FOREST BASED INDUSTRY DEVELOPMENT OPPORTUNITIES

SOUTHERN CRA REGION

APPENDIX A

Allocation of Local Government Areas within the Southern CRA region sub-divisions

APPENDIX B

Industry Development Opportunities – Individual Assessments and Scores

Group1 – Extended Timber Resources
Group 2 – Extended Timber Processing
Group 3 – New Uses for Timber and Residues
Group 4 – Non Timber Forest Produce
Group 5 – Aboriginal & Heritage Tourism and Education
Group 6 – Forest Based Recreation

APPENDIX C

References

The Proteus Management Group Pty Ltd
December 1999

Appendix A

Allocation of Local Government Areas (LGAs) within the Southern CRA region to sub-divisions

LGAs in Each Sub-Division for Modelling Purposes

Coastal	Western Tablelands	Northern Tablelands
Wingecarribee	Tumbarumba	Golbourn
Shellharbour	Gundagai	Gunning
Kiama	Holbrook	Crookwell
Eurobodalla	Tumut	Mulwaree
Cooma-Monaro	Yass	Yarrowlumla "A"
Tallaganda	Snowy River	Oberon
Shoalhaven		
Yarrowlumla "B"		
Queanbeyan		

Note: LGAs divided by sub-division boundaries have been assessed by State Forests of NSW and the entire LGA has been apportioned to one sub-division, depending on importance of the LGA to that sub-division's timber industry.

Treatment of LGAs Divided by the Southern CRA Region Boundary

- Greater Lithgow - excluded
- Wollondilly - excluded
- Bega Valley - excluded
- Bombala - excluded
- Hume - excluded
- Culcairn - excluded
- Wagga Wagga - excluded
- Gundagai - included

Note: Partial LGAs have been either wholly included or excluded (for economic modelling purposes), depending upon an assessment by State Forests of NSW of timber industry presence and hence an assessment of potential economic and social impacts associated with a change in forest land tenure within each of these LGAs.

Appendix B – Individual Assessments and Scores.

The following Appendix tabulates the assessments of the Industry Development Opportunities identified for the Southern Forest region, as part of the process of developing priorities for implementation.

The allocation of "priority" to a diverse group of industry opportunities needs to address the question of "whose priority?" The priorities of any group of stakeholders are likely to differ from another, depending on what they consider to be desirable outcomes from establishing an enterprise, based on the forest resource.

This analysis does not seek to dampen entrepreneurial skill nor to limit the rights of the individual to take on business risk, provided they operate within the regulatory frameworks of federal, state and local governments.

What the analysis aims to do is to establish an objective and transparent system of "scoring" industry opportunities that are **based on sustainable use of the forest resource, while providing,**

- clear social and economic benefits to the region,
- commercial returns for private investors in commercial enterprises based on the forest resource and
- justifiable expenditure by government on non-commercial but socially beneficial projects.

The assessment of the range of industry development opportunities, listed in section 4, must meet all of these criteria and demonstrate the degree of commercial or social contribution it will make.

In doing so, it is not sufficient to measure "commercial feasibility", in terms of return to the investor. Size of investment does not necessarily satisfy all of the above criteria. More direct measures of the permanent employment generated and the scale of contribution to the region are more important in setting priority. These latter measures become particularly important when considering the target of 2000 new jobs each year described in the regional profile in section 2. Also, the employment and contribution criteria allow for government funding of projects and non-commercial industries which have strong employment and social contributions.

The Industry Development Opportunities are assessed individually under the following groupings.

Group 1 – Extending Timber Resources
Group 2 – New Uses of Timber/Logs
Group 3 – New Uses of Timber and Residues
Group 4 – Non- Timber Forest Produce
Group 5 – Aboriginal & Heritage – Tourism and Education
Group 6 – Forest Based Recreation

The systems and guidelines for assessing and scoring are described in Section 5 of the report.

1. GROUP 1 – EXTENDED TIMBER RESOURCES

General comments for this group :
The regional profile has demonstrated the important role of the timber processing sector (both hardwood and softwood) for the Southern region. Any activities which serve to extend the resource which can be made available to this processing sector will therefore be important for the future generation of employment and incomes in the region.

All the opportunities in this group have therefore been allocated a fairly high priority, as they all serve to extend the resource available for the continued operation of this existing sector. Some have higher priorities than others, mainly for reasons of less requirement for incentives being available in order for the opportunity to be taken up.

The opportunities described in this group, together with the "score" that each achieved, is as follows. Further comment on each individual opportunity is provided in support of the reported results of the screening process, in the following tables.

Group 1 opportunities, and score achieved :

a)	New commercial hardwood plantations	48
b)	New commercial softwood plantations	56
c)	New plantations for carbon sink trading	44
d)	Forest plantations for biodiversity	42
e)	Forest plantations for rehabilitation	40
f)	Plantations for effluent disposal	48
g)	Farm forestry – commercial plantations	36
h)	Farm forestry – carbon sink trading plantations	32
i)	Farm forestry – rehabilitation plantations	34
j)	Nursery plantations – Christmas trees	40
k)	Plantation research	36

Project 1a. Description: New Commercial Hardwood Plantations

Screen Item	Assessment	Score
Resource Use	Resource land availability not fully identified; estimated need for 10,000 ha.	6
Market	Expanded market for Hardwood is not fully established	6
Employment	Planting and maintenance of plantations represent new jobs; AFFA estimates 15 to 20 persons per 10,000ha during the growing cycle and 50 to 60 people per 10,000ha during harvesting; indigenous employment opportunities	10
Investor	Large scale investment only partially researched	6
Scale	Multipliers of 2 in line with rest of industry	8
Skills	Existing skills plus training available	8
Government Support	Not clear as whether government will support	4
Total Score		**48**

Overall Comment: Adequate (i.e., commercially useful) volumes of hardwood from plantations are not yet available, and would require a long time frame before the industry could rely on adequate supplies. This development opportunity should be allocated a high priority, as the processing industry required to utilise the resource provided by plantations already exists in the region. The availability of timber from plantations would represent an additional resource for this processing industry, potentially offering economies of scale prospects, as well as long term resource security. However, the long term nature of hardwood plantation development raises some questions as to whether it represents the best long term use of land and whether the amount of "patient money" required will be available on the commercial market.

Potential also exists for land rehabilitation benefits, and carbon/salinity credit trade possibilities, in appropriate areas. See 1(e), 1(h). Income available from these markets (although not yet fully established) could act as an incentive to the development of commercial hardwood plantations. Employment support, and multiplier effects, would be significant, and would match existing skills. Long term support for an existing sector of economic activity would be beneficial from a regional development viewpoint.

Project 1b. Description: New Commercial Softwood Plantations

Screen Item	Assessment	Score
Resource Use	Resource land availability mostly identified	8
Market	Expanded markets for Softwood have been researched by Visy and State Forests	8
Employment	Planting and maintenance of plantations represent new jobs; AFFA estimates 6 to 10 people per 10,000ha during growing stage and 80 to 90 people per 10,000ha for harvesting; indigenous employment opportunities	10
Investor	Large scale investment has been explored with Visy and State Forests	8
Scale	Multipliers of 2 in line with rest of industry	8
Skills	Existing skills plus training available	8
Government Support	Government is supportive of expanded softwood plantations and is likely to assist with some funding and land annexure	6
Total Score		**56**

Overall Comment: Softwood represents a shorter term investment than hardwood and has already identified investors for future expansion of planned Visy production facilities. A private plantation manager is already establishing commercial areas of softwood plantations in the Bombala area, and the proposed development of the SDC sawmill at Bombala offers potential for markets to be available for the output of these plantations. As for hardwood plantations, this opportunity should receive a high priority.

However, as for hardwood plantations, the long term nature of hardwood plantation development raises some questions as to whether it represents the best long term use of land and whether the amount of “patient money” required will be available on the commercial market.

Potential also exists for land rehabilitation benefits, and carbon/salinity credit trade possibilities, in appropriate areas - see 1(e), 1(h). Income available from these markets (although not yet fully established) could act as an incentive to the development of commercial plantations. Employment support, and multiplier effects, would be significant, and would match existing skills. Long term support for an existing sector of economic activity would be beneficial from a regional development viewpoint. Ability to develop further processing capacity could be important longer term development opportunity – see section 2 of this appendix.

Project 1c. Description: New Plantations for Carbon Sink Trading

Screen Item	Assessment	Score
Resource Use	Resource land requirements may be less demanding than for commercial plantations	4
Market	Still awaits clarification of Kyoto protocols; so not defined at present	4
Employment	Planting and maintenance of plantations represent new jobs; employment depends on species selected (see 1(a) and 1(b); indigenous employment opportunities	10
Investor	Still awaits clarification of Kyoto protocols; so not defined at present	4
Scale	Multipliers not clear until rules finalised	6
Skills	Existing skills plus training available	10
Government Support	NSW government has indicated support but will look for commercial investment	6
Total Score		**44**

Overall Comment: Until decisions are made as an outcome of the Kyoto Conference, the "rules" for trade in carbon credits will not be clear. Clarification of funding sources and availability will need to await that decision.

Farm land availability and farm forestry incentives may need to be re-appraised in the light of Kyoto decisions. However, the eventual use of the resource provided by these plantations must also be considered. It is considered unlikely that any plantations would be established with carbon credit "sales" as the sole source of revenue – but the emergence of a strong market in such sales could provide a valuable incentive towards further plantation establishment, as this opportunity (the potential trade in carbon credits) may offer a financial incentive to reduce the "barrier" of the costs of plantation establishment. SFNSW has already pioneered this trade, in arrangements announced with various energy utilities (most notably with Tokyo Electricity Power Co.).

This opportunity would fit well with existing regional profiles, and employment. However, the existence of markets for the output of the plantations will be essential. This opportunity has therefore been allocated a lower priority that the development of commercial plantations. It should be regarded as an adjunct to 1a) and 1b), rather than as the sole reason for plantation establishment.

Project 1d Description: Forest Plantation for Biodiversity

Screen Item	Assessment	Score
Resource Use	Resource land requirements will be less demanding than for commercial plantations	6
Market	Not clear, but most likely to be promoted through government incentives, eg Murray Darling Basin	4
Employment	Planting and maintenance of plantations represent new jobs; employment depends on species selected (see 1(a) and 1(b); indigenous employment opportunities	8
Investor	Not clear, but most likely to be promoted through government incentives, eg Murray Darling Basin	4
Scale	Widespread but multipliers unlikely to be very high; may also impact outside SF Region	6
Skills	Existing skills plus training available	10
Government Support	This will require continual government support; the degree and responsibility has not been clarified	4
Total Score		**42**

Overall Comment: One of the main drivers for large scale plantations of this type will be conservation of indigenous flora and fauna, so therefore is most likely to come from government funded community or administration initiatives.

