 21 March 2003.

1.23 The subject of the Committee's inquiry – the plantation forest industry – is one which is emerging as a significant contributor to the world's increasing requirements for wood and non-wood forest products. A recent research report prepared for the Australian Bureau of Agricultural and Resource Economics (ABARE) indicated that plantations represent less than 3 per cent of the world's forest resources. Yet it is estimated that plantations supply approximately one-third of the world's supply of industrial roundwood[6] and approximately 10 per cent of the global fuelwood resource. The report also acknowledges that despite the increased importance of plantations as a focus for international forest policy, the exact role of plantations is not well understood.[7]

1.24 It is a complex industry with some marked regional differences. This section provides the context of the Committee's inquiry – an overview of the industry in Australia – and highlights significant recent trends.

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4 *Evidence*, Mr A Graham, RRA & T, 29 April 2003, p 447.

5 Evidence, Mrs Pinner, RRA & T, 8 October 2003, p 553.

6 The term 'roundwood' refers to sawlogs, pulpwood, poles etc. in round form.

7 *Global Outlook for Plantations: ABARE Research Report 99.9*, prepared by Jaakko Poyry Consulting for Australian Bureau of Agricultural and Resource Economics, June 1999, p. 1.

Australia's Plantation Estate

1.25 The majority of Australia's plantation resource is concentrated along the southern and eastern coasts, Tasmania and Western Australia.

1.26 Commercial plantation forests have been established at an average 87,000 hectares per year over the last five years, with the majority of this new development happening on land that was previously used for agriculture.[8] Australia's plantation estate (as at December 2002) totalled 1,627,800 hectares of which 987,900 hectares (61 per cent) are softwood species and 638,300 hectares (39 per cent) are hardwood species. Note that WA (37%), Victoria (23%) and Tasmania (22%) have the majority of Australia's hardwood plantations.

Table 1: Total area of plantations by State, December 2003

State	Hardwood	Softwood	Unknown	Total
Australian Capital Territory	65	5,264	0	5,329
New South Wales	50, 977	280, 251	0	331, 228
Northern Territory	4,448	3,817	0	8,265
Queensland	30, 520	181, 088	1,247	212,855
South Australia	37,119	120,493	261	157, 872
Tasmania	146,641	76,104	0	222,745
Victoria	154, 650	211,961	0	366, 611
Western Australia	251, 542	109, 246	0	360,788
Total	**675, 962**	**988,233**	**1,508**	**1,665,693**
	41%	**59%**		

National Plantation Inventory Australia, 2004 Update, Bureau of Rural Sciences, Canberra, March 2004, p. 2.

8 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. iv.

1.27 In Tasmania:

> The reduction in the native forest estate over the six year period from 1997/98 to 2002/2003 amounts to approximately 80,000 ha (2.55 of the estimated 1996 native forest estate) as a result of conversion (mainly for plantation or agriculture).[9]

1.28 Over half the wood supplied to Australian industry is currently sourced from plantations. Significant increases in plantation wood supply are projected over the next 20 years, particularly in relation to hardwood and pulpwood. Mature softwood plantations are currently supplying large-scale domestic processing facilities.[10]

1.29 Two-thirds of the wood produced in Australia now comes from plantations (18.4 million m^3 from softwood and hardwood plantations compared with 10.1 million m^3 from native forests in 2002/03).

1.30 Most plantation wood is milled for sawntimber and veneer (9.5 million m^3 or 57% of softwood produced in 2002/03 was sawntimber or veneer, 4.9 million m^3 was pulpwood, and 2.3 million m^3 was used for other purposes). Most native forest wood is chipped. In 2002/03, 6.7 million m^3 (66%) was chiplogs and 3.0 million m^3 (30%) was sawlogs and veneer.[11]

1.31 Plantation wood production (softwood and hardwood) totalled 18.4 million m^3 in 2002/03 compared with a projected availability for the period 2001-04 of 17.7 million m^3.[12] For the five years beginning in 2005, plantation wood supplies are projected to increase by 33% to 26.2 million m^3 per annum. Supplies of plantation hardwood pulplogs will increase by 250% to 8.3 million m^3 per annum, far exceeding the woodchip volume currently taken from native forests.[13]

1.32 Although softwoods still make up the majority of Australia's total plantation resource, the area of hardwood species has expanded rapidly. The hardwood proportion of the plantation estate now stands at 41 per cent.[14]

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9 Forest Practices Board, 2002-03 Annual Report, p 23.

10 *Water Use by Australian Forest Plantations: Pre-publication – Draft Final Report,* prepared for the Forest and Wood Products Research and Development Corporation by the Bureau of Rural Sciences, 2004, p. 12.

11 *Australian Forest and Wood Products Statistics*, September and December Quarters 2003, ABARE, Table 47, p. 56.

12 *Australian Forest and Wood Products Statistics*, September and December Quarters 2003, ABARE, Table 47, p. 56.

13 *Plantations of Australia: Wood Availability 2001-2044*, Department of Agriculture, Fisheries and Forestry – Australia, p. 5.

14 National Plantation Inventory Australia, 2004 Update, Bureau of Rural Sciences, Canberra, March 2004, p. 2.

1.33 The volume of timber harvested from Australian plantations has increased during recent years, as large areas of softwood planted during the 1960's and 1970's reach maturity. Plantation softwood is the dominant raw material in many commodity and wood products that traditionally used native hardwoods.[15] Substitution of plantation timber for native timber has become a feature of the domestic market and this trend is likely to continue into the future as the plantation resource continues to develop.[16] Softwood plantations are currently producing both sawlogs and pulp logs. These are processed into products which include:

- structural grade timbers;
- appearance grade timbers;
- industrial grade timbers;
- treated products;
- wood-based panels (including plywood, particleboard, MDF and LVL); and
- pulp and paper.[17]

1.34 *Pinus radiata* constitutes approximately two thirds of Australia's total area of softwood species. In Queensland, other softwoods, including *Araucaria cunninghamii* and *P. caribaea* and *P. elliottii* have also been planted, and Western Australia has a considerable *P. pinaster* resource.[18]

1.35 Australia's hardwood plantations are primarily planted with *Eucalyptus* species, supplemented by a small proportion of tropical rainforest and other hardwood species. *Eucalyptus globulus* makes up over 60 per cent of plantings of hardwood species. Other eucalypts make up approximately 19 per cent.[19] These hardwood plantations have primarily been planted for the production of pulpwood. However, higher grade logs are being grown in several locations and being used in the solid wood industry. The majority of Australia's hardwood plantations are still in the early

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15 *Water Use by Australian Forest Plantations: Pre-publication – Draft Final Report,* prepared for the Forest and Wood Products Research and Development Corporation by the Bureau of Rural Sciences, 2004, p. 12.

16 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 227.

17 *Investment Opportunities in the Australian Forest Products Industry*, Department of Agriculture, Fisheries and Forestry Report prepared by Jaakko Poyry Consulting, October 2001, p. xi.

18 *Plantations of Australia 2001: A report from the National Plantation Inventory and the National Farm Forest Inventory of Australia,* Bureau of Rural Sciences, 2001, p. 12.

19 *Plantations of Australia 2001: A report from the National Plantation Inventory and the National Farm Forest Inventory of Australia,* Bureau of Rural Sciences, 2001, p. 12.

stages of development. These volumes of fibre will not be available for a number of years.[20]

1.36 During the early years of the plantation forestry industry, many of the major costs associated with establishing and managing plantations were met by governments. More recently, however, there has been an increasing trend in Australia toward the commercialisation or privatisation of government-owned assets. More than 80 per cent of plantations in Australia are currently owned and/or managed by approximately 16 organisations, including both state government agencies and private sector businesses.[21]

Supply and Consumption of Wood and Wood Products

1.37 Domestic supply of wood and wood products has increased over the last decade. Despite cyclical variations, there has also been a slight increase in the total consumption of wood and wood products during the same period. At the same time, however, the *per capita* consumption of wood products has declined over the past 20 years. A recent BRS *State of the Forests Report* attributes this decline to population growth and some substitution of wood products in the construction industry (largely with non-timber products that offer a range of advantages other than price).[22]

1.38 The report also argues that there is a clear trend towards import replacement in relation to the consumption of sawn timber and wood-based panels. However, high value paper and paper products continue to provide a significant share of domestic consumption. In 2001-02, the total value of imports was $3578.4 million with 68 per cent attributed to paper, paperboard, paper manufactures, wastepaper and pulp imports. Australia's importation of paper and paper products in 2000-01 was more than double that in 1990-91, and it is expected that consumption will increase in the near future – in line with rising incomes.[23] However, it was argued that even if consumption of paper products was to increase, it does not necessarily mean increased consumption of wood or wood fibre because the industry is investing strongly in wood-saving technologies. For example, in 1970, the global paper industry used an average 0.8 tonnes of wood pulp to make a tonne of paper; today it needs only 0.5 tonnes of wood pulp per tonne of paper.[24]

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20 *Investment Opportunities in the Australian Forest Products Industry*, Department of Agriculture, Fisheries and Forestry Report prepared by Jaakko Poyry Consulting, October 2001, p. xi.

