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PILOTING RESTORATION-ORIENTED SOCIAL AND ECONOMIC PERFORMANCE MEASURES

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Forest and watershed restoration on national forests and grasslands has ecological, social, and economic objectives. Forest Service performance measures have largely focused on outputs associated with land treatments, rather than ecological, social, and economic outcomes, in part because outputs are much more easily measured than outcomes. Over the past several years, the Forest Service has undertaken initiatives to develop performance measures that are broader in scope and more outcome-oriented. The Watershed Condition Framework was one such effort for tracking ecological measures related to watershed restoration. This briefing paper summarizes key findings from an effort to pilot social and economic performance measures associated with watershed restoration.

Approach

To develop proposed performance measures, we reviewed social and economic monitoring literature and conducted focus groups with Forest Service staff and stakeholders. We then modified the drafted performance measures based on additional Forest Service input and lessons learned about available data, and piloted these measures on three national forests in three different regions. Because the purpose of this project was to evaluate measures not national forests, we have anonymized the pilot forests.

Measures piloted

Our goal was to pilot performance measures (rather than to conduct monitoring), and we developed strict criteria for the candidate measures. They needed to:

- relate to high priority goals and objectives;
- relate to some social and economic condition that the agency has some control over;
- be relatively easy to adopt;
- use high-quality data;
- incentivize desired behavior;
- protect privacy of businesses and citizens; and

- report information of interest to Congress, agency staff, and stakeholders.

These criteria necessarily constrained the type of measures we developed. We developed two major types of measures: those that could be derived from existing Forest Service data, and self-assessments at the forest level.

The measures derived from existing data involve:

- local business benefit;
- community capacity;
- local economic benefit from restoration;
- restoration jobs; and
- investments in socially vulnerable watersheds.

The self-assessments guided national forests to consider:

- their efforts to date around local business opportunities;
- investments in community capacity building;
- government-to-government collaboration;
- all lands restoration; and
- collaborative engagement.



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Key findings and recommendations

Pilot performance measures using existing Forest Service data have potential to track economic outcomes from restoration projects with limited additional forest-level staff effort. In particular, measures around local benefit from restoration service and stewardship contracting grants and agreements and restoration jobs have the potential to better track economic impacts of restoration projects (Table 1, below). However, these measures provided limited understanding of social outcomes.

Because the social context of forests is so different, to be effective, any targets associated with performance measures should be measured as change over time against a baseline. Comparing one national forest to another would be counter-productive.

Developing specific business rules or criteria need to precede adoption of any pilot measures. Improvements in data and database quality, especially in the area of grants and agreements could greatly improve the potential for these performance measures.

Table 1 Summary findings of piloted social and economic measures

Indicator	Measure Tested	Strengths	Challenges	Recommended revised measure
Local Business Benefit	Percent of restoration-related service, stewardship, and timber sale contract value awarded locally	Helps identify extent to which local businesses are benefiting from restoration.	In places with significant use of partnerships, local economic benefit is likely under estimated; need to incorporate grants & agreements data into this measure. Including timber not appropriate when timber harvest is not restoration-oriented. Does not consider subcontracts or hiring of local crews.	Percent of restoration-related agreements, service and stewardship contract value awarded locally. Not a measure of capacity, more about how agency engages with businesses.
Restoration Jobs	Number of direct jobs created or retained through restoration-related service contracts, timber sales, stewardship contracts, and agreements (jobs from agreements and federal employment was not tested)	Helps identify local economic impact of federal activity.	Timber sales are not always restoration-oriented. Creating firm lines between restoration and non-restoration oriented activities is challenging. Measuring local jobs from timber is complex and not easily generalized. Information in grants and agreements database is not adequate to calculate economic impact from agreements.	Number of direct jobs created or retained through restoration-related service contracts, timber sales, stewardship contracts and agreements, grants and federal employees.
Community Capacity	Number of local organizations awarded restoration-related grants and agreements over last 3 years	Helps identify extent of FS engagement with partners via formal partnership agreements.	Conceptually confusing when measured using a 3-year rolling average. Does not measure relationships that do not involve formal financial agreements or importance of relationships.	Not recommended. Not a measure of community capacity, more about how agency engages with community.
Local Business Capacity	Number of local contractors awarded restoration-related contracts, timber, or stewardship contracts over last 3 years	Helps identify extent of FS engagement with local business partners.	Conceptually confusing when measured using a 3-year rolling average. Provides limited information given effort involved to create measure.	Not recommended
Investments in Socially Vulnerable Watersheds	Percent of dollars from restoration-related budget line items invested in watersheds with medium/high social vulnerability.	Conceptually useful to understand issues of equity, inclusion, and vulnerabilities of communities to natural hazards and other shocks.	Developing a nationally relevant social vulnerability index is problematic, as types of demographic features that may lead to vulnerabilities vary widely across the country. Spatially explicit financial information for restoration projects does not currently exist.	Not recommended. But it may be beneficial for understanding social vulnerabilities to environmental hazards and adaptive capacities of communities near national forests.

The self-assessment measures helped forests take stock of collaborative and community engagement and identify strengths and opportunities for improvements, but would be difficult to consolidate into regional or national measures.

We learned that collaborative arrangements are very forest specific, so different subsets of the self-assessment tool were relevant for different forests. In addition, complex concepts were embedded in the measures, which made it difficult for staff to know exactly what was being asked, and which would inhibit creating performance measures with clear business rules. Finally, staff reported that the measures were too subjective and, if adopted as performance measures, there could be incentives to game the system.

Echoing criticisms of existing output measures, Forest Service staff found the social and economic performance measures piloted to be too output oriented. Some staff were more interested in understanding larger social and economic dynamics in their communities and effects of national forest actions on those communities. Others would have preferred to see ecosystem services-oriented measures that were generally proxies for environmental outcomes. Two of the

pilot national forests are involved in monitoring projects that they hope will get at these issues of dynamics and effects.

Conclusions

This pilot effort suggests that measures that may be effective for local monitoring and assessment do not readily convert to national performance measures. Moreover, effective performance measures are difficult to develop and virtually always require significant compromise between the simplification required for measurement and the complex context in which the Forest Service operates. This is equally true in the ecological and social and economic realms. With these considerations in mind, it is nevertheless important to continue to work toward instituting clear, robust measures for the social and economic outcomes of restoration on national forests to complement ecological outcome measures. The measures detailed here represent a first step, and more work is needed to develop and refine additional measures going forward.

More information

A full report on results is available at: <http://ewp.uoregon.edu/working>.



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