TESTIMONY OF LARRY MASON, RESEARCH SCIENTIST, THIRD INDIAN FOREST MANAGEMENT ASSESMENT TEAM, PRESENTED TO THE

APRIL 10, 2014

HOUSE NATURAL RESOURCES COMMITTEE HEARING, "TRIBAL FOREST MANAGEMENT: A MODEL FOR PROMOTING HEALTHY FORESTS AND RURAL JOBS"

Mr. Chairman, Members of the Committee, ladies and gentlemen, my name is Larry Mason, Research Scientist, University of Washington, College of Forest Resources (retired). I am one of ten independent forestry experts assembled to form the **Third Indian Forest Management Assessment Team (IFMAT III).** During the course of our two-year investigation we visited numerous Indian reservations, tribal colleges, Bureau of Indian Affairs (BIA) offices, and other federal agencies. All pertinent government reports, manuals, historical literature, and journal publications were reviewed. Cultural and workforce surveys were conducted and Indian forestry symposia attended. Most important of all, however, were the many rich conversations shared

(Executive Summary, Volume I, and Volume II) are also available for download at: http://www.itcnet.org/issues_projects/issues_2/forest_management/assessment.html

with tribal elders, leadership councils, members, students and forestry professionals. In 2013, the IFMAT III assignment was completed and our final reports were submitted for publication. The Committee has been provided copies of IFMAT documents. IFMAT III web-published materials

Thank you for this opportunity to summarize IFMAT III findings.

IFMAT III Authors

John Gordon (co-chairman) Dean (retired) and Pinchot Professor Emeritus of Forestry and Environmental Studies. Yale School of Forestry and Environmental Studies.

John Sessions (co-chairman) University Distinguished Professor of Forestry and Strachan Chair of Forest Operations Management. Oregon State University College of Forestry.

John Bailey Associate Professor, Forest Engineering, Resources and Management. Oregon State University College of Forestry.

David Cleaves Climate Change Advisor. USDA Forest Service.

Vincent Corrao President. Northwest Forest Management Inc.

Adrian Leighton Chair of the Natural Resources Department. Salish Kootenai College.

Larry Mason Principal Consultant. Alternate Dimensions Inc. Research Scientist (retired). University of Washington College of Forest Resources.

Mark Rasmussen Principal. Mason, Bruce, and Girard.

Hal Salwasser Dean and Professor of Forest Ecosystems and Society. Oregon State University College of Forestry.

Mike Stearner Forest policy researcher and attorney in private practice.

IFMAT III Editor and Producer

Rachel White Science writer-editor for the USDA Forest Service, PNW Research Station.

IFMAT III Tribal Liaison

Don Motanic (Umatilla) Technical Specialist. Intertribal Timber Council. Umatilla

IFMAT III Native Student Observers

Breanna Gervais (Penobscot) Undergraduate. Environmental Science Management. Portland State University.

Serra Hoagland (*Laguna Pueblo*) PhD candidate. Northern Arizona University School of Forestry.

Laurel James (Yakama) PhD candidate. University of Washington College of the Environment.

During the development of the **National Indian Forest Resources Management Act** in 1991 (**NIFRMA, PL 101-630, Title III**), Congress acknowledged that the United States has a trust responsibility toward Indian forest lands and that federal investment in Indian forest management was significantly below levels for comparable public or private forestry programs.

Furthermore, NIFRMA mandated assessments of Indian forests and forestry programs be conducted every ten years. Three have been completed (1993, 2003, 2013). These reports are national in scope and focus on eight topics of inquiry:

- 1. Management practices and funding levels for Indian forest land compared with federal and private forest lands,
- 2. The health and productivity of Indian forest lands,
- 3. Staffing patterns of BIA and tribal forestry organizations,
- 4. Timber sale administration procedures, including accountability for proceeds,
- 5. The potential for reducing BIA rules and regulations consistent with federal trust responsibility,
- 6. The adequacy of Indian forest land management plans, including their ability to meet tribal needs and priorities,
- 7. The feasibility of establishing minimum standards for measuring the adequacy of BIA forestry programs in fulfilling trust responsibility, and
- 8. Recommendations for needed reforms and increased funding levels.

As with preceding reports, the Secretary of the Interior contracted with the Intertribal Timber Council (ITC), a national organization of forest-managing Indian tribes, to oversee the development of this report. At the request of ITC, the assessment was expanded to include the following three questions regarding contemporary issues of special interest to forest-managing Indian tribes:

- 1. Issues relating to workforce education, recruitment and retention with special attention to recruiting more Indian professionals in natural resource management.
- 2. Quantification of economic, social, and ecological benefits provided by Indian forests to tribal and regional communities.
- 3. Consideration of changes in forest management, harvesting, and transportation infrastructure in the vicinity of reservations and the potential for Indian forests to become "anchors" of forest infrastructure.

Other topics that currently affect Indian forests include trust responsibility; federal budget reductions; policies related to fractionated ownership; and the Tribal Forest Protection Act. Immediate threats to the sustainability of forests across all ownerships, such as forest fire hazard, climate change, endangered species, and market declines, also warrant consideration.

Spread across 334 Indian reservations on more than 18 million acres, tribal forests cover about one-third of all Indian trust lands and serve as the economic and cultural backbone for many Indian reservations. The standing inventory of commercial timber in Indian Country is 43 billion board feet. There is perhaps no other single natural resource as varied or as important to tribal governments and their members. Forests store and filter the water and purify the air. They sustain habitats for the fish and wildlife that provide sustenance for the people. They produce foods, medicines, fuel, and materials for shelter, transportation, and artistic expression. Forests generate revenues for many tribal governments and sorely needed employment for Indian people and rural communities. Forests provide a sense of place that sustains tribal lifeways, cultures, religions, and spiritual practices. Since the first IFMAT report in 1991, through dedicated programs of consolidation and reacquisition, tribes have been able to gradually increase their cumulative forest holdings by more than 2.8 million acres. More than one million acres of tribal forests have been set aside from harvest by tribal governments as cultural and ecosystem reserves.

IFMAT III finds that, in spite of formidable obstacles, tribal forestry programs are remarkably successful. Progress continues in innovative silviculture, adaptive integration of forest management for a range of values, and in the presence of quality staff. However, if these positive attributes are to be retained and strengthened, tribal and the BIA forestry programs will need to secure stable and adequate funding mechanisms.

For example, in 2011, Indian forests received less management funding per acre than adjacent public and private forest owners (as example, tribes received only 33% of Forest Service funding). See Attachment 1. Recurring program funding has been declining in real terms (23% decline since 1991) and tribes are not receiving additional funds as their land base (17% increase since 1991) and obligations (such as climate change adaptation and forest health restoration) increase. Funding for hazardous fuel management on Indian forests (2011 per acre basis) is equivalent to just 49% of Forest Service allocations. Only 16% of tribal roads are functioning at acceptable or better levels. Remote locations and inadequate protection (BIA Forestry receives no funding for law enforcement) leave tribes vulnerable to timber theft and trespass.

We find Indian forestry programs to be understaffed and aging (13% staff decline since 1991; 51% of foresters are 50 years or older). See Attachment 2. Wages and benefits for tribal forestry positions are 15-30% lower than for comparable federal jobs. Yet there are no systematic BIA programs for employee recruitment and retention such as exist for other federal agencies. BIA forestry lacks in-house scientific and technical support sufficient for inventory updates, topical research and reporting, and long-range planning.

Timber harvest levels (down 51%) and timber revenues (down 64%) have steadily dropped since IFMAT I. See Attachment 4. Since 2001, ten Indian sawmills have closed, leaving just four that struggle to survive while total employment associated with management, harvest and process of

Indian timber has dropped by 10,000 jobs or 38%. Experiences throughout the rural West have shown us that once harvesting and processing infrastructure is lost, it is very difficult to replace and the consequent loss of markets undermines tribal stewardship flexibilities.

