Response to TIP on Forest Valuation

Response by Jerry Leech


This response is my personal view but I have discussed this with a number of interested members and believe that tenor of the response reflects their views as well.

Response to Questions

1. I believe that the TIP should direct what should be done regardless of national laws or private contract, although the national laws and private contract should take precedence in practice. It would be best if national laws and private contract adopted these principles.

   I doubt that the principles have wider application apart from forest valuation. I note that the list in clause 2 is somewhat limited though.

2. i) Basically there are no standards relevant to forest inventory and planning but there is a considerable body of literature. My own experience is probably broader than most having worked on intensive plantation inventory for many years, on National Forest Inventories in Burma (Myanmar), Bangladesh, China, Indonesia and Bhutan, with some other management inventory experience thrown in both in Australia and overseas. I have published a number of papers on inventory subjects.

   The key to forest valuation is rarely inventory but the extra phases of growth modelling and planning that lead to the ability to predict future yields from a forest estate.

   For a summary download the Handbook to accompany the Australian forest valuation standard; [http://www.forestry.org.au/](http://www.forestry.org.au/) > contacts > ACFA – Consulting Foresters. Look at chapter 6, but see also the other chapters as all are relevant to valuing forests.

   ii) It would not reduce diversity if IVSC gave more information on common sampling and measurement techniques because this TIP is at such a simplistic level that it cannot provide appropriate guidance. The danger is that it would be laughed at by knowledgeable inventory specialists.

3. Different methods can be used but the choice depends a bit on what the valuation is to be used for. For large forest estate sale purposes I believe DCF is the only way. There are situations where a cost based approach may be appropriate but I rarely encounter them.

   The same techniques are required whether one is valuing a single stand or a forest, it is just that there are extra considerations if one is valuing a forest.

4. No.

5. i) My experience suggests that the projection period should be at least the nominal rotation length plus transition into the next rotation.

   ii) That is easy enough to recommend. It cannot however be mandatory.

   The fact that this TIP does not really address the issues with the definition of the IASB term “biological asset” is quite unfortunate. There is a close relationship between planning period and prediction of the biological asset.
The concept of using an infinite planning period is not adequately addressed.

6 The real issue is the terminal value and that is not in my view adequately covered in TIP 1 in terms of the long projection periods common in forest valuation.

In many circumstances the immediate liquidation value at the terminal point is most appropriate. It can at least be defined accurately, valued at current values, and then discounted back.

7 Cost is of little (or in my opinion no) use. A high cost forest can be worth far less than a low cost forest, it depends on so many environmental and other factors that are not part of the costs. It does make some sense if valuing for insurance purposes but not for market valuations, especially valuations that need to meet the IASB 41 standard.

See comment on land later. The treatment of land is a big issue.

8 I agree that the massive changes in value year on year is contrary to the IVSC position, but what is not covered is how this is best handled. It is almost ignored in the IASB standards.

It can also be distorted by land value changes that are not accurately brought to account. In Australia the collapse of some Managed Investment Schemes distorted the value of land for other forestry uses because that use was no longer available and so was no longer H&BU.

i) See the Productivity Commission Report from Australia which shows how important the problem can be. In the Qld case the massive variation in the valuation brought to account was purely an accounting artefact to meet requirements of the Auditor General. There are many other examples in Australia, most of the details of which are held “corporate in confidence” so that they cannot be quoted publicly.

ii) No.

9 The “biological asset” is only part of the forest asset. The Australian forest valuation standard provides a way of separating out and rationalising the two values. So too does the NZ standard.

What is really needed is a consistent method for treating land, and that is almost totally missing from this TIP. It is also missing from IAS 41.

10 In my view the IAS 41 approach is quite farcical as it means the forest value (particularly the biological asset value) can be distorted by land value changes.

The challenge of alternative H&BU is actually far easier to control and work with.

11 i) I think that the examples add little or nothing and will not help reduce diversity in practice.

ii) Any examples have to at least be meaningful. I had this challenge when preparing the Handbook to accompany the Australian forest valuation standard. That handbook can be freely downloaded from www.forestry.org.au/ > contacts > ACFA – Consulting Foresters.

12 i) This TIP meets the objectives set but I do not think it meets the real objective of improving forest valuation practice. There are better and more appropriate standards in Australia and New Zealand for that and if IVSC are not prepared to meet the challenge then countries will simply have to develop their own standards.
I fear that if a valuer provides a bad valuation then they may use this TIP as justification for their valuation approach. That could well lead IVSC into some possible legal difficulties, especially given a recent large settlement. I do not want to see that happen.

ii) See later. I believe that this TIP is at too simplistic a level to be truly useful. I recognise that this is quite difficult for IVSC to address.

**Exposure Draft**

**Discussion of TIPs.**

In Australia the forest valuation standard is mandatory for all members of ACFA (the Association of Consulting Foresters of Australia) but recommended for other members of the IFA (Institute of Foresters of Australia). Thus anyone employing a forestry consultant to assist their valuation has some comfort that an ACFA member can meet the standard. There is still some wriggle room but this protocol is designed to try to get some more consistency in forest valuations.

However I have seen some valuations done by both foresters and non foresters, including certified valuers, that I consider to be unethical, inappropriate, and basically wrong. Now that is what I would like to see minimised!

2 What about insurance, estate planning, and the comparison of alternative forest management strategies? These are also vital functions requiring forest valuation.

5 Forest inventory is much, much more than the definition implies.

11 Instead of “details and history of standing timber” it would be better as “forest inventory”.

12 Many valuers do not have sufficient knowledge and this has led to some really crazy situations, situations that I thought this TIP was aimed at avoiding.

14 This is NOT for large stands but for large forests. One company I know has >100,000 ha of forest but the average stand size is <20 ha. A stand (or a coupe) has a fairly specific definition that is clearly recognised around the world even though the name may change.

16 Why are costs and returns not mentioned, after all they are the components critical to value?

19,20 The use of the term maturity doesn’t make much forestry sense. I think IVSC mean it in terms of clear felling at the end of a rotation but before that there can be a number of commercial thinnings which can also be considered maturity for those trees.

21 Sentence 2. The word “matching” is incorrect. However the linkages between the two must be considered. It is not always possible for a forest to meet the demand placed upon it.

23 How does IVSC define “board feet”. The USA foresters can’t, they can only define it for a particular area and set of circumstances. I think there are >50 definitions (see Frank Freese 1974 seminal General Technical Report).

24 H&BU considerations only apply if contracts allow them to apply. It cannot be a blanket statement that market value reflects H&BU.

26 The fourth word “would” should be “could”. Such an effect is not always so.
31 It is not just heterogeneity of the forest. There may be very similar forests available for comparison, homogeneous between sales and the forest being considered, but other factors may mean that sales comparisons are at best fraught.

35 This clause is just too simplistic to be useful. Part of the issue is that the projection period needs to be long so that there can be a reasonable estimate of the terminal value. Very long projections are necessary to confirm sustainability. I believe that while TIP 1 is great it does not address the needs of forest valuation, especially in terms of terminal value.

That should explicitly be addressed in this TIP.

36 There is a good argument to be made that the projection period should be 0 or ∞. Otherwise it is more tricky to incorporate land into the analysis. Well it is easy enough to put in a land lease value but what is the terminal value 20-40 years out of this land lease value?

There was a recent example where a bidder required a DCF for a 105 year planning period. Most valuers would consider that to be too far out to be meaningful but the bidder obviously didn’t. The Terminal Value would be about 0.05% and insignificant. I know that they had other good reasons for the request.

This whole subject of land value is not well considered in this TIP. I do not believe that the TIP helps resolve the land issues at all.

38 This does not allow multiple harvests such as commercial thinnings. A commercial thinning is a harvest so even with the IASB definitions there can be a number of harvests in the analysis. There are two similar components, cost to date of valuation and projected costs to the end of the planning horizon.

The blithe statement that the value of the cash flows after the forecast period is reflected in the terminal value ignores the challenges of determining that terminal value. That is one reason why I prefer far longer periods than a certified professional valuer would use for a DCF and then use the immediate liquidation value as the terminal value. The shorter period is a head in the sand approach.

It is reasonable in theory to apportion costs between activities however if they are all paid for by the same organisation then there is no effect and if they are paid for by different organisations then my experience is that copayment is very difficult to obtain. This clause is rather simplistic.

40 Needs to state that this is inconsistent with IAS 41 and the whole IASB approach of “biological asset”. One is an accounting treatment the other a practical valuation of the asset.

41 I agree, but the treatment of land in the valuation is not simple and is commonly mishandled.

I prefer to use a notional or actual land lease value as I believe that it is the only consistent method.

44 What do you mean by commercial and pre-commercial? It is simply the value of the stock. I believe that the segregation is meaningless.

45 Why only WACC? Why not CAPM and other approaches?

Why say “required by a market participant” surely it is “desired” and then only by some market participants.
46 I would like to see the IASB approach of “document, detail and disclose” incorporated here. The essential thing is to know how the rate was determined.

47 Needs to be hedged, ie “… the market for forests is generally not as deep or liquid…” One could argue that in Scandinavia the market for small woodlots is deep and liquid, as too were some of the MIS schemes in Australia.

49 What about financial risk? It has not been included.

I would argue that part of the risk SHOULD NOT be built into the discount rate but modelled explicitly. The problem is that few people recognise this and this risk is very rarely considered explicitly rather than implicitly. Few are prepared to undertake the necessary stochastic modelling.

50 I believe that the use of sensitivity analysis and stochastic modelling should be mentioned here.

51-56 Para 51 - time is at the heart of the problem. Replacement costs can be estimated but are they relevant? They may be but if the forest is replaced then the future harvest will be delayed by years and that affects future incomes. It has to be considered in a whole of forest analysis not simply on a stand basis.

Replacement is basically inappropriate.

Personally I prefer to use a DCF and never use a cost approach.

The TIP makes the land aspect more complicated than it need be too.

These paragraphs try to adapt the concept of a cost approach from other areas to a forestry context and fails to address the forestry situation adequately.

Para 56 comments on the economic obsolescence that can arise when the target market changes. To a forester this is normal not abnormal. Based on 130+ years of plantation experience in South Australia the target market at establishment has rarely, if ever, been the target market at clear felling. The better objective is not to base silviculture on any specific current market but to aim for a flexible forest that at clear felling will be appropriate for a wide range of possible markets. Markets change far quicker than the forest can grow.

57 Not all forests are heterogeneous.

I believe that the IVSC perception of the difficulty of long projection periods is simply lack of experience and understanding. I agree that multiple approaches may be appropriate but doubt that they are when valuing a large commercial forest estate and this is supported from recent evidence about how both vendor and bidders valued a large plantation forest.

Please … data are plural not singular, so please make it “data are” as I have stated before when commenting on V7 of the TIP.

62 For a single stand I would generally not use the cost approach nor would I rely solely on the market approach either unless I can get the time implications right!

The issue is that the market is cyclical and changes within a relatively short time. This is far shorter than the usual planning horizon for a forest based DCF, or the horizon for a forest owner and manager. The market before the GFC, in the two years after, and right now, are completely different. A forest owner may well decide to change his management perspective and not consider selling until the market cycles into an upturn, or the owner may react to a particular opportunity that presents itself. A market approach is obviously the way to go if it is imperative to sell and sell right
now, but the same market approach is far less relevant if the owner has the opportunity to hold the investment and sell within say the next 10-15 years.

There are real issues with the IASB definition of the biological asset that have not been resolved or even considered in this TIP. I had hoped that this TIP might go some way to pointing out just how crazy the definition is. I know IASB has been made aware of the issues but I suspect they consider addressing them is too hard.

For most plantations it is simple to define the biological asset as the current crop, with replanting leading to further value that is not part of the biological asset. However examples such as Blue Gum coppice, the management of native forest on a cutting cycle, and Teak plantations that will be managed as native forest and not clear felled, all make a mockery of the IASB definition. It can be challenging to partition inter rotational costs.

IASB do not want to countenance the future crop issues that are at the heart of the difficulty. In the Australian forest valuation standard we fall back on suggestions and the “document, detail and disclose” approach and recommend common sense prevails.

Land is definitely part of the issue but in my opinion not the main challenge.

If IVSC could at the very least start a dialogue then it would assist this TIP gain some credibility.

This IAS 41 optional approach is simply ludicrous in many cases.

Unfortunately the approach can provide valuations that are not consistent year on year, can provide nonsensical changes to the P&L, changes that cannot be realised and so, one could argue, should probably not be brought to account. That does not assist add certainty to the valuation of the asset class. It does just the opposite.

Again it is not just the land issue, but that is one major component.

This clause simply reflects the problems with the IASB approach. I believe that should at least be stated or discussed.

The land issues are major.

Which makes the books look rather strange and can create real interpretation problems.

This can create a real problem if the market value or fair value of the combined asset is what needs to be assessed.

**Illustrative examples**

I do not think that this example adds anything.

It is too simplistic to be applied to a forest estate over a few thousand hectare.

Why, in the second example, is the gross replacement cost changed from 3,250,000 to 3,200,000?

**General comments**

You will note that I have a large number of specific issues with the draft TIP. I believe that the general distribution was premature as the important issues have either not been addressed or have been glossed over. I note that not all my points in my various emails about earlier drafts have been addressed.
This leads me to be concerned that IVSC practitioners may incorrectly assume that if they follow the TIP then they will be providing a reasonable valuation. This could be quite dangerous and lead to practitioners being sued for providing inadequate advice, even though they could argue that their work meets the IVSC standard. I believe that the original objective was to improve the valuation of commercial forests and I do not believe that this TIP, in its current form will assist achieve that.

It adds nothing to the Australian standard (nor I believe the New Zealand standard). It does not address the major issues in forest valuation that have emerged over the past few years.

As Bob Connolly knows I entered into this whole discussion process with the objective of improving forest valuation and so taking some of the uncertainty out of the process. I also hoped that the discussions would inform our own Australian forest valuation standard and enable us to improve what we now have. In my opinion the draft TIP is too simplistic to be useful, and by not addressing the major areas of concern (see the comments on the individual points and my various earlier emails), the TIP in its current form may well be counterproductive.

Certainly I can see no reason to change our ACFA / IFA standard as the TIP does not assist resolve any of the issues.