Center for American Progress

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The Green Squeeze

America's Nature Crisis

By Matt Lee-Ashley, Jenny Rowland-Shea, and Ryan Richards

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Introduction and summary

To safeguard the clean air, clean drinking water, and food chains that support all life on Earth, scientists recommend protecting at least 30 percent of all lands and oceans by 2030 and, eventually, conserving at least half the planet in a natural condition.[1] By pursuing these ambitious but achievable conservation goals, humanity can still prevent the majority of animals and plants from going extinct.

This is the second report in a series of publications by the Center for American Progress that examine how the United States can thoughtfully, equitably, and justly protect at least 30 percent of its land and ocean area by 2030—also referred to as a "30x30" conservation goal. The first report in the series, "How Much Nature Should America Keep?", outlined eight initial principles for pursuing a 30x30 goal in a way that reflects the needs and priorities of all people, honors the sovereignty of tribal nations, builds upon the strong private and public land conservation traditions of the United States, and effectively conserves the diversity of natural systems that future generations will need to survive and prosper.[2]

With this second report, CAP takes a closer look at how the sprawling footprint of cities, roads, energy infrastructure, and other development is affecting America's remaining natural landscapes. A groundbreaking analysis conducted by a team of scientists at the nonprofit Conservation Science Partners (CSP) found that from 2001 to 2017, the United States lost more than a football field's worth of natural area to development every 30 seconds.[3] This finding, however, only tells part of the story. CSP's findings show that natural areas are disappearing at different rates and for different reasons around the country. In New Mexico, an oil boom has been the primary cause of natural area loss in the past two decades. In the Southeast, the surge in logging on private lands has largely driven forest loss. In the Upper Midwest, sodbusting—plowing up grasslands for agricultural crops—has been tearing up wildlife habitat. And in the Northwest, it is urban sprawl that is gobbling up open space.

If the United States is to pursue and reach a national goal of conserving 30 percent of its lands and oceans by 2030, policymakers must understand and account for the wide range of stressors, ecosystems, protected area networks, and land ownership patterns that stretch across the country. They must also be cognizant of the cumulative impact of human development on the landscape. Of glaring concern, from an ecological standpoint, is the growing extent of fragmentation of America's natural areas, caused by an increasingly dense spiderweb of roads, pipelines, oil wells, exurban housing, and other built infrastructure. According to CSP's analysis, habitat fragmentation is now so severe that a pin dropped at random on a map of the contiguous United States can be expected to land less than half a mile from human development. Furthermore, this average distance from a natural place to the nearest human development in the contiguous United States shrunk by more than 40 percent from 2001 to 2017. Everything green is getting squeezed.

The emerging and troubling picture of how the human footprint is changing the American landscape should spur policymakers, communities, and environmental leaders to evaluate the effectiveness of existing conservation strategies and, where needed, develop new approaches. The rising degree of fragmentation of natural areas, for example, affirms the need to expand existing efforts to protect, restore, and connect large, intact ecosystems and wildlife corridors. Meanwhile, wide regional disparities in how much land and ocean area is already protected suggest a need for new ideas and resources to accelerate, for example, forest conservation in the Southeast, wetland protection in the Midwest, and ocean protections in the Gulf of Mexico.[4]

Most importantly, the scale and scope of America's nature crisis demands renewed national leadership by Congress and the executive branch to protect and restore the nation's natural heritage. With Congress making modest and infrequent efforts to conserve lands and waters—and the Trump administration demonstrating outright hostility to conservation—local communities, tribal nations, and state governments are battling America's nature crisis alone. This must change. The United States needs national vision and leadership to safeguard the waters, lands, and wildlife upon which the country's future depends. How the United States chooses to pursue a 30x30 goal is as important as what the country chooses to protect.

Background

For decades, scientists have been systematically cataloging the disappearance of the planet's living things. The International Union for Conservation of Nature's (IUCN) Red List, an inventory of at-risk wildlife species that a global network of scientists and experts have been updating since 1964, now counts more than 28,000 animal and plant species as threatened by extinction.[5] Moreover, a United Nations-backed report issued earlier this year—the most comprehensive report ever published on the condition of the planet's natural systems—found that three-fourths of the world's lands and two-thirds of the world's oceans have been significantly altered by human activities. As a result of the growing pressures of humans on the natural environment, the report cautions that around 1 million species of plants and animals are now at some risk of extinction, "more than ever before in human history."[6]

