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SINO-FOREST CORPORATION

Valuation of Mandra Forest Crops as at 31 December 2010

PÖYRY
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The cover photo shows a stand of Masson pine (Pinus massoniana) in a forest in Yuexi County, SW Anhui province.

PREFACE

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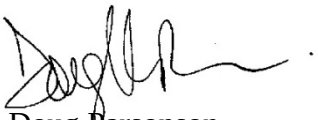

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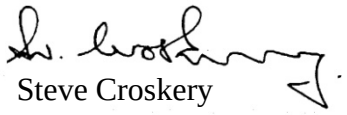
VICE-PRESIDENT



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Pöyry has not viewed any of the contracts relating to forest land-use rights, cutting rights or forest asset purchases. Legal matters are beyond the scope of this report and the valuation is prepared on the assumption that titles to the forest assets are according to the data provided by SFC. Maps, diagrams and pictures presented in this report are intended merely to assist the reader.

Inspections of SFC areas were made as part of this valuation. These were at specific locations selected by Pöyry in Jiangxi and Anhui provinces in April 2011.

This appraisal assumes that the forests visited by Pöyry in the field inspection represent the full range of conditions that exist for the species seen.

Any existing liens and encumbrances have been disregarded, and the forest resource has been appraised as though free and clear under responsible ownership and competent management.

Unless otherwise stated in this report, the existence of hazardous materials or other adverse environmental conditions, which may or may not be present on the property, were neither called to the attention of Pöyry, nor did the consultants become aware of such during the inspection.

Pöyry recognises the possibility that any valuation can eventually become the subject of audit or court testimony. If such audit or testimony becomes necessary as a result of this valuation, it will be a new assignment subject to fees then in effect. Pöyry has no responsibility to update this report for events and circumstances occurring after the date of this report.

Any liability on the part of Pöyry is limited to the amount of fee actually collected for work conducted by Pöyry. Nothing in the report is, or should be relied upon, as a promise by Pöyry as to the future growth, yields, costs or returns of the forests. Actual results may be different from the opinion contained in this report, as anticipated events may not occur as expected and the variation may be significant.

EXECUTIVE SUMMARY

This is an estimate of the market value of the part of SFC's China forest estate known as Mandra, that was purchased by SFC in February 2010. As at the valuation date of 31 December 2010, the forest estate comprised 134 750 hectares (ha) of forest that was stocked with commercial timber species.

The physical and financial forest description is based on data provided by SFC to Pöyry as part of the valuation, and data and information that Pöyry has otherwise obtained. This refers to forest area, yield, costs and log prices, that are inputs to the Forest Estate Model.

A discount rate of 11.5% applied to pre-(income) tax cash flows has been used in this valuation. The exchange rate (RMB:USD) used is 6.5918; the rate prevailing on 31 December, 2010.

Pöyry's estimate of the market value of the Mandra forest estate crops, as at 31 December 2010, is USD273.303 million.

The valuation is most sensitive to gross log price, with increases of 10% increasing crop value by 20% and vice-versa. Increases in harvesting and cartage costs of 10% reduce the net present value (NPV) by 6%. Increases or decreases of 25% in either the forest business management and administration overhead, or land rentals, change the value by about 3%.

The value is unresponsive to changes in forestry direct costs and associated indirect costs. This is because the largest part of these costs occurs in the first year of a crop's life. Because the valuation model is based on the costs and revenues of only the current crop, and there is only a small area of young forest incurring early age costs, changes in these costs have no material impact on the value of the current crop.

CONTENTS

1 INTRODUCTION

In February 2010, Sino-Forest Corporation (SFC) acquired the China forest estate known as Mandra. Most of the area this forest estate is in Anhui and Jiangxi provinces.

In May 2010, Pöyry prepared a valuation of the Mandra estate forest crops, as at 05 February 2010, for SFC. In May 2011, Pöyry prepared a valuation of the Mandra estate forest crops, again as at 05 February 2010, based on a description of the areas of forest actually acquired.

This report is a valuation of the Mandra estate forest crops, as at 31 December 2010.

The subject area of the Mandra forest estate, as at 31 December 2010, as described further in this report, is 134 705 ha. This compares with 134 205 ha of forest as at 05 February 2010.

2 PURPOSE AND SCOPE

2.1 Purpose of the Valuation Update

The purpose of the valuation is to estimate the market value of the forests for asset reporting purposes. A useful definition of "market value" is:

> *"the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming that the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:*
>
> - *The buyer and seller are typically motivated.*
> - *Both parties are well informed or well advised, and acting in what they consider their own best interests.*
> - *A reasonable time is allowed for exposure in the open market.*
> - *The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale"*[1].

The market value of the tree crop assets is estimated as at **31 December 2010**.

2.2 Scope of the Valuation Update

As a valuation update, the exercise has specifically addressed the following:

- Changes to the area of tree crops, by location, species and age, between 05 February 2010 and 31 December 2010
- Acknowledgement of changes in forestry and harvest-related costs
- Acknowledgement of expectations for generally higher longer-term log prices.

[1] Uniform Standards of Professional Appraisal Practice, The Appraisal Institute (www.appraisalinstitute.org).

3 METHODOLOGY

A full description of valuation methodology is provided in the background papers.

For this valuation Pöyry used the *income method* (i.e. assessing the present value of the anticipated future net earnings stream). The *income method* employs a conventional discounting approach. In referencing wider evidence of investors' expectations of a return on capital, one common basis for the discount rate is the Weighted Average Cost of Capital (WACC). The cost of equity may be examined within the Capital Asset Pricing Model (CAPM).

In many countries, the consideration of the *comparable sales method*, through the estimation of implied discount rates (from analyses of sales where the purchase price is known), is possible. Even so the generation of IDR's is usually challenging. In China it is even more difficult, as sales of reasonably well described forests where the sales price is known, are extremely rare.

Accordingly, this valuation is a calculation of the net present value of the forecast net revenue expected to be generated through the management and harvest of the subject forest area. As such the valuation is based on the *income* method.

