

IFOA remake comments

Ian Dixon 04-05-2014

Thanks for the opportunity to comment on the remake of the IFOA's.

I hope these remarks and references are useful; and that we are, not just making *progress* towards ecosustainability, but actually *implementing* native forestry which is ecosustainable. After this, I am silent on the sorry overcommitment of the natural heritage resources.

I will relate my comments with your Discussion Paper paragraphing (numeric); my footnotes are alphabetic.

To do ESFM (2.2, 4.2, 7), which I think is the core of our task, we must be able to know what we *have*, what we are *doing* to it, and how it is *recovering*. We need indicators (a), (b) and we need to use them to know any outcomes; and to act on the observations of course. This action is the responsibility of the minister under the RFAs (your Remake document under 4.2 on p8 and 9); to act he or she needs reliable, reproducible, audit-able, public information.

This information, each item of data preferably, needs to be located (9.2) in time and space, and preferably be (digitally?) accessible to, even contributable by, all.

Unfortunately, we are still left in the air as to what these indicators are to be. Your section 10 is clear that monitoring is presently inadequate for assessment, and I'm glad that a continuous improvement approach is suggested. I've had a look at the present UNE Agreement indicators and I see them as a noble start, but I agree that there must be difficulties in motivation and collection, much less of quantification.

I don't object to flexibility of planning in principle but I fear that it may continue to allow management to be overwhelmed by industrial demands.

Some indicators and principles that come to mind for me are

Randomise sample areas for probity.

Measures on ground;

Plant and animal species present and abundance or scarcity of each.

But what do I know? I realise this is a huge task, and no way is it feasible to count every scat and scratch mark; what must be done is the thorough assessment of an affordable, randomised *sample* of target areas, in the same way as financial auditors don't review every transaction, but *do* examine key KPI's, randomly check and cross-check, and recommend separation of powers and responsibilities.

The Tasmanian forest audit (e) sounds interesting, especially if FPA TAS are to review our TSL framework (7.3.1). But I suggest some parallel process(es), since Tas also seems to be in a learning phase.

Are there key "indicator species" to look for? What are some key KPI's?

Lindenmayer (d) has informed my ignorance... He is particularly interesting in suggesting risk spreading and multi-scale strategies (7.2). The remake document proposals seems to adopt some of his precautionary approach?
You have the mission...

My ideas:

Basal area of target species of flora (timber to be “harvested”(c))

Before,

During? and

After

at what intervals? Five years has been suggested; maybe Fibonacci-like numbers; 1, 2, 5, 10, 20, 40, 100 years after operation?

The assessment technique needs to distinguish areas of few large trees and of many smaller trees...

Records of extraction in all areas (volume of timber (and other resources))

Measure/estimate:

proportional area of clearing

and of damaged vegetation area

in proportion to area undisturbed by operation.

(remote sensing may be of assistance or cross-checking in this assessment, I am told.)

Steep slope harvesting (8.3) by cable is a tempting technique, might even allow reduction of the maximum snigging slope below 30 degrees, but may still over-intensify operations and thus create as much or more erosion than it avoids. The more selective the logging, the greater the proportional cost of rigging the high-lines? There's also higher risk for those below.

(I have long imagined what I call the flying tick; an aircraft which starts heavier than air, flies quickly to work, inflates its body to become usefully lighter than air and extracts a load blimp-style. Some similar craft are being developed in the US (under other names)).

To use lidar (9.1) to assess accessible – and inaccessible - areas will be useful, though it may lead to further reductions in areas accessible, ie not excluded by being waterways. At least it may be more useful than the smoothing appearance of the canopies in photography. But will remote sensing assist much in assessing resources on the ground?

GPS devices (9.2) are very useful but imperfect in denser forest areas and some steeper terrain. Devices that see more constellations are more useful.

Nonetheless, one needs a backup system of geolocation estimate and record keeping.

Thank you?

FOOTNOTES

(a)

This report is the Chair's record of the National Conference on *Assessing Sustainable Forest Management in Australia*. The Conference was held in the National Convention Centre Canberra from 4 to 6 November 1996.

(extract)

7. To be useful, indicators must:

- be firmly linked to the criteria and be relevant to the region and goals of forest management;
- have a sound scientific or other relevant basis;
- be understandable and clearly interpretable;
- be sensitive and be able to measure critical change with confidence;
- have costs appropriate for their benefits (including non-economic costs and benefits);
- be feasible and realistic to measure over relevant timeframes and spatial scales;
- have targets for thresholds built in, or be capable of having these applied;
- contribute directly to continuous improvement in management and performance; and
- taken together the indicators must also be sufficient to adequately measure [E]SFM.

(b)

Review of NSW Forest Agreements and Integrated Forestry Operations Approvals:
Upper North East, Lower North East, Eden and Southern regions

(extracts:)

3.1.2 Ecologically sustainable forest management

Several submissions requested work be undertaken to benchmark a range of ESFM values across forest tenures to understand conservation values in state forests and national parks, and on other lands.

Conservation stakeholders expressed concern that there was a lack of information available on native forest growth rates, regeneration and other criteria to determine whether ESFM was being achieved.

It was noted that ESFM criteria and indicators were established to track changes in key social, economic and environmental values over time. Some stakeholders encouraged timely completion of the separate report ESFM Criteria and Indicators for the Upper North East, Lower North East, Southern and Eden regions of NSW

. This report will present evaluation of ESFM criteria and indicators based on practicability, measurability, cost effectiveness and ease of implementation at a regional level.

4. Criteria and indicator review

Introduction

Monitoring of indicators is an integral component of ESFM.

ESFM is defined in the NSW Forest Agreements as the guiding philosophy of forest conservation and management, and is based on the recognition that forests hold social, economic and environmental values in society. ESFM is founded on a framework that sets out performance indicators reflective of these key values.

ESFM criteria and indicators were established to track changes in key social, economic and environmental values over time. Information against ESFM criteria and indicators has been regularly monitored and is presented in annual implementation reports for the NSW Forest Agreements and Integrated Forestry Operations Approvals (see www.environment.nsw.gov.au/forestagreements/monitoring.htm).

The NSW Forest Agreements require that the ESFM criteria and indicators be reviewed and, where relevant, revised 'to ensure they are practical, measurable, cost effective and capable of being implemented at the regional level.'

The NSW RFAs also require the ESFM criteria and indicators, or, 'sustainability

indicators' as they are termed in the RFAs, to be trialled and reviewed.

(c) *Harvested* in quotes because I object to the use of the word in the context of extracting resources from natural heritage. One must plant before one can harvest. Usage has been stretched to include use of regenerated resources, even though the original ecosystem may still suffering degradation. One should respect the gifts of the ecos in language as well as use.

(d)

Indicators of biodiversity for ecologically sustainable forest management

Lindenmayer, David B., Margules, Chris R., and Botkin, Daniel B. (2000) *Indicators of biodiversity for ecologically sustainable forest management*. Conservation Biology, 14 (4). pp. 941-950. (from abstract; reparagraphed for clarity)

Given our limited knowledge of both indicator species and structure-based indicators, we advocate the following four approaches to enhance biodiversity conservation in forests:

- (1) establish biodiversity priority areas (e.g., reserves) managed primarily for the conservation of biological diversity;
- (2) within production forests, apply structure-based indicators including structural complexity, connectivity, and heterogeneity;
- (3) using multiple conservation strategies at multiple spatial scales, spread out risk in wood production forests; and
- (4) adopt an adaptive management approach to test the validity of structure-based indices of biological diversity by treating management practices as experiments.

(e)

Forestry Tasmania wants Forest Stewardship Council certification for more than 700-thousand hectares of production forest and 30-thousand hectares of plantation.

Auditors from SCS Global Services in California are assessing the state-owned company's management plan, documents and operations.

<http://www.abc.net.au/news/2014-04-01/auditors-scrutinise-forest-tasmania27s-business-as-part-of-its-5357864>