Otherwise, comments made in relation to the opportunities for developing plantations for carbon sink trading (see 1c) apply equally to this opportunity. The allocated priority is slightly lower, as no signs of a commercial market emerging in biodiversity “credits” is emerging as yet. However, public sector incentives could be provided for commercial plantation development in return for the perceived “public good” of enhanced biodiversity.

Until recently, softwood plantations were not considered to offer any biodiversity value. However, some debate is currently being conducted, as to the ability of softwood plantations (a monoculture of exotic tree species) to offer a resource for biodiversity. But it is likely that hardwood plantations will be more readily accepted as being able to offer biodiversity opportunities – the question of harvesting such forests, as opposed to being maintained in perpetuity as a conservation resource, will be an important determinant of the commercial opportunities offered.

Project 1e. Description: Forest Plantation for Rehabilitation

Screen Item	Assessment	Score
Resource Use	Resource land requirements will be specific and may require negotiation with land owners	6
Market	Not clear, but most likely to be promoted through government incentives, eg Murray Darling Basin	6
Employment	Planting and maintenance of plantations represent new jobs; employment depends on species selected (see 1(a) and 1(b); indigenous employment opportunities	8
Investor	Not clear, but most likely to be promoted through government incentives, eg Murray Darling Basin	4
Scale	Widespread but multipliers unlikely to be very high; may also impact outside SF Region	4
Skills	Existing skills plus training available	8
Government Support	This will require continual government support; the degree and responsibility has not been clarified	4
Total Score		**40**

Overall Comment: One of the main drivers for large scale plantations of this type will be the Murray-Darling basin programs to reduce salinity and erosion. Only a proportion of the expenditure for these programs will be within the SF region. Opportunities for salinity control credits currently being explored by SFNSW.

This opportunity again scores well, as providing a resource for an existing regional activity – as for all opportunities identified in section 1 – see above. However, a lower priority has been allocated to this opportunity as it is considered that current commercial constraints will preclude the establishment of plantations for purely environmental reasons. But government incentives, designed to provide environmental benefits, could provide sufficient attraction which (when combined with the existence of regional processing capacity) could further encourage plantation establishment.

Project 1f. Description: Plantations for Effluent Disposal

Screen Item	**Assessment**	**Score**
Resource Use	Land available to Local Government; needs to be in general vicinity of major towns	8
Market	Proven technology and represents desirable form of disposal of domestic effluents	8
Employment	Shorter term project involved in plantation and reticulation of trees. Some permanent employment	6
Investor	Local Government, with some government support. May form basis of BOOT investment	6
Scale	Medium scale investment with multpliers during construction but low afterwards	6
Skills	Plantation and reticulation tasks within skills of region, major sewerage reticulation may require outside contractors	8
Government Support	Local Government with some government support	6
Total Score		**48**

Overall Comment: Proven technology; may need incentives for Local Government. Also, potential for land rehabilitation, carbon/salinity credit trade in appropriate areas. See 1(e), 1(h).

All comments made for 1e) also apply here. A higher priority has been allocated to this opportunity, as the need to dispose of effluent is a pressing priority for local government in inland areas, especially since the introduction of latest State legislation governing disposal of effluents (and sewage discharge generally) into catchment areas. Financial assistance in the establishment of appropriate plantations for this reason may be readily acceptable, as a result of benefits accruing to local government.

The existence of existing processing activity remains the underlying factor supporting this opportunity – which from a regional development perspective can be regarded as another option for resource expansion.

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Project 1g. Description: Farm Forestry - Commercial Plantations

Screen Item	Assessment	Score
Resource Use	Farm forestry rules established in NSW	8
Market	Market not well established and will be affected by acceptance (or otherwise) of attraction of large scale plantations as an investment	4
Employment	Low level of additional employment; seen as additional income to farms	4
Investor	Low level, by farmers as funds available	4
Scale	Small scale; few multipliers and far reaching economic effects, unless government initiative	4
Skills	Skills can be learned by farmers and others	8
Government Support	No immediate government support; may be included as part of biodiversity or rehabilitation programs (1d) and/or 1(e).	4
Total Score		**36**

Overall Comment: Farm forestry is still seen as an adjunct to farm production that will produce marginal long term income for the farmer. With farm incomes low, there is little reason to expect expansion of farm forestry to generate major employment nor to become widespread practice without some external funding initiatives.

Outcomes of current Premier's Department chaired Taskforce into private plantations may contain suggestions for incentives to be introduced.

Lower priority allocated, as of less immediate attraction as a source of employment and regional economic activity than the commercial opportunities discussed above. But this could provide an important resource addition for the existing regional processing industry. Depending on individual preferences, speciality timbers could be developed on a farm basis – but the likelihood of commercial returns being provided would have to be considered limited. Farm forestry is more likely to be used to provide a marginal addition to incomes, and/or as a means of implementing land rehabilitation (e.g., reducing salinity impacts).

Project 1h. Description: Farm Forestry – Carbon Sink Trading Plantations

Screen Item	Assessment	Score
Resource Use	Appropriate,	8
Market	Still awaits clarification of Kyoto protocols; so not defined at present	2
Employment	As for 1g. Low level of additional employment; seen as additional income to farms	4
Investor	Still awaits clarification of Kyoto protocols; so not defined at present	2
Scale	Will need schemes of aggregation before farm forests will attract investors, but individually, will rely on exertions of farmers	4
Skills	Skills can be learned by farmers and others	8
Government Support	No immediate government support; may be included as part of larger Carbon Sink or rehabilitation programs (1c) and/or 1(e).	4
Total Score		**32**

Overall Comment: As for 1g. Farm forestry is still seen as an adjunct to farm production that will produce marginal long term income for the farmer. The scale of plantation required for effective Carbon Credits will require systems of aggregation before the practice becomes attractive to corporate investors. With farm incomes low, there is little reason to expect expansion of farm forestry to generate major employment nor to become widespread practice without some external funding initiatives.

Also see all comments made under 1c) regarding priority to be placed on this opportunity.

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Project 1i. Description: Farm Forestry - Rehabilitation Plantations

Screen Item	Assessment	Score
Resource Use	Appropriate,	8
Market	Not clear, but most likely to be promoted through government incentives, eg Murray Darling Basin	4
Employment	As for 1g. Low level of additional employment; seen as additional income to farms	2
Investor	Not clear, but most likely to be promoted through government incentives, eg Murray Darling Basin	4
Scale	Will need schemes of aggregation before farm forests will produce effective change, but individually, will rely on exertions of farmers	4
Skills	Skills can be learned by farmers and others	8
Government Support	No immediate government support; most probably will be included as part of biodiversity or rehabilitation programs 1(d) and/or 1(e).	4
Total Score		**34**

Overall Comment: : Farm forestry is still seen as an adjunct to farm production that will produce marginal long term income for the farmer. With farm incomes low, there is little reason to expect expansion of farm forestry for rehabilitation purposes to become widespread practice without some external funding initiatives.

See all comments made under 1 g) and 1h) as to reasons for the lower priority allocated to this opportunity. Strong financial incentives will be required to provide a major increase in this activity – but in certain areas (identified as having severe problems) such incentives could be justified from a "public good" standpoint.

Project 1j. Description: Nursery Plantations – Christmas Trees

Screen Item	Assessment	Score
Resource Use	Appropriate	8
Market	Most likely to come from wide acceptance of programs 1(a) to 1(d) promoting demand for large numbers of young trees. Christmas tree market is seasonal and competitive.	4
Employment	Shorter term project involved in plantation and reticulation of trees. Some permanent employment	6
Investor	Medium scale and could come from expansion of commercial nurseries, Botanical Gardens or could involve some government enterprise	4
Scale	Probably multiple locations and will represent new addition to employment demand in region. Some multiplier effects	6
Skills	Higher levels of botanical skills to produce young trees economically but within skills of region	8
Government Support	Government likely to support to ensure that plantation programs meet targets for programs 1(a) to 1(d).	4
Total Score		**40**

Overall Comment: This appears to be an appropriate new industry but will require external decisions on other plantation programs before it would present a possible commercial investment. It depends also on whether the provision of young trees for new plantations is undertaken by State Forests or by private investors.

A reasonably high priority has been allocated to this opportunity, compared to some of the others, because of the important employment impacts. However, the seasonal factors could act as a significant limitation to the commercial potential. An association between the supply of seedlings/growing trees for commercial plantations, and the ability to provide a specific product for a limited season, could greatly enhance the attraction of this opportunity.

Project 1k. Description: Plantation Research

Screen Item	Assessment	Score
Resource Use	Appropriate	8
Market	Predominantly government; very little private forestry research in NSW. May compete with FWPRDC and its funding streams	4
Employment	Medium scale and would represent new employment if a case for it can be established	4
Investor	Most likely to be government; commercial revenue stream for research establishment not clear	4
Scale	Will represent "value adding" if intellectual property can be offered for sale.	4
Skills	Skills exist within State Forests and CSIRO in general region	8
Government Support	Would require substantial government support	4
Total Score		**36**

Overall Comment: The establishment of a plantation research function has not been explored to sufficient depth for it to be seen as more than a "good idea". Clarification of Carbon Sink forest rules and the need for rapid carbon sequestration may provide a driver for commercial support of such an operation.

The development of new clonal material, particularly suited to the lower rainfall conditions prevailing in the inland areas of the region, could be particularly beneficial in increasing the commercial attraction of many of the opportunities identified in this section. An important longer term opportunity, although limited immediate stimulation in itself for the region – the results of research, when applied, would provide the returns.

2. GROUP 2 – EXTENDED TIMBER PROCESSING

General comments for this group :
This group is closely linked with Group 1 – it is concerned with finding new uses for the timber and logs which are provided by the extended timber resources provided by the Group 1 opportunities. In addition, this group is also concerned with finding new uses for existing timber resources – both hardwood and softwood. The opportunities in Group 2 therefore tend to involve extensions from the existing processing activity of the region. They offer expanded employment opportunities that are entirely appropriate to existing skills in the regional workforce. Where large scale investment is required, potential investors already exist from the ranks of the existing timber processing industry.

This group is important for the regional economy in offering opportunities for **value-adding** – that is, deriving products for which a higher market price can be obtained. Other forms of value-adding are provided by finding markets for a previously waste residue. As for Group 1, the opportunities in this group tend to be scored quite highly, indicating a high priority for development. The main reasons for the relatively high scoring include the existence of proven markets, the opportunities for economies of scale and value-adding, and major scope for employment generation and good multiplier effects.

The opportunities described in the group, together with the “score” that each achieved, is as follows. Further comment on each individual opportunity is provided in support of the reported results of the screening process, in the following tables.