A discount rate of 11.5% has been applied to the pre-(income) tax cash flows. This is the same discount rate as has been applied in Pöyry's valuations of SFC's China forest assets over at least the past three years.

4 FIELD INSPECTION

In April 2011, four analysts and consultants from Pöyry spent 10 man days in each of the Anhui and Jiangxi provinces, gathering data and information in support of the December 2010 valuation of the Mandra forest estate.

In Anhui, the field inspection was in Yuexi and Qianshan counties, both in the south-western part of the province. Eighteen plots were established and measured. Eleven plots were in Masson pine and 7 in Chinese fir.

The range of total recoverable volume (TRV) measured in the Masson pine, was 37 to 120 m^3/ha, with a mean of 80 m^3/ha. The stands were 19 to 21 years old. The yield table for Masson pine used in this valuation, has a recoverable volume of 67 m^3/ha at age 20 years.

The TRV of the Chinese fir ranged from 42 to 252 m^3/ha, with a mean of 124 m^3/ha. The stands were 18 to 19 years. The yield table for Chinese fir used in this valuation has a recoverable volume of 108 m^3/ha at age 19 years.

Logging cost varies with species and terrain, with Chinese fir costing less than pine to harvest. Terrain encountered during the forest inspection in Anhui ranged from flat ground (see cover photo), to very steep (slope > 35°). The range of logging costs obtained was from RMB80 to RMB150/m^3, with an average of RMB130/m^3. The simple average used in this valuation is RMB153/m^3. Average cartage cost was reported as RMB50/m^3. This valuation uses an average of RMB92/m^3.

Forest taxes and fees range from RMB48/m^3 for Masson pine to RMB68/m^3 for Chinese fir. The average in this valuation is RMB80/m^3, calculated according to the formula specified by the State Forest Administration for the maximum level of harvesting tax that can be imposed by provincial forestry authorities and below.

Land rentals range from RMB225 to RMB450/ha/a. The rental applied in this valuation is RMB280/ha/a.

In Jiangxi, field inspection was undertaken in Ningdu and Ruijin counties, in the south-eastern part of the province. Twelve plots were established and measured, with 11 in various mixtures of two or three species comprising Masson pine, Chinese fir, and broadleaf species. One plot was in pure Masson pine, of 21 years with a TRV of 103 m^3/ha. The various mixtures were all in the age range 18 to 21 years. The range of TRV was 14 to 93 m^3/ha, with a mean of 43 m^3/ha. The 'Other species' yield table in this valuation has a fixed TRV of 28 m^3/ha.

Ruijin Forest Bureau stated that the average recoverable volume for Masson pine at age 25 years is 83 m^3/ha. At age 25 years, the Masson pine yield table applied in this valuation has a TRV of 74 m^3/ha.

Harvest taxes range from RMB50 to 60/m^3.

Log prices in Anhui and Jiangxi were obtained from the Forest Bureaus and visits to wood-processing factories that are log buyers. Log prices are significantly higher in these provinces than in those further south. This is discussed briefly in Section 7.

The following photos provide a sense of the size and form of the tree crops, and the land conditions of the forests inspected, and local small-scale wood processing.

Photo 4-1:
Good form Masson pine in Yuexi County Anhui Province

Photo 4-2:
Again, good form (for this species) Masson pine exhibiting high stocking, reasonably large diameters and heights, and high TRV. This is a 21-year old stand with a TRV of 118 m^3/ha. (Yuexi County Anhui Province).

Photo 4-3:
Chinese fir in Yuexi County exhibiting very good form and growth. This stand is aged 19 years. Plot slope 26°.

Photo 4-4:
Masson pine in mixture with broadleaf hardwood species in Ruijin County, Jiangxi Province.

Photo 4-5:
Pathway into forest along which logs are carried to truckable roadside by hand or using small hand drawn cart, Ruijin County, Jiangxi Province.

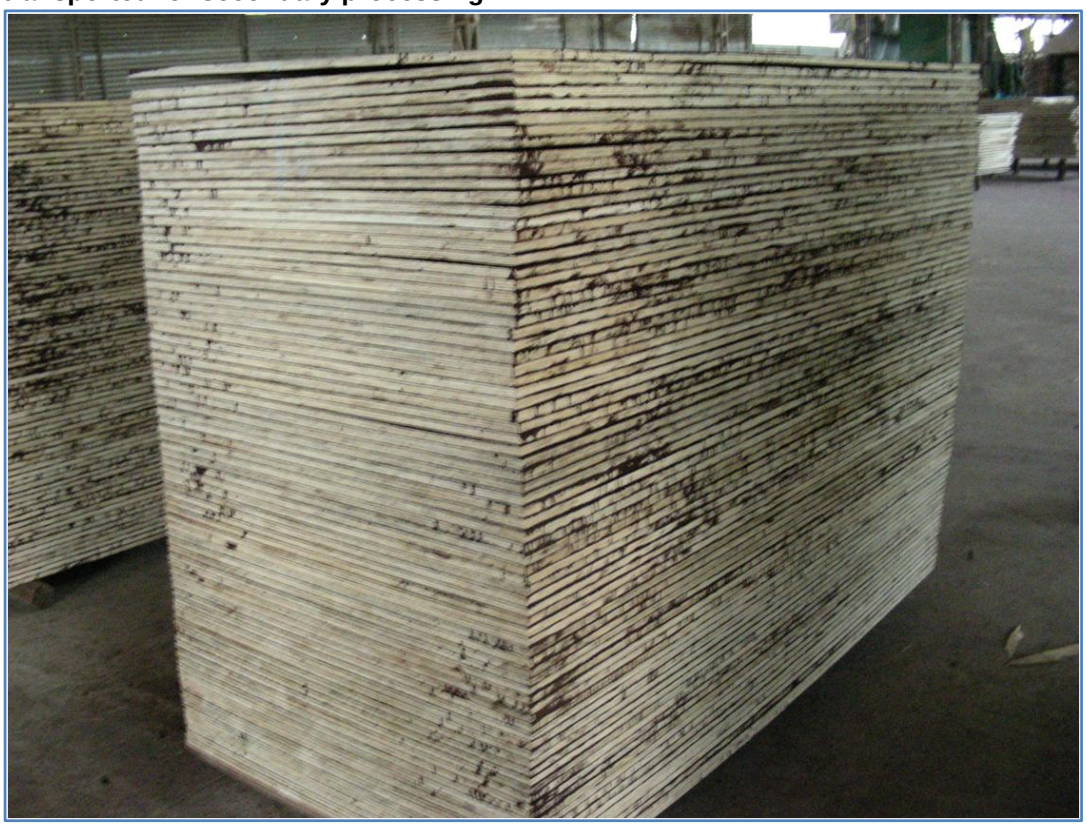
Photo 4-6:
Chinese fir and Masson pine logs at village roadside awaiting truck transport to mill.

Photo 4-7:
Chinese fir and Masson pine logs at small mill.

Photo 4-8:
Pine and broadleaf hardwood logs at small veneer plant.

Photo 4-9:
Veneer sheets having been peeled on the lathe (Photo 4-8) and sliced , drying in open air.

Photo 4-10:
Plywood sheets at plywood factory to where the veneer sheets (in Photo 4-9) are transported for secondary processing.



5 FOREST DESCRIPTION - AREA AND YIELDS

5.1 Stocked Area of Forest

Data describing the stocked area of the Mandra forest estate, by species, age and location, were provided by SFC. **It is important that the users of this report understand this**. This valuation is not a due diligence review. Pöyry has neither verified the authenticity of the total area of forest said to be owned, nor its ownership. Rather, Pöyry has relied on the description as provided by SFC of the stocked area of forest that is said to be owned by company, by species, age and location.

The total area of the Mandra forest estate, as at 31 December 2010 was 134 705 ha. This compares with 134 205 ha as at 05 February 2010, an increase in net stocked area reported of 500 ha.

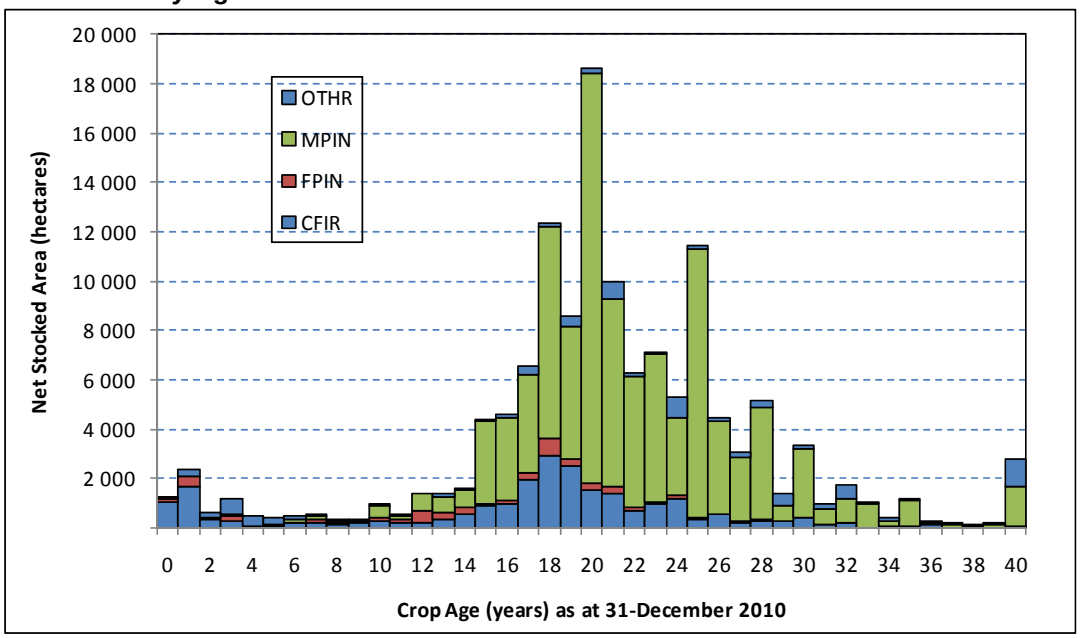
The change in area arises from the planting of 715 ha in 2010, and area adjustments (in total, reductions of 215 ha) to some 40 out of 343, or 12% of, areas provided by SFC that are defined by province, species and year of planting. The largest area change was of 165 ha, which was 7% of the previously-recorded area. The average size of the area change over the 40 areas where there were changes, was just 1%.

The forest area distribution, as at 31 December 2010, is described in the following tables and charts.

Table 5-1:
Forest Area by Province and Species as at 31 December 2010 (ha)

Province	Masson Pine	Chinese fir	Other Species	Foreign Pine	Total
Anhui	87 233	6 196	1 762	3 963	99 154
Jiangxi	4 485	15 357	4 718	1 058	25 618
Fujian	4 386	1 643	2 157		8 185
Hubei	1 741		6		1 748
Total	**97 844**	**23 196**	**8 644**	**5 022**	**134 705**

Figure 5-1:
Forest Area by Age as at 31 December 2010



As at 31 December 2010, the area weighted average age of the forest crops was 21 years.

Pöyry highlights again that we have relied on the description as provided by SFC of the stocked area of forest that is said to be owned by the company, by species, age and location.

5.2 Forest Growth and Yield

Yield tables are used to represent how the volume of wood per unit area changes with age for a *typical* stand for each type of forest in the Mandra forest estate. Ideally, yield tables and matching or associated stocked area information would be available to cover the full range of site conditions, stand management and other factors that influence yield across a large forest estate like Mandra.

At this stage, SFC is not at a level of detail or sophistication in the implementation of its forest inventory program or forest management information system (FMIS) that captures the inherent variability within a large forest and matches specific yield representations with specific areas.

However, SFC made significant advances with both of these processes during 2010. During 2011 it is likely that some focus will be made on inventory within the Mandra forest estate. This will give rise to a data-set that can be used to more fully describe the growth and yield potential of the forest.

