



Climate Justice Program
Indigenous Environmental Network

September 13, 2022

Congress of the United States of America
House of Representatives
Committee on Oversight and Reform
2157 Rayburn House Office Building
Washington, DC 20515

SUBMISSION to the Climate Disinformation Hearing, “Fueling the Climate Crisis: Examining Big Oil’s Prices, Profits, and Pledges” on Thursday, September 15, 2022, 9:00 a.m. ET.

Honorable Chairwoman Maloney, Chairman Khanna and the House Committee on Oversight and Reform:

The Indigenous Environmental Network (IEN) is an Indigenous-led 501(c)3 organization working with Tribes and Indigenous communities in the US and globally. Although Indigenous Peoples continue to do remarkable work adapting to and protecting Mother Earth from climate change, the atrocities disproportionately impact American Indians, Alaska Natives, and their tribal and frontline communities impacted by climate and environmental justice. The unequal distribution of climate change impacts is caused by the systemic and historical injustices brought on by fossil fuel and polluting corporations, including but not limited to political and economic marginalization. The impacts include: loss of land and waters, discrimination and displacement, human rights violations, culture and knowledge erasure, sovereignty infringement, and countless other violations. Indigenous Peoples around the world hold the key to combating the interlinked crises of climate change and biodiversity loss. In this way, Indigenous Peoples’ knowledge is critical to addressing deforestation, cultural burns and the impacts of wildfires.

In the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), Working Group 1 established “human-induced greenhouse gas emissions have led to an increased frequency and/or intensity of some weather and climate extremes since pre-industrial time, in particular for temperature extremes.”¹ Some of the extreme weather events include heavy precipitation, pluvial floods, river floods, droughts, fire weather, powerful storms

¹ Seneiratne, S.I, et al. 2021. Weather and Climate Extreme Events in a Changing Climate 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press.

(including tropical cyclones), etc. These extreme weather events can also compound upon a changing climate and increase societal and environmental risks.

A stand-out example is **fire weather**. Fire weather refers to the weather condition that is conducive to triggering and sustaining wildfires. This happens when climate change makes heat waves and droughts more frequent, creating an environment with higher-than-usual temperatures, low soil moisture, low humidity/dry air, and strong winds. As climate change continues to intensify, the probability of fire weather becoming more pronounced in various regions increases.

Between 1979 and 2013, the mean length of the fire weather season increased by 19%, resulting in the doubling of land affected by long fire weather seasons globally.² In the US, roughly 20 to 70 percent of land area experience conditions that were at least abnormally dry at any given time from 2000 to 2020 (see Figure 1).³ In the state of California, a fire-prone region, the area burned by wildfires has been increasing each year since 1950.⁴ In 2020, nearly 9,900 wildfires burned 4.3 million acres of California forests and land.⁵ At the same time, the extent of burnt area in California⁶ and other forests in the western US are linked to anthropogenic climate change via a significant increase in vapor pressure deficit, one of the primary drivers of forest and wildfires.⁷

