

Assessing 'management investment scheme' forestry projects: A best-practice template for commercial plantation development¹

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Summary

Over the last 15 y there has been a significant change in the face of Australian plantation forestry: the decline in plantation investment by governments, and the rapid expansion of a new plantation industry funded by private investors. A high proportion of the new plantations are management investment schemes (MISs) where plantation projects are set up by companies, who then attract investors, acquire the land, develop and manage the plantations and sell the produce from them, all on behalf of the investors.

Proponents of MIS schemes may seek to add credibility to their product by having it independently assessed and reported upon by an agribusiness research house. The research reports focus on two questions: Firstly, will the project 'work' from the forestry perspective? And secondly, will the likely financial returns be achieved? The reports are aimed at financial advisers and investors.

This paper concentrates on the forestry aspects. I have worked for an established research business for over six years and have assessed the forestry side of numerous MIS projects. In order to assess diverse projects systematically and to allow comparisons between geographically dispersed projects, I have developed a template for best practice which can be applied to any MIS plantation project.

This paper sets out my concept of best practice and discusses the main points of interest and concern that have arisen during MIS forestry projects assessment when applying it, and includes observations on the industry and its future.

Keywords: plantations; management; investment; assessment; practice; standards

Introduction

Forestry projects set up under managed investment schemes (MISs) are a United Kingdom and Australian phenomenon, but are no longer promoted in the UK. The current concept originated

in Western Australia (WA) in the early 1990s and initially focused on developing Tasmanian blue gum plantations for woodchips for export. It has since expanded to every state in Australia and now covers projects as diverse as Indian sandalwood at the Ord River, West Australian sandalwood in the WA wheatbelt, teak and red mahogany in northern Queensland, African mahogany in Queensland and the Northern Territory, spotted gum in northern New South Wales, *Acacia mangium* on the Tiwi Islands, radiata pine on Kangaroo Island and shining gum in Tasmania.

Since its inception, the MIS plantation industry has established over 500 000 ha of plantations in Australia and has attracted over \$3 billion in investment. By 2006, 26% of the Australian plantation estate was owned by people who invested in MISs, and 86% of all the new plantations established in Australia in 2006 were funded through MISs (Bureau of Rural Sciences 2007).

The MIS concept is not without its critics, who point to some failed schemes, dodgy operators and unfulfilled or unfulfillable promises. The most persistent criticism is the extent to which the financial benefits flow to the promoters rather than the investors. Farmers who consider MIS plantations are taking over 'prime agricultural land' also believe that the industry enjoys special taxation advantages — an assertion rejected by the MIS companies. The latter point out that government plantations are established entirely using taxpayers' money and are not subjected to the same scrutiny and accountability requirements as are plantation projects established under MISs.

Nevertheless the concept has been dramatically successful in getting new plantations in the ground, allowing support industries to develop and boosting rural employment and regional economies. Most of all, it has encouraged thousands of ordinary Australians to invest in forestry. They regard it as a low-risk investment with reasonably assured if modest returns. In addition, investors are able to claim their initial investment as a taxation deduction and this appears to be a greater attraction than the returns from the final harvest to some investors, at least until final harvest is imminent.

The mechanism

The formal process may vary from one project to another, but typically MIS forestry projects follow a process which includes the following steps:

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- A business organisation (in some cases an established forestry company) designs a forestry scheme which it thinks will attract investors.
- They prepare and publish a prospectus or product disclosure statement (PDS) which is distributed to financial advisers and potential investors, or advertised in the media. This explains what is proposed, describes the drivers for investment, the likely returns and risks and the various rules for the project and safeguards for investors. It is normal for a PDS to be supported by substantial due diligence research which can be consulted by interested parties.
- The 'standard' PDS invites investors to purchase one or more 'woodlots' or 'plantation units' (each usually with an area of about 1 ha) on land which the MIS company will acquire, plant with nominated species of trees and then manage for a stated number of years before the trees are harvested and the investor remunerated from the harvest proceeds.
- Using data on yield, costs and price, investors can test the possible outcomes for a range of financial and forestry variables, taking into account their own financial situation and needs.
- Investors who decide to participate in an MIS project (and are subsequently known as 'growers') purchase woodlots, sometimes for a one-off 'upfront fee' with no further payments within the rotation, other than insurance premiums, or sometimes in addition they have to commit to pay additional fees during the rotation for maintenance, or silvicultural operations such as pruning or non-commercial thinning.
- Key players in the selling of MIS schemes and woodlots are financial advisers, upon whose advice and judgement most investors rely. Financial advisers whose clients become growers in an MIS scheme usually receive a commission from the MIS company.
- The land is acquired either freehold or by lease, and is always (on mainland Australia) cleared farmland. The woodlots are allocated, the site prepared and the trees planted. Various maintenance operations are then carried out, sometimes thinning and pruning, and then ultimately the plantations are harvested and the produce sold. In most cases the MIS company retains a portion of the harvest proceeds to cover the costs of supervising harvesting and arranging the sale of the wood, and costs associated with land ownership or leasing.

Two features of MIS schemes are aimed at reassuring a potential investor. The first is the application by the promoter for a 'Product Ruling' from the Australian Taxation Office (ATO). If granted, this ensures that the investment can be legitimately claimed as a taxation deduction. The second is that the promoter arranges for an 'Independent Forester' (IF) to assess the project and report upon it to potential investors. The IF's report is included in the PDS. It is usual for IFs to support the forestry aspects of the proposed project, a fact that is sometimes condemned by MIS critics, who point out that the IF is paid by the promoter to report on his project. Over the years I have read some sketchy and in my opinion superficial IF reports. Moreover, IFs are hamstrung to some extent by the requirement of the Australian Securities and Investment Commission (ASIC) which does not allow IFs to 'negotiate' with promoters over aspects of the MIS scheme. ASIC expects them to make a judgement solely on the basis of the

proposal as it is put to them, and not suggest to the promoter how the scheme might be improved, from a forestry perspective, before the PDS is published.

Responsible IFs always draw the attention of investors to the project risks, and their support for a project is conditional upon the MIS company performing in a professional manner. Some MIS companies also make provision for their IFs to verify the suitability of land acquired for the project, to carry out annual inspections of projects after establishment and report directly to investors on the progress of the plantation. These additional responsibilities are essential. Attention is also drawn to the excellent Disclosure Code for Investment Schemes developed by the Australian Forest Growers and the Association of Consulting Foresters, and the recent development of a Code of Ethics adopted by the association representing MIS forestry companies. Both are aimed at protecting investor interests.

Many foresters have been critical of MIS schemes in the past because of the hand-to-mouth nature of the business. By this I mean that no sooner had one year's scheme been planted than the full resources of the company were directed to acquiring the land and preparing the ground for the next planting season. As a result, insufficient attention was given to looking after young plantations as compared with establishing new ones. This problem usually stemmed from inadequate staffing in the smaller, newer forestry organisations, but there was also the constraint of the so-called '12 Month Rule', an unreasonable imposition from the ATO that required that trees in any new scheme be planted within 12 months of the investment. Thankfully, this requirement has been abandoned, the ATO accepting that 12 months was an unrealistic time frame, given climatic variability and establishment logistics.

Project evaluation by independent research houses

A further level of project evaluation is applied to many MIS forestry schemes. This occurs when the project developer engages an agribusiness research house to evaluate the project and provide an independent report to financial advisers and investors. There are several such research houses in Australia; they study and report upon a wide range of investment projects including forestry, agricultural, horticultural and aquacultural projects. The endpoint of the evaluation process is a published report in which the project is either failed, or alternatively is passed and assigned an investment rating.

The agribusiness research houses are funded partly by the project developer and partly by financial advisers who purchase access to the research reports. The project developers may decide to publicise the research report themselves, and those whose projects are recommended usually do so.

The assessment incorporates two fundamental questions:

- is it likely that the project will result in a commercially successful plantation?
- is it likely that investors will get a suitable financial return given the likely risk–return relationship?

The assessment process

The following account of the assessment process is based on my experience as Senior Forester for the Melbourne-based research house Lonsec Limited. Over the last seven years I have appraised over 50 potential forestry MIS projects in all states of Australia. In this way I have been exposed to both the best and some of the worst features of the MIS concept and its delivery.