The graphical representation of the yield tables used in this 2010 valuation, for the four main species in the Mandra forest estate, are shown in Figure 5-2 to Error! Reference source not found.. These yield tables are based on work that Pöyry conducted for Mandra Forestry Holdings Ltd. during the years 2005 to 2007.

The charts show projected recoverable volume per hectare, by log type and age. The legend indicates the log type or log grade. These are defined by small end diameter (sed) of the logs, and relate to the prices used in the Forest Estate Model[2].

Figure 5-2:
Yield Curve applied to Masson Pine Crops – December 2010 Valuation

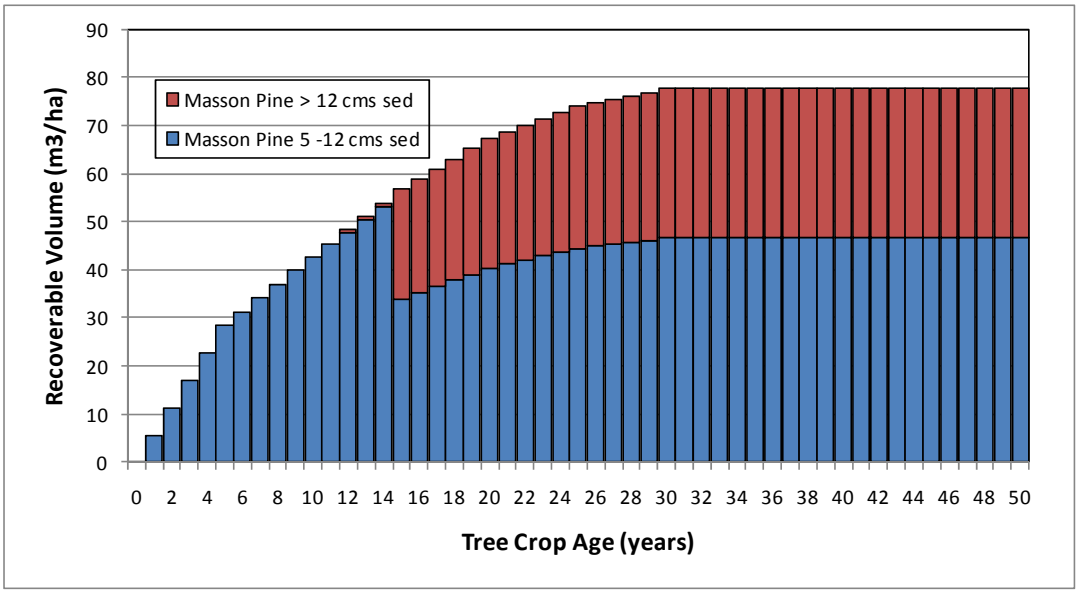
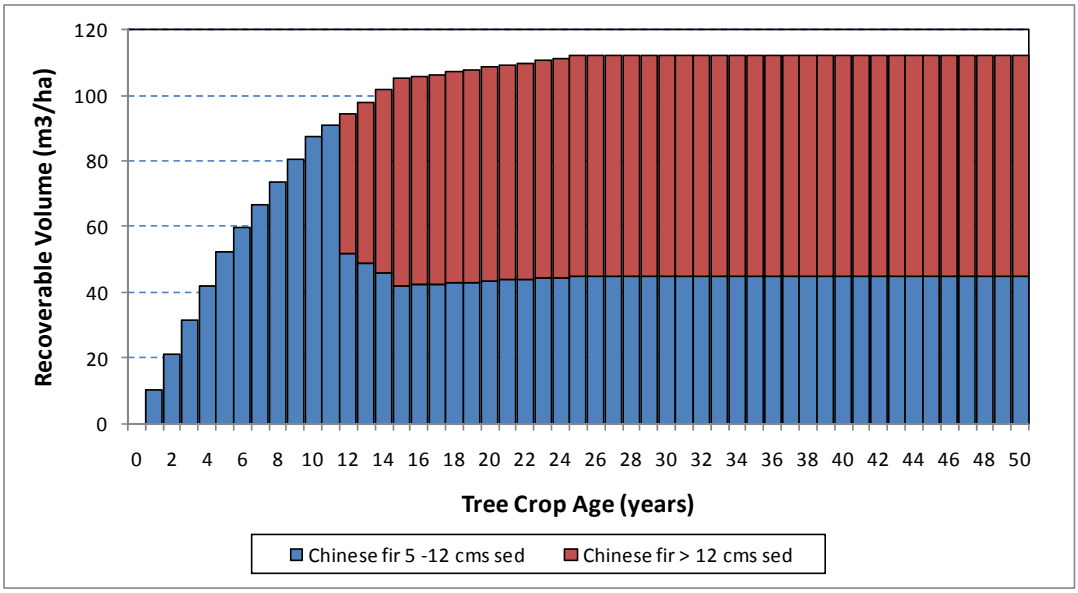


Figure 5-3:
Yield Curve applied to Chinese Fir Crops – December 2010 Valuation



[2] The Forest Estate Model (FEM) is used to model and optimise the management and harvest of the forest. Inputs include the physical and financial description of the forest, a set of specified constraints and the discount rate. The key outputs are a wood flow and cash flow representing the management and harvest of the forest.

