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BUILD BACK BETTER – REBOOTING THE U.S. ECONOMY AFTER COVID-19 Restoring Trees to the Landscape: Creating "Shovel-Ready" Jobs across the United States

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Summary

As Congress contemplates how to provide economic relief and create desperately needed employment opportunities for millions of Americans suffering as a result of the economic havoc spurred by the COVID-19 pandemic, lawmakers have the chance to ensure that we build back better in ways that create millions of well-paying jobs, spur billions in economic growth, and advance a low-carbon economy. Research shows that smart climate action is not only good for but essential to economic growth.¹ These objectives must go hand in hand.

One way Congress could immediately create hundreds of thousands of jobs while advancing a cleaner economy is to invest in restoring trees to the landscape. Jobs on tree planting crews, in nurseries, and as foresters are literally "shovel-ready," and support the single largest near-term opportunity for carbon dioxide removal at scale in the United States.² An annual federal investment of \$4–4.5 billion could create more than 150,000 jobs³ and \$6-12 billion per year in economic activity.⁴ Extended over 20 years, this annual investment could restore up to 60 billion trees through practices like reforestation, restocking forests, silvopasture, alley cropping, and urban forestry. Achieving this potential for job creation and economic activity would require Congress to rethink the Trillion Trees Act, which in its current form could result in a net loss of trees and increase in greenhouse gas emissions in the United States.

The Opportunity for Federal Policy

Most opportunities to restore trees to the landscape can be found on non-federal lands.⁵ There are three key steps that Congress could take to take advantage of these opportunities on private, municipal, and state-owned lands:

 Add new dedicated funding for tree restoration to the Environmental Quality Incentives Program (EQIP). Dollars allocated specifically to tree-planting, agroforestry practices, and forest restocking would drive new investment in rural communities without requiring new congressional authority. Congress could further direct the USDA's Natural Resources Conservation Service (NRCS) to pay a greater share of the upfront costs that landowners must otherwise shoulder to prepare their land for trees, buy saplings, and pay wages for planting and maintenance crews—especially for trees that the landowner does not plan to harvest for timber later on. Directing NRCS to also issue cost-share payments to third-party contractors that restore trees on private lands could reduce barriers for small or disadvantaged landowners while creating an industry around working with landowners to restore trees to the landscape.

- 2. Expand incentives for tree restoration projects on historically forested lands through the Conservation Reserve Program (CRP). Allowing projects such as reforestation of unproductive grazing lands to participate in CRP, and increasing payments for other types of CRPeligible projects that restore trees to marginal lands, could create rural employment opportunities while enhancing soil health, biodiversity, and carbon sequestration. Expanding eligibility for CRP to unproductive grazing lands would require Congress to raise the program's acreage cap by up to 12 million acres.⁶
- 3. Issue grants to state and local governments to boost tree restoration using their own policy tools. These grants can fund the substantial opportunities to restore trees in suburban and urban communities⁷, including local parks, roadsides, and backyards, which are not eligible for EQIP or CRP funding. State and local tree-planting grants are especially important to put people to work growing urban and suburban forests in metropolitan areas that have suffered massive job losses in industries like transportation and tourism. Growing trees can help these cities build back better with cleaner air and drinking water, more recreational opportunities, and fewer greenhouse gas emissions.

The Benefits of Tree Restoration

At a time when job creation and economic relief for struggling communities are urgent national priorities, it is critical that any policy Congress considers addresses these needs. Investing in people to grow trees and restore forests across the United States would accomplish both, and more, including the following:

- Creating jobs. Researchers at the Political Economy Research Institute at the University of Massachusetts have found that every \$1 million invested in reforestation and sustainable forest management can support nearly 40 full-time-equivalent jobs,⁸ including foresters, botanists to grow saplings in nurseries, technicians to operate machinery, laborers to transport and plant new trees, and other workers indirectly supported by new economic activity. That translates to over 150,000 new jobs with an annual federal investment of \$4–4.5 billion—three times as many jobs as logging currently supports in the United States.⁹
- **Growing local economies.** Every dollar the federal government gives landowners and treeplanting contractors multiplies economic activity in communities that plant trees and manage forests, including underserved urban and rural communities. An annual federal investment of \$4–4.5 billion in tree restoration could help these communities recover by bringing in \$6–12 billion per year in economic activity,¹⁰ adding to the \$25 billion in annual output that the restoration economy already supports.¹¹
- Healthier communities. Restoring trees to the landscape can improve water quality, including in agricultural areas where clean water is a top environmental concern; enhance soil health and resilience to extreme weather events like flooding and drought; and filter air pollution, bringing significant benefits for public health. Already, trees in the United States provide \$6.8 billion per year in health benefits from avoided respiratory illness and mortality.¹²
- A safer climate. The science shows that both deep cuts in greenhouse gas emissions and the removal of historical emissions from the atmosphere will be needed by mid-century to prevent the most dangerous impacts of climate change.¹³ At its maximum potential, tree restoration could remove

up to 540 million tons of carbon dioxide per year from the atmosphere, equal to nearly 10% of the country's annual net greenhouse gas emissions or all annual emissions from U.S. agriculture.¹⁴

Restoring trees to the landscape is therefore an important piece of the puzzle not only for climate change mitigation but also for creating jobs, stimulating local economies, and promoting community well-being.

