PROJECT DESCRIPTION

TIMBER INDUSTRY SECURITY AND EXPANSION PROJECT

Rationale

- Current plantation resources of Hoop Pine are inadequate to provide long-term continuity of operation for Hoop Pine processing activities on the Atherton Tablelands
- Hoop Pine forestry provides significant numbers of jobs and other economic and social benefits for the Atherton Tablelands, in a traditional regional industry, utilising regional core competencies
- Beyond industry maintenance, market indications are that there are strong opportunities for expansion of the industry, including new value adding opportunities. These opportunities include development of export as well as domestic markets
- Hoop Pine has the benefit of being a species with proven performance in the basaltic soil areas of the Tablelands, with considerable data on its silviculture available. Considerable tree improvement has been achieved for Hoop Pine
- There are several thousand hectares of cleared land which could be planted if economic factors were seen to be favourable. Social, economic and environmental benefits to the region if this were done could be expected to be high
- Governments have pulled back from investment in forest plantations, with the expectation that the private sector would move in to fill the void. This is not occurring on the Atherton Tablelands
- There are perceived market distortions for plantation products, no present avenues for returns from non-wood values and relatively high maintenance costs and long rotations, all of which discourage investment and need to be examined

Objectives

This project seeks to create a practical 'road map' to ensure future plantation resource security for the existing Ravenshoe processing industry and to expand the industry based on Hoop Pine to capitalise on present and anticipated future market opportunities. In doing so the project seeks to:

- Increase investment in Hoop Pine plantation resources so as to secure sustainable resources on a forty year cutting cycle
- Facilitate a more secure, robust and viable regional timber industry
- Generally create regional economic development opportunities
- Improve landscape amenity and environmental conditions
- Demonstrate to appropriate government agencies the benefits of a viable Atherton Tablelands industry and engage their support

Scope

Outputs from the project are to be a business case, implementation plan and supporting data analysis and regional models.

To arrive at these deliverables, there are a number of key questions that need to be addressed. These are set out in **ATTACHMENT A** to this document. The answers to some of these questions will be derived from existing material, while others will require research and testing.

Management & Staffing

The project will be administered by Herberton Shire Council, which will appoint a Coordinator with the following role:

- Ensure all project elements are completed
- Facilitate effective communication across all project staff, community, government and other stakeholders
- Facilitate preparation of progress reports
- Assist in preparation of documentation as requested by project staff
- Facilitate meetings of stakeholders
- FAcilitate workshops as may be required

Project research and development work will be undertaken by teams led by Dr Geoff Stocker, a consultant based on the Atherton Tablelands, together with a team from the University of Queensland led by Dr John Herbohn and Dr Steve Harrison.

A Management Committee will be established to provide a reference point for project coordination. However teams undertaking project elements will be expected to be semi-autonomous, working in accordance with general guidelines. The Management Committee will consist of:

- Mayor of Herberton Shire with Council CEO as alternate
- Mayor of Eacham Shire with Council CEO as alternate
- The Coordinator
- Dr Geoff Stocker
- Dr Steve Harrison with Dr John Herbohn as alternate

Particular project staff may also be invited to attend a meeting to discuss specific project aspects. Apart from Management Committee meetings, project teams may need to meet periodically to provide briefings on their work progress.

Team leaders are particularly well qualified to undertake the project. Summaries of their experience are provided in **ATTACHMENT B**. They will be supported by personnel drawn as available from a pool that provides a great depth of local, national and international industry expertise and experience.

Stages and Time Lines

The project has seven overlapping and cumulative task areas, represented by the following stages. The time lines against each stage represent **elapsed time** required for completion:

PROJECT STAGE	**TIME FRAME** (Elapsed weeks from commencement)	**KEY QUESTIONS ADDRESSED *** (Set out in Attachment A)
Knowledge Consolidation	1 -6	A2, B1, C1, G1, G2
Gap Analysis	6 - 8	A3, B2 - B4, C1, D5, D6, E7, G3
Current Situation Analysis	8 - 14	A1
Industry Impact Assessment	12 – 50	C2, D1 – D4, E1 - 6
Options & Strategy Development	49 - 53	D5, D6, F1 – F3, G4 - 6
Business Case Development	52 - 57	
Implementation Initiation	57 - 61	

***** 'Key Questions' to be addressed during the project are set out in **ATTACHMENT A.** They form a common thread through each Stage and will focus the research and development work. A number are relevant to more than one project stage. The above table cross references the questions in Attachment A as to their relevance within each project stage.

The last two stages involve a process of drawing together and reaching conclusions based on data developed to that point, including conclusions drawn on the key questions. No key questions are therefore relevant to these stages.

Time lines are **estimated** elapsed times in weeks to complete each stage, based on prior experience. Times may vary slightly depending on what is discovered during work on each stage.

A description of each stage follows.

Knowledge Consolidation

This stage is to avoid duplication of effort, place the project on a solid foundation and provide initial testing of assumptions.

There is a long history and wealth of existing data on plantation Hoop Pine, which can be drawn upon as input for the proposed project. However although the **silvicultural performance** of plantation Hoop Pine is accepted as proven, information required to fully assess development and expansion options is dispersed and fragmented.

All relevant, existing socio-economic and biophysical research pertinent to the region will be reviewed and drawn together, in the areas suggested by the following:

Financial: Data relevant to commercial Hoop Pine silviculture and potential incomes streams from wood and non-wood product streams

Market Intelligence: Data sought will exclude historical information apart from indicators of cyclical demand and trends, but will cover the following:

- Customer requirements and preferences
- Product specifications / options
- Demand levels and trends for selected species and products
- Likely market sectors / locations
- Prices
- Market access issues
- Demand chain requirements/ issues

Product: Types and options
Standards

Investment attraction: Sources
Models
Impediments
Enabling conditions (including incentives & interventions)

Resource Data: Current state of resource
Silviculture data
Silvicultural potential mapping

Policy: Current settings and direction
Industry impacts

Social / Economic: Impacts and flow on effects of:

- Establishment, transition & steady state
- Value adding
- Links to other industries
- Infrastructure impacts (Based on inventory of existing infrastructure)

Environmental: Impacts / Sustainability
Landscape amenity
Status of supplementary cash flow potential from environmental services

Models: Regional forestry model examples (Interstate, NZ, International)

Part of the task will be to present all available data in a consolidated format useful for this project. For project research staff to be effective, it will be essential for them all to have an in depth exposure to this material, either through direct research or peer briefings, which are expected to occur informally throughout the project for cross-fertilisation of ideas and data.

Gap Analysis

This step will review the data collected and identify the key material required. A workshop and briefing session for project staff will be conducted for this purpose, facilitated by the Project Coordinator.

This workshop will review the gaps in information identified and with the benefit of that initial information, define in final detail, the scope for subsequent stages.

Situation Analysis

With the benefit of input from the proceeding steps, it is proposed to conduct a baseline study to gain a closer understanding of the current regional timber industry value chain and its relationships and flow on effects as to other industries and social, ecological and general regional economic factors.

This is considered necessary as large-scale timber plantation operations have a major impact on the existing balance of social, economic and environmental factors. These can be positive, i.e. job creation, water quality improvement and benefits to soils. However the impacts can also be negative, i.e. net regional loss of jobs, reduced populations, loss of services and diversity of economic activity.

Consideration will also be given to comparative returns between forestry and other land uses (eg grazing, horticulture).

Industry Impact Assessment

This step will create an integrated forest industry development model which will be used to assess the options and strategies developed in the next stage. This model will draw upon data collected as part of the baseline study. Additional data will be collected from landholders and other potential key industry participants in the region, together with relevant community data. The model will provide rigorous and defensible projections about the likely economic, social and environmental impacts of options identified and strategies formulated. It will thus provide academic credentials and add weight to recommendations as to policy, investment attraction, industry structure, social and regional economic settings.

Options and Strategies

This step will firstly consider what (if any) viable options there are for development of a regional industry based either exclusively or primarily on Hoop Pine plantations, identify the preferred option and develop a strategy to achieve that option.

The project team will prepare a paper indicating findings to date and outlining issues and possible viable options.

One or more substantial, independently facilitated workshops will be conducted as part of this stage. Participants invited will include stakeholders and agencies beyond the Atherton Tablelands. These workshops will include the objective of facilitating broad based ownership and pre-disposition to support final project outcomes.