Scientists are coining new terms to describe the scale and pace of human-caused changes to the natural world since the Industrial Revolution. For instance, the scale of human-caused planetary changes, including through land conversion, pollution, climate change, and the overexploitation of resources, has prompted some to describe the past 250 years as its own geologic era: the Anthropocene.[7] Furthermore, since at least the 1990s, scientists have been characterizing the rapid die-off of plant and animal species over the past two centuries as a "sixth mass extinction."[8] Journalist Elizabeth Kolbert helped broaden the public's familiarity with this phrase through her 2014 book, *The Sixth Extinction*.[9]

Yet scientists are not simply documenting the nature crisis; they are also studying its solutions. In particular, they are asking: How much—and which—of the planet's lands and oceans need to be conserved in a natural state to sustain human communities and the bulk of life on Earth? In 2016, ecologist E.O. Wilson articulated a straightforward answer, arguing that to prevent the majority of species on the planet from going extinct, at least half of the Earth's surface should be set aside for nature.[10] In an article for *The New York Times*, he explained:

> *The disappearance of natural habitat is the primary cause of biological diversity loss at every level—ecosystems, species and genes, all of them. Only by the preservation of much more natural habitat than previously envisioned can extinction be brought close to a sustainable level. The only way to save upward of 90 percent of the rest of life is to vastly increase the area of refuges, from their current 15 percent of the land and 3 percent of the sea to half of the land and half of the sea.*[11]

Wilson's "Half-Earth" prescription, which echoes previously published recommendations of conservation biologists, has gained traction as a practical, understandable, and scientifically grounded vision for a livable planet.[12] However, recognizing the large gap between current protections for nature and a "Half-Earth" goal, scientists are encouraging policymakers to pursue an interim goal of conserving at least 30 percent of the planet's lands and oceans by 2030. As argued by a team of scientists earlier this year, this 30x30 goal is key to "a time-bound, science-driven plan to save the diversity and abundance of life on Earth."[13]

In pursuing a 30x30 goal, policymakers can draw from decades of scientific literature on what types of land and ocean protections are most effective in sustaining biodiversity. Recent papers, for example, have documented the value of strongly protected marine areas in helping regenerate marine life and overexploited fisheries; however, the United States has almost no strongly protected marine areas outside of Hawaii and the western Pacific.[14] Likewise, several U.S. nongovernmental organizations, including the Wilderness Society, the Nature Conservancy, and the National Wildlife Federation, offer deep expertise in using conservation science to inform strategies for achieving ecologically valuable protections for large, intact, and connected landscapes.

Yet the main barrier to achieving a 30x30 goal in the United States is not a lack of science, a dearth of scientists, or even a failure to communicate science to the broader public; it is in mobilizing political action to match the urgency of the nature crisis.[15] America's conservation leaders, community leaders, policymakers, and scientists need to encourage and participate in a national conversation about what role nature should play in society, how to share nature's benefits more equally across all communities, and how to better conserve the country's natural systems for the benefit of everyone. The decline of America's natural systems, after all, is the result of human actions—not abstract scientific forces—and has affected different communities in different ways. Legacies of racism, injustice, and economic inequality have shaped every corner of the American landscape, from where pollution flows and where natural areas remain to who profits from its bounties and which of its cultural resources are preserved.

Public opinion research, including a recently completed survey commissioned by CAP, consistently shows that overwhelming majorities of voters—across geographies and across the partisan divide—share an abiding love for nature and a deep desire to conserve it for future generations.[16] Mobilizing the country to pursue a 30x30 goal, therefore, may depend as much on providing clear scientific evidence of the nature crisis as it will on seeking to understand the human forces that are shaping the landscape and, ultimately, listening to people's own visions for the stewardship of nature.

The green squeeze

To help inform a national conversation about the nature crisis and its impacts on people in the United States, it is useful to develop a broad picture of how America's natural areas are changing and what is driving those changes, as well as to evaluate patterns of change that might be affecting different communities in different ways. Over the past year, CAP has been working with Conservation Science Partners, a nonprofit scientific organization, to explore these questions by developing the most comprehensive picture yet composed of human development patterns across the contiguous 48 states. CSP's analysis relies on dozens of datasets and unique algorithms to map the rate and intensity of human modification of lands in the contiguous United States from 2001 to 2017.[17]

As mentioned earlier, the top-line finding from CSP's assessment was that from 2001 to 2017, the United States lost a football field's worth of natural area every 30 seconds to highways, mines, suburbs, and other development. If these trends continue, a South Dakota-sized expanse of natural places will disappear between now and 2050.[18]

Beyond this alarming national trend, CSP's analysis sheds light on the complicated story of where, how, and why America's natural areas are disappearing. In particular, CSP's analysis of the human footprint organizes the primary drivers of natural area loss into the following four categories of stressors:

- **Energy:** Data describing this stressor incorporate information on oil and gas wells, coal mines, solar farms, and wind farms.
- **Transportation:** Data for this stressor include information on roads, railways, pipelines, and powerline infrastructure.
- **Urban sprawl:** This category of stressor primarily measures residential land use but also includes industrial and commercial structures. Structures that emit artificial light at night and that are detectable through night-light satellite imagery—including airports and oil and gas processing facilities—are also included in this category.
- **Agriculture and logging:** Data for this category describe lands that are in agricultural use—for example, for crops, pasture, and grazing—and logging of publicly owned forests. This study was not able to incorporate data on the logging of privately owned forests, but other studies on this topic are available and referenced below.

In assessing the impact of these four stressors on the nation's landscape, CSP took into account both the relative intensity of development at any given place and the context in which a location is embedded—called the "ecological edge effect." For example, building a parking lot results in a total loss of the natural function of the land on which it is located, along with a partial loss of the function of natural areas that are immediately adjacent to it.

To complement CSP's assessment of human modification of lands in the contiguous 48 states, CAP simultaneously conducted an assessment of the amount of land in the United States already permanently conserved in a natural condition. First published in December 2018, this research—which relied on information collected in the IUCN World Database on Protected Areas (WDPA), the U.S. Geological Survey's Protected Areas Database of the United States, and the Protected Area Downgrading, Downsizing, and Degazettement (PADDD) database—found that just 12 percent of the land area in the United States has been permanently protected.[19] Like CSP's study of natural area loss, CAP's assessment of protected areas revealed stark differences in how much natural area is conserved in different states, regions, and land ownership types.

The CSP analysis of natural area loss and CAP's analysis of the U.S. protected area estate are only two elements of a much larger body of work developed by scientists, natural resource managers, and other experts over many decades that can help policymakers pursue and achieve a 30x30 goal. But when evaluated in tandem, the CSP and CAP analyses provide several useful insights into what is causing natural area loss, how development patterns are affecting human and biological communities, and where expanded land protections are most needed. Below, the authors briefly highlight seven top-line trends that emerge from the two studies.

1. Suburbs, exurbs, and energy infrastructure are gobbling up America's natural areas

This statistic may not be surprising, but it is worth underlining: From 2001 to 2017, urban sprawl accounted for more than 57 percent of the growth of the area of lands modified by humans in the lower 48 states, consuming 13.8 million acres of natural area during that period. This loss is equivalent to adding 67 New York Cities to the American landscape in less than two decades. The outward creep of cities, suburbs, and exurbs was the top driver of natural area loss in 32 states and in every region except the Northeast.[20]

Energy development, with a footprint that has grown by more than 6 million acres since 2001, was the second-largest driver of natural area loss from 2001 to 2017.[21] Oil fields, gas pads, coal mines, wind and solar farms, and other energy infrastructure now occupy more than 40 million acres of land in the contiguous 48 states. In 11 states—

Arkansas, Colorado, Kansas, Kentucky, Michigan, New Mexico, New York, Oklahoma, Pennsylvania, Utah, and Wyoming—the expansion of energy development was the primary cause of natural area loss during the time period studied.[22]

The widening spiderweb of oil wells, gas pipelines, houses, and warehouses across the country presents a variety of risks to human communities, not just wildlife. For example, the growing number of homes that are being built in forested areas increases the dangers that wildfires present to lives and property. According to one study, the number of homes located in the wildland-urban interface—in other words, areas of transition between urban and natural environments—increased by 41 percent from 1990 to 2010.[23]

