

January 20, 2014

USDA Secretary Tom Vilsack
U.S. Department of Agriculture
1400 Independence Avenue SW
Washington, DC 20250

Tongass Forest Supervisor Forrest Cole
Tongass National Forest
648 Mission Street, Federal Building
Ketchikan, AK 99901-6591

cc: Undersecretary Robert Bonnie, Region 10 Supervisor Beth Pendelton, Meryl Harrell
USDA, Lynn Jungwirth and Jason Anderson, Tongass Advisory Committee co-chairs

Re: Importance of Tongass rainforest in forest carbon and climate change resilience

As scientists with extensive professional experience in forest ecosystems, we request an expedited transition out of old-growth logging on the world-class Tongass rainforest in southeast Alaska. We add our concerns regarding forest degradation in relation to climate change issues on the Tongass to the hundreds of scientists that sent a related letter to the USDA Secretary Tom Vilsack on October 15, 2014 also requesting an accelerated transition out of old-growth logging.

Globally, deforestation emits more CO₂ pollution than the world's transportation system¹. For these reasons, 157 governments, indigenous communities, major corporations, and conservation groups recently pledged to slow global deforestation by 2020 and strive to end it by 2030². As a signatory of the historic UN forest declaration, the Obama Administration could lead by example in protecting the high biomass rainforests of the Tongass. Doing so would be a flagship achievement in protecting the nation's most treasured national forest as a repository of atmospheric carbon dioxide³.

The Tongass is one of only six relatively intact temperate rainforests globally⁴. It sustains nearly 8% of the nation's carbon on just 2% of the nation's forest base⁵. Based on recent forest carbon assessments, the Tongass is the nation's champion at storing vast amounts

¹IPCC. 2007. Summary for policy makers. In: Climate Change 2007: the Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, United Kingdom.

²Forests action statements and action plans. UN Climate Summit 2014. UN Headquarters, NY. September 23 #Climate2014.

³[http://www.whitehouse.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_res](http://www.whitehouse.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_resources.pdf)
[ources.pdf](http://www.whitehouse.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_resources.pdf)

⁴DellaSala, D.A. 2011. Temperate and boreal rainforests of the world: ecology and conservation. Island Press: Washington, D.C.

⁵ http://www.usda.gov/blog/usda/entry/h2_the_urgent_need_to 12.17.2009

of carbon in over 9 million acres of “high biomass forests,” eclipsing comparable Pacific coastal rainforests, which also are especially carbon dense, by nearly ten times⁶.

The Tongass is also a unique repository of relatively stable carbon because fire and other large natural disturbances are rare. Older high biomass forests generally store up to ten times the carbon of low biomass younger forests, and a larger portion of their total forest carbon is stored in older trees⁷. Thus, the prudent climate policy would be to preserve the Tongass’ high biomass forests as a long-term investment in climate change mitigation.

Prior simulations of carbon flux from harvest scenarios on the Tongass indicate that the most effective means for storing carbon long-term is to protect its high biomass forests⁸. Carbon dioxide releases from logging are not fully recovered by storing carbon in wood products or reforestation, given younger forests are most often managed on short logging rotations and most wood products end up in landfills in a few decades⁹. Further, based on new analyses, large-scale logging projects as currently conceived on the Tongass (hundreds of millions of board feet) would emit CO₂ pollution on par with the region’s industrial sectors¹⁰. Independent analyses show that the transition to young growth can be fully underway within five years, while producing more climate-friendly jobs in the wood products industry¹¹.

Taxpayers have spent billions of dollars to date subsidizing the degradation of this world-class carbon sink. Today we know that we must do all we can as quickly as possible to arrest climate change. Your agency is considering extending industrial logging of the Tongass at taxpayer expense through 2030 or later, a time when current global warming trends must be reversed. Please tell the Forest Service to finish its transition out of industrial old-growth logging within five years, rather than 10-15 years as stated.

Respectfully, (*affiliations for identification purposes only)

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⁶ Based on estimates derived from Krankina, O., et al. 2014. High biomass forests of the Pacific Northwest: who manages them and how much is protected? *Environ. Manage.* DOI 10.1007/s00267-014-0283-1

⁷Law, B.E., et al. 2001. Carbon storage and fluxes in ponderosa pine forests at different developmental stages. *Global Change Biology* 7:755-777. Hudiburg, T., et al. 2009. Carbon dynamics of Oregon and Northern California forests and potential land-based carbon storage. *Ecol. Applic.* 19:163-180.

⁸Leighty, W.W. et al. 2006. Effects of management on carbon sequestration in forest biomass in southeast Alaska. *Ecosystems* 9:1051-1065.

⁹Harmon, M.E. et al. 1990. Effects on carbon storage of conversion of old –growth forests to young forests. *Science* 247:699-702. Hudiburg, T., et al. 2009. Carbon dynamics of Oregon and Northern California forests and potential land-based carbon storage. *Ecol. Applic.* 19:163-180. King, A.W. et al. 2012. North American carbon dioxide sources and sinks: magnitude, attribution, and uncertainty. *Frontiers in Ecol. & Environ.* 10:512-519. Krankina, O. N., et al. 2012. Carbon balance on federal forest lands of western Oregon and Washington. *Forest Ecol. & Manage.* 286:171-182.

¹⁰DellaSala, D.A. Estimated emissions from Tongass old growth logging (in preparation).

¹¹Mater, C. 2014. Transitioning to a second growth strategy in SE Alaska POW region. Mater report update based on 2014 GIS analysis. Available from Mater Ltd, Corvallis, OR.

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