Figure 1. U.S. Lands Under Drought Conditions, 2000–2020

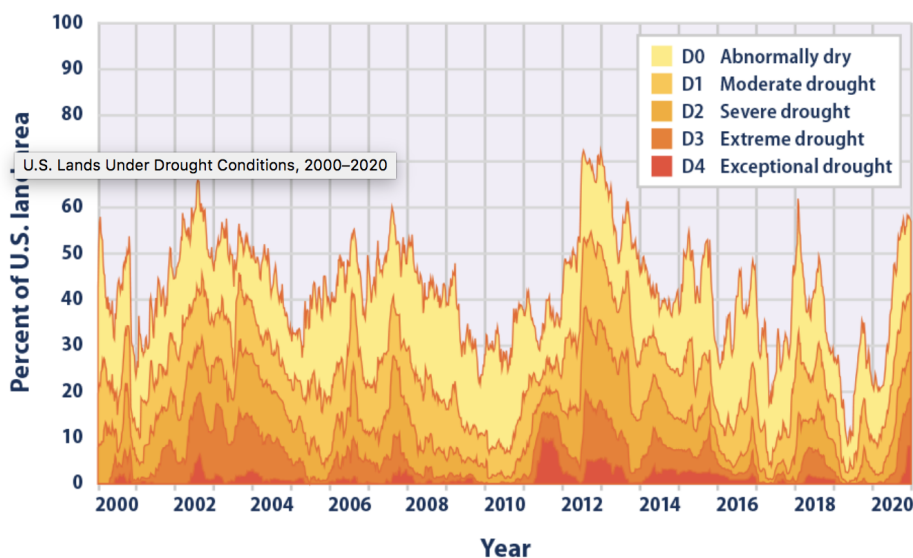


Image source: EPA. 2021. Climate Change Indicator: Drought. Data Source: National Drought Mitigation Center, 2021. Retrieved from: <https://www.epa.gov/climate-indicators/climate-change-indicators-drought#ref12>

² Jolly, M.W., et al. 2015. Climate-induced variations in global wildfire danger from 1979 to 2013. *Nature Communications*, 6(1), 7537.

³ EPA. 2021. Climate Change Indicator: Drought. Data Source: National Drought Mitigation Center, 2021

⁴ California Air and Resource Board. Wildfires and Climate Change. Accessed September 2022. Retrieved from: <https://ww2.arb.ca.gov/wildfires-climate-change>

⁵ Safford, H, et al. 2022. The 2020 California fire season: A year like no other, a return to the past or a harbinger of the future? *Global Ecology and Biogeography*.

⁶ Williams, A.P., et al. 2019. Observed Impacts of Anthropogenic Climate Change on Wildfire in California. *Earth's Future*, 7(8), 892-910.

⁷ Abatzoglou, J.T., and A.P. Williams. 2016. Impact of anthropogenic climate change on wildfire across western US forests. *Proceedings of the National Academy of Science*, 113(42), 11770-11775.

How did we get here?

Human-induced greenhouse gas emissions can come from various sources, such as land-use changes like deforestation and wildfires. However, the IPCC identified **fossil fuels as the dominant cause of global warming and climate change**.⁸ The data shows that in 2018, 89% of global CO₂ emissions came from fossil fuels and industry.⁹ It is unequivocal that climate change induced by global warming is intrinsically tied to fossil fuels and the industry that exploits it.

However, **for more than 30 years the fossil fuel industry has known and lied about the risks and reality of climate change** caused by greenhouse gasses emitted from fossil fuels. Even when a scientific consensus emerged that human-caused climate change is underway in the late 80s and early 90s,¹⁰ the industry and its political allies attacked the consensus and exaggerated uncertainties to disarm the public. Instead of stopping the destructive and exploitative practice of extracting fossil fuel, the industry actively orchestrates and funds denial and disinformation so as to stifle action and protect its profits.

The fundamentals of global warming caused by heat-trapping emissions dates back to the 1800s. In the 1950s, scientists started to see significant risks to people and places posed by climate change.¹¹ However, this time also marked the earlier beginnings of climate denialism. In 1959, physicist Edward Teller warned the industry about the dangers of increased carbon dioxide content in the atmosphere at the Energy and Man symposium, an event organized by the American Petroleum Institute in concert with the Columbia School of Business.¹² After his testimony, Teller became ostracized by the scientific community. Soon after, Exxon (then called Humble oil and refine company) started to spin the truth about the impact of carbon dioxide from fossil fuel combustion by disseminating advertisements touting “Each day Humble supplies enough energy to melt 7 million tons of glacier!” (see Figure 2).