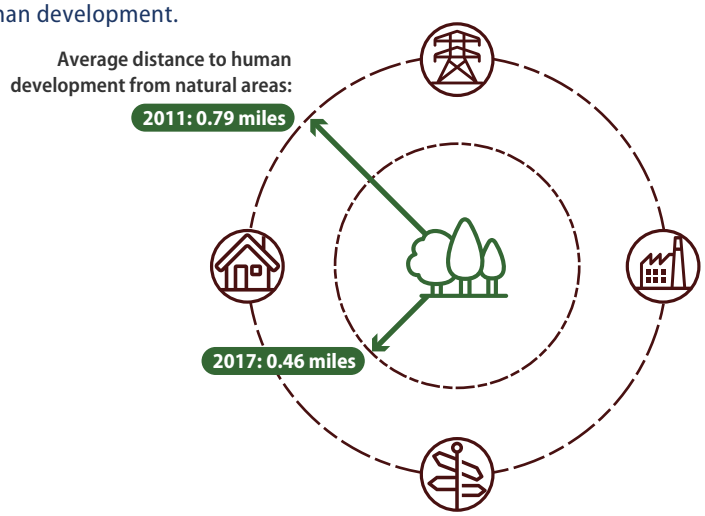
2. The average distance from wild places to the nearest developed area in the continental United States has decreased to less than half a mile

The 24 million acres of roads, pipelines, parking lots, oil fields, and other human infrastructure that have been added to the U.S. landscape since 2001 are not neatly confined to one large tract of land. Rather, they zigzag across the continent, carving remaining natural places into smaller and smaller chunks. The cumulative impact of this sprawling human footprint is far more disruptive than just the acres lost. This process, called fragmentation, has severe consequences for the movement and survival of wildlife and the provision of clean water.

FIGURE 1

Fragmentation of the American landscape is worsening

Fragmentation has become so extensive that if a person were to parachute to a random spot in the lower 48 states, they could expect to be no more than a 10-minute walk from human development.



Source: Conservation Science Partners, "Methods and approach used to estimate the loss and fragmentation of natural lands in the conterminous U.S. from 2001 to 2017" (Truckee, CA: 2019), available at https://www.csp-inc.org/public/CSP_Disappearing_US_Tech_Report_v101719.pdf.

Fragmentation has become so extensive that if a person were to parachute to a random spot in the lower 48 states, they could expect to be no more than a 10-minute walk from human development.[24]

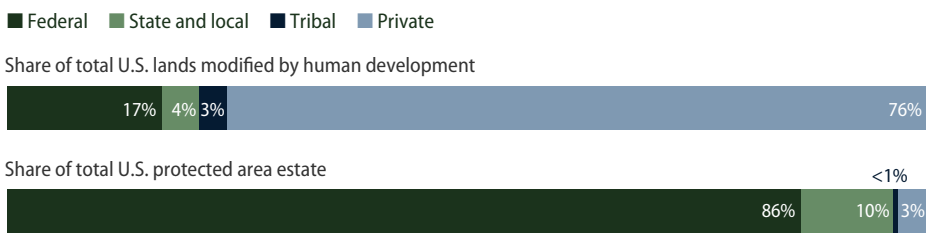
The extent of fragmentation of natural areas, of course, varies by region of the country. For example, in the Northeast and the Midwest, the average distance from a natural spot to human development is less than the length of a soccer field. Meanwhile, in the West, where many of the country's large protected areas remain, this number rises a bit, to 1.4 miles.[25] But for wildlife that need large contiguous blocks of habitat to survive, even this close a proximity to cities, highways, and other forms of human development can threaten their existence.

3. Where nature is privately owned, it is disappearing the fastest

When it comes to the fate of wildlife habitat, waterways, and other natural systems, who owns the land matters a great deal. Of the 24 million acres of natural area lost from 2001 to 2017, 18.6 million of those acres were privately owned, compared with 4.1 million acres of natural area lost on federal land and 1 million acres on state, local, and other nonfederal public lands.[26] Overall, 76 percent of all privately owned lands in the United States have been substantially modified by human activity and have lost their natural character.[27] Just 1 percent of private lands in the lower 48 states are permanently protected.[28]

FIGURE 2

Natural area loss and protected areas by land ownership category, 2017



Sources: Conservation Science Partners, "Methods and approach used to estimate the loss and fragmentation of natural lands in the conterminous U.S. from 2001 to 2017" (Truckee, CA: 2019), available at https://www.csp-inc.org/public/CSP_Disappearing_US_Tech_Report_v101719.pdf; CAP analysis of data from U.S. Geological Survey, "Protected Areas Database of the United States (PAD-US) 1.4," available at https://doi.org/10.5066/P955KPLE (last accessed October 2019).

4. Natural areas on tribal lands remain largely intact and stable

Tribal lands in the contiguous 48 states lost a lower proportion of natural area from 2001 to 2017 than did federal, state, or private lands. Development on tribal lands accounts for slightly less than 3 percent of the total human footprint in the contiguous 48 states.[29] There are likely several factors that contribute to these development patterns and trends on tribal lands, including affirmative decisions by many sