

Oregon Roundtable on Sustainable Forests

Preliminary Evaluation of Indicator of Sustainable Forest Management



Indicator A.b.: *Development and maintenance of sustainable forest management knowledge*

Current desired trend/target: Oregon student and family forest landowner participation in forest education programs is increasing and forest resource research funding, higher education forest resource instruction, natural resource professional society membership, and forestry extension staffing are maintained or increasing.

This is a summary of the Oregon Roundtable on Sustainable Forests discussion and conclusions regarding the staff report on an Oregon Indicator of Sustainable Forests Management. This evaluation summary is organized around nine questions identified by the Roundtable as being central to evaluations of all 19 indicators. It reflects the input from Roundtable participants who attended the March 4, 2011 meeting where the indicator was discussed and from an electronic survey of those participants following the meeting. The summary is based on interpretation of the Roundtable discussions by the six-person Roundtable Leadership Group, with the assistance of Oregon Department of Forestry staff. For context, readers are encouraged to first become familiar with the full set of Oregon indicators and particularly the report for Indicator A.b. on which this evaluation is based. This evaluation and a follow-up staff response will be posted on both the Roundtable and Indicator A.b. web pages. The current data report for this indicator can be accessed at:

<http://www.oregon.gov/ODF/indicators/indicatorAb.shtml>

Evaluation Summary: ¹

Key Roundtable findings

- The metrics measure actions but not the sufficiency of knowledge. The indicator is not measuring the knowledge base but measuring what is getting done -- a loose correlation at best.
- We don't have agreement on what sustainable forest management knowledge is.
- Perhaps have separate indicators for the general public and technical experts knowledge.
- Some metrics are OK to summarize at a statewide scale, while others would benefit from regional

¹ *Conclusions may not have been reached by the Roundtable for every evaluation question. The summary should not be considered as expressing a consensus of the meeting participants or the Roundtable in general. However, this information will be immediately useful to the technical staff working to implement and improve future indicator data collection and reporting and to the Board of Forestry and other Oregonians desiring to use the indicator as one tool in assessing Oregon's progress towards sustainable forest management.*

It is anticipated that the Roundtable will proceed with discussions on all the indicators and will then discuss the body of indicators as a whole – looking for common themes and synthesizing conclusions about the indicators project. Therefore, Roundtable conclusions for this indicator may be revisited and revised at a later date.

breakdowns.

- Five-year reporting intervals is adequate but the current numbers are getting old.
- K-12 data is dated and incomplete.
- Unable to draw conclusions on condition and trend.
- Roundtable participants are very interested in the Oregon Forest Resources Institute's new forestry literacy program. Testing a sample of Oregonians against predetermined literacy standards might be a much cleaner and informative metric for this indicator.

Additional Roundtable comments organized by indicator evaluation questions

1. Is the purpose and intent for the indicator clear?

- The text describing why the indicator is important is good. Purpose and intent of the indicator is clear to some, not to others.
- Indicator title is not very descriptive. Indicator is really about an informed citizenry and application of human skill and ingenuity. Reword indicator in that way. The title is not worded the same as it is on the website.
- Indicator is subjective and incomplete, but understandable.
- The criterion is based on the hypothesis that the existence of a reservoir of knowledge about sustainable forest management will contribute positively to application of that knowledge (i.e., we know how to manage sustainably; therefore, we will choose to manage sustainably. The hypothesis appears logical, but we haven't proven it. One could argue that we made better forest management decisions from an economic perspective when the reservoir of knowledge was smaller.

2. Is the protocol for indicator data collection clear and technically sound?

- Concerns that the reported data are outdated
- Be clearer on what years are being reported for each metric.
- Don't limit K-12 forestry education program reporting to only those with a field component.
- K-12 metric should be expressed as a percent of total student population rather than just a number of participating students
- K-12 data needs to be updated. Data from different years are mixed together. Better capture unreported programs.
- Clarify that the forestry higher education legend is referring to faculty FTE and not the number of colleges.
- Other research beyond OSU and the PNW Research Station is not being collected.
- Data on family forest landowners with advanced training should be expressed as a percentage of the total family forest landowner population.
- There is a math error in the presented family forest landowner data.
- A better metric might be the number of family forest landowners with management plans.
- Be clear that the metrics are not comprehensive and only provide a "quick glance".
- When considering changes in the protocol, the challenge is weighing the costs and benefits of focusing

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on easily-gathered data, which might comprise 90 percent or more of the activity within a metric vs. increasing capacity to capture and report all possible data source. Conclusions on conditions and trends might be the same.

- Some participants believe professional society membership not a good measure of sustainable forest management knowledge. Others pointed out professional membership is relevant as a measure of how active natural resource workers are in improving their profession.
- The indicator does not measure general public knowledge.
- Need to track the extent private cooperators pick up research dropped by public agencies. Clarify whether OSU research budgets include private funds contributed to research cooperatives.
- How does Master Woodland Manager data address landowner transfers or deaths? To be more useful the metrics should track the number of active Master Woodland Managers and not the cumulative total. Also look at the percentage of total landowners who meet the standard.
- The family forest landowner metrics references other programs in addition to Master Woodland Managers, but none are identified or tracked.
- It's not clear what is meant by sustainable forest management knowledge. It seems to be one of those terms that everyone assumes everyone else knows. The indicator could be improved by stating explicitly what it is we want people to know -- both the general public and those who work directly in the sector -- and then devising ways to measure that knowledge. Simply cataloging outputs is not a substitute for measuring what people learn and retain over time.
- The data appear to combine elements of various vintages into one table in a confusing way, and the numbers themselves seem to vary in reliability and meaning.

3. Are indicator data being reported at the appropriate spatial and temporal scales?

- Timing of updates is important. K-12 information is spotty. Get data from a broader range of schools.
- Divide citizenry (public) and professional or technical management education metrics.
- Reporting rural-urban might be useful.
- Regional reporting would add value.
- Measure and report all metrics for the same year and at regular intervals.
- This is a statewide measurement that could be done with probabilistic sampling.
- The appropriate spatial scale is statewide; some metrics appear to aggregate at this level (e.g., total expenditure in forest resource research in Oregon), while others target localities (e.g., visitors at Tillamook Forest Center). Observations should be taken at 5 or 10 year intervals rather than reported annually, to help focus on trend rather than variability.

4. Has the Department appropriately assessed the quality of the indicator information?

Original indicator report conclusion
Information = Partial



Conclusion following Roundtable evaluation
Information = Partial



- Generally, the participants said yes, the Department has appropriately assessed the quality of the indicator information.
- K-12 data is shaky. Updated information is not necessarily all 2009-10 data. The table just shows some updates to older numbers.
- Evaluate the benefits and costs of obtaining more comprehensive data for these metrics.
- Because the indicator is not clear it is difficult to assess the information quality.

5. Has the Department appropriately assessed the conditions measured by the indicator?

Original indicator report conclusion

Condition = Mixed or Fair



Conclusion following Roundtable evaluation

Condition = Unknown



- Given the metrics as described, the Roundtable participants provided many reasons why they agree with the staff's conclusion.
- Change from "uncertain" to "unknown." We may be measuring the wrong things.
- A data time series is needed to assess current condition.
- If general public knowledge was tracked separately, the participants' perception is the condition could be rated "poor."
- Any conclusion is probably mostly anecdotal.

6. Has the Department appropriately assessed the current trend measured by the indicator, when compared to the Desired Trend Statement?

Original indicator report conclusion

Trend = Uncertain



Conclusion following Roundtable evaluation

Trend = Uncertain



- Indicator metrics need a longer trend time series.
- Important data is missing for the recession years. More current data might indicate deteriorating trends.
- Portland outdoor school numbers alone could drive trend ratings for the K-12 metric.
- Trying to assess trends provides another argument for separating the general public metrics and technical expert metrics. Perception is that there is a positive trend for higher education and professional organization memberships and negative for general public knowledge.
- Knowledge about sustainable forests in Oregon is actually pretty good in professional and academic circles – compared to other places. This trend has been positive.
- The trend has to be "don't know."

7. Can a case be made that other technical information should be considered as a supplement or an alternative to the information already provided for the indicator?

- Consider expenditures on outreach and education as another metric.
- Another better metric might be the number of family forest landowners with management plans.
- Clarify whether research budgets include infrastructure and administration. Consider using researcher FTE or funding per researcher FTE instead.
- Track family forest landowners' acres under an acknowledged management plan if data are available.
- Track the number of FTE disseminating forestry outreach and education. The downside would be the numbers will likely not change much year to year.
- Tracking understocked or underproductive land trends could be a surrogate for landowner sustainable forest management knowledge
- The indicator is not tracking private sector, non-profit, and DEQ and ODFW research funding. Including their information might encourage their more active participation in the Roundtable.
- The indicator should also track private forester FTE.
- The Oregon's Public Values & Beliefs survey could be a source of information here; certainly could be one in the future.
- We need to separate the level of expertise and training in Oregon forest management professionals from the level of knowledge in Oregon's population as a whole.

8. Do you believe there is an adequate level of institutional commitment and resources allocated for continued full implementation and reporting of this indicator into the future?

- Need to resolve question of whether to just collect existing data or trying to go out and find all the data people are interested in for the metrics.
- The indicator is not very technical. It is just a matter for gaining access to the information.
- Cooperation among organizations to gather and share data will be important and necessary in future years.
- The difficulty that staff found in rounding up visitation statistics from earlier sources shows that some of the metrics will be difficult to sustain through time.

9. What improvements would you like to see in future reporting for the indicator?

- Add narrative text to the report providing more information about the data sources along with links to more detailed information from those sources. Use this as an opportunity to acknowledge and reward cooperators

Oregon indicators of sustainable forest management ratings explanations

Indicator Condition:



Good

Desired trend or target is being achieved



Mixed or Fair

Conflicting factors are affecting the status in both positive and negative ways



Poor

Desired trend or target is not being achieved

Indicator Trend:



Improving

Current status is an improvement compared to previous data



Mixed, Uncertain, or No Change

There are either conflicting (mixed) trends, trend direction is uncertain, or there is no significant change compared to previous data



Deteriorating

Current status is a deterioration compared to previous data

Quality of Indicator Information:



Adequate

Data coverage, frequency, currency, sources, and reliability are sufficient to draw conclusions with high confidence



Partial

Data coverage, frequency, currency, sources, and reliability are of mixed quality which affects the ability to draw conclusions



Inadequate

Data coverage, frequency, currency, sources, and reliability are of insufficient quality to draw conclusions