The Lonsec review entails a two-stage evaluation process:

Stage 1: Initial assessment. The project is first reviewed at the desktop, and this does not usually involve the forester. Lonsec analysts scrutinise the PDS, financial models and company reports, review the company profile and discuss the investment aspects of the project with the proponent. Some projects are failed at this point and we do not hear from the proponent again (although this is not to say that the project does not go ahead). Some projects are returned to the proponent with recommendations as to how they might be modified so as to move the project to 'approved status, subject to Stage 2'.

Stage 2: Detailed research report. Forestry projects that are approved at Stage 1 are then referred to a more detailed investigation, involving the Lonsec forester. This entails a visit to the site, meetings with the project promoter and their forestry staff, discussions with the project's independent forester, examination of any existing plantations and trial plots the company may have, study of their land acquisition protocols and operational manuals and review of any relevant inventory or research reports. In the field I try to inspect the specific site or sites on which the plantations will be established and I carry out a detailed project appraisal against a template (discussed below). Finally I provide Lonsec with a written report and recommendations.

Provided that my report is not negative, projects are then subjected by Lonsec's analysts to further financial analysis and review of the company's corporate resources and business strategy. This is a lengthy process, involving complex economic and financial modelling, investigation of company records, balance sheets, assets register and organisational arrangements, and discussion with the project promoters about issues such as insurance, fees, costs, markets and prices. Two critical issues on which the Lonsec analysts focus are (i) the way the project's financial inputs and outcomes have been modelled; and (ii) the manner in which costs and profits are allocated between the investor and the promoter. The final report combines the various inputs, and contains the ultimate decision as to whether the project is failed or approved, and its investment rating.

Although this process is thorough and professional, it does have some difficulties. For example, we are always asked to report on *proposals*. Only in the case of MIS organisations that have been in the business for some years can actual performance be assessed. Small start-up organisations with no track record, or those with pioneering projects such as the growing of an exotic species as a commercial plantation in Australia for the first time, offer the greatest challenge. These can be hard to assess, in particular the key issue as to whether the organisation is robust enough to see the project through to maturity. Another oft-quoted problem for all the 'independent' research houses is the perception of conflict arising from the fact that our research process is partly funded

by the MIS promoter on whom we report. In my experience this has not influenced the review process one iota, but it allows MIS critics to maintain that the reports are not truly independent.

Another difficulty is that of comparing very diverse projects in very different geographical situations — from Indian sandalwood being grown for oil at Kununurra to shining gum being grown for sawlogs and pulpwood in Tasmania. For this reason I have found it helpful to develop a best-practice template which allows me to look for the elements essential in a successful commercial plantation project, no matter where it is or what the product.

The evaluation template: best practice in commercial forestry projects in Australia

Best practice in any commercial forestry project in Australia has eleven key components:

1. *Choice of species.* A tree species must be used which has commercial value and an assured market.
2. *Site suitability.* The land acquired for the plantation must match the site requirements of the species to be planted. Forestry MIS projects are mostly not designed by foresters, but by lawyers, accountants or financiers with no understanding of the interplay between different species and different soils or rainfall, or the requirements for soil depth in drought-prone areas, or for avoiding frosty sites for tropical species and so on. This is less of an issue these days than it was 6–10 y ago, as the site requirements for most commercial species grown in Australia are now well known. I have assessed projects, however, that employed no foresters and for which sites totally unsuitable for the species to be grown had been acquired.

Some marginally unsuitable sites can be treated so that they become suitable, for example by adding fertiliser to infertile soils, or by deep ripping or drainage. The one factor which cannot be controlled is rainfall (other than by irrigation, which can be considered only for forestry projects with very high rates of expected returns). It is a fact of life in Australia that cleared agricultural land is always cheaper and easier to acquire in lower-rainfall areas. The choice of cheap land with inadequate or marginal rainfall is the most common reason for MIS forestry projects failing.