21 *Australian Forest Plantations: Sustainable Returns in the New Century*, Plantations 2020 Publication, paragraphs 1.1-1.5.

22 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 227.

23 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 228.

24 *Evidence*, Ms Judy Clark, RRA & T, 21 February 2003, p. 312.

1.39 Since Regional Forest Agreements were implemented in 1997 and controls on the export of woodchips lifted, exports of native forest woodchips, whole logs and plantation logs and woodchips has increased.

1.40 Domestically, there has been an increasing supply of sawnwood over the last ten years. There has also been a trend towards import replacement; the proportion of demand met by domestic supply rose from 56 per cent in 1990-91 to 79 per cent in 2000-01.[25] There has also been an increase in Australia's production of wood and wood-based panels during the last decade. Primarily, this increase has been brought about by an expansion of exports, particularly of particleboard and medium density fibreboard. In 2000-01, domestic supply of wood and wood-based panels accounted for 83 per cent of domestic consumption, following a peak of 87 per cent in 1997-98.[26]

1.41 Exports of wood-based panels have increased by approximately 100 per cent since 2001. It is anticipated that any further increases in the domestic demand for wood-based panels are likely to be met by imports, because the size of mills required for economic production may exceed the likely requirements of Australia's small market.[27]

1.42 Paper and paperboard production has also increased gradually during the past 10 years, but was outgrown by consumption. The proportion of domestic supplies consumed locally was 70 per cent in 1990-91 and dropped to 62 per cent in 2000-01. In 2000-01, printing and writing paper accounted for about half the total volume of paper and paperboard imports. The proportion of printing and writing paper imported (as a share of total paper and paperboard imports) increased from 58 per cent in 1991-92 to 61 per cent in 2000-01.[28]

Changes within Australian Forest Industries

1.43 There have been several major changes in Australian forest industries since the early 1990's. The changes include an increasing use of plantation timber (as an alternative to native forest timber) for commodity wood products, a shift toward the privatisation of public resources and an increase in both domestic and foreign investment (amounting to more than \$6.5 billion) in the forestry industry –

25 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 229.

26 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 229.

27 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 229.

28 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. 230.

particularly the plantation sector.[29] The clearing of native vegetation to establish plantations is a major issue, especially in Tasmania.

1.44 New investment in forest establishment and wood-processing has occurred in each State and Territory and it is the further expansion of Australia's processing capacity which, it is argued, has the potential to have a positive impact on regional and economic development:

> Australia's plantations are distributed across 15 regions and provide a wood resource for decentralised industries as evidenced by established softwood processing industries in a number of regions. Although eucalypt plantations grown on short rotations (10-15 years) are currently the major component of new plantations development, there is relatively little associated processing capacity, apart from chipping for export. Expansion of softwood processing, and development of hardwood processing industries could stimulate regional development and reduce the national deficit in forest products trade currently running at approximately $2 billion p.a.[30]

1.45 Australia's forest industries have undergone sweeping changes in the last ten years and the potential exists for even more radical change during the coming decade. The Forest and Wood Products Research and Development Corporation's latest Research and Development Plan (2003-2008) outlines the factors which will impact the development of forest industries. These include:

- Market Dynamics – the need to address the needs of customers; to maintain existing markets and create new ones (particularly with increased competition from other suppliers and non-wood products); to promote the sustainability of wood products and to develop non-wood markets (including salt, carbon, energy and biodiversity).
- Industry Competitiveness/Image – issues to be considered are the globalisation of the industry, the scale of production and global sourcing, capital investment opportunities and new technology, infrastructure development and supply chain solutions, resource expansion (including access to land, finance and genetic resources) and human resource issues (ie. attracting people with appropriate skills).
- Demand/Supply Balance – the industry will need to be mindful that there is an increasing softwood supply and an increase in the number of hardwood plantations, that there is declining access to native forests (and highest quality hardwood resources), that there is a higher proportion of juvenile wood (which raises issues of fitness for purpose for current and future products) and that there will also be competition from non-wood products.

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29 *Australia's State of the Forests Report 2003,* Bureau of Rural Sciences, September 2003, p. vii.

30 *Plantations of Australia: Wood Availability 2001-2044,* Consultant's Report for the National Forest Inventory, Bureau of Rural Sciences, August 2002, p. iii.

- Developing Products – it will be important to improve the performance and promote the quality of wood-based composites; to optimise product performance and processing and to understand, evaluate and control wood and fibre properties for current and future products.
- Changing Wood and Fibre Uses – the uses for wood and fibre have changed. The use of recycled fibre (paper and solid wood) has increased and there is an increased availability of high performance paper and paperboard.
- Resources and the Environment – there has been considerable change in this area: forestry is now being integrated with traditional agriculture, there is increased land use planning to achieve commercial and environmental benefits from planted forests and forestry is seen as having the potential to deliver environmental services (including amelioration of land and water degradation, carbon sequestration and biodiversity enhancement).[31]

1.46 The Research and Development Plan also argued that, as part of the inevitable, ongoing changes within Australia's forest-based industries, the factors listed above need to be considered as part of a framework that includes the overarching principles of environmental and social sustainability. Issues such as sustainable forest management, certification, labelling and chain of custody, increasing consumer awareness, more efficient use of energy, reducing waste and increasing recyclable products have also become important considerations.[32]

1.47 In addition to environmental and social sustainability, the forestry industry has also been examining ways to become economically sustainable. Historically, the expansion of plantation forests has primarily been driven by domestic demand. Export opportunities to Asia, carbon sequestration and land rehabilitation now have the potential to influence the further development of the industry.

The Committee's Report

1.48 The focus of the Committee's report is the *Plantations for Australia: The 2020 Vision* (*2020 Vision* or 'the Vision') document. The Committee's terms of reference requires it to address a number of questions and these questions form the basis for the structure of the report.

1.49 The preparation of the revised *Plantations for Australia: The 2020 Vision* in the period 2001-03 is detailed in Chapter Two. The discussion includes an analysis of the review undertaken by the Private Forestry Consultative Committee in redrawing

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31 *Investing for Innovation and Growth: Research and Development Plan 2003-2008*, Forest and Wood Products Research and Development Corporation, pp. 8-9.

32 *Investing for Innovation and Growth: Research and Development Plan 2003-2008*, Forest and Wood Products Research and Development Corporation, pp. 8.

the 1997 *2020 Vision* at the request of the Forestry and Forest Products Committee. It also outlines the Primary Industries Ministerial Council's consideration of the *2020 Vision* and its approval in late 2002.

1.50 In Chapter Three the Committee defines the impediments to achieving the *2020 Vision* strategy and examines the related vision targets and economic and regulatory issues.

1.51 Impediments are further considered in Chapter Four. The focus of this discussion is on the environmental issues and social and community issues that emerged during the inquiry.

1.52 Chapter Five examines the question as to whether there are further opportunities which would maximise the potential for forest plantations' to contribute to environmental benefits.

1.53 Chapter Six examines the future of plantation-sourced sawlog, including the impediments to future investment in longer rotation plantations.

1.54 The future viability and sustainability of forest plantations is considered in Chapter Seven. The Committee notes the link between the investment environment and markets and processing industries.

1.55 Chapter Eight examines the impact of the plantation industry in Tasmania. The Committee's decision to devote a chapter to Tasmania was made in the light of the substantial evidence received during the inquiry relating to Tasmania.

1.56 In Chapter Nine, the Committee separately discusses Strategic Element 5, particularly the issue of how the accountability of the proposed review process in *2020 Vision* might be monitored and makes recommendations for the monitoring of the overall revised *2020 Vision* achievement.

Acknowledgements

1.57 The Committee acknowledges the participation and contribution of all those individuals and organisations who prepared submissions or who appeared as witnesses during the hearing process.

1.58 In particular, the Committee acknowledges the assistance provided to it by the Bureau of Rural Sciences, the Co-operative Research Centre for Sustainable Production Forestry, and the Forest and Wood Products Research and Development Corporation, and to those individuals and organisations who provided material to the Committee in response to questions taken on notice and subsequent correspondence with the Committee.