Insight

The One Trillion Trees Initiative

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Executive Summary

- President Trump last week issued an executive order that creates a council to implement the One Trillion Trees Initiative.
- The initiative calls for forest restoration and conservation to protect local ecosystems and to provide the carbon capture necessary to mitigate climate change.
- While the president's commitment and executive order are a promising first step in necessary policymaking, it is difficult to determine what they mean in practice.

Introduction

In January 2020, President Trump announced his support for the One Trillion Trees Initiative at the World Economic Forum's (WEF) meeting in Davos, Switzerland. The meeting also included the launch of the 1t.org platform, which seeks to further the progress made by environmental organizations in planting one trillion trees globally to reverse deforestation and mitigate the effects of climate change.[1] Last week, President Trump issued an Executive Order (EO) on Establishing the One Trillion Trees Interagency Council to determine how the United States should implement this commitment.

Although the EO furthers the president's commitment, it provides little insight into the number of trees that will be planted, when they will be planted, or where they will be located. These questions are to be addressed by the council in carrying out its mission. The One Trillion Trees Initiative is only a first step in addressing immediate problems in forest restoration and conservation, as well as climate change.

The Goal of the Platform

Various organizations have pushed for reforestation. American Forests, a nonprofit, aims to

plant at least 4 billion trees across 16 million acres of North America by 2030 by working with partner organizations.[2] Trillion Trees is a joint venture of three nonprofits, BirdLife International, World Wildlife Fund, and Wildlife Conservation Society, that aims to restore one trillion trees by 2050, among other environmental efforts. Others include the UN Decade on Ecosystem Restoration 2021-2030, the Bonn Challenge, and the Global Partnership on Forest and Landscape Restoration. These organizations operate independently of the WEF's One Trillion Tree Initiative and its 1t.org platform which is intended to provide "an opportunity to help join-up these initiatives in a unifying platform."[3] The WEF aims to restore and conserve a trillion trees by 2030 by leveraging these existing efforts and inspiring additional participation among governments, businesses, and nongovernmental organizations.

The United States was the first to create a national chapter of 1t.org, and the chapter is co-managed by American Forests and WEF. American Forests alone has pledged to plant 101.2 million trees, of which 100 million will be planted in large forested landscapes, and 1.2 million will be planted in cities as part of the WEF effort.[4] Thirty-three U.S. nonprofit organizations, along with cities including Tucson, Boise, Detroit, and Dallas and companies including PepsiCo, Mastercard, Microsoft, and Bank of America,**[5]**have committed to participate and plant over 855 million trees.

Why the push for conservation, restoration, and growth of 1 trillion trees globally by 2030? The WEF cites research indicating that "there were nearly 6 trillion trees on our planet, prior to the Agricultural Revolution 12,000 years ago. Today, there are only an estimated 3 trillion trees … there is potential to restore tree coverage across 2.2 billion acres of degraded land by planting 1 to 1.2 trillion trees."[6] The U.S. chapter of 1t.org notes that analysis from The Nature Conservancy[7] has suggested that 131 million acres of U.S. land are suitable for reforestation, which is necessary as the impact of climate change steadily increases on U.S. forests. And the U.S. Forest Service has suggested that "tens of millions of forested acres are likely to be developed across the U.S. by 2050, absent increased conservation. This level of forest loss would have significant impacts on carbon stores and future mitigation, habitat, water supplies, and other benefits."[8] Essentially, by working to restore tree growth and conserve forest land, not only will more carbon be stored naturally, but the impacts of climate change on forests, particularly forest fires, will also be abated.

The Interagency Council

The Interagency Council created by the EO will operate independently of WEF's initiative, like the other commitments supported by various public and private organizations. The EO appears to focus replanting efforts to "the expansive footprint of our Federal forests and woodlands." As a result, the Interagency Council will be co-chaired by the Secretary of

Interior and Secretary of Agriculture who oversee national parks and forests, respectively. It will also include a dozen other agency heads as well as advisors to the president. It "shall…promote an increase in Federal Government activities and other national efforts that further the Initiative by growing, restoring, and conserving trees." It will be responsible for developing and implementing the methodology used to track the trees grown, restored, and conserved, identifying any existing roadblocks and recommending administrative and legislative actions to remove them, as well as opportunities presented by existing authorities to promote its mission.