3. *Environmental acceptability.* Environmental approvals must be in place, environmental management must be built into all forestry operations, and environmental control and reporting systems instituted. It is essential that promoters can demonstrate that their proposed project will comply with federal and state legislation and protocols, and local government requirements. I prefer it if the organisation is accredited to, and is implementing the requirements of, ISO 14001 and the Forest Stewardship Council or the Australian Forestry Standard. I also like to know that organisations have good relations with the community in the districts where they are working, and have a proven record of avoiding off-site or over-the-fence issues.
4. *High quality planting stock.* Genetically improved seed of a known and suitable provenance must be used, or where cuttings or plantlets are used, the promoter must be able to

demonstrate the pedigree of the clones. Provenance and genetics influence the key parameters of survival and yield. There is good genetic information for many species planted in Australia (for example radiata pine and Tasmanian blue gum), but for others (for example African mahogany) basic information on provenance is still being acquired and breeding programs are in their infancy. The use of genetically improved seed of a proven provenance is a big plus for an MIS project, but the claims of the promoters (especially about gains in yield) need to be checked to ensure they are soundly based.

It is also critical that capable nurseries be contracted to produce quality seedlings. Wherever possible an inspection is made of the nursery or nurseries growing the seedlings to be used in the project. The expectation is to find a professional nurseryman who takes a pride in his work, a clean and efficient, modern nursery, an up-to-date nursery protocol or manual which includes a written seedling specification, pest and disease management guidelines, and full accreditation with the local nursery association or government department. If there are no seedlings in the nursery at the time, I will always try to look at the most recently planted area using seedlings from this nursery. Poor nursery performance is impossible to disguise.

The development of clonal forestry, especially where it involves the importation of tissue from overseas and the growing-on of plantlets or cuttings in local nurseries, has introduced a new and finicky operation into Australian forestry with an increased risk to investors for new projects and higher establishment costs.

5. *Management plans and operations manuals.* Good operational planning is required to ensure efficient and successful establishment and plantation management. I expect every MIS project manager to be able to show me the management plan for each property, accompanied by their manual of operations or a similar document that specifies the outcomes to be achieved from each phase from site preparation through to harvest.

I like to inspect areas being prepared for planting to check on plantation layout, the way in which non-plantable areas have been identified, weed control, access, ripping and mounding, drainage, fire breaks, water points and so on. I consider it essential to look at any examples of older plantations, from those recently planted through to harvesting operations if possible. Plantations aged 1.5 to 2.0 y old are often the most revealing, as these indicate the initial survival, whether replanting was carried out if needed, and the quality of secondary weed control.

I have found that most start-up MIS companies have not put sufficient time into management plans or documentation of operations, because they are too busy selling the scheme, acquiring land and planting it. This leaves them vulnerable when experienced staff are replaced by new recruits, leading to inconsistent standards on the ground.

6. *Weed control.* Plantations on former farmland anywhere in Australia will fail if weed control is ineffective. The problem for an MIS company is that the most critical period is when

the trees are 6–18 months old — the time in which personnel are also flat out preparing sites for the next year's project. In addition, herbicides are tricky to use, and a high level of expertise and experience is called for, especially in tropical and sub-tropical regions. Most of the older MIS companies operating in temperate Australia have mastered weed control, but start-up organisations nearly always run into problems due to lack of staff, overconfidence, poor knowledge about herbicides, or failure to act in a timely way. In the tropics, weed control is still an evolving art.

7. *Nutritional management.* A nutritional management plan is required for plantations on nearly all Australian soils. I expect an MIS company to be able to show me how they intend to manage nutrition for the proposed plantation right through the rotation, and for their plan to be based on agronomic experience for the site, plus, if possible, published research and field trials.

The two key components of the nutritional management plan that I look for are (i) the proposed fertiliser program and its basis, and (ii) whether the organisation has the capability to monitor tree health and nutritional status and to act appropriately if nutrient deficiencies develop. From the viewpoint of the investor, an additional factor is the cost and benefit of fertilisation. Company foresters should be able to demonstrate that the cost of fertiliser does not exceed the value of any additional yield resulting from its application.

8. *Pest and disease management.* I expect the MIS company to have a pest and disease contingency management plan (or similar). This will identify potential pest and disease problems, map out the monitoring program for the plantations, indicate 'trigger points' for action, and set out how any outbreak will be controlled. I also like to know that the company's field staff are trained to identify pests and diseases and to implement the contingency plan.

The creation of large single-species plantations in southern Australia, the move of the plantation industry into the tropics and the increasing use of clones are all factors which heighten the need for professional pest and disease management by MIS forestry companies. With one or two notable exceptions, it is also the least satisfactory aspect of most of the MIS forestry projects I study.

9. *Bushfire management.* Outside the wet tropics or irrigated crops, good bushfire management must be a component of every plantation project. It is also one of the most difficult for MIS companies to achieve. The plantation estate tends to be widely dispersed and intermixed with farmlands where fires can develop very rapidly, or adjoin long-unburnt national parks with heavy fuels. I expect MIS projects to honestly identify the fire risk to potential investors, and I prefer projects in which insurance is compulsory. Apart from that, the fundamental principles of forest fire management must be applied — preparedness, damage mitigation, some form of detection, a response capability and the maintenance of excellent relations with the local community. The best form of fire management for a remote and dispersed plantation estate continues to be the minimisation of fuel loads, initially through the weed control program, but later by grazing.

Prescribed burning for fuel reduction may well become a standard procedure in older plantations and those with a grassy understorey, but this technology is still in the research phase.

10. *Technical support.* A good forestry organisation will be able to demonstrate that field operations are supported by appropriate hardware (good maps, vehicles, plant and machinery, computers and so on), a range of essential software (growth models, yield tables, data bases etc.), and will have professionally trained staff who can undertake research and inventory programs. I am deeply mistrustful of MIS companies that do not employ foresters. This is not to say that agriculturalists and farmers cannot grow trees, but what these people can never do properly is inventory and research, and mostly they do not understand basic stand dynamics — the relationships between stocking, form and yield.
11. *Organisational culture and capability.* Forestry is a long-term affair, and an MIS organisation must be in it for the duration. I like to meet the senior people as well as the field staff, and try to judge whether they are in the business just to make money out of the punters, or whether they have a genuine interest in creating and eventually harvesting a high-quality plantation.

Young plantations tell me a lot about the culture of the organisation and its management. An untidy site, with old seedling trays and herbicide drums lying around, poor weed control, gates hanging off their hinges, ungraded roads, straying stock and hand-lettered signs on a fuel drum lid usually add up to an organisation which has been happy to accept investors' money, but is not dedicated to quality professional forestry. Similarly the appearance and attitudes of the field staff, their vehicles, their interest in continuous improvement and their passion for their work are all excellent indicators of the nature of the organisation.

At the end of a Lonsec evaluation I always ask myself two questions:

- would I work for this organisation?
- would I invest my own money in their project?

The answer to the first question is usually the more telling.

The projection dilemmas: yield and price

The two most critical and usually the most contentious issues which must be considered in evaluating a proposed MIS forestry scheme are the promoter's estimates of eventual yield and price. (Note that the Australian Securities and Investment Commission specifically prohibits MIS companies from making 'projections' of future yields and prices, but they may make 'estimates').

Yield. It is often difficult to comment with precision on estimates of yield for a project as there may be no data available from existing mature plantations or trial plots. In these situations it is necessary to consider likely scenarios based on similar species on similar sites, or generalised growth models and past

experience. My preferred option is for the promoter to outline a likely range of yields, so that Lonsec (and the potential investor) can do a series of sensitivity analyses around this (and other) variables.

Price, especially for export produce, is also tricky, as it must be estimated for 10–20 y ahead and is certain to be influenced by unpredictable supply and demand factors, changes to exchange rates or international economic factors well outside the control of the MIS manager.

It is also usually difficult for Lonsec to get good data on project costs. For new projects, costs can only be estimated, while for other projects issues arise relating to availability and confidentiality of data, for example contract rates or actual unit costs for various operations.