Group 2 opportunities, and score achieved :

a)	New Sawmills – Adaminaby and Khancoban	46
b)	Increased use of mobile milling	46
c)	Increase softwood chip export to Korea	34
d)	Drying plant capacity increase	48
e)	Molding and dressing plant	48
f)	Timber treatment plant	48
g)	Bridge manufacturing plant	46
h)	High quality furniture manufacture	36
i)	Veneer and plywood mill	30
j)	Improved market development	Not scored at present (awaiting output of linked study)

Project 2a. Description: New Sawmills – Adaminaby and Khancoban

Screen Item	Assessment	Score
Resource Use	Uses the resource but viability will depend on the availability of a secure timber supply	6
Market	Market for sawn hardwood from this source has been researched as linked project	6
Employment	Middle size employer; range of 50-60 permanent jobs with employees drawn from local area	8
Investor	Medium sized investment that should require no government support; investors not identified	4
Scale	Below world scale mill but represents value adding in region	6
Skills	Skills are available in the region; some transfers from existing mills likely to occur	8
Government Support	Fits employment development objectives and makes no demand on government funds	8
Total Score		**46**

Overall Comment: This project scores well as it represents an extension of existing activity in the hardwood processing sector. Markets are proven, and all appropriate skills and services are immediately available.

However, the feasibility of these proposals and therefore the attractiveness to investors will depend on the security of timber supply after the RFA process. The project appears to be similar to other viable mills but cannot be progressed until supply is assured.

Other than a favourable decision regarding the future availability of resource, no Government incentives and/or funding would be required. These projects would be entirely consistent with regional development objectives already identified

Project 2b. Description: Increased use of mobile milling

Screen Item	Assessment	Score
Resource Use	Appropriate and will make use of smaller stands of timber such as farm forests and roadside trees	8
Market	Market for sawn hardwood specifically from this source has not been researched as linked project	6
Employment	Small, private employers; overall employment contribution to region small; possible opportunity for indigenous employment	6
Investor	Local, medium scale investment through commercial loans; investors will self identify	6
Scale	Not a great contributor to multipliers for the region	6
Skills	Some new skills in management but within capabilities in the region	8
Government Support	May be available for indigenous employment	6
Total Score		**46**

Overall Comment: As for 2a), this opportunity represents an extension of existing activity, with proven markets (generally) and skill levels. Particular advantages claimed for this proposal include :

- the use of small mobile mills avoids need for the major capital investment that would be required for a commercial sawmill
- small mills can potentially use smaller-end section logs, that would otherwise tend to be used as a pulp resource

However, these investments will be in small enterprises which, collectively, will make a small contribution to local employment. Mobile mills could offer part-time employment for people already involved in the timber industry, or for land-owners wishing to augment their incomes. As well as a low demand for labour, demand for other goods and services will also be low, thereby reducing the potential multiplier effect of this activity through the regional economy.

The growth of mobile or small batch mills will be useful to the utilisation of farm forestry resources. This project has been scored highly, as it represents an immediate opportunity for implementation. However, overall economic impact (and employment demand) will be low. There could be some local important effects, for example in the use of mobile mills to extract timber suitable for craft activities, and for indigenous employment.

Project 2c. Description: Increased Softwood Chip Export to Korea

Screen Item	Assessment	Score
Resource Use	Depends on the availability of plentiful supply of softwood which will have to come from new plantations, see 1b. Growth in Visy project could reduce available supply.	2
Market	Market established, but influenced by economic conditions in Korea – volatile situation throughout Asia. Currently no chip unloading facilities in Korea. Market tends to involve whole log export at present, not in chip form. Support required for transport to port if export to be competitive.	2
Employment	Could be large scale employer – 100 to 150	8
Investor	Large investment required, likely to be single enterprise. No investor identified at this stage	4
Scale	Could be large scale, depending on volume of resource secured.	6
Skills	Adequate skill levels exist in region	8
Government Support	Consistent with regional development objectives in stimulating plantation development – but local value-adding would be preferable to export of low value commodity.	4
Total Score		**34**

Overall Comment: The question of increasing export of woodchips from the region is contentious :

- on the negative side, wood chips are a low value commodity, and many consider this market to be a “waste” of the resource
- on the positive side, the export of chips provides a degree of “value-adding”, in providing a market for mill and logging residues, as well as for the residues of silvicultural practices such as plantation thinning.

At present, a strong market exists in the export of hardwood chips, for which no domestic processing capacity (e.g., a hardwood pulp and/or paper mill) currently exists. No softwood chips are exported from the region, although whole logs (softwood pulp logs) are currently exported from Port Kembla for chipping (and pulping) in Japan. In order to be competitive in the market, the Government currently provides a transport subsidy for these logs, so that jobs are retained in areas such as Bombala.

This opportunity potentially involves a large investment, with large employment potential, but it will rely on a private investor reaching optimistic conclusions concerning market, and also on being able to secure adequate resource. This is unlikely to occur until new plantations come on stream, as the Visy plant in Tumut will provide an attractive market for the available pulp resource of the region. As a result, this opportunity is not considered to be an immediate prospect, and so is not scored highly.

In the longer term, it would be prefereable to utilise existing domestic value-adding (further processing) capacity on-shore. While woodchip export could provide valuable market for early thinnings from plantations, it may provide difficult to maintain volumes given existing processing capacity existing in region.

2d. Description: Drying Plant capacity increase

Screen Item	**Assessment**	**Score**
Resource Use	Available resource once RFA determined	8
Market	Linked project – strong potential for market development	8
Employment	2-3 per installation, but important support function for sawmill employment	6
Investor	Private, existing mill operators – with FISAP funding	6
Scale	Small individually, but could lead industry into viable expansion	6
Skills	Generally available in region	8
Government Support	Incentives would be required, via financial assistance with capital costs	6
Total Score		**48**

Overall Comment: As with project 2 a), a decision on the RFA for the Southern region is required before this investment decision will be made. Government support could also be available via FISAP to act as incentive to investment, once resource security provided. Strong links with project 2j), as prerequisite for market development.

This project is scored highly, and is recommended for high priority attention. It is entirely consistent with regional development goals already identified, and with regional capabilities, in that it :

- provides a value-adding opportunity
- builds on existing commercial activity in the region
- supplies to proven markets
- has immediate investment attractions
- fits within existing Government support programs
- increases regional income
- supports regional employment
- strengthens existing capacity in support activities

Projects of this nature have the potential to increase returns for existing sawmills, and to build a value-adding, sustainable, industry for the region.

Project 2e. Description: Molding and Dressing Plant

Screen Item	Assessment	Score
Resource Use	Available resource once RFA determined	8
Market	Strong potential for market development	8
Employment	5-6 per installation, but important support function for sawmill employment	6
Investor	Private, existing mill operators – with FISAP funding	6
Scale	Small individually, but could lead industry into viable expansion	6
Skills	Generally available in region	8
Government Support	Incentives would be required, via financial assistance with capital costs	6
Total Score		**48**

Overall Comment: As with project 2 d), a decision on the RFA for the Southern region is required before this investment decision will be made. Government support could also be available via FISAP to act as incentive to investment, once resource security provided. Strong links with project 2j), as prerequisite for market development. Project 2 d) would also be a pre-requisite, in that dried sawn timber is required for molding and dressing to occur.

This project is scored highly, and is recommended for high priority attention, after the kiln drying capacity has been provided in the region. It is entirely consistent with regional development goals already identified, and with regional capabilities, in that it :

- provides a value-adding opportunity
- builds on existing commercial activity in the region
- supplies to proven markets
- has immediate investment attractions
- fits within existing Government support programs
- increases regional income
- supports regional employment
- strengthens existing capacity in support activities

Projects of this nature have the potential to increase returns for existing sawmills, and to build a value-adding, sustainable, industry for the region.

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Project 2f. Description: Timber treatment plants

Screen Item	**Assessment**	**Score**
Resource Use	Available resource once RFA determined – also links with softwood sector. Spotted gum excellent material for treated poles, piles, girders	8
Market	Good potential for market development in speciality timbers area	8
Employment	5-6 per installation, but important support function for sawmill employment	6
Investor	Private, existing mill operators – with FISAP funding. Possibility of new entrant to industry	6
Scale	Commercial (medium) scale. Good diversification and value-adding for industry	6
Skills	Generally available in region	8
Government Support	Incentives would be required, via financial assistance with capital costs	6
Total Score		**48**

Overall Comment: As with projects 2 d) and 2 e), a decision on the RFA for the Southern region is required before this investment decision will be made. Government support could also be available via FISAP to act as incentive to investment, once resource security provided. Strong links with project 2j), as prerequisite for market development.

This project is scored highly, and is recommended for high priority attention. It is entirely consistent with regional development goals already identified, and with regional capabilities, in that it :

- provides a value-adding opportunity
- builds on existing commercial activity in the region
- supplies to proven markets
- has immediate investment attractions
- fits within existing Government support programs
- increases regional income
- supports regional employment
- strengthens existing capacity in support activities

Projects of this nature have the potential to increase returns for existing sawmills, and to build a value-adding, sustainable, industry for the region.

There may be some concerns over environmental controls required over chemicals used in treatment process. However, it has been assumed that these controls can be provided, so that projects 2 d), 2 e), and 2 f) are all recommended as high priorities for implementation.

Project 2g. Description: Bridge manufacturing plant

Screen Item	Assessment	Score
Resource Use	Available resource once RFA determined. Will require large section logs. Coastal species suited to construction uses such as bridges	8
Market	Good potential for market development in speciality timbers area. Some limitations possible if RTA moves away from timber bridge materials	8
Employment	Not clear, but could involved 10-15 persons in a manufacturing plant	4
Investor	Private, existing mill operators – with FISAP funding. Possibility of new entrant to industry	6
Scale	Commercial (medium) scale. Good diversification and value-adding for industry	6
Skills	Generally available in region	8
Government Support	Incentives would be required, via financial assistance with capital costs	6
Total Score		**46**

Overall Comment: As with projects 2 d), 2 e) and 2 f), a decision on the RFA for the Southern region is required before this investment decision will be made. Government support could also be available via FISAP to act as incentive to investment, once resource security provided. Strong links with project 2j), as prerequisite for market development.

This project is scored highly, and is recommended for priority attention. It is entirely consistent with regional development goals already identified, and with regional capabilities, in that it :

- provides a value-adding opportunity
- builds on existing commercial activity in the region
- supplies to proven markets
- has immediate investment attractions
- fits within existing Government support programs
- increases regional income
- supports regional employment
- strengthens existing capacity in support activities

Projects of this nature have the potential to increase returns for existing sawmills, and to build a value-adding, sustainable, industry for the region. This project scored slightly lower than projects 2 d), 2 e) and 2 f), as it is less likely to provide an “add-on” to an existing sawmill but would require the construction of a new facility. The investment barrier would therefore be higher. There are also some uncertainties regarding the market, as demand would be dependent on the RTA continuing a policy of using timber bridges.

Project 2h. Description: High Quality Furniture Manufacture

Screen Item	Assessment	Score
Resource Use	Dependent on further capacity addition to drying and dressing plants, for large scale utilisation – resource exist at adequate quality, if RFA allows continued extraction	6
Market	Only 32% of furniture made in Aust. uses hardwood – mainly Tas Oak and Jarrah. But niche market exists, details required as to scale, nature, etc. Further market investigation required	8
Employment	Likely to be small scale, could be adjunct to craft cottage industry (see 6a), or to joinery operation.	4
Investor	Could be significant capital cost in equipment required, private operator – or potentially cooperative of existing timber processors	4
Scale	Likely to be small – high cost, high margins required	4
Skills	Some training likely to be required – TAFE School of Furniture Manufacture proposed by Eurobodalla Shire.	4
Government Support	Incentives would be required for initial start-up, may be eligible for Regional Business development funding. Eurobodalla Shire is seeking funding to employ an Industry Development Manager to progress a woodworking industry centre.	6
Total Score		**36**

Overall Comment: as with all “new timber use” options, this opportunity is dependent on RFA outcomes, and adequate access to suitable quality timber being available.

As indicated in the details provided in the table, investment incentives could be required, given current uncertainty over continued operation of hardwood industry. However, the development of a furniture manufacturing capacity in the region could be part of heritage/tourism development, e.g., within a “Timber Production Centre” on the Highway at Bateman’s Bay. Eurobodalla Council has completed some investigations of the potential for this activity, and would be available for consultation with regional development agencies or other parties interested in progressing this opportunity.

The project is again consistent with regional development objectives, in providing an opportunity to add value to a regional natural resource – the forests of the region. In addition, the development of appropriate training courses would enhance the skill levels of the regional workforce. This project would also fit well with the craft and other “tourism” projects identified for the region.

Project 2i. Description: Veneer and Plywood Mill

Screen Item	Assessment	Score
Resource Use	Potentially suitable volumes from coastal area – but needs RFA decision to determine access to spotted gum. Around 5,000 m^3 could be provided.	6
Market	Plywood, LVL, and veneer markets available in Aust., for both peeled and sliced veneer. Imported veneers important. Sliced veener important in furniture market.	8
Employment	Varies with process : 70-80 rotary peeled veneer 180-200 plywood 100-150 LVL 10 –12 sliced veneer	6
Investor	Capital cost varies with process : $25-30 million rotary peeled veneer $40-50 million plywood $45-55 million LVL $6-7 million sliced veneer	4
Scale	World scale plywood mill around 50,000 m^3, in Australia 25,000 m^3 may be competitive for hardwood peeled veneer. Not enough resource in region for new mill. LVL plant requires 80,000 m^3 minimum throughput.	2
Skills	Basic timber milling skills exist in region, some new training would be required.	2
Government Support	Major capital investment required. Options for integration with existing softwood processing, to produce composite products.	2
Total Score		**30**

Overall Comment: This would appear a very attractive project – as with 2 e), 2 f), and 2 g), it offers an opportunity to value-add. In addition, it provides an integrated dimension to the hardwood sector that has been lacking to date. Dependent on the RFA outcome, resource of suitable species could be available.

However, this project has not been scored as highly as the preceding ones, as the local resource does not appear to be able to meet the scale requirements for a world competitive plant. The limited volume available (as demonstrated by a linked project) suggests the best option will probably be to :

- supply the existing plywood mill (located in Wagga) from inland areas
- develop a composite LVL mill based primarily on the regional softwood resource
- sell coastal veneer logs to existing plywood producers (northern NSW and interstate).

This project therefore will not be as attractive for the region as might otherwise be expected.

Project 2j. Description: Improved market development

Screen Item	**Assessment**	**Score**
Resource Use		
Market		
Employment		
Investor		
Scale		
Skills		
Government Support		
Total Score		

Overall Comment: Linked project – output was not available for this report. Improved market knowledge and access would be an essential component of attempts to increase output of value-added products, such as speciality heavy engineering timbers (construction timbers, beams, etc.), furniture, dried/dressed joinery timbers, etc.

3. GROUP 3 – NEW USES OF TIMBER AND RESIDUES

General comments for this group :
Group 1 projects are concerned with extending the timber resource, and group 2 with finding new uses for the timber and logs produced from this resource. Group 3 introduces a new dimension, in considering new uses of wood fibre (timber) and residues, that are not associated with traditional milling activities.

Overall, this group of projects do not score as well as the group 1 and 2 projects. This is because less is known of the technology and/or markets and/or scale of operation required. This group provides a longer term set of opportunities, exploring new applications of wood fibre, that may well provide feasible at some later date in the future. However, at present this group must be considered more speculative than the projects discussed in groups 1 and 2. Investor interest cannot be expected to be as strong as for groups 1 and 2, because of this more speculative nature of the projects.

This group will require further investigation – particularly of markets and of the scale of operation required – before they can receive a higher priority for implementation. In most cases, the likely employment impact is small, which will reduce the attractiveness of these projects in terms of meeting the regional need to create new employment. However, they are potentially consistent with regional development objectives, in that they are all based on adding value to a local resource.

One project (biomass energy generation) has been the subject of a linked project as part of the RFA process. While receiving considerable interest as a means of utilising residues and at the same time meeting "green power" objectives, it has been concluded that a biomass energy generating project would not be feasible under current energy pricing regimes, due to the inability of this region to meet scale constraints.

The opportunities described in the group, together with the "score" that each achieved, is as follows. Further comment on each individual opportunity is provided in support of the reported results of the screening process, in the following tables.

Group 3 opportunities, and score achieved :

a)	Charcoal manufacture	28
b)	Ti tree oils	28
c)	Speciality use turpentines	22
d)	Ethanol	20
e)	Wood briquettes	32
f)	Firewood	36
g)	Biomass Energy Generation	26

Project 3a. Description: Charcoal manufacture

Screen Item	**Assessment**	**Score**
Resource Use	Uncertainty as to quality of resource required, and applicability of technology to use resource	4
Market	Feed stock could be required at BHP plant in Illawarra, and silicon plant proposed for Central West region. Both uncertain	4
Employment	Uncertain, but likely to be limited to support for existing sawmill employment	2
Investor	Private – probably existing mill operator finding new outlet for residues to improve recovery.	4
Scale	Small – self-employment or using existing mill employees	4
Skills	Likely to match existing skills	6
Government Support	Could be required to overcome capital costs, and/or to ascertain market prospects	4
Total Score		**28**

Overall Comment: Charcoal has a long tradition as a forest product, having been used as a heating fuel for centuries, as well as for specialised artists' materials. This proposal involves production of charcoal for use in certain industrial processes, as is currently done in W.A. using residues from forests in the south-west of that state, supplying a silicon smelter.

At present, a degree of uncertainty exists over the nature of the resource, and of the likely market that might exist. If both these can be firmed, then there are reasonable prospects for effective use of what may otherwise be forest/milling residues.

Employment opportunities are also uncertain, but are probably limited. Charcoal manufacture ould provide a useful market diversification for existing mill operators, or could provide employment for a small group of individuals, depending on level of technology required.

As indicated, this project is not recommended for priority attention. It is likely that considerable support will be required, either in the provision of assistance with further market investigations, and/or with the capital costs likely to be required.

Project 3b. Description: Ti tree oil

Screen Item	**Assessment**	**Score**
Resource Use	Little commercial plantation development as yet	2
Market	Markets developed for North Coast production, in pharmaceutical area. Locally could expect some markets in tourist outlets. Not proved	4
Employment	Limited – self-employment, alternative for existing farmers. No existing processing facilities	4
Investor	Production low scale, private landowners. Oil extraction and packaging would require more investment, could be potential for cooperative	4
Scale	Small – but commercial plantations estimated (RIRDC) to require 200 ha. Investment over $4 million, recurrent inputs $9.5 million	4
Skills	Basic horticultural, some extension in plant husbandry required. Marketing role required, to meet competition from established N. Coast industry.	6
Government Support	Likely to be required to get initial plantings underway, and support extraction/packaging plant. Registration requirements.	4
Total Score		**28**

Overall Comment: the ti-tree oil industry has developed very rapidly in the forest areas of the North Coast of NSW, where material was originally harvested from native forests. A number of land-owners have now developed small plantations, which are harvested on a routine basis. Small distilleries have been developed, but opportunities could exist for the establishment of larger central facilities which would serve a number of producers.

The ability to maintain the current farm gate price of oil (which makes ti-tree oil production viable at present), in the face of additional production being introduced, is unknown. This project could be attractive to a private investor if a market could be found that meets regulatory needs and can also lock in to long term price. Studies conducted by the RIRDC suggest that while the current farm gate price on the North Coast is $45/kg , major risks to financial viability will occur if the price drops below $30/kg.

Overall, this project is not recommended as a high priority, because of these risks which could be expected to discourage investors. The employment prospects are also not likely to make this project a high priority for regional development purposes.

Project 3c. Description: Speciality use turpentines

Screen Item	**Assessment**	**Score**
Resource Use	Coastal forests could provide suitable resource, although more common in N. Coast regions. Not proven.	2
Market	Production of speciality timbers (e.g., for boat building) could provide synergy. But largely unproven for this area.	2
Employment	Small – unlikely to total more than 10 to 20.	2
Investor	Private – likely to be adjunct to existing milling operation, to overcome capital cost barrier	4
Scale	Small – market is limited, resource not proven.	4
Skills	Likely to be available, depending on technology.	4
Government Support	Almost certain to be required, as market limited, and assistance required in proving that resource exists under known technology.	4
Total Score		**22**

Overall Comment: Little is known about the details of this project - especially in terms of the nature of the resource, the market, or the most appropriate technology.

It is not likely to form a major area for employment growth. More market investigation, and proving of resource availability, would be required before feasibility could be assessed.

For these reasons, this project has not been scored highly, and is not recommended for high priority attention.

Project 3d. Description: Ethanol

Screen Item	**Assessment**	**Score**
Resource Use	Extraction of ethanol (as liquid fuel) from biomass is theoretically possible. Pilot plant has been operating in region (SFNSW)	6
Market	Very limited under present price structure for alternative liquid fuels	2
Employment	Not large – only 10-20, at single plant	2
Investor	Current price structures unlikely to make project attractive enough for private investor. Government would have to continue pilot operation to establish economics	2
Scale	Small within foreseeable future.	2
Skills	New technology for region – training would be required	4
Government Support	Would be required.	2
Total Score		**20**

Overall Comment: interest is high is finding alternative sources of liquid fuels, to reduce dependence on fossil fuels and to move towards renewable energy. Any project that can convert a plant material, which can be regrown, into a potential fuel for transport needs, must be considered in this regard. Countries such as Brazil have long used bagasse (the residue left after sugar cane harvesting) to produce ethanol, which is in turn used to substitute for fuels derived from hydo-carbon oils.

A pilot plant has been operating in the Shoalhaven area, to extract ethanol from wood residues. However, production of ethanol is unlikely to be commercially viable under the current energy pricing regime in Australia – large reserves of coal will continue to provide electricity at lower prices, and transportation fuel will continue to be provided by fossil fuels for the foreseeable future.