Woodlands encompass the largest area of Indian forest ecosystems. In total, 202 tribes have woodlands. For 109 of these tribes, woodlands are their only forests. Water, firewood, and traditional plants are important resources derived from woodlands. But woodland stewardship, with little commercial value, receives insufficient funding and attention from the BIA. Tribal elders are already noticing climate change impacts to woodlands such as juniper encroachments and lowered water tables but scarce funding limits tribal response.

However, although tribal timber activities have slowed considerably in recent years, Indian forests remain a source of significant employment (19,000 full- and part-time jobs). Timber harvests extend high job and revenue leverage, in part because of the labor-intensive nature of some Indian forestry practices, such as uneven-aged management. New opportunities for forest enterprises may also be emerging. The sensitive harvest of non-timber forest products for health, herbal, and cosmetic products holds promise and may align well with sustainable forestry.

Underfunded and understaffed yet applauded for successes, Indian forest programs appear as an enigma. To aid understanding, we introduce the concept of *FIT* (*fire*, *investment*, *and transformation*). These themes embody the progress that Indian forestry has made over the last two decades, as well as the opportunities and challenges that lie ahead. Indian forestry is at a tipping point. Choices forward will have profound and lasting consequences for Indian people and forests.

Fire

Wildland fires and related forest health threats such as insects, disease, and climate change pose serious risks to tribal lands, natural and cultural resources, and communities jeopardizing the economic, cultural, and ecological sustainability of Indian forests. Despite rising costs of wild fire suppression across the nation, and the National Fire Plan (2000) that led to major increases in federal agency funding for preparedness and fuel treatments, there has been an increase in the acreage of forests and woodlands consumed by wildfire each year. In proactive response, tribes are drawing upon traditional knowledge to restore the cultural role of fire to the landscape but funding shortfalls slow progress.

We found many examples of healthy and productive Indian forests as a result of sound forest management practices such as innovative uneven-aged forest management including prescribed fire, thinning regimes, and increasing use of integrated multiple resource management.

Such effective treatments offer hope, but are not enough to match the growing magnitude of the problem. This is especially the case in the dry interior West where much of Indian forest acreage is located adjacent to untended federal forests at risk from uncharacteristically severe wildfires that pose significant hazards to tribal communities. We estimate, that if fire is realistically to be used as tool to restore ecosystems and reduce landscape-level fuel accumulations, then the amount of acres treated each year must increase by five to ten times.

Investment

Strategic Investment is needed to achieve tribal forest visions and plans, and to fulfill the U.S. government trust responsibility for Indian forests. When investments in tribal forests support stewardship and recoverable products can be sold, caring for the forest can bring net return instead of reactive cost. But when investments are insufficient the productivity of forest lands is compromised. For example, there are currently about 750,000 acres (about 4% of Indian forests) that need planting or thinning if future yields are to be realized.

We find that Indian forests require a minimum annual appropriation of \$254 million to bring per acre funding on a par with appropriate comparators. Current annual funding of \$154 million is \$100 million below comparable public and private programs.

This base funding does not include support for substantive tribal involvement in the Department of the Interior's (DOI) Landscape Conservation Cooperatives or other collaborative initiatives. Tribes need equitable access to funds and services related to climate change planning, adaptation, and response. In 2012, the BIA received just one-tenth of one percent of the total climate change funding allocated to DOI despite the fact that DOI has a unique trust obligation for tribal lands which account for 10 percent of the DOI land base and host the largest residential population of any DOI agencies.

BIA and tribal staffing is inadequate to provide the quality and quantity of services needed to care for Indian forests. The involvement of Native American professionals has increased, but retirements, insufficient recruitment and retention, employment transfers for higher wages, and limited professional training opportunities are resulting in the erosion of workforce skills, leadership, and institutional knowledge within BIA and tribal forestry programs. Due to the lack of stable and adequate funding, Indian forest programs have become increasingly reliant upon non-recurring grants from other agencies and NGOs that come with high transaction costs, hit-and-miss alignment with tribal priorities, and uncertain funding futures.

Review of the 2011 Funding and Position Analysis indicates that an additional 792 professional and technical staff (a 65% increase above current levels) are needed to adequately support Indian forestry programs. In addition, IFMAT recommends that a BIA national education coordinator be recruited to pursue and oversee forestry education and training programs as envisioned by NIFRMA.

Transformation

An auspicious *Transformation* may be underway in Indian forest management and should be continued. BIA-dominated policies and programs of the past are being replaced by tribal visions and leadership. In the last twenty years, the number of contract and compact tribes that have taken control of their own forest management programs has doubled. Management priorities are shifting more towards forest protection, with commodity production receiving less emphasis. Tribal members define protection as the sustainable provision of all benefits derived from the forest, including but not limited to harvesting and revenue-generating activities but beginning with the assurance that forests are kept as forest land in perpetuity. IFMAT III found that forest

¹Forest Service for stewardship and wildfire for commercial timberlands; BLM for stewardship and wildfire on non-commercial forest lands; state and industrial forests for timber production.

management plans now exist for most tribal forest lands. In 1991, 5.8 million acres were covered by a forest plan, whereas, in 2011, 15.5 million acres of tribal forests had forest plans. We recommend that management plans could serve tribes in new ways: as a vehicle for funding and staffing negotiations, as a planning agreement that sets forth the Trustee's obligations to tribal beneficiaries, as a conservation strategy to reduce the regulatory burdens of the National Environmental Policy Act, and as adaptive approach to mitigate climate change impacts.

In policy and action, there appears a growing acceptance of an Indian worldview that "all things are connected," accompanied by recognition that environmental challenges cannot be contained within political boundaries. Tribal knowledge and stewardship capabilities are now uniquely positioned to help sustain forests beyond reservation boundaries. In particular, we encountered numerous instances where tribal approaches to sustainable forestry and resource stewardship could find beneficial application on the neglected federal forest estate.

For example, the Tribal Forest Protection Act of 2004 (TFPA) was passed to protect tribal assets by allowing tribes to contract with the federal agencies to carry out hazardous fuel and forest health silvicultural treatments on adjacent at-risk federal lands. A few photo examples of the effectiveness of tribal fuels reductions on federal forests can be seen in Attachment 5. TFPA represents an underutilized opportunity to work with state and federal agencies to increase jobs and economic stability in tribal communities, protect tribal resources and treaty rights on and off the reservation, and implement needed hazardous fuels reductions that otherwise might not be accomplished. TFPA partnerships should be aggressively expanded, as tribes share nearly 3000 miles of common boundary with 80 million acres of at-risk national forests and rangelands.

An initiative of the Intertribal Timber Council, the anchor forest concept centers on the idea of tribal forest managers collaborating with neighboring ownerships to collectively ensure a long-term flow of harvested timber sufficient to sustain wood processing facilities and healthy forests. A key aspect of this collaboration is a shared recognition that forest management must be both ecologically sustainable and economically viable.

Indian forestry programs can become models of sustainable forest management for federal and private forests alike. However, without increased federal resolve and investment, historic obligations will remain unfulfilled and opportunities on and off the reservation will be lost.

Trust Responsibility

Federal statutes and treaties establish the trust responsibility of the federal government to Native American tribes. This responsibility extends beyond BIA to all agencies of the federal government. Treaties further establish tribes as sovereign nations and grant tribes rights to hunt, fish, and gather natural resources on lands ceded to the federal government. Ceded lands include both public and private ownerships. Meeting the trust responsibility and satisfying treaty rights requires environmental conditions both on and off reservations such that lands and waters are biologically diverse, productive, resilient to both natural and human-caused disturbance, and capable of sustainably yielding desired resources and settings.

The preamble to NIFRMA [Title III SEC 302] explicitly recognized the US trust responsibility for sustained management of Indian forests and identified a number of concerns with the

government ability to fulfill those obligations. Two decades later, **IFMAT III finds that the federal government continues to inadequately fulfill its trust obligations to Indian forestry**. Real funding and staffing levels are lower now than at the time of IFMAT I. We remain concerned that funding and staffing levels continue to be insufficient to support state-of-the-art forest management, that sufficient separation of oversight from operational responsibilities has not been put into effect, that administrative processes for Indian forestry are increasingly costly to complete, and that trespass remains a serious problem. In addition, there continues to be an inadequate response to the mandate of NIFRMA that the federal government work with the tribes to provide for multiple use management consistent with tribal values and needs such as subsistence and ceremonial uses, fisheries, wildlife, recreation, aesthetic and other traditional values.

After 20 years, still both "pitcher and umpire"

A conflict of interest is created by the dual obligations of the Bureau of Indian Affairs to both deliver Indian services *and* to assess whether those services are adequate and well-executed. Prior IFMAT reports characterized this situation as the BIA attempting to perform as both "pitcher and umpire".

The organizational diagram, as presented in Attachment 3, was first proposed by IFMAT I, two decades ago, as a framework to restructure trust oversight. An independent commission would periodically review performance of services against tribal plans, accepted by the Secretary of the Interior, and would have the power to require corrections. The commission would be nationallevel, but with local reach. An example of such a model is the Nuclear Regulatory Commission. The trust oversight commission could contract with regional entities to be primary providers of oversight duties, subject to commission review. Any trust oversight body must have the technical capacity and skill to assess forest management issues.

Fulfillment of the federal trust duty depends upon standards against which performance can be evaluated. Standards must have adequate oversight for their execution, and must be enforced. An effective mechanism for enforcing standards does not currently exist, and the third party oversight as recommended by past IFMAT reports has not been implemented.

To be sustainable, Indian forestry programs must:

- 1) be assured of predictable, consistent, and adequate funding;
- 2) have access to up-to-date technical and research support;
- 3) be guided by each tribe's vision for its forests; and
- 4) have a capable workforce committed to protecting tribal resources.

Twenty-three years after the first IFMAT assessment, notwithstanding the record of tribes improving management of their forests, Indian forests remain underfunded and understaffed, tribes are constrained by conflicting rules and regulations that hinder rather than help them achieve self-governance, and tribal forests are increasingly threatened by inaction on the borders of their lands. The result is a decades-old tale of missed opportunity for economic and environmental benefits.

IFMAT III Key Recommendations

- 1. The trust oversight recommendations of previous IFMATs should be further developed and implemented. An independent commission should be formed to periodically review performance of services against tribal plans. When third party oversight is augmented by signed agreements between tribes and the DOI, the role of BIA can evolve out of the umpire/pitcher impasse toward that of technical service provider and facilitator of communication between Indian tribes and the federal government.
- **2. Increase Indian forestry funding by a minimum of \$112.7 million per year.** Increase annual base level funding by \$100 million to \$254 million—the amount we estimate necessary for a level of forest stewardship and timber production that would be consistent with Indian goals and comparable to funding provided to National Forests. Appropriate an additional \$12.7 million to support education and professional training programs as envisioned by NIFRMA.
- **3.** Increase staffing by 792 professional and technical forestry positions. An education coordinator will also be needed. Staffing replacement procedures need to be reviewed so that funded positions can be filled promptly according to an established recruitment and retention strategic plan. Adequate compensation and relocation programs must be available.
- **4.** The anchor forest concept should be supported and expanded. Innovative tribal management techniques should be considered for appropriate portions of the federal forest estate. We hypothesize that collaborative agreements such as anchor forests, TFPA, and stewardship contracting will result in valuable market and ecosystem benefits that more than compensate for investment.
- **5.** The implications of organizational and personnel changes within the BIA and the federal **establishment should be examined** for their immediate and potential effects on trust responsibility and the sustainability of Indian forests.
- **6. Self-governance tribes should be able to develop tribal NEPA procedures** and to replace BIA NEPA manuals and handbooks. This approach furthers self-determination and self-governance and would reward tribes for progress in integrated planning.
- 7. A specific list of unfunded mandates should be drawn up and recommendations for their alleviation made and implemented.
- 8. Control of trespass within tribal boundaries should be reviewed and strengthened.
- **9.** Tribes should consider a desired-future-conditions based approach to forest planning. We note that a DFC is not a static state, but takes into account and makes provision for the dynamics of natural agents of change (fire, insects, disease, storms, and climate change). DFC forest planning will require better research and technical support from BIA.