Business Case

This step will seek to develop a defensible business case to implement the preferred industry option and strategies developed. It is anticipated to encompass the following areas, dependent upon prior research and findings:

SECTION & HEADING	SCOPE
Positioning	
Industry Vision & Prioritised Goals	
Industry Scenario	Short description of the industry and regional impacts predicted from achievement of the goals

SECTION & HEADING	SCOPE
Industry SWOT	List of 'SWOT', **plus** strategies to: **Enhance** strengths **Address** weaknesses **Embrace** opportunities **Limit** Threats
Product & Market	
Products and Services	Types and range, indicating for each: Differentiating features Customer benefits / selling points Pricing
Environmental Services	Description, strategies and time frames for achievement, quantification of benefit (cash flows, community, environment)
Market Analysis	Target markets / Profiles Primary target market outlook Market opportunities Competitive Analysis Advantages Disadvantages Differentiating features Marketing strategies
Operations	
Management Structures	Structures to facilitate and guide industry development; description of roles for all stakeholders
Human Resources	Numbers, skill categories and sources Maintenance and Development: Training Recruitment Development Retention
Industry Infrastructure	Type, locations and capacity
Financial	
Investment Attraction	Model and mechanisms
Financial Models	Models for classes of growers and investors
Industry Environment	
Policy Settings	Description of settings required, justification from model, projected regional benefits, public good and addressing any market failures

SECTION & HEADING	SCOPE
Timber Resource Projections	Locations, size, species, silviculture
Community Benefit	Contributions to community viability, economic and social flow on effects, maintenance of community support and understanding
Operational Model	Demand Chain management Wood flow plans Landscape enhancement alternatives

Implementation Initiation

Full implementation of the strategies and business case developed is beyond the scope of this proposed project and will require sustained effort from a variety of stakeholders. However this project **does** include the initiation of this implementation through setting the conditions necessary to engage the resources necessary for implementation.

This stage will therefore involve development of an action plan in the form of a table with prioritised and costed actions necessary to implement the strategies developed.

This stage is proposed to include:

a) Presentations

Presentation and general promotion of outcomes and findings to key agencies, industry organisations, community organisations and investment targets

b) Submissions

Development of submissions to agencies and funding bodies for adoption of policy settings and provision of support mechanisms

c) Public Awareness

Development and delivery of summarised outcomes and findings to public forums.

d) Resources

Action plan to attract resources found necessary and appropriate to implant the business case

ATTACHMENT A

KEY QUESTIONS FOR CONSIDERATION

A. Industry Context and Opportunities

1. What are the current flows of wood, e.g. how much is used locally and nationally, how much is currently imported, what is the current market for posts and poles? What is the likely future demand for wood products in domestic and export markets?
2. Is Hoop Pine the appropriate species to plant? What are the market advantages and disadvantages of Hoop Pine? Are there other substitute species suitable for current processing requirements and expanded processing and value adding activities?
3. Who are the potential domestic and export market competitors?

B. Silviculture Information and Systems

1. What are the biophysical constraints of Hoop Pine (soil, water, pests)?
2. What area of land is potentially available in the Herberton, Eacham and Atherton shires for establishment of Hoop Pine?
3. What are the likely growths rates and what are the relationships with soil type, rainfall?
4. What is the appropriate silviculture for Hoop Pine (spacing, pruning, fertilisation)?

C. Industry Development Options

1. What are the options for industry development? For example, these could be industrial level plantings on farm land purchased by companies and planted fence-line to fence-line, woodlots incorporated into existing farm enterprises, sale of existing State plantations on condition of expansion, and joint ventures between landholders and other parties.
2. What are the economic, social and environmental impacts of these options?

D. Financial Issues (at the plantation/farm level)

1. What are the likely financial returns from forestry?
2. What is the cost of establishing, managing and harvesting Hoop Pine plantations for landholders?
3. What are competing land-uses and what is the opportunity cost of establishing Hoop Pine plantations? (Is forestry the highest and best use of the land?)
4. How will Hoop Pine woodlots affect farm incomes and business risk?
5. What is the threshold size and what is the optimal economic size of individual plantations?
6. What are the opportunities for non-timber income from forests, such as carbon credits, biodiversity credits?

E. Economic, Social and Environmental Considerations

1. What is the likely direction and flow-on economic impact of industry development at the establishment, transition and steady-state stages (for example, economic benefits of direct and indirect employment?).
2. What is the likely social impact of industry development (e.g. impact on services such as banks, schools, community vitality)?
3. What are the possible environmental impacts (e.g. wildlife corridors, water quality, biodiversity, noxious weeds)?
4. What is the potential direct and flow-on economic impact of value-adding options?
5. What are the links to other industries such as cabinet-making and tourism?
6. What will be the impact on regional infrastructure such as roads?
7. What human resources are available for the development of the industry? For example, what are the demographics of landholders (age, health), expertise, availability of skilled workforce? What are the requirements for training and extension activities, in terms of programs and costs?

F. Location and size of plantation estate

1. What is the minimum area of plantation that needs to be established to support existing and potential processing activities?
2. What is the most economically efficient location of plantations from the processing location and from potential alternative markets (e.g. export markets)?
3. Where should plantations be located in order to maximize benefits to the community (e.g. visual amenity, wildlife corridors, water quality)?

G. Identifying and Overcoming Constraints to Plantation Establishment

1. What are the constraints to landholders establishing woodlots (e.g. rates and taxes, initial capital requirements, long wait for returns, more profitable alternatives, lack of knowledge about forestry as a land use option)?
2. What are the personal and economic characteristics of landholders controlling land potentially suitable for planting and what incentives would they require to establish farm woodlots?
3. What financing and support options are available? Given the characteristics of landholders and other possible industry participants, which of these are likely to be effective in encouraging the establishment of plantations and farm woodlots?
4. What role do, and could, governments at local, state and federal levels ~~government~~ have in facilitating forest industry development?
5. Should support measures be tailored to give preference to landholders whose plantations will maximize benefits to the wider community?
6. Is forest certification required and if so what is involved?

ATTACHMENT B

TEAM LEADERS QUALIFICATIONS

Short 'thumb nails' of the experience and qualifications of the project team leaders follow:

Dr Harrison is Associate Professor of Economics in the School of Economics at the University of Queensland. He is a resource economist specialising particularly in forest economics and social economics, who has published 14 books, over 50 journal articles and over 70 book chapters. Dr Harrison was the Economic Adviser to the Fraser Island inquiry and was a member of the Biodiversity Advisory Committee of the Queensland Timber Board. He is actively involved in farm forestry, having a joint venture with DPI Forestry and managing native forest on his property for timber production.

Dr Herbohn is Senior Lecturer in the School of Natural and Rural Systems Management at the University of Queensland. He is a specialist in natural resource management and forestry economics and has co-authored three forestry books with international publishers (along with three further books with Australian publishers), over 50 journal articles and book chapters, six major reports and 25 published conference papers. He is currently Deputy Coordinator of Research Group 3.08 Small-scale Forestry, one of the research groups within the International Union of Forest Research Organisations (IUFRO). Dr Herbohn has a long family association with the NQ timber industry, having worked with his father (a logging contractor) and many relatives in the rainforest logging industry prior to World Heritage Listing.

Drs Herbohn and Harrison are respectively the Managing Editor and Editor-in-Chief of *Small-scale Forest Economics, Management and Policy.* Both are members of Private Forestry North Queensland (PFNQ), the Regional Plantation Committee in North Queensland and have completed many successful projects funded by RIRDC, ACIAR, NHT, Rainforest CRC, the ARC and North Queensland Joint Afforestation Board. Both are also co-authors of an international financial appraisal text published by Cambridge University Press, which is also currently being translated into Chinese.

Dr Stocker currently runs his own consultancy practice and brings to the project over 30 years experience in research associated with the management of tropical forests and associated vegetation. Previous positions held include; Officer in charge of Forest Research Institute / CSIRO Tropical Forest Research Station in north Queensland; Professor and Head, Department of Forestry, PNG University of Technology; a Director of Unitech Development and Consulting Pty Ltd; Director of PNG Forest Research Institute.

He was a Member of the Australian Government's Rainforest Conservation Committee from 1985 - 86 and of the Steering Committee of PNG's National Forest and Conservation Action Plan from 1991 - 92. He was also Leader of PNG Forest Research Institute review team (1994). He has published numerous reports and papers on forestry subjects.

Dr Stocker's expertise encompasses forestry and environmental research and education, formulation of forest policy, environmental impact and forest development and management.