Ethanol was not included in the linked study on biomass energy generation (see 3 g) below), and little information is currently available as to appropriate technologies and relative costs. This project will be of little commercial interest in the immediate future, but on-going research into this technology should be facilitated.

Project 3e. Description: Wood briquettes

Screen Item	Assessment	Score
Resource Use	Use of residues from existing milling operations, of appropriate equipment added.	6
Market	Canberra domestic use, depending on air pollution control regulations – emissions unknown	4
Employment	Small – probably support to mill employment, plus transport. Low impact, likely 10-20 total	4
Investor	Private – could be add on to existing mill operation	4
Scale	Not yet determined, economies of scale for manufacture may act as constraint. Ability to penetrate firewood market may also limit volume.	4
Skills	Likely to match existing labour force skills	6
Government Support	Capital costs unknown, could be role for FISAP funding – support likely to be required.	4
Total Score		**32**

Overall Comment: This project offers a reasonably good potential to increase the commercial utilisation of the regional forest resource, via residue use. However, employment generation from this project is likely to be limited.

Market information is lacking at present, particularly on issues such as the transport logistics to Canberra. Existing sales of firewood may also act to limit the price levels likely to be achieved. Other constraints relate to a lack of information as to the scale of a briquette manufacturing plant that could be required for the operation to be viable. The scale would also have to be matched with the available resource that could be brought to a processing location at an economic cost.

While rating higher than some of the other projects in this group, this opportunity is not recommended for high priority attention. It is unlikely to offer sufficient employment creation to be of interest to regional development agencies, who might otherwise ensure that support and incentives were made available. The uncertainties existing as regards markets and scale may also tend to make this project relatively unattractive to investors.

Project 3f. Description: Firewood (Canberra market)

Screen Item	Assessment	Score
Resource Use	Small wood likely to be available in good proximity as firewood resource	8
Market	Canberra domestic market requires fuel, but unknown competitive position, and uncertainty over possible constraints to further use of wood as fuel, via air pollution controls.	4
Employment	Small, likely to be part-time employment by locals – some scope for indigenous employment as community group. Any inroads to market could displace existing providers of firewood	4
Investor	Low requirement – provision of vehicles as main requirement. Private sources	4
Scale	Small – low capital, low employment	4
Skills	Would suit existing skill base – no specific requirements	6
Government Support	Income support likely to be claimed if full-time employment lost to part-time wood collection – no formal Govt. support	6
Total Score		**36**

Overall Comment: This project has received the highest score within the group – but is still not recommended as a "high priority" project for implementation. The main reason for this is that the project does not provide major employment opportunities. Rather, it is likely to be operated as a "hobby" activity to augment other income sources, rather than as a new industry. This opportunity does not represent a major new direction for regional development, although it could provide a useful means of disposal of logging residues and non-commercial stems.

However, a business collecting and supplying firewood to the Canberra market could be an attractive source of additional income for community groups. There are however unknown potential constraints via air pollution restrictions. The competitive position existing within this industry, in terms of existing operators, is also unknown.

No specific Government support would be required to encourage this industry. If groups express interest in collecting firewood, and pay the appropriate licences for use of a public resource, some activity could result.

Project 3g. Description: Biomass Energy Generation

Screen Item	Assessment	Score
Resource Use	Major use for residues (forest and mills) – around 100,000 tones could be available, sufficient to power a 10MW power plant, yielding 75 GWh/yr.	6
Market	Limited at present – cogeneration at processing plant would be more immediate demand. Cost of power of $80-$100/MWh likely to be required to justify biomass energy venture – compared to marginal prices of $25-$30/MWh for coal fired electricity, and $38/MWh for a new power station.	4
Employment	Limited, but unknown	4
Investor	Costs for 10MW plant in range $25-80 million.	2
Scale	Quantity of resource available not considered viable	2
Skills	Highly technical process, but limited employment	4
Government Support	Would be required to develop pilot plant, and to underwrite market price for energy produced, as sole project. Could be less if biomass used as co-generation fuel. But Govt. has committed $20 million to Renewable Energy Equity Fund, to provide venture capital for small innovative renewable energy companies, on 2:1 funding basis with private sector.	4
Total Score		**26**

Overall Comment: A number of different interest groups have all suggested biomass energy generation as a worthwhile opportunity for investigation in this analysis of potential forest-based developments. A linked study (Industry Initiatives) has provided further information as to the commercial viability of a BEG project on the Southern RFA region.

The linked study calculated that waste wood produced in Southern RFA forest could total around 100,000 tonnes per annum, sufficient to power a 10 MW generator. This could generate around 75 GWh./year of electricity. However, this power would have to be priced at around $80 to $100 per MWh, which is much higher than marginal coal-fired electricity prices of between $25 to $30/MWh, or even $38/MWh as average prices for a new power station.

Biomass energy is the most likely form of renewable energy to be developed using the forest resource, but it will not be viable while Australia is able to access large reserves of steaming coal. Some local opportunities may exist for co-generation to meet processing heat/power needs on individual plant basis (e.g., timber treatment plant, large veneer production plant, food processing plants).

Although receiving a relatively low score, and not being recommended as a high priority for development, further investigations should continue. Technological advances, and/or changes in power pricing in Australia, could provide an opportunity for using this resource for power generation at some time in the future.

4. GROUP 4 - NON TIMBER FOREST PRODUCE

General comments for this group :
There are a number of other activities (existing or potential) which can be based in forested areas but which do not involve the extraction of timber. Some of these opportunities are traditional activity (e.g., apiary), others are now being operated at a commercial but cultivated level (e.g., native flowers, bush foods), or at a very small scale (e.g., seed collection). Others will not require any new technology, but will require some significant capital investment to become a commercial operation (e.g., aquaculture and kangaroo meat).

This group therefore raises a question as to the extent to which they are truly "forest based", as to be commercial many will require cultivation rather than collection from native forest. Activities such as kangaroo meat harvesting can occur wherever kangaroos are found – and most commercial kangaroo harvesting occurs in the inland plain areas rather than in coastal forests. Activities such as aquaculture are being promoted by the NSW Government as a "new opportunity", but again is not generally considered as being forest based.

Group 4 opportunities, and score achieved :

a)	Apiary produce	40
b)	Bush Foods	32
c)	Native cut flowers and foliage	44
d)	Seed collection	38
e)	Kangaroo meat	30
f)	Aquaculture	42

Project 4a. Description: Apiary Produce

Screen Item	**Assessment**	**Score**
Resource Use	Non-timber use of resource with few adverse environmental impacts	10
Market	Established market with export and value adding possibilities	8
Employment	Low employment impact; marginal increase in existing apiary; some seasonal employment	4
Investor	Low marginal increase; serviced from existing industry or loans	4
Scale	Small scale, “cottage industry” but with national brand names; good value adding	4
Skills	Small addition at the margin and local workforce available	4
Government Support	Licensing required but no need for government financial support	6
Total Score		**40**

Overall Comment: The apiary industry has long been a part of the regional economy of the Southern Region. Although not reliant solely on the nectar and pollen resource of forests, access to sites within the State Forests of the region is important for bee colony health, and thus for production of apiary products. The revocation of State Forests to National Park status precludes access by bee-keepers as the honey bee is not a native species. However, no evidence of negative impact from the operations of managed bee colonies, on native flora and fauna, has been demonstrated.

Any extension of this well established industry will require access to the forest resource that has not been available before. The overall employment and economic impact will not be great for the region, but the industry can be extended without major investment or skills development. Markets for honey are well developed, and apiary activities provides an income supplement to many primary producers. In addition, studies have demonstrated the significance of honey bees in the production of many agricultural crops such as lucerne, canola, and many fruit varieties, via their pollination benefits.

This industry has the potential to make an increased contribution to the regional economy, directly and indirectly. There are few constraints to its expansion, other than regulations which limit access to some forest areas.

Project 4b. Description: Bush Food

Screen Item	Assessment	Score
Resource Use	Non-timber use of resource with few adverse environmental impacts	10
Market	Not researched at this stage and will need to be tied to tourism "packages" in the region	2
Employment	Low employment impact; marginal increase in local food packaging; some seasonal employment	4
Investor	Low marginal increase; serviced from existing industry or loans	4
Scale	Small scale, "cottage industry" with existing brand names; good value adding	2
Skills	Small addition at the margin and local workforce available; opportunities for indigenous employment	4
Government Support	Will need to meet health food standards for domestic markets and higher standards for export	6
Total Score		**32**

Overall Comment: The "bush tucker" industry is an emergent industry which is the subject of much investigation and research at present. The RIRDC Handbook on New Rural Industries (The New Rural Industries – a handbook for farmers and investors) lists four Key Points for the development of a bush food industry. They are :

- Develop safe food standards and practices
- Improve industry education, promotion and information
- Improve production efficiencies and develop sustainable production systems
- Identify specific market opportunities to maximise industry profitability.

Some bush foods are native to this region, although others for which markets are being developed are not found here – but some could be cultivated in parts of the region. It should be noted that the RIRDC advice on the industry is directed at cultivation of bush food rather than natural gathering. Agronomic practices are being researched for the cultivation of bush foods, but for an activity to be based on the native forests of the region, it is assumed that only natural gathering will be proposed.

Opportunities in this area would therefore be small scale, with little generation of full-time employment. However, it is likely that a niche market could be developed, either via sale to restaurants in the area wishing to promote "native" produce, or via links with tourism/craft outlets. Such activity could provide income augmentation for some, or income for communities operating in a collective manner.

Access to national parks and conservation reserves for the purposes of gathering bush foods may be restricted. Certainly, physical access may be limited as no roading would be available other than old logging roads.

Project 4c. Description: Native cut flowers and foliage

Screen Item	Assessment	Score
Resource Use	RIRDC notes the SF region as being appropriate for cut flowers and foliage, but there is a question of access to sufficient areas of forest	6
Market	National export market well defined and researched; requires well established but competitive distribution arrangements.	6
Employment	Seasonal; opportunities for indigenous employment	6
Investor	Low if permission granted for gathering of natural bush, but high (and high risk) if cultivated	6
Scale	Cut flower export Australia-wide $15 million; local economic impact and multipliers would be medium range for the region. Foliage exports 1995 $540,000	6
Skills	Within capabilities of regional workforce	8
Government Support	Would need government support to establish indigenous industry based on either natural bush gathering or cultivation.	6
Total Score		**44**

Overall Comment: : This opportunity share many similarities with 4 b) above, especially in terms of the gathering of naturally growing material, rather than cultivation of appropriate species in the region.

One of the main species that would be available from the forests of the region would be eucalypts, which provide both foliage and flowers. The RIRDC Handbook on New Rural Industries gives four Key Points for the development of a eucalypt cut flower and foliage industry. They are :

- Natives are exported to markets in Asia, Europe and USA
- the Japanese market undersupplied
- Wide climate and soil tolerance
- Peak industry body is AF&PGA
- Supplying the northern hemisphere in off season is a competitive advantage

In addition to relevant eucalypt species, other species, appropriate for use as cut flowers or as foliage, that could be expected to occur in this region, would include kangaroo paw, waratah, and protea. As with bush foods, the RIRDC advice on the industry is directed at cultivation of native flora rather than natural gathering, but for an activity to be based on the native forests of the region, it is assumed that only natural gathering will be proposed.

Opportunities in this area would therefore be small scale, with little generation of full-time employment. However, it is likely that a niche market could be developed, via links with tourism/craft outlets. Such activity could provide income augmentation for some, or income for communities operating in a collective manner.

Access to national parks and conservation reserves for the purposes of gathering flowers and foliage may be restricted. Certainly, physical access may be limited as no roading would be available other than old logging roads.

Project 4d. Description: Seed collection

Screen Item	**Assessment**	**Score**
Resource Use	Appropriate use of natural or plantation resource but permission to use native timber or plantations will need to be negotiated	6
Market	Not fully established and will depend on Carbon Sink and rehabilitation decisions, see 1(c) & 1(d)	4
Employment	Seasonal; opportunities for indigenous employment	4
Investor	Low if permission granted for gathering of natural and plantation, but high if cultivated	6
Scale	Local economic impact and multipliers would be medium range for the region	6
Skills	Within capabilities of regional workforce	8
Government Support	Would need government support to establish indigenous industry based on either natural bush gathering or cultivation.	6
Total Score		**38**

Overall Comment: The RIRDC Handbook on New Rural Industries does not specifically cover seed collection. Better information on demand and likelihood of seed collection as a commercially feasible business will need to come from State Forests.

Increased interest in tree planting for land rehabiliation/salinity/carbon credit reasons, and specifically in the use of natives rather than exotic softwoods, can be expected to create increased demand for the supply of seeds, and seedlings. State Forests already operates a number of native tree nurseries, for the supply of seedlings. In WA, the collection of seed is an important activity for the growing of eucalypt seedlings for plantation establishment.

As with bush foods and flower.foliage collection, it is assumed that only natural gathering will be proposed. Opportunities in this area would therefore be small scale, with little generation of full-time employment. However, it is likely that a niche market could be developed, via contact with specialist native nurseries . Such activity could provide income augmentation for some, or income for communities operating in a collective manner. The development of specialist native nurseries could be an appropriate longer term development opportunity, linked with activities associated with plantation and farm forestry expansion.

Access to national parks and conservation reserves for the purposes of gathering seed may be restricted. Certainly, physical access may be limited as no roading would be available other than old logging roads.

Project 4e. Description: Kangaroo Meat

Screen Item	Assessment	Score
Resource Use	Will require permission to cull kangaroos from within State Forests in the Tarago area	2
Market	Domestic market through specialist food outlets; export market highly controlled through AQIS and food processing standards	4
Employment	Opportunity for indigenous employment but overall small addition	4
Investor	Need for specialised mobile abattoir and cold storage; technically feasible; medium range	4
Scale	Good value adding to resource; overall addition to local economy relatively small.	4
Skills	Within the capabilities of local workforce	8
Government Support	Government approvals for access to kangaroos and health controls will be imposed; financial support wold be needed for indigenous industry	4
Total Score		**30**

Overall Comment: at present, most of the commercial kangaroo harvesting in NSW takes place in the Western Division, where individual operators use mobile chillers to support hunters. At present, there would appear to be no commercial rearing of kangaroos. The market is small, and demand limited to pet food and to specialised food (retail and restaurant) outlets.

There are questions about whether permission would be granted to cull kangaroos in state forests in question. Mobile abattoirs have been used for wild goats (to produce meat for export) so the use of mobile abattoirs, as an alternative to shooting, would appear to be technologically feasible. However, a considerable amount of more formal study would be required in order to establish the feasibility of such an operation.

Certainly, access to national parks and conservation reserves for the purposes of shooting kangaroos would not be permitted. Health and food safety regulations would also act as a constraint to this activity.

In terms of regional development, this opportunity would not attract a high priority, as the employment impacts would be low, and the market (at present) is limited. A large scale investment would be required if a commercial/industrial operation were to be established, to provide kangaroo meat in quantities sufficient to supply regular export markets.

Project 4f. Description: Aquaculture

Screen Item	**Assessment**	**Score**
Resource Use	Not strictly a "forest based" industry but may assist in proving rehabilitation effectiveness. RIRDC does not identify coastal subdivision as target area for aquaculture	6
Market	Well researched by RIRDC and domestic market active, but not specific to SF region	8
Employment	Establishment requires construction labour but operations provide only small demand	6
Investor	Private investors are well documented and in medium range	6
Scale	Has good value adding potential; medium contributor to local economy	6
Skills	A large learning need for husbandry techniques; within capabilities of local workforce	8
Government Support	Government approvals and health controls will be imposed; financial support wold be needed for indigenous industry	6
Total Score		**42**

Overall Comment: The NSW Government has produced a "prospectus" in aquaculture opportunities in NSW, recognising that 25% of all seafood consumed worldwide is produced through aquaculture. This proportion is forecast to increase to 40% by the year 2010 (UN FAO), as a result of increasing demand for seafood that wild capture fisheries will not be able to meet. Opportunities for aquaculture in NSW are expected to extend from traditional species such as trout to native species such as silver perch, yabbies, and Murray cod. There are over 75 types of fish, shellfish, crustaceans and aquatic plants listed for culture in NSW, including natives and introduced species. Eighteen species are currently in commercial production, and ten species are considered to offer particular commercial potential.

RIRDC key messages for the successful establishment of aquaculture operations in Australia include :

- Excellent potential for new industry
- Potential for limited environmental impact
- Water resources currently not used
- Techniques need to be developed

The RIRDC information covers a wide range of fish species and includes abalone, Eels, Marron and Yabbies.

However, the extent to which aquaculture can be considered as being "forest-based" could be questioned. The establishment of "farms" for fresh water species is more likely to occur in areas of flat, cleared land. Salt water species will require enclosure of areas of sea – as occurs in Tasmania. While forests play a role in protecting water catchments, any supply of water for aquaculture purposes is likely to be obtained from ground water sources (in inland areas), from regulated rivers (such as trout farming in the Snowy Mountains) or from existing reticulation.

5. GROUP 5 - ABORIGINAL AND HERITAGE – TOURISM AND EDUCATION

General Comments for this group :
Activities based on tourism are already an important part of the economy of the Southern RFA region, particularly in the coastal sub-division. An expansion of these opportunities will be particular important in meeting regional development goals if :

- new "attractions" can be developed, to expand the tourism resource available, and reduce dependence on the beaches
- these new attractions offer year-round interest, rather than being restricted to the summer period as is currently the case with many coastal attractions.

It must be noted that the activities listed in Group 5 are individual activities which will attract only limited tourist attention unless they can be "packaged" as an attractive and/or unusual tourism experience.

An initial opportunity may be able to be realised by targeting the school education market and attempting to attract school tours. The benefits of targeting this group are as follows :

- they can be accommodated in "camp" style accommodation and will not require more sophisticated after hours entertainment,
- the experience can be built into a curriculum through enlisting the assistance of professional teachers and the Education Department,
- preparation of "Project Guides" for education groups, prepared with the assistance of professional educators, can provide a source of sales revenues,
- the long-term effects of building interest in school groups for Southern Region heritage tours is that they are likely to influence parents to come to the region.

The real need lies in developing a cohesive approach between all indigenous/heritage groups to provide a well-researched and well-packaged tourism attraction and a well-managed tourism experience.

Group 5 opportunities, and score achieved :

a)	Heritage centre at Moruya	36
b)	Aboriginal Elders cultural teaching	36
c)	Aboriginal eco-tours	36
d)	Koala sanctuary (Jervis Bay)	36
e)	Forest interpretation centres	36
f)	Aboriginal fisheries eco-tours	34
g)	Berry/Mogo clusters – craft centres	38
h)	Seed collection	40
i)	Heritage education tours	36

Project 5a. Description: Heritage Centre at Moruya

Screen Item	Assessment	Score
Resource Use	Would use forest resource for education in history of the region	8
Market	Not established, other than as an "add on" to existing tourism activities in the region	2
Employment	Small; 3 to 4 people to cover full week; seasonal with tourism; perceived community benefits	6
Investor	Medium risk requiring commercial loan – Council seeking $1.2 million to fund	4
Scale	Council claims generation of 33 jobs including indirect employment	6
Skills	Uses skills of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**38**

Overall Comment: Eurobodalla Shire has identified this opportunity as a good prospect for development in the coastal region, as an attempt to :

- diversity tourism away from an undue (and vulnerable) dependence on the beach attractions
- build on another "natural" resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

The construction of a Heritage Centre would also provide a possible opportunity to use under-utilised forestry accommodation, with lease to community group capable of operating the Centre. Council is already seeking support from Federal Government, via the National Heritage Fund.

Further information on this opportunity is expected from the linked study relating to tourism within the region.

Project 5b. Description: Aboriginal Elders Cultural Training

Screen Item	Assessment	Score
Resource Use	Would use forest resource for education in cultural history and customs of the region	8
Market	Not established; may have attraction to local community groups or to broader education groups in NSW or other States	2
Employment	Small specialised and approved teachers; perceived local community benefits	6
Investor	Low level of investment; could be based with Local Government or education facilities	4
Scale	No great input to local economy	4
Skills	Uses special skills and cultural knowledge of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**36**

Overall Comment: it is recognised that the indigenous culture of the region is an un-utilised resource, which would have application for tourism activities. To the extent that indigenous culture incorporates values that are contained in the forest estate, then any such development can be considered to be “forest based”.

This activity is perceived as important for preserving local cultural stories and knowledge but the commercial attractiveness of the service is not known. The impact of such activities would be limited to an expansion of the perceived attractions of the region, rather than as creating any new source of regional development and employment.

Further information on opportunities linked to indigenous culture is expected from the linked study relating to tourism within the region.

Project 5c. Description: Aboriginal Eco-tours

Screen Item	**Assessment**	**Score**
Resource Use	Would use forest resource for education in cultural history and customs of the region	8
Market	Not established; may have attraction to local community groups or to broader education groups in NSW or other States	2
Employment	Small specialised and approved teachers; perceived local community benefits	6
Investor	Low level of investment; could be based with Local Government or education facilities	4
Scale	No great input to local economy	4
Skills	Uses special skills and cultural knowledge of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**36**

Overall Comment: As with 5b), it is recognised that the indigenous culture of the region is an un-utilised resource, which would have application for tourism activities. To the extent that indigenous culture incorporates values that are contained in the forest estate, then any such development can be considered to be "forest based".

This activity is perceived as important for preserving local cultural stories and knowledge but the commercial attractiveness of the service is not known. The impact of such activities would be limited to an expansion of the perceived attractions of the region, rather than as creating any new source of regional development and employment.