10. A regularly recurring state-of-the-resource report, including a protocol for continuing data acquisition should be implemented jointly between BIA and tribal organizations such as the Intertribal Timber Council. An IFMAT-type study of the Native peoples of Alaska and their forests is needed and long overdue. Lack of technical support for economic analysis, climate change adaptation, timber and non-timber forest products marketing, habitat and ecosystem enhancement, and forest planning and inventory severely undermines self-determination and integrated forest management.

In conclusion, we have observed dedicated forestry professionals and technicians, Indian and non-Indian, working together in tribal and BIA operations to care for Indian forests. Tribal forestry programs strive to do the best they can with limited available resources in accord with the wishes of tribal leadership. Accomplishments notwithstanding, Indian forestry appears at a tipping point as decades of "begging Peter to pay Paul" cannot be sustained. Chronic underfunding is limiting tribal abilities to maximize the forests' economic and environmental potential. On the other hand, if federal support to Indian forests and forestry programs is increased to recommended levels and fulfillment of trust responsibility is assured, Indian forests stand to become a model of sustainable management for federal and private forests alike.

Attachment 1. Funding

Forest management funding comparisons by ownership type.

Forest Management Funding Comparisons (\$/acre)				
Forestry Organization	\$/acre	Range \$/acre		
BIA	\$2.82			
States East				
Wisconsin State Lands	\$3.83			
Minnesota State Lands	\$5.50			
Maine State Lands	\$7.63			
Private East				
Southeast	\$4.85	[\$1.33-\$16.77]		
Northeast	\$4.55	[\$3.73-\$6.58]		
North Central	\$4.43	[\$3.41-\$6.51]		
Appalachia	\$2.70	[\$1.58-\$4.82]		
States West				
Montana Trust Lands	\$11.28			
Idaho Department of Lands	\$17.91			
Washington Trust Lands	\$19.98			
Oregon Trust Lands	\$32.67			
Private West				
Westside OR/WA	\$19.00	[\$8.00-\$62.00]		
Eastside OR/WA	\$7.25	[\$2.00-\$12.00]		
National Forests	\$8.57			
Fire Fund	ing Allocations (\$/acre)		
Organization	Preparedness	Hazardous Fuels		
BIA	\$0.95	\$0.69		
National Forests	\$3.78	\$1.49		
BLM	\$0.95	\$0.49		
Roads Main	tenance Funding (\$/acı	re)		
BIA	\$0.46			
National Forests	\$2.04			
BLM (all)	\$0.30			
BLM (all except AK)	\$0.38			
BLM (OR)	\$1.54			

Attachment 2. Staffing

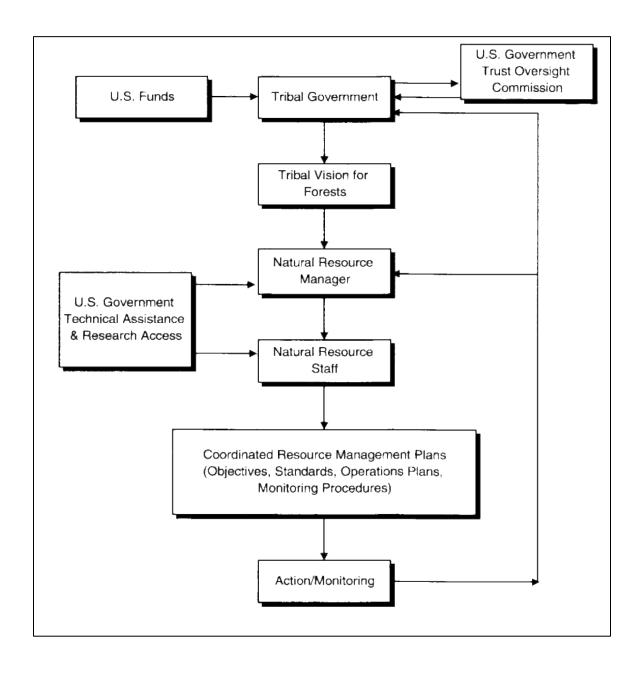
BIA current and requested full time staff positions (professionals and technicians only) by region.

Region	Current Staff	Requested Staff	% Increase
Northwest	565	268	47%
Southwest	330	276	87%
Lake States	226	182	81%
Eastern	49	50	102%
Central Office	40	16	40%
Total	1,210	792	65%

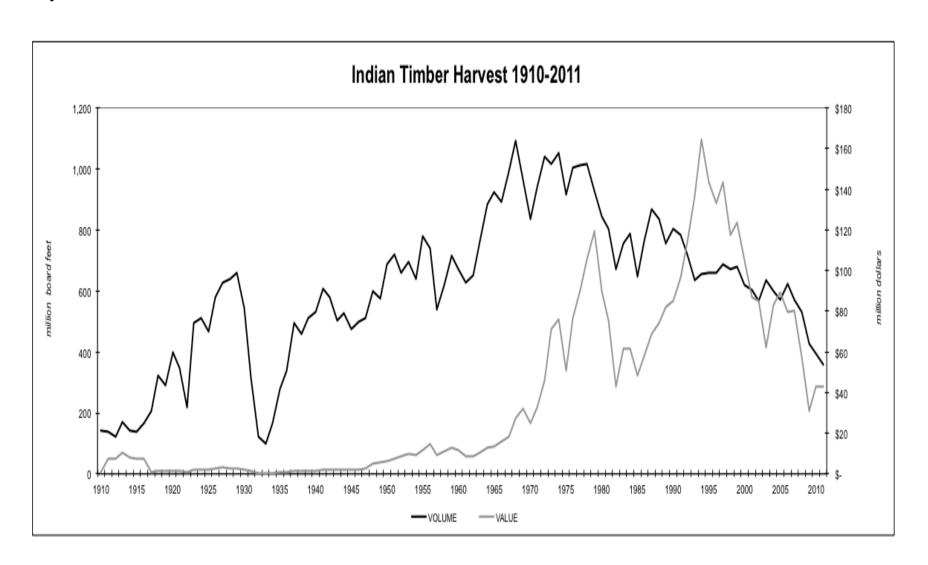
Comparisons of BIA staffing levels to those of other public and private forest management organizations.

Forestry Organization	% Professional	Forest acres per professional
BIA/Tribes, all	30%	30,000
National Forests	19%	2 4 ,500
Oregon Trust Lands	80%	3,500
NW Forest Industry-West Side	40-80%	9,000
NW Forest Industry-East Side	40-80%	16,000

Attachment 3. A framework to establish an independent commission to periodically review performance of trust services against criteria established in tribal plans, accepted by the Secretary of Interior, and with power to require corrections.



Attachment 4. Historical Indian timber harvest with volume in million board feet and value in million dollars of the day from 1910-2011.



Attachment 5. Stewardship contracts between tribes and adjacent national forests benefit both ownerships. Before (left) and after treatment (right) paired photos for Mescalero Apache Tribe/Lincoln National Forest (top) and Confederated Salish and Kootenai Tribes/Lolo National Forest (bottom) stewardship contracts. Mason photos.