The council's focus is well-timed, with both the need to address climate change and fires on federal lands growing more urgent. The potential for forest fires in the United States has increased in recent years. This risk has been evidenced by California, the most populous state with the eighth largest economy in the world—facts that have heightened the impact of the fires. National forests cover 20 million acres, or about one-fifth of California's landscape.[9] This is not unique. The federal government owns about 28 percent of the land in the United States, or roughly 640 million, with the majority located in the western United States. According to the U.S. Forest Service's Center for Forest Disturbance Science projections, increases in wildfires will be seen in the Southwest, Rocky Mountains, northern Great Plains, Southeast, and Pacific coast due to the warmer and drier conditions expected in the continental United States during this century.

Forest restoration is a climate mitigation approach that is relatively easy to implement, as it has bipartisan support and faces no technological barriers. According to the 1t.org carbon estimator, conducting reforestation and rural tree planting of 100,000,000 trees nationally captures 18,484,347 metric tons of carbon dioxide equivalent over the next 30 years, or the emissions of 3,992,300 passenger vehicles driven for one year.[10] Currently, 15 percent of emissions from the burning fossil fuels in the United States are captured by U.S. forests and forest products. With full investment in nature-based solutions, such as reforestation and conservation, this value has the potential to increase to 27 percent. A report by the United Nations' Panel on Climate Change suggests that an increase of 2.47 billion acres of forest will be necessary to limit global warming to 1.5°Celsius by 2050.[11]

Monitoring Progress

The commitment to planting trees made by companies, nonprofits, and governments is not subject to any enforcement mechanisms. Those organizations making commitments through the U.S. chapter of 1t.org will be required to provide an annual report that documents progress and includes any changes to the commitments they may need to make. As the council has yet to convene and determine the specifics of the United States' commitment, there is no insight into the breadth of proposed planting nor whether the council will choose

to submit a pledge at all.

The extent of each agency's action to meet the federal commitment will require taking inventory of existing programming and policies and the identification of opportunities on the lands themselves, as well as local stakeholders. The National Park Service and Forest Service are required to prepare various management plans, including fire management plans, for their lands. These may, however, be many years old and fail to consider climate change mitigation, or more specifically the role of nature-based solutions such as restoration and conservation. For example, the National Park Service's Yellowstone National Park Wildland Fire Management Plan/Environmental Assessment prepared in September 2012 addresses climate change by providing that "While Park managers recognize climate change and its potential to influence fire activity, they also recognize wildfire is a natural part of the Park's ecosystem and therefore this topic will not be carried forward into the detailed analysis."

Participation in the council will provide agencies an opportunity to address these issues efficiently and consistently rather than attempting to implement unique new policies and programming without any coordination. Until the council meets, however, it is impossible to identify its effectiveness in meeting President Trump's commitment.

[1] https://www.weforum.org/agenda/2020/01/one-trillion-trees-world-economic-forum-launches-plan-to-help-nature-and-the-climate/

[2] https://www.americanforests.org/about-us/mission/

[3] https://www.trilliontrees.org/highlight/trillion-trees-welcomes-global-support-conserve-and-restore-vital-forest

[4] https://www.americanforests.org/our-work/the-trillion-trees-movement/#Pledge

[5] https://us.1t.org/view-pledges/

[6] https://us.1t.org/about-us/faq/

[7] Cook-Patten et al. 2020, currently in review

[8]Wear et al. 2016

[9] https://www.fs.usda.gov/detail/r5/landmanagement/?cid=stelprdb5412095

[10] https://us.1t.org/carbon-estimator/

[11] Intergovernmental Panel on Climate Change (IPCC), *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*(IPCC, 2018).