Further information on opportunities linked to indigenous culture is expected from the linked study relating to tourism within the region.

Project 5d. Description: Koala Sanctuary – Jervis Bay

Screen Item	Assessment	Score
Resource Use	Uses the resource to assist preserve koala species in the region.	8
Market	Not established; may have attraction as a local destination for tourists already in region	2
Employment	Small; 5 to 6 people to cover full week; seasonal with tourism; perceived environmental benefits	4
Investor	May require government support as zoo and breeding centre; possible Local Government input	6
Scale	Low level input to local community	4
Skills	Will require wildlife/veterinary skills if used for breeding and preservation purposes	6
Government Support	Likely to require government support during establishment and for ongoing breeding programs	6
Total Score		**36**

Overall Comment: Again, as for other opportunities in this group, this proposal would provide an additional "attraction" to cause tourists to visit the region, and/or to extend their stay in the region. However, in its own right this opportunity will not be significant in a regional development sense.

The commercial justification of developing the sanctuary has not been fully established and it is likely to require ongoing government support. Some specialised skills will be required to care for the koalas, and the capital investment in actually creating the sanctuary (dog-proof fences, etc.) could be significant.

However, an existing zoo operator, or an interested/qualified individual, could establish a business that would provide permanent employment and income for at least one or more people.

Project 5e. Description: Forest Interpretation Centres – Yass, Batemans Bay, Snowy Mountains etc

Screen Item	Assessment	Score
Resource Use	Would use forest resource for education in history of the region	8
Market	Not established, other than as an "add on" to existing tourism activities in the region	2
Employment	Small; 3 to 4 people to cover full week; seasonal with tourism; perceived community benefits	6
Investor	Medium risk requiring commercial loan	4
Scale	No great input to local economy	4
Skills	Uses skills of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**36**

Overall Comment: As for 5 a), Eurobodalla Shire has identified this opportunity as a good prospect for development in the coastal region, as an attempt to :

- diversity tourism away from an undue (and vulnerable) dependence on the beach attractions
- build on another "natural" resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

The construction of Forest Interpretation Centres would also provide a possible opportunity to use under-utilised forestry accommodation, with lease to community group capable of operating the Centre. Council is already seeking support from Federal Government, via the National Heritage Fund, for a proposed Interpretation Centre at the Clyde Mountain "gateway" to the region.

Project 5f. Description: Aboriginal Fishing Eco-tours

Screen Item	**Assessment**	**Score**
Resource Use	Not strictly a "forest based" industry but may assist in proving rehabilitation effectiveness.	6
Market	Not established; existing tours observe seal and penguin colonies have seasonal demand and would attempt to build on that customer base	2
Employment	Small specialised and approved teachers; perceived local community benefits	6
Investor	Low level of investment; could be based with Local Government or education facilities	4
Scale	No great input to local economy	4
Skills	Uses special skills and cultural knowledge of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**34**

Overall Comment: As with 5b) and 5 c), it is recognised that the indigenous culture of the region is an un-utilised resource, which would have application for tourism activities. To the extent that indigenous culture incorporates values that are contained in the forest estate, then any such development can be considered to be "forest based".

This activity is perceived as important for preserving local cultural stories and knowledge but the commercial attractiveness of the service is not known. The impact of such activities would be limited to an expansion of the perceived attractions of the region, rather than as creating any new source of regional development and employment.

Further information on opportunities linked to indigenous culture is expected from the linked study relating to tourism within the region.

Project 5g. Description: "Berry" or "Mogo" cluster development – heritage and crafts

Screen Item	Assessment	Score
Resource Use	Would use forest resource for education in history of the region and for sale of local crafts and indigenous produce	8
Market	Not established, other than as an "add on" to existing tourism activities in the region	2
Employment	Direct - Small; 3 to 4 people to cover full week; seasonal with tourism; indirect employment in crafts has perceived community benefits	6
Investor	Medium risk requiring commercial loan	6
Scale	Small input to local economy with some minor value adding	4
Skills	Uses skills of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**38**

Overall Comment: This opportunity has similar development and market needs to the Moruya development described in 5(a). The development of a "cluster" based on cultural heritage and craft activities, in the existing "craft village" environments provided by Berry and Mogo, would provide a good prospect for development in the coastal region, as an attempt to :

- diversity tourism away from an undue (and vulnerable) dependence on the beach attractions
- build on another "natural" resource of the region – the indigenous cultural values based on the native forests behind the coast, combined with opportunities to use forest produce (timber, seeds, bush tucker, flowers and foliage, as well as dyes and medicinal products) in craft applications.

Further information on this opportunity is expected from the linked study relating to tourism within the region.

As with all the opportunities in this group, this proposal is not significant in terms of regional development in its own right, but would enhance an existing industry (tourism) by adding to the total attractions of the region.

Project 5h. Description: Seed Collection

Screen Item	**Assessment**	**Score**
Resource Use	Appropriate use of natural or plantation resource	8
Market	Not fully established and will depend on Carbon Sink and rehabilitation decisions, see 1(c) & 1(d)	4
Employment	Seasonal; opportunities for indigenous employment	4
Investor	Low if permission granted for gathering of natural and plantation, but high if cultivated	6
Scale	Local economic impact and multipliers would be medium range for the region	4
Skills	Within capabilities of regional workforce	8
Government Support	Would need government support to establish indigenous industry based on either natural bush gathering or cultivation.	6
Total Score		**40**

Overall Comment: This opportunity is very similar to that contained in group 4, as 4d), but in this case relates more to Aboriginal culture and heritage. It is likely that seed collection for this purpose would therefore extend to medicinal and other uses, rather than simply for “useful” tree propagation.

As with bush foods and flower.foliage collection, it is assumed that only natural gathering will be proposed. Opportunities in this area would therefore be small scale, with little generation of full-time employment. However, it is likely that a niche market could be developed, via contact with specialist native nurseries . Such activity could provide income augmentation for some, or income for communities operating in a collective manner. The development of specialist native nurseries could be an appropriate longer term development opportunity, linked with activities associated with plantation and farm forestry expansion.

Access to national parks and conservation reserves for the purposes of gathering seed may be restricted. Certainly, physical access may be limited as no roading would be available other than old logging roads.

RIRDC Handbook on New Rural Industries does not specifically cover seed collection. Better information on demand and likelihood of seed collection as a commercially feasible business will need to come from State Forests.

Project 5i. Description: Heritage Education Tours

Screen Item	Assessment	Score
Resource Use	Would use forest resource for education in cultural history and customs of the region	8
Market	Not established; may have attraction to local community groups or to broader education groups in NSW or other States	2
Employment	Small specialised and approved teachers; perceived local community benefits	6
Investor	Low level of investment; could be based with Local Government or education facilities	4
Scale	No great input to local economy	4
Skills	Uses special skills and cultural knowledge of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**36**

Overall Comment: As with 5b), 5c), and 5 f), it is recognised that the indigenous culture of the region is an un-utilised resource, which would have application for tourism activities. To the extent that indigenous culture incorporates values that are contained in the forest estate, then any such development can be considered to be "forest based". In addition, there are close links to 5a), with the tradition of the timber industry, utilising the native forests behind the coast, providing another component of the educational heritage resource of the region.

This activity is perceived as important for preserving local cultural stories and knowledge but the commercial attractiveness of the service is not known. The impact of such activities would be limited to an expansion of the perceived attractions of the region, rather than as creating any new source of regional development and employment.

Further information on opportunities linked to indigenous culture, and the forest heritage of the region, is expected from the linked study relating to tourism within the region

6. GROUP 6 – FOREST BASED RECREATION

General Comments for this Group:
Many of the activities proposed in this are group are "add-ons" to existing tourism operations in the region and represent little addition to employment in the region. Throughout the group, the degree of market research or knowledge is limited.

In three cases (Forest Spas, Exclusive Camp Sites and Conferences & Seminars) the scale of investment and employment is significant but the opportunities are still speculative in their nature. They require considerable research before a commercial proposition can be developed.

In general, the group raises some questions about the appropriateness of proposed activities to the forest resource. The introduction of an additional human load on the forest for tourism or recreational use is likely to need clear rules for the protection of any delicate eco-systems and supervision to ensure that those rules are observed by tourists and tourism operators.

The detailed assessments of each of the Group 6 industry opportunities are described in the following tables and their scores are summarised below.

a)	Craft Market Development	40
b)	Eco-experience Related to Forests	40
c)	Car-based Forest Tourism	34
d)	"Off road" tourism in plantation forests	36
e)	Forest setting for Health Spas	38
f)	4Wheel Drive Eco-tourism	32
g)	"Exclusive" camp sites for tourists	38
h)	Horse recreation in forests	34
i)	Development of nature trails	36
j)	Conferences and Seminars	36
k)	Forest Education tours	36

Project 6a. Description: Craft Market Development

Screen Item	Assessment	Score
Resource Use	Would use forest resource for sale of local crafts and produce using native timbers and indigenous artifacts	8
Market	Not established, other than as an "add on" to existing tourism activities in the region	4
Employment	Direct - Small; 5 to 6 people to cover full week; seasonal with tourism; indirect employment in crafts has perceived community benefits	6
Investor	Medium risk requiring commercial loan	6
Scale	Small input to local economy with some minor value adding	4
Skills	Uses skills of indigenous population	8
Government Support	Would require government support; possible rental or lease of existing accommodation	4
Total Score		**40**

Overall Comment: Crafts other than indigenous artifacts and foods (see Group 4 and 5 opportunities) will need to develop a distinct individuality and be built into a tourism package which assures the centres that tourists will treat the Craft Market as a destination. Successful development of such a centre offers opportunities to,

- diversity tourism away from an undue (and seasonal) dependence on the beach attractions
- build on another "natural" resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

To the extent that crafts and culture exhibitions in the centre incorporate values that are contained in the forest estate, then any such development can be considered to be "forest based".

Further information on this opportunity is expected from the linked study relating to tourism within the region.

Project 6b. Description: Eco-experience Related to Forests

Screen Item	Assessment	Score
Resource Use	Requires access to forests for tourism including camping or more permanent accommodation	6
Market	Not established; will need further detailed research and service development to identify target markets	4
Employment	Small addition; most probably and extension of existing tourism operations aimed at increased revenues with minimum cost increases	4
Investor	Small investment; but quality of services will need to meet tourism target market standards	6
Scale	Marginal additions to existing local tourism industry	6
Skills	Current tour operators skills, with additional training to service target market	8
Government Support	Should require little support other than planned tourism promotion	6
Total Score		**40**

Overall Comment: This project, while not researched in detail, can be added to existing local tourism services without large investment or increases in employment. Many existing operators plan additional services such as this already.