Figure 5-4:
Yield Curve applied to foreign Pine Crops – December 2010 Valuation

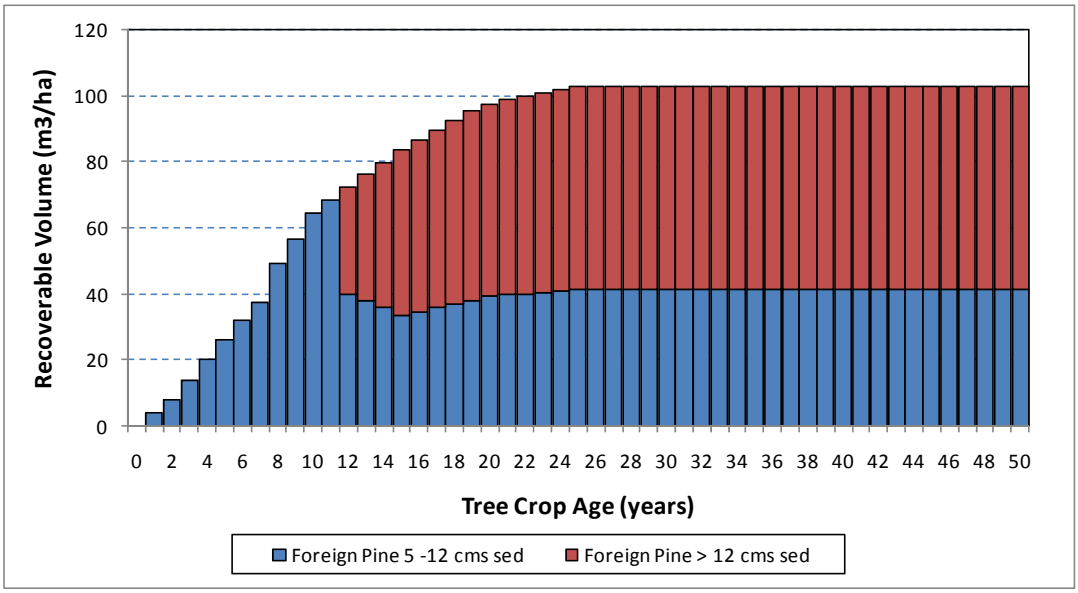
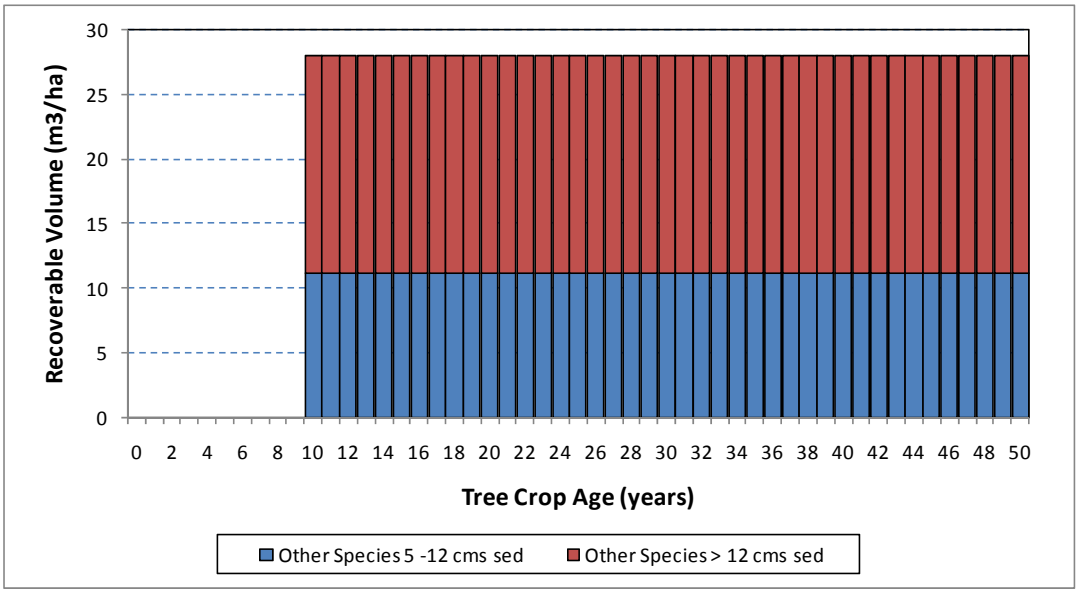


Figure 5-5:
Yield Curve applied to all 'Other Species' Crops – December 2010 Valuation



5.3 Statement on Yield Tables and Estimates of Growth and Yield

In Pöyry's forest valuations in Australasia, the Americas, Africa and Europe, the forest owner or manager usually provides Pöyry with an area description and a yield description of the forest. These descriptions are typically in the form of tables of the stocked area and associated recoverable yield expectations, by species, location and age.

Pöyry then spends some time during the field inspection phase of a valuation assignment verifying the reasonableness of these area and yield statements. The focus importantly, is on verification, in contrast to the generation or development of this forest description information.

In this valuation, while SFC does provide Pöyry with tables of the stocked area of forest owned as at valuation date, it does not provide Pöyry with tables or any predictions of growth and yield. Instead, SFC leaves this aspect of the forest description to Pöyry.

From the area description provided by SFC, Pöyry selects where to focus its field inspections. The focus is typically on locations, species and age-classes that in Pöyry's opinion will contribute most to the total forest value. Where there are significant new areas of forest in the estate, Pöyry will endeavour to visit these locations and species.

As part of the field inspections, SFC provides maps of forest area and forest record information on species and age of the crops within these areas. GPS data is recorded in the field that can later be used in conjunction with the maps to compare areas of forest as mapped and recorded, against that independently assessed using satellite imagery. The existence of tree crops by species and age, as per the maps and forest records, are also verified as part of the field inspection process.

As outlined above, in the absence of yield tables to verify, Pöyry has used a set of yield tables that it developed in 2007 as part of a variety of work for the then owner, Mandra Forestry Holdings Ltd. These yield tables are intended to broadly describe the average growth and yield of the Mandra estate.

The yield tables are generic by species, and Pöyry does not claim that they adequately capture the full extent of variation in site and crop quality characteristics, across the Mandra forest estate. Nor does Pöyry claim that the yield tables necessarily reflect the true mean growth and yield that will be realised from the forest estate as a whole.

In 2010, as a result of SFC implementing an inventory program, the inventory data describing its other forests has improved markedly. This has resulted in some changes to yield tables applied in the separate valuations of SFC's Planted Forest and Purchased Forest as at December 2010.

Progressively, as more data becomes available from SFC's inventory program, including inventory in the Mandra forest estate, further refinements to yield tables and their application will be made. These are just as likely to be increases in growth and yield expectations, as they are reductions.

6 FOREST MANAGEMENT AND HARVESTING COSTS

This section summarises the main costs associated with the management and harvest of SFC's Mandra forest estate.

It covers:

- Direct costs of forestry operations - e.g. forest establishment, tree crop tending and maintenance, direct costs of security and crop protection.
- Direct costs of harvesting e.g. tree felling, delimbing of stem, cutting to extractable/marketable log lengths, carriage to forest roadside, debarking, log storage.
- Harvest roading costs including pre-harvest tracking and road construction.
- Cartage costs - transport of log from forest roadside to mill or market (the assumed price point).
- Indirect costs of forestry operations.
- Indirect costs of harvesting and marketing.
- Forest business management and administration overhead - all staff remuneration, offices and rentals, power, telecommunications, vehicle running, R&D, external professional services, PR and communications, insurance, R&M and depreciation of assets, memberships, subs and levies. Large forestry businesses require planning, forestry operational, and corporate management services. While some economies of scale do occur, for large complex forestry business this is a substantial cost.
- Harvest taxes and fees.
- Costs of land use – rentals.

All of these costs have been reviewed as part of the 2010 valuation. The following table lists these main cost items, as applied in the valuation of 31 December 2010, some as averages, ranges and totals.

Table 6-1:
Costs of Management and Harvest of Mandra Forest Estate

Cost Item	2010
Direct costs of forestry operations (forest establishment, maintenance, tending, protection etc.)	
total first five years of forest crops life (RMB/ha) *note: has little effect on value of current crop*	11 146
Direct costs of harvesting (RMB/m^3)	
Range	120 to 170
simple average	153
Harvest roading (RMB/m^3)	10
Cartage - log transport to point of sale or price point (RMB/m^3)	
Range	87 to 105
simple average	92
Indirect costs of forestry operations (% of direct)	10
Indirect costs of harvesting and marketing (RMB/m^3)	20
Forest business management and administration overhead (RMB/ha/a)	335
total forest business management & administration overhead cost in year 1 of model (RMB millions)	45
Harvest taxes and fees [10% roadside price for logs + RMB6.5/m^3]	
average from the management and harvest of the current crop over life of the model (RMB/m^3)	80
Cost of land use - rentals (RMB/ha/a)	280
total cost of land use (rentals) in year 1 of model (RMB millions)	35
Total of all costs over the management and harvest of the forest (RMB/m^3)	**449**

Note: These are Pöyry's estimates of the cost of management and harvest of a forest estate of the sort being valued. These costs have been used in the Forest Estate Model and valuation of the forest crop.

7 LOG MARKET AND PRICE OUTLOOK

As part of Pöyry's valuation work for SFC over the past eight years, Pöyry has gathered data on log prices in China. Most of this work has focussed on the provinces of southern China, and in particular Guangdong, Guangxi, Hunan and Yunnan. Pöyry uses this data, along with consideration of domestic demand for wood fibre, domestic supply and imports, and exports of wood products, in coming to a view on future log prices. This is discussed in detail in the material on 'Log Market and Price Outlook' included in the Background Papers.

During the field inspection as part of the Mandra valuation, Pöyry visited both county-level Forest Bureaus and several wood-processing businesses. Here Pöyry obtained current prices for a range of log-size grades of Masson pine and Chinese fir being sold and purchased in the local markets. Prices in both Anhui and Jiangxi provinces are significantly higher than in the southern provinces of Guangdong, Guangxi and southern Hunan. This is due to low levels of local supply and, in particular, the proximity of Anhui and Jiangxi provinces to the active markets in Guangdong, Fujian, Zhejiang and Shanghai.

Pöyry has used these data along with information from its wider review of the log market and price outlook, to come to an opinion on both current and future real log prices for the species, and particular log-size grades modelled in the valuation of the Mandra forest estate.

8 WOOD FLOW AND ALLOCATION MODEL

The physical and financial descriptions of the forest, outlined above, are brought together in the form of input to the Forest Estate Model from which wood flows and cash flows are generated. The Model employs a linear programming formulation which allows constraints to be specified and applied to the management and harvest of the forest estate. These constraints include the specification of:

- Minimum and maximum harvest ages by species
- Replanting assumptions in terms of croptypes and expected future crop yields
- Levels of harvest volume (or area), in total or by defined parts of the forest estate, by species and location and period
- Where appropriate, the minimum and maximum volumes of particular log grades that can go to certain destinations.

With every constraint added to, or incorporated in the model, and the tighter or more demanding any particular constraint, the lower the value of the forest will be. This is simply because the ‘optimal solution’ is more constrained, and in turn lower.

Constraints applied to the modelling of potential wood flow from the Mandra estate are as follows:

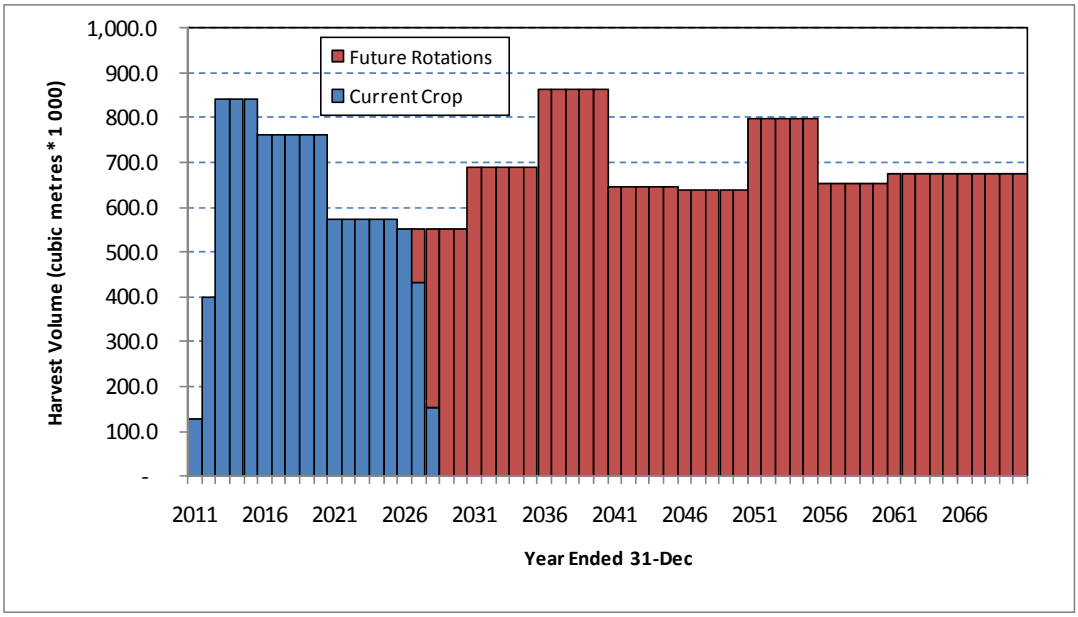
- A total harvest volume per year, by province, of no more than the Mandra forest estate proportion of the province's total area of mature and over-mature timberland plantation forest, multiplied by the provincial Annual Allowable Cut (AAC) (volume) from timberland plantation forest, i.e. the Mandra forest area share of the AAC. The AAC used is that of the eleventh Five-year Plan, being the most recent as at time of the analysis.
- Harvesting and smoothing constraints that allow or constrain certain crops, and volumes by species and location to be harvested in a manner that limits changes in the volume harvested between years and between five-year periods or lustra, by location and species.

Regeneration assumptions are also applied to the model that specify to which species and future yield table harvested crops will be regenerated.

Both the harvesting and the smoothing constraints seek to ensure a sensible and practicable harvest of the forest in a manner that would allow reasonable management of harvesting resources and avoid any undesirable impact on the log market.

The following chart (Figure 8-1) shows the modelled harvest from the Mandra forest estate over the next 60 years. It shows the volume arising from the current crop, and that arising from the harvesting of replanted crops. Only the cash flows from the management and harvest of the current crop are considered in this valuation.

Figure 8-1:
Wood Flow by Rotation



The Mandra forest estate is a relatively mature one, with an area weighted average age of the forest crops of 21 years, as at 31 December 2010. While there has not been a lot of harvesting in this forest estate up until now, SFC plans to harvest around 127 000 m^3 over the next year (i.e. 12 months of 2011).

However, the potential harvest is considerably higher and, in Pöyry's opinion, a significantly increased harvest volume is realisable. Pöyry has modelled a ramp up to a harvest level of between 750 000 and 850 000 m^3/a over the next two years.

SFC is involved in both harvesting and log sales, and sales of stumpage from the forests it owns. This approach, and its focus on commercially rational forest management and harvesting, is consistent with what Pöyry has modelled for the harvest and valuation of the Mandra estate.

In Pöyry's opinion, the levels of harvest modelled are achievable, in terms of market absorption, and harvesting and wood-processing capacity, assuming that the Chinese economy continues to grow at or near 8%/a in GDP. Pöyry believes that the harvesting strategy is one that a rational forest owner of the Mandra estate might follow.

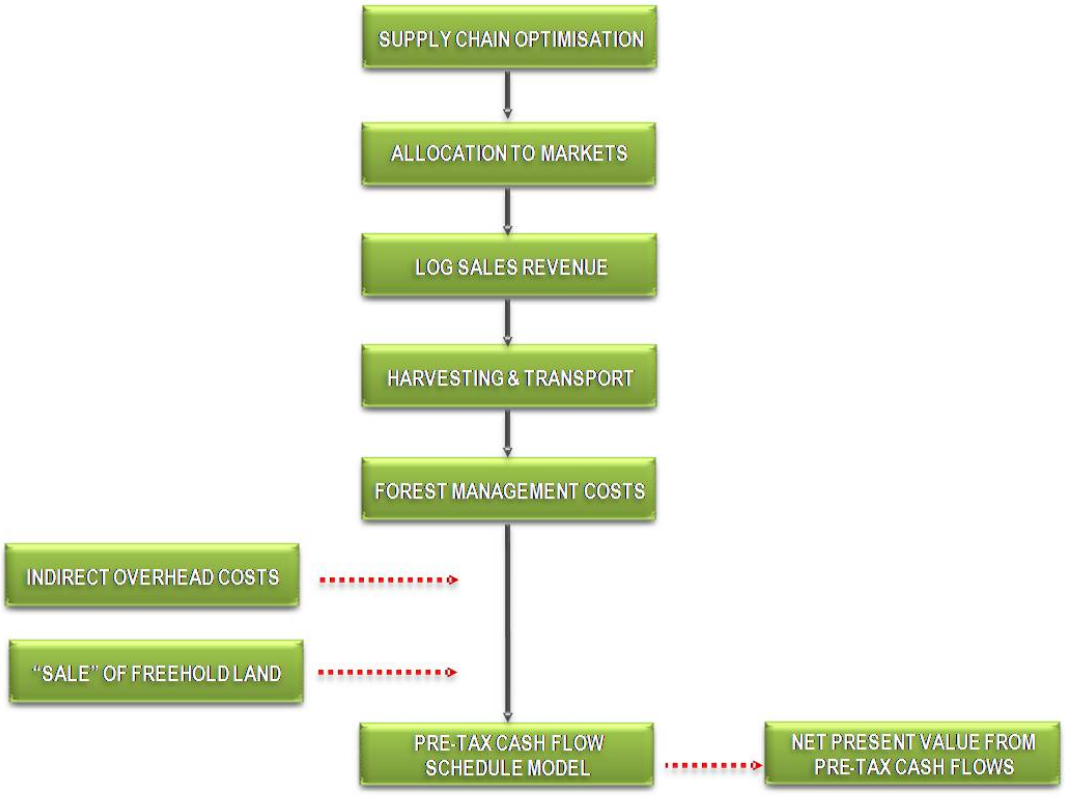
9 DISCOUNTED CASH FLOW VALUATION

9.1 Overview

The diagram below illustrates the structure of the valuation model. Generation of the initial inputs (the wood flows) has been described in the previous section. Revenue is generated at each log destination, the price point being delivered at mill gate (AMG). Harvesting and transport costs, annual forest management costs, indirect overhead costs and the cost of land-use (rentals) are deducted from this revenue to give an operating margin.

The linear programming model generates all of these costs streams, since their profile depends on the harvesting strategy and age-class structure of the forest.

Figure 9-1:
Schematic Illustration of the Forest Valuation Process



9.2 Treatment of Taxation

This valuation has been based on real pre-tax cash flows to which Pöyry has applied what we consider an appropriate discount rate. This is to translate the pre-tax cash flow forecast into a net present value representative of the market value of the tree crop asset.

9.3 Scope of the Analysis

The valuation reported in this summary is for the **Current rotation analysis** - only the revenue and costs associated with the existing tree crop are included in the analysis.

The approach is consistent with wider business appraisal that generally seeks to confine the analysis to the current investment cycle, and thereby avoid unnecessary conjecture.

9.4 Timing of Cash Flows

Cash flows are assumed to arise, on average, at mid-period. Accordingly, with the first period being the 12 months from 01 January to 31 December 2011, the mid period is 30 June 2011. The first period's net cash flow has therefore been discounted for 6 months or 0.5 years, from 30 June 2011 back to the valuation date of 31 December 2010. Period 2 is from 01 January to 31 December 2012. The mid-period is 31 June 2012. Accordingly, the period 2 net cash flow has been discounted for 1.5 years, period 3 for 2.5 years and so on.

9.5 Date of Valuation

The date of the valuation is **31 December 2010**. The cash flows contributing to the SFC Mandra Forest Estate market valuation (current crop) arise during the 18 year period beginning 01 January 2011 and ending 31 December 2028.

Forty-three percent of the total NPV accrues over the first 5 years, 80% over the first 10 years, and 96% over the first 15 years.

10 VALUATION RESULTS

10.1 Exchange Rate

The cost and price data applied in the valuation is in Chinese Renminbi (RMB). The resulting cash flows generated from the forest estate wood flow and allocation model are also in RMB.

For reporting, Pöyry has applied a USD to RMB exchange rate of 6.5918[3]. This is the published rate for 31 December 2010.

10.2 Valuation as at 31 December 2010

Pöyry has estimated the market value of the Mandra Forest Estate tree crop assets as at 31 December 2010 to be **USD273.303 million**. This is the NPV of the pre-tax cash flows arising from the future management and harvest of the existing forest crops during their current rotation. The valuation uses an 11.5% discount rate, applied to real, pre-tax cash flows.

[3] OANDA.com *The Currency Site* http://www.oanda.com/currency/converter/.

11 SENSITIVITY ANALYSIS

A sensitivity analysis has been conducted that addresses the main drivers of value within the current rotation valuation model. These are:

- Discount rate and log price changes (in combination)
- Changes in the level of fixed overhead costs
- Changes in the costs of production (logging, loading and log cartage)
- Changes in the level of land rentals
- *Changes in the level of forestry costs (to show that these are immaterial).*

Table 11-1:
Log Price Sensitivity

Scenario	Real Discount Rate applied to Pre-tax Cash Flows		
	10.5%	11.5%	12.5%
	Current Rotation Value (USD million)		
10% Real Price Increase	347.954	327.575	308.944
No Real Price Increase (Base)	290.476	**273.303**	275.607
10% Real Price Decrease	232.998	219.031	206.270

Table 11-2:
Overhead Cost Sensitivity

Scenario	Real Discount Rate applied to Pre-tax Cash Flows		
	10.5%	11.5%	12.5%
	Current Rotation Value (USD million)		
RMB420 O/Hd cost/ha/a (i.e. +25%)	280.716	263.915	248.564
RMB335 O/Hd cost/ha/a (Base)	290.476	**273.303**	275.607
RMB250 O/Hd cost/ha/a (i.e. -25%)	300.235	282.691	266.650

Table 11-3:
Harvest Cost Sensitivity

Scenario	Real Discount Rate applied to Pre-tax Cash Flows		
	10.5%	11.5%	12.5%
	Current Rotation Value (USD million)		
10% Harvest & Cartage Cost Increase	271.775	255.686	240.979
Harvest Cost (Base)	290.476	**273.303**	275.607
10% Harvest & Cartage Cost Decrease	309.176	290.920	274.234

Table 11-4:
Land Rental Sensitivity

Scenario	Real Discount Rate applied to Pre-tax Cash Flows		
	10.5%	11.5%	12.5%
	Current Rotation Value (USD million)		
RMB350 Rental cost/ha/a (i.e. +25%)	282.318	265.456	250.049
RMB280 Rental cost/ha/a (Base)	290.476	**273.303**	275.607
RMB210 Rental cost/ha/a (i.e. -25%)	298.633	281.150	265.165

Table 11-5:
Forestry Cost Sensitivity

Scenario	Real Discount Rate applied to Pre-tax Cash Flows		
	10.5%	11.5%	12.5%
	Current Rotation Value (USD million)		
10% Forestry Cost Increase	289.975	272.818	257.136
Forestry Cost (Base)	290.476	**273.303**	275.607
10% Forestry Cost Decrease	290.976	273.788	258.077

The valuation is most sensitive to gross log price, with increases of 10% increasing crop value by 20% and vice-versa. Increases in harvesting and cartage costs of 10% reduce the NPV by 6%. Increases or decreases of 25% in either the forest business management and administration overhead, or land rentals, change the value by about 3%.

The value is unresponsive to changes in forestry direct costs and associated indirect costs. This is because the largest part of these costs occurs in the first year of a crop's life. Because the valuation model is based on the costs and revenues of only the current crop, and there is only a small area of young forest incurring early age costs, then changes in these costs have no material impact on the value of the current crop.