From: Sandy Ericson <<u>sfericson@mac.com</u>> Sent: Wednesday, January 31, 2024 12:46 PM To: Energyweb Incoming \* ODOE <<u>askenergy@oregon.gov</u>> Subject: What is missing in Oregon's climate action planning

[You don't often get email from <u>sfericson@mac.com</u>. Learn why this is important at <u>https://aka.ms/LearnAboutSenderIdentification</u>]

Hello,

Having read the Principles and reviewed the website and the Climate Action goals, it seems that there is a segment of missing action. All the focus is on business and government, top-down, with next-to-no action plans for households, bottom-up, an area of significant influence on emissions, saving water, and more in a consumer-driven economy.

What is needed is a state-wide initiative to have Human Ecology education programs be a core program in the mandatory education years, K-12. Today, the consumer science information needed by households and families is incredibly complex and interrelated. As young adults transition to adulthood, they compose the demographic segment that will be most affected by climate change, yet they are receiving little or no education on how to live sustainably, day to day, or how to plan for adaptation in their future, either personally or professionally. It is almost unethical not to teach the discipline that will make a livable future possible for them.

Human Ecology education is how human beings relate, in every way, to all the segments of our current human ecosystem. The Consumer Science discipline was renamed Human Ecology by Cornell University in direct anticipation of the need to adapt to climate change and also the fact that most people now live in dense, urban environments.

I taught the subject for thirty years at CCSF to incoming college freshmen as they started living sustainably on their own. If there is interest in this proposal, I would be pleased to give a short presentation and answer questions about the need, research, statistics, and program details. I also chaired a Climate Protection Task Force for a smaller California city for eight years. The few states that have required coursework in consumer climate adaptation have seen a remarkable difference in emissions and consumer decisions.

Best wishes, Sandy Ericson From: jtalberth@sustainable-economy.org <jtalberth@sustainable-economy.org>
Sent: Saturday, February 17, 2024 9:30 AM
To: jtalberth@sustainable-economy.org
Subject: \_\|/\_ Potentially Risky URL in Email - Click Carefully \_\|/\_ New Research - Tax Clearcuts.
Reward Climate Smart Practices.

## Dear friends and colleagues:

Please follow the link below to new research published today in the journal *Environment, Development and Sustainability* demonstrating how a forest carbon tax and reward program can help reduce GHG emissions from logging and forestland conversion, incentivize climate smart practices, and generate hundreds of millions of dollars annually for climate adaptation and forestland protection while maintaining an acceptable rate of return for patient capital investors. The study includes new estimates of logging-related emissions in Oregon, Washington, Maine, and North Carolina, derives emissions factors (tons CO2-e per volume removed) that are tightly matched with previous research, provides estimates of annual revenues to each state, and identifies big ticket climate-forestry investments that can be financed from the tax proceeds. Enjoy! Citation, links, abstract and key findings below.

## Citation:

Talberth, J., Carlson, E, 2024. Forest carbon tax and reward – Regulating greenhouse gas emissions from industrial logging and deforestation in the US. Environment, Development and Sustainability <u>https://doi.org/10.1007/s10668-024-04523-7</u>.

Link to <u>open access article</u> Link to <u>online summary</u>

## Abstract:

Industrial logging activities associated with land development, agricultural expansion, and tree plantations generate significant greenhouse gas emissions and may undermine climate resilience by making the land more vulnerable to heat waves, water shortages, wildfires, flooding, and other stressors. This paper investigates whether a market-based mechanism – a forest carbon tax and reward program – could play a role in mitigating these climate impacts while advancing the Glasgow Leaders Declaration on Forests and Land Use, which seeks to end deforestation and forest degradation by 2030. We do this by describing key differences between the natural and industrial forest carbon cycle, identifying design features of a program that mimics existing carbon tax mechanisms, demonstrating how that program could be implemented using four US states as an example, and completing a cash flow analysis to gauge potential effects on forestland investors. Across the states, we estimate the range of taxable GHG emissions to be 22 - 57 Mt CO<sub>2</sub>-e yr<sup>-1</sup>, emissions factors of 0.91 - 2.31 Mg C m<sup>-3</sup>, and potential tax revenues of \$56 to \$357 million USD yr<sup>-1</sup>. A model of net present value and internal rate of return for a representative forestland investor suggests that while the tax may reduce profitability somewhat (~ 30%) for a 100,000-acre (40,486 ha) acquisition it would still generate an attractive rate of return (> 7%), especially for patient capital

investors. We conclude that a forest carbon tax program is feasible with existing data available to US state agencies and could be a significant source of funding to promote climate smart forest practices without major disruptions of timber supply or forestland investments.

## Key findings:

- Compared with the "catch and store" forest carbon cycle associated with natural forests, the "catch and release" carbon cycle on industrial forest landscapes results in greater carbon emissions, less carbon sequestration, less carbon storage, and greater vulnerability to climate stressors like wildfires, floods, and droughts.
- As a result, GHG emissions from industrial logging and land clearing should be accounted for under the same rules that apply to other sectors and not presumed to be offset by trees growing elsewhere or planted in the future. Any emissions offsets claimed by logging corporations should also be subject to the same rules facing fossil fuel emitters who must adhere to criteria such as permanence and additionality.
- Under the proposed forest carbon tax program, based on a <u>draft legislative vehicle</u> prepared for Oregon lawmakers, forestlands now managed under high-emissions-low-resiliency tree farming techniques would pay a gross carbon tax on the GHG emissions associated with any given volume of harvest but receive generous tax breaks and exemptions to adopt climate smart practices like long rotations, alternatives to clearcutting, and forest carbon reserves.
- Across the states, the study estimated the range of taxable GHG emissions to be 22 57 million metric tons carbon dioxide equivalent each year, with emissions factors of 0.91 2.31 tons carbon per cubic meter harvested, which translates to 9.29 16.74 tons CO2 per thousand board feet. These emissions factors are in remarkable agreement with factors estimated for tropical countries and suggest that logging in the US is just as carbon intensive, if not more, than logging tropical forests.
- Forestland cleared for subdivisions, strip malls, and highways is resulting in a steady and significant decline in carbon sequestration capacity, and a forest carbon tax can help steer development pressure to land that has already been cleared.
- A forest carbon tax can pay for big ticket items on each state's climate agenda. For example, the study estimates that annual forest carbon tax collections in Oregon (up to \$347 million) can in one year enroll over 247,000 of non-industrial forestlands into a carbon payment program that would protect 42 million metric tons of CO2 over 30 years, according to a <u>recent study by Portland State University</u>. In Maine, a single year's tax collection (\$56 million) could pay for conservation easements protecting over 150,000 acres now threatened by urban sprawl.

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From: Mary Williams <mary.williams@homeschoolaide.com>
Sent: Monday, February 26, 2024 4:46 AM
To: Oregon GWC \* ODOE <oregon.gwc@oregon.gov>
Subject: Thank you for your resource page

You don't often get email from <u>mary.williams@homeschoolaide.com</u>. <u>Learn why this is important</u> Hello,

I hope your day is going well. I'm Mary, an online educator and dedicated community volunteer. In preparation for an upcoming talk on climate change, sustainability, and other environmental issues, I came across your page <u>www.keeporegoncool.org/resources</u> while searching for additional resources. I wanted to express my gratitude for your incredibly well-organized list of resources!

I also thought it would be a great idea to share this article, which I found loaded with interesting information on how data science can help fight climate change. You can check it out at <u>datascienceprograms.com/learn/how-data-science-can-help-fight-climate-change/</u>

I believe it could be a valuable addition to your already impressive list of resources, especially with AI being a rapidly growing trend. And your readers might also find it helpful.

I'd be thrilled to contribute to your resource collection! Please don't hesitate to reach out if you decide to link to the article.

Thank you for your time,

Mary Williams