In common with project 6a, this offers opportunities to,

- diversity tourism away from an undue (and seasonal) dependence on the beach attractions
- build on another “natural” resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

This form of guided tourism offers greater control of environmental impact through the accreditation of tourist guides and tourist areas of access than does unrestricted tourism.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6c. Description: Car Based Forest Tourism

Screen Item	Assessment	Score
Resource Use	Requires access to forests for tourism including road building/maintenance to provide safe access for family sedans	6
Market	Not established; will need further detailed research and service development to identify target markets	2
Employment	Small addition; most probably and extension of existing tourism operations aimed at increased revenues with minimum cost increases	4
Investor	Small investment for operators but infrastructure costs may have to be borne by Local Government	4
Scale	Marginal additions to existing local tourism industry	4
Skills	Current tour operators skills, with additional training to service target market	8
Government Support	Should require little support other than planned tourism promotion	6
Total Score		**34**

Overall Comment: The promotion of additional car touring that will represent a satisfactory return on investment for the whole community needs to be investigated more thoroughly before investment of any large degree is undertaken.

In common with project 6a, this offers opportunities to,

- diversity tourism away from an undue (and seasonal) dependence on the beach attractions
- build on another "natural" resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

This form of tourism will require the definition and maintenance of roads to suit all types of tourist vehicles. Maintenance costs and public liability for unsupervised tourism in public and private forests needs to be investigated.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6d. Description: "Off Road" Tourism in Plantation Forests

Screen Item	Assessment	Score
Resource Use	Requires access to forests for tourism including road building/maintenance to provide safe access for appropriate vehicles	6
Market	Not established; will need further detailed research and service development to identify target markets	2
Employment	Small addition; most probably and extension of existing tourism operations aimed at increased revenues with minimum cost increases	4
Investor	Small investment for operators but infrastructure costs may have to be borne by Plantation owners	4
Scale	Marginal additions to existing local tourism industry; possible employment of local indigenous guides	6
Skills	Current tour operators skills, with additional training to service target market	8
Government Support	Should require little support other than planned tourism promotion	6
Total Score		**36**

Overall Comment: In common with project 6a, this offers opportunities to,

- diversity tourism away from an undue (and seasonal) dependence on the beach attractions
- build on another "natural" resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

This form of tourism will require the definition of areas of access and monitoring of environmental impact of off road vehicles. Maintenance costs and public liability for unsupervised tourism in public and private forests needs to be investigated.

As with 6(c), the promotion of additional vehicle based touring that will represent a satisfactory return on investment for the whole community needs to be investigated more thoroughly before investment of any large degree is undertaken.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6e. Description: Forest Setting for "Health Spas"

Screen Item	Assessment	Score
Resource Use	Requires access to forests and permanent accommodation of high standard to attract target market	4
Market	Not established; will need further detailed research and service development to identify target markets	4
Employment	Represents a new investment in accommodation aiming at a more discerning market	6
Investor	Large investment by a tourism operator whose quality of services will need to meet tourism target market standards	4
Scale	If successful, would be a notable addition to existing local tourism industry	8
Skills	Current tourism skills, with additional training to service target market	6
Government Support	Should require little support other than access arrangements and planned tourism promotion	6
Total Score		**38**

Overall Comment: This opportunity is at the more speculative end of the spectrum and will require a well researched project and market entry plan by an experienced accommodation operator. It represents a different form of accommodation from any on the South Coast.

At present, there are no 4-star or 5-star hotels in the region and this form of tourism will need to attract tourist from a new market segment. The experience of major investments in tourism accommodation on the Mid-North Coast of New South Wales has been marked by commercial losses. That area has a well established tourist base and good access by road and air from Sydney and Brisbane, which are major points of entry for international tourists.

Further information on this opportunity is expected from the linked study relating to tourism within the region.

Project 6f. Description: 4WD Eco-tourism

Screen Item	Assessment	Score
Resource Use	Requires access to forests for tourism including road building/maintenance to provide safe access for appropriate vehicles. Environmental impact of private off-road vehicles will need to be assessed and monitored.	4
Market	Not fully established; will need further detailed research and service development to identify target markets	4
Employment	Small addition; most probably and extension of existing tourism operations aimed at increased revenues with minimum cost increases	4
Investor	Small investment for operators but infrastructure and environmental monitoring costs may have to be borne by State and/or Plantation owners	4
Scale	Marginal additions to existing local tourism industry; possible employment of local indigenous guides	4
Skills	Current tour operators skills, with additional training to service target market	6
Government Support	Should require little support other than planned tourism promotion	6
Total Score		**32**

Overall Comment: As with 6(c) and 6(d), this offers opportunities to,

- diversity tourism away from an undue (and seasonal) dependence on the beach attractions
- build on another "natural" resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

This form of tourism will require the definition of areas of access and monitoring of environmental impact of off road vehicles. Maintenance costs and public liability for unsupervised tourism in public and private forests needs to be investigated.

As with 6(c), the promotion of additional vehicle based touring that will represent a satisfactory return on investment for the whole community needs to be investigated more thoroughly before investment of any large degree is undertaken.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6g. Description: "Exclusive" camp sites - young professional adventure market

Screen Item	Assessment	Score
Resource Use	Requires access to forests and other outdoor "adventure settings", plus permanent, high standard accommodation to attract target market	4
Market	Not established; will need further detailed research and service development to identify target markets	4
Employment	Represents a new investment in accommodation aiming at a fashion conscious market	6
Investor	Large investment by a tourism operator whose quality of services will need to meet tourism target market standards	4
Scale	If successful, would be a notable addition to existing local tourism industry	8
Skills	Current tourism skills, with additional safety training to service target market	6
Government Support	Should require little support other than access arrangements and planned tourism promotion	6
Total Score		**38**

Overall Comment: As with 6(e), this opportunity is at the more speculative end of the spectrum and will require a well researched project plan by an experienced accommodation operator. It represents an approach to attracting a specific segment of the capital city market.

The aim of developing "experiental" tourism which is particularly attractive to the young professional market may require a combination of corporate and private custom. The standard of accommodation will probably require substantial investment and development of well researched "experiences" that attract the target market.

As with 6(e), development of this type of tourist attraction to deliver a satisfactory return on investment needs to be investigated more thoroughly before investment of any large degree is undertaken.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6h. Description: Horse Recreation in Forests

Screen Item	Assessment	Score
Resource Use	Requires access to forests for tourism including trail building/maintenance to provide safe access. Environmental impact will need to be assessed and monitored.	4
Market	Not fully established; will need further detailed research and service development to identify target markets	4
Employment	Small addition; most probably and extension of existing tourism operations aimed at increased revenues with minimum cost increases	4
Investor	Small investment for operators but infrastructure and environmental monitoring costs may have to be borne by State and/or Plantation owners	4
Scale	Marginal additions to existing local tourism industry; possible employment of local indigenous guides	4
Skills	Current tour operators skills, with additional training to service target market	8
Government Support	Should require little support other than planned tourism promotion	6
Total Score		**34**

Overall Comment: In common with project 6a, this offers opportunities to,

- diversity tourism away from an undue (and seasonal) dependence on the beach attractions
- build on another “natural” resource of the region – the tradition of the timber industry, utilising the native forests behind the coast.

This form of tourism will require the definition of areas of access and monitoring of environmental impact of horses. Maintenance costs for horse trails and public liability for either guided or unsupervised horse tourism in public and private forests needs to be investigated.

As with 6(c), the promotion of additional horse based touring that will represent a satisfactory return on investment for the whole community needs to be investigated more thoroughly before investment of any large degree is undertaken.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6i. Description: Nature Trails in State Forests

Screen Item	Assessment	Score
Resource Use	Requires access to forests for tourism including trail building/maintenance to provide safe access. Environmental impact will need to be assessed and monitored.	6
Market	Not fully established; will need further detailed research and service development to identify target markets	6
Employment	Small addition; most probably and extension of existing tourism operations aimed at increased revenues with minimum cost increases	4
Investor	Small investment for operators but infrastructure and environmental monitoring costs may have to be borne by State and/or Plantation owners	4
Scale	Marginal additions to existing local tourism industry; possible employment of local indigenous guides	4
Skills	Current tour operators skills, with additional training to service target market	6
Government Support	Should require little support other than planned tourism promotion	6
Total Score		**36**

Overall Comment: As with 6(f) and 6(h), the promotion of additional tourism activity that may have environmental impact must be shown to be manageable and to represent a satisfactory return on investment for the whole community.

A number of walking track developments are being discussed as Local Government projects and could be integrated with Group 5 projects for the employment of indigenous guides and educators.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Project 6j. Description: Conference and Seminar Venues

Screen Item	Assessment	Score
Resource Use	Requires access to forests and permanent accommodation of high standard to attract target market	4
Market	Not established and in a very professional and competitive market; will need further detailed research and service development to identify competitive position and target markets	2
Employment	Represents a new investment in accommodation aiming at a very specialised market	6
Investor	Large investment by a conference/tourism operator whose quality of services will need to meet conference market standards	6
Scale	If successful, would be a notable addition to existing local tourism industry	8
Skills	Many new skills, with additional training to service target market	4
Government Support	Should require little support other than access arrangements and planned tourism promotion	6
Total Score		**36**

Overall Comment: As with project 6(e), this opportunity is at the more speculative end of the spectrum and will require a well researched project and market entry plan by an experienced accommodation operator. It represents a different form of accommodation from any on the South Coast.

At present, there are no 4-star or 5-star hotels in the region suitable for attracting national and international conferences and seminars. This form of tourism will need to attract corporate and professional tourists from a new market segment.

The marketing of conferences and seminars is specialised and will need to attract the interest of an experienced conference venue operator.

The experience of major investments in conference accommodation on the Mid-North Coast of New South Wales has been mixed, and marked by some commercial losses. That area has a well established tourist base and good access by road and air from Sydney and Brisbane, which are major points of entry for international conference participants.

Further information on this opportunity is expected from the linked study relating to tourism within the region.

Project 6k. Description: Forest Education Tours

Screen Item	Assessment	Score
Resource Use	Would use forest resource for education in cultural history and customs of the region	8
Market	Not established; may have attraction to international or broader adult education groups in NSW or other States	4
Employment	Small; uses specialised and approved teachers; some indigenous community benefits	6
Investor	It could represent a large investment by a tourism operator whose quality of services will need to meet tourism target market standards. The target market needs to be defined so that accommodation investment needs can be assessed	4
Scale	Input to local economy would depend on targeted market; overseas education would made larger contribution	4
Skills	Uses special education skills and cultural knowledge of indigenous population	4
Government Support	Would require government support; possible rental or lease of existing accommodation	6
Total Score		**36**

Overall Comment: See comments made about all Group 5 industry opportunities. This activity fits more comfortably with that group although it may be targeting different and more discerning markets from those proposed for Group 5.

If this project is targeting a professional education market, then accommodation in the region will need to be upgraded incurring a higher level of investment.

As with 6(e), development of this type of tourist attraction to deliver a satisfactory return on investment needs to be investigated more thoroughly before investment of any large degree is undertaken.

Further information on this type of tourism opportunity is expected from the linked study relating to tourism within the region.

Appendix C

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