The Oil, Gas and Coal Majors including: BP, Chevron, ConocoPhillips, ExxonMobil, Peabody Energy, and Shell, went on to deploy various tactics and campaigns to spread lies, misinformation, and conspiracy theories about the dangers of fossil fuel extraction and combustion.¹³ Their purpose was to confuse the public and decision-makers about the facts and violent reality of fossil fuel extraction and combustion in order to delay climate action, thereby protecting the industry’s business interests and bottom line. While fossil fuel giants attacked the science and lobbied their way to manipulate policy to their liking, climate change worsened, bringing about the age of the climate crisis that is linked to other crises in biodiversity, food,

⁸ Gail, J, et al. 2005. Chapter 2: Sources of CO₂. IPCC Special Report on Carbon dioxide Capture and Storage. Cambridge University Press.

⁹ Le Quéré, C., et al. 2018. Global Carbon Budget 2018. Earth System Science. Data, 10, 2141-2194.

¹⁰ Shwed, U, Bearman, P.S. 2010. The temporal structure of scientific consensus formation. American Sociological Review, 75(6), 817-840.

¹¹ Franta, B. 2018. Early oil industry knowledge of CO₂ and global warming. Nature Climate Change 1.

¹² Franta, B. 2018. On its 100th birthday in 1959, Edward Teller warned the oil industry about global warming. The Guardian. Accessed September 2022. Retrieved from:

<https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/jan/01/on-its-hundredth-birthday-in-1959-edward-teller-warned-the-oil-industry-about-global-warming>

¹³ Mulvey, K., et al. 2015. The Climate Deception Dossiers: Internal Fossil Fuel Industry Memos Reveal Decades of Corporate Disinformation. Union of Concerned Scientists.

water, deforestation and social stability. The impacts of climate change, however, will burden the lives of Indigenous Peoples and frontline communities the most, with intensifying threats of storms, droughts, forest damage, and wildfires.



Image source: Supran and Oreskes. 2021. The forgotten oil ads that told us climate change was nothing. The Guardian. Accessed September 2022. Retrieved from: <https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing>

Wildfires and Indigenous Peoples

These wildfires have devastating impacts on biodiversity and communities, especially on Indigenous Peoples' (IP) lands and communities. IPs live in places that are highly exposed to natural hazards, making them among the first to face the effects of climate change-induced wildfires. Although fire remains an important and sacred element of Indigenous culture, Indigenous cultural burns and US federal fire and forestry policies are starkly different. When wildfires have been as intense and uncontrollable as they have in recent years, they can destroy the foundation that plants and animals count on, along with creating post-fire water runoff, soil erosion and fish kills.¹⁴

A study in 2021 examined the impacts of wildfires in California and found that there is a higher percentage of Indigenous Peoples experiencing more frequent and severe fires.¹⁵ When such a climate disaster happens to IP, it exposes and intensifies pre-existing social inequalities and lack of equity left behind through generations of colonialism and injustices. At the same time, Indigenous communities in these areas often have inadequate funding, limited access to resources, and a lack of support from governments and other external sources. A study published by Columbia University found that air pollution in Native American communities is worse than in non-Native areas, despite overall improvements in air quality across the nation in the past 20 years.¹⁶ After the Slater and Devil Fire in 2020, the Karuk Tribe in northern California has

¹⁴ Cauz, Z. 2021. California Wildfires' Effect on Biodiversity: Understanding how the wildfires in California have played a role in shaping biodiversity. Accessed September 2022. Retrieved from: <https://storymaps.arcgis.com/stories/18616c744f4b433ca695619c3d4e5bc2>

¹⁵ Masri, S., et al. 2021. Disproportionate Impacts of Wildfires among Elderly and Low-Income Communities in California from 2000-2020. *Int. J. Environ. Res. Public Health* 2021, 18(8), 3921.

¹⁶ Maggie Li, et al. 2022. Air Pollution in American Indian Versus Non-American Indian Communities, 2000-2018. *American Journal of Public Health*. 112, no.4, 615-623.

experienced AQI readings of nearly 1600, setting concerning air quality records.¹⁷ Another study in 2018 found that American Indians and Alaska Natives were 20 percent more likely to have asthma compared to non-Hispanic whites.¹⁸ As IPs continue to face difficulties accessing resources to combat the impacts of wildfires that include acquiring air filters and upgrading homes to mitigate air pollutants resulting from wildfires, the disparities in health, economic, environmental, and justice will continue to grow.

US Fire Management Policy

As settler colonialism expanded across the western US, a destructive relationship between land and fire began. The establishment of the Forest Service in 1905 and the National Parks Service in 1916 dictated the role of fire management in the US as one of passive protection over active management. As a result, most Indigenous practices of cultural burning were prohibited. New initiatives like the 1935 10 A.M. Policy (which mandated all fires must be thoroughly controlled by 10 A.M. the following morning), the application of fire suppression practices via the Civilian Conservation Corps, and the advertising campaign of Smokey Bear were among the leading features of a new federal movement to actively suppress fires.¹⁹ However, during this period, “prescribed burning” began to generate the interest of some for fire’s potential to regenerate ecosystems. In 1978, the Forest Service began to drift from practices of total suppression (such as eliminating its 10 A.M. Policy) to ones that experimented with starting fires on federal lands. A decade later a number of states began implementing prescribed burns, under a variety of criteria, standards, and safety requirements, which were later consolidated under the 2009 Federal Land Assistance, Management, and Enhancement (FLAME) Act.²⁰ However, cultural burns and Indigenous fire practices are in stark contrast to federal government prescribed burns.

In recent decades, a greater understanding of climate change has linked bad forest management policy with worsening wildfires and unleashing many consequences. Increasingly dry conditions and water-deficient vegetation are heightening opportunities for wildfires to ignite and spread. The result of decades of passive fire suppression in the US has seen a buildup of forest biomass leading to hotter fires that produce more energy and therefore become increasingly unpredictable and difficult to control. For example, a 2000 prescribed burn by the US Forest Service escaped its intended boundary of 9,000 acres, and spread to over 48,000 acres, leading to the tragic Cerro Grande Fire, in which the loss of homes and livelihoods totaled over \$1 billion.²¹ Bad fire policy and practice threatens the health of wildlife, humans, and their habitats and is only expected to increase as climate change worsens.

Some policymakers and fire experts are beginning to recognize the importance of what Indigenous Peoples have been doing for thousands of years — actively setting and managing fires is essential for the long-term sustainability of ecosystems. In the last decade, several nations, including the US, have promoted robust and active fire management with better risk-reduction strategies in consultation with Indigenous Peoples. The United Nations Sendai

¹⁷ Kruzman, D. 2022. Wildfire smoke is choking Indigenous Communities. The Grist. Accessed September 2022. Retrieved from: <https://grist.org/indigenous/wildfire-smoke-indigenous-communities-aqi-air-monitor/>

¹⁸ OMH. 2021. Asthma and American Indians/Alaska Natives. Data Source: CDC. U.S Department of Health and Human Services Office of Minority Health. Retrieved from: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=30>

¹⁹ van Wagtenonk, J.W. 2007. The history and evolution of wildland fire use. *Fire Ecology* 3(2): 3-17. doi: 10.4996/fireecology.0302003

²⁰ Ibid.

²¹ Los Alamos Prescribed Fire: Investigative Report, May 18, 2000. Retrieved from: <https://www.nwcg.gov/sites/default/files/wfldp/docs/sr-cg-cerro-grande-investigation-report-may-2000.pdf>

Framework for Disaster Risk Reduction 2015-2030, outlines that “Indigenous peoples, through their experience and traditional knowledge, provide an important contribution to the development and implementation of plans and mechanisms for disaster risk reduction.”²² Programs to combat wildfire using integrative approaches between Western science and Traditional Indigenous Knowledge have begun on select projects in Australia, Canada, the US, Brazil, and Botswana. However, collaboration between state and Tribal governments regarding fire management is not a sustainable solution for long-term health if such policies and frameworks are dictated by the same federal agenda. In an age of worsening wildfires linked to climate change, policies must center and uphold Indigenous-led approaches to cultural burns, fire management and forestry that follows the autonomy of Tribes to practice cultural burns the ways they have done for centuries.

Looking Ahead

Indigenous Peoples have been practicing cultural burning as a key part of successful land practices for millennia. The regular burning of forests, woodlands, grasslands, and other areas has led to multiple benefits such as decreasing detritus, recycling nutrients, controlling insects and pathogens, managing wildlife, modifying the structure of vegetation, and maintaining habitat for shade-intolerant species.^{23 24} Additionally, attentive, sustained management of lands through fire have been shown to decrease both the likelihood and severity of natural wildfires, which is especially significant given the growing and ever more extreme wildfires, particularly in California and the overarching context of our current climate crisis.²⁵

Moving forward, it is imperative that policy foreground and prioritize Traditional Indigenous Knowledge regarding fire management without co-opting or instrumentalizing it. This means ensuring Indigenous-led approaches to fire use uphold Tribal autonomy and decision-making power over when, where, and how cultural fires are burned instead of the ‘integration’ of Traditional Indigenous Knowledge within dominant approaches (such as fire suppression) or the mere ‘consultation’ of Indigenous Peoples. Moreover, prescribed fires or policies that limit how IP conduct cultural burns must cease.

In order to address and reverse climate change, fossil fuel extraction must stop at the source. This means no new fossil fuel projects and halting or scaling back existing fossil fuel projects. To do this, fossil fuel corporations that have led climate misinformation campaigns must be held accountable. Although much of the climate denialism has begun to stop, corporations have now shifted to climate misinformation in the form of backing false climate solutions like carbon offsets, carbon capture and storage, “net-zero” emissions targets and hydrogen production.²⁶ These emissions cannot be ‘offset’ through carbon credits. Fossil fuels must stay in the ground and Indigenous Peoples’ traditional knowledge must be followed.

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²² Nikolakis, W. D., and E. Roberts. 2020. Indigenous fire management: a conceptual model from literature. *Ecology and Society* 25 (4):11. <https://doi.org/10.5751/ES-11945-250411>

²³ <https://www.pnas.org/doi/10.1073/pnas.2105073118>

²⁴ Anderson, M.K. 2006. The use of fire by Native Americans in California. N.G. Sugihara, J.W. van Wagtenonk, J. Fites-Kaufman, K.E. Shaffer, and A.E. Thode (eds). *Fire in California’s ecosystems*. University of California Press, Berkeley, California, USA.

²⁵ <https://www.fs.usda.gov/treesearch/pubs/58212>

²⁶ https://climatefalsesolutions.org/wp-content/uploads/HOODWINKED_ThirdEdition_On-Screen_version.pdf

Thomas Joseph
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Climate Change Education Organizer
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September 13, 2022

TESTIMONY to the House Committee on Oversight and Reform: Fueling the Climate Crisis: Examining Big Oil's Prices and Pledges

"Honorable Chairwoman Maloney, Chairman Khanna and the House Committee on Oversight and Reform:

Greetings, my name is Thomas Joseph. I am a Hoopa Valley Tribal Member, a descendant of the Lone Pine Paiute Shoshone Tribe and the Climate Change Education Organizer of the Indigenous Environmental Network. It's an honor to be invited to speak in today's hearing.

Since time immemorial my people have called California home. I come from the villages of the Tsewenaldin and Me'dil ding of the Hupa People along the Trinity River in what can be identified today as the Six Rivers National Forest, and my father's place, Payahuundaü of the Paiute Shoshone which is often miscalled Owens Valley.

The Hupa People reside on their ancestral territories which is the largest federally recognized reservation in California with those lands mostly being forested. Our relationship with our lands has always been and will always be a reciprocal relationship. I have witnessed firsthand the effects of climate change. These past few weeks our community has been inundated with forest fire smoke from multiple wildfires across our ancestral lands. This heavy smoke, increasing year after year, is a health risk and economic strain on our Tribal government and people.

We only prosper and thrive when our lands and rivers are healthy and the vital importance of treating our lands with compassion and respect lays the foundation on how we treat each other. Our cultural and ways of being are directly tied to our relationship with our Mother Earth. Our ceremonies which teach us our ways of being, which teach us fundamental practices of carrying for our Mother Earth come from a knowledge base structure that outdates any university or Western science-based system. I don't say this to undermine or belittle but to demonstrate the vast amount of knowledge our educational system holds when it comes to management of lands, which we would characterize as not management of lands but relationship with lands.

Our ceremonies are directly tied to the lands and waters without this connection to place this vast knowledge structure would be a great loss. Not just for our tribe but all humans. As these teachings can help humans rebalance the imbalance the earth is currently experiencing and give segue towards real climate solutions.

As Forest Dwelling Indigenous People, we understand the vital importance of the traditional knowledge our people have practiced for thousands of years. We've acknowledged when our

rivers and forests are sick and ill, so are the people. I believe the current pandemic of COVID 19 is a perfect example of just that. Our planet is sick, and humanity is reflecting that.

We are currently witnessing the extinction of numerous lives on earth from our winged, four legged and finned relations. Salmon are under great threat from warming rivers, wildfires, and mudslides. Salmon is a staple part of our diet and plays a vital role in our ecosystems and ceremonies. Earlier this summer a mudslide was caused by ongoing drought and a wildfire. This mudslide caused a huge amount of debris and dirt to flow into the Klamath River which choked out the oxygen in the river causing a massive salmon kill. The drought and high temperature in California have caused our forest to become extremely vulnerable to raging wildfires.

These wildfires threaten wildlife, waterways, even human life. Our tribal community has spent numerous dollars on fighting these fires, on evacuations, humanitarian aid, safety zones, air quality locations, sending the elders to the coast, and this list goes on and on, this includes the government as well as the citizens. Our forests are becoming so dry that our old growth trees can't even handle a significant amount of snowfall. This last winter our old growth trees were snapping during snowfall, which puts our forest at further risk of dangerous wildfires.

The threat of our tribal nation being burnt out by a wildfire is extremely high. This loss, this break of a reciprocal relationship with our Mother Earth is something our people have never faced. Just to name a few: Surviving settler invasion, surviving the 49ner gold rush, surviving forced assimilation including boarding schools, the Hupa people are still here and still carrying on the traditional indigenous and ecological knowledge of our ancestors through ceremony, through our ways of being, through our reciprocal relationship with our Mother Earth and relationship to place.

This threat is a threat of genocide and climate change is to blame, as well as the culprits of climate change. We know man has caused climate change, we know greenhouse gasses have caused our climate to warm, we know fossil fuels are the cause of greenhouse gasses. We know fossil fuel corporations have lied and continue to lie about climate change.

Our people have never been at war with this government, we are not in opposition of you, we are with you as our people have laid their lives to defend and protect this country at greater percentage than any other. It is our duty to protect these lands and we side with you in this endeavor, but...

We must be clear in our task at hand. There is no time to waver. A great genocide is upon our tribe and your people and families are next. I am not here to ask but to demand that we do all we can to protect and defend our lands, our people, our ways of being for our very existence depends upon it. We must hold the fossil fuel industry accountable for the atrocities they have caused. We must move forward by ending the fossil fuel industry and keep fossil fuels in the ground. We must reject the loopholes and payoffs that continue business as usual for the fossil fuel industry like carbon markets, carbon capture and storage and Net-Zero pledges. These schemes will not work and will only continue to give fossil fuel corporations permission to harm and destroy our Mother Earth, all centennial beings and the non-Indigenous human race."