Most MIS promoters tend to be optimistic about both yield and price. Neither factor, however, counts for much with the two key players in the whole business: the investors and their financial advisers. Many investors in MIS schemes seem to be overwhelmingly interested in the immediate taxation deduction, while a driving factor for many financial advisers seems to be the commission they receive from the MIS company. The industry is rapidly maturing, however, and there is greater investor interest in final returns these days, especially for the low-volume high-value crops such as sandalwood, teak, African mahogany and other species being grown for sawlogs or veneer. I remain critical, in general, of the financial advisory industry, as I see too many examples of projects — being pushed to investors — where the main beneficiary is the advisor, not the investor.

Conclusions

The MIS plantation industry has its critics, including some within the forestry profession. The most severe critics focus on the financial aspect of the industry, rather than the forestry side, especially in more recent times.

I have found that the forestry side of the industry does have faults, but like any industry it comprises good and bad participants, and also like many other rural enterprises it is mostly getting better at its business over time. I have inspected and condemned a number of faulty projects (some of which were still sold to investors — a concern in itself). I have also seen several innovative and interesting projects that are pioneering important new directions in Australian plantation forestry; through the Lonsec research process I have tried to contribute to the development of their procedures and silviculture. There have been many instances where we (Lonsec) have failed a forestry project but explained what is needed to get it over the line, and the project has been returned the following year substantially improved.

Most of the well-established MIS projects — such as those based around eucalypt pulpwood or radiata pine plantations in temperate Australia — are professionally planned, conducted by competent foresters and supported by good research. The on-going and perennial problem for pulpwood projects is acquiring suitable land at an acceptable price.

It remains to be seen whether or not the investors in MIS forestry schemes will be satisfied. The harvest of the first series of MIS blue gum plantations in WA has produced some disappointing results (generally associated with an evolving approach to site selection, but also to below-average rainfall), but in some instances lower-than-expected yields have been counteracted by higher-than-expected prices.

The MIS industry could further improve in a number of areas. The industry has only recently been able to find ways of attracting the same level of investment for longer-rotation high-value timber crops as it has for pulpwood plantations. Projects continue to emerge which are being driven by the motive of profit for the proponent at the expense of good forestry or returns to the investor. The industry has failed to coordinate adequately on cross-industry issues such as nutritional research, pest and disease management, tree breeding, bushfire management, inventory and community relations. I continue to see examples of the two greatest negatives in plantation forestry: acquiring cheap but unsuitable land and saving money by withholding fertiliser. A significant new challenge is emerging in the management of second-rotation eucalypt plantations.

Some people predict that the MIS forestry industry will get a shake-up some time in the near future, perhaps due to an investor revolt, an environmental calamity or as a result of changes to taxation rules or the collapse of an overseas market. The MIS industry itself regards the Australian Taxation Office as its most serious on-going threat. The ATO has a fundamental view that investment in the establishment and growing of a plantation woodlot is capital, and does not qualify as a taxation deduction. This issue may well soon to be tested in the courts.

My own view is that the plantation industry is like other rural industry in Australia, and will be subject to the vagaries of climate, markets and international affairs. The subset of the plantation industry which is funded by investors and managed by forestry companies will ultimately sink or swim depending on investor satisfaction, and the professionalism of the foresters doing the work on the ground. This paper provides one blueprint for the latter.

Whilst the MIS forestry industry in Australia is only about 15 y old, it has made an astounding contribution to Australian

plantation forestry over this time. It is now one of the largest employers of foresters in the nation, including many fine professional, technical and field foresters who have moved across from government agencies or come to Australia from overseas specifically to work for MIS companies. Standards are improving across the board, based on tree breeding, silvicultural research and increasing field experience. Efficient harvesting systems have been developed. The MIS industry is providing leadership in the development of a whole new plantation industry in northern Australia using high-value tropical hardwoods. It is very unlikely that governments will re-enter plantation forestry in any serious way, so plantations financed by private or corporate investors are the only future.

Lonsec's forestry and investment review process described in this paper is also a 'new' industry, but is an important one in that it provides independent analysis of new plantation projects and indirectly leads to improved operations and investor confidence.

Finally, the best-practice template set out in this paper can be applied to any plantation project. One area in need of critical independent appraisal is the burgeoning new 'carbon off-set' planting funded by everyday Australian citizens as well as by corporations intent on becoming carbon-neutral. In this field, as with the MIS plantations, investors should be confident that they are going to get what they have been promised.

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