Why the Trillion Trees Act Needs to Change

Both Congress and the President have recognized the importance of trees as a climate solution. President Trump committed the United States to participating in the global Trillion Trees Initiative in January 2020. Ten cosponsors introduced the Trillion Trees Act¹⁵ in the House of Representatives in February. While the Trillion Trees Initiative's objective to restore trees to the landscape is commendable, **the Trillion Trees Act as written would not actually result in a trillion new trees.** In fact, the Act may result in a net loss of trees in the near term and increase greenhouse gas emissions by:

- requiring a new "National Reforestation Task Force" to recommend increasing timber harvests on public lands regardless of the implications for forest carbon storage and sequestration;
- relaxing National Environmental Policy Act (NEPA) reviews of timber harvests near urban areas or critical infrastructure, thereby **preventing the release of information** that protects human health and economic and social welfare as well as the environment;
- directing the EPA to consider bioenergy from forests as a carbon-neutral energy source, despite clear differences in carbon impacts if bioenergy plants burn sawn timber (which could otherwise store carbon in long-lived wood products) rather than lower-grade wood;¹⁶
- allocating only \$55 million per year in new funding for reforestation, including just \$25 million for private lands—less than 1% of what a full-scale program for tree restoration would provide and excluding promising tree-planting practices like urban reforestation and silvopasture; and
- failing to include safeguards to protect mature forests and restock forests after harvesting, which are critical to maintain and grow the forest carbon sink that already reduces net U.S. emissions by over 10%.¹⁷

With little funding for growing trees and broad allowances for cutting them down, the Trillion Trees Act in its current form would move the United States in the wrong direction on both carbon emissions and job growth.

Conclusion

Congress can create hundreds of thousands of shovel-ready jobs by **dedicating \$4–4.5 billion per year for tree restoration through EQIP, CRP, and state and local grants**. Doing so would put over 150,000 Americans back to work and ensure a healthier climate for future generations.

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Endnotes

- 1 "Unlocking the Inclusive Growth Story of the 21st Century: Accelerating Climate Action in Urgent Times," The New Climate Economy, August 2018, https://newclimateeconomy.report/2018/.
- 2 James Mulligan et al., "CarbonShot: Federal Policy Options for Carbon Removal in the United States," World Resources Institute, January 2020, https:// www.wri.org/publication/carbonshot-federal-policy-options-for-carbon-removal-in-the-united-states.
- 3 P.E.T. Edwards, A.E. Sutton-Grier, and G.E. Coyle, "Investing in Nature: Restoring Coastal Habitat Blue Infrastructure and Green Job Creation," *Marine Policy* 38 (March 1, 2013): 65–71, https://doi.org/10.1016/j.marpol.2012.05.020.
- 4 Todd BenDor et al., "Estimating the Size and Impact of the Ecological Restoration Economy," *PLOS ONE* 10, no. 6 (June 17, 2015), https://doi.org/10.1371/journal.pone.0128339.
- 5 James Mulligan et al., "CarbonShot: Federal Policy Options for Carbon Removal in the United States," World Resources Institute, January 2020, https:// www.wri.org/publication/carbonshot-federal-policy-options-for-carbon-removal-in-the-united-states.
- 6 Susan Cook-Patton et al., "Mapping Forest Restoration Options to Guide Climate Mitigation Action in the Contiguous United States," in review.
- 7 Susan Cook-Patton et al., "Mapping Forest Restoration Options to Guide Climate Mitigation Action in the Contiguous United States," in review.
- 8 P.E.T. Edwards, A.E. Sutton-Grier, and G.E. Coyle, "Investing in Nature: Restoring Coastal Habitat Blue Infrastructure and Green Job Creation," *Marine Policy* 38 (March 1, 2013): 65–71, https://doi.org/10.1016/j.marpol.2012.05.020.
- 9 "May 2018 National Industry-Specific Occupational Employment and Wage Estimates NAICS 113000—Forestry and Logging," U.S. Bureau of Labor Statistics, accessed April 14, 2020, https://www.bls.gov/oes/2018/may/naics3_113000.htm.
- 10 Todd BenDor et al., "Estimating the Size and Impact of the Ecological Restoration Economy," *PLOS ONE* 10, no. 6 (June 17, 2015), https://doi.org/10.1371/journal.pone.0128339.
- 11 Natalie Woolworth and Zach Knight, "Forest Finance Unlocks Opportunities for Rural Communities: Exploring the Triple Bottom Line Impacts of the Forest Resilience Bond Model," Community Development Innovation Review (October 17, 2019), https://www.frbsf.org/community-development/ publications/community-development-investment-review/2019/october/forest-finance-unlocks-opportunities-for-rural-communities-exploring-thetriple-bottom-line-impacts-of-the-forest-resilience-bond-model/#_ftn10.
- 12 David J. Nowak et al., "Tree and Forest Effects on Air Quality and Human Health in the United States," *Environmental Pollution* 193 (October 2014), https://doi.org/10.1016/j.envpol.2014.05.028
- 13 Intergovernmental Panel on Climate Change, "Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty," World Meteorological Organization, 2018, https://www.ipcc.ch/sr15.
- 14 James Mulligan et al., "CarbonShot: Federal Policy Options for Carbon Removal in the United States," World Resources Institute, January 2020, https:// www.wri.org/publication/carbonshot-federal-policy-options-for-carbon-removal-in-the-united-states.
- 15 "Westerman Introduces Trillion Trees Act," Congressman Bruce Westerman, February 12, 2020, https://westerman.house.gov/media-center/pressreleases/westerman-introduces-trillion-trees-act.
- 16 Mary S. Booth, "Not Carbon Neutral: Assessing the Net Emissions Impact of Residues Burned for Bioenergy," Environmental Research Letters 13, no. 3 (February 21, 2018), https://iopscience.iop.org/article/10.1088/1748-9326/aaac88
- 17 U.S. Environmental Protection Agency, "Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990–2017," 2019, https://www.epa.gov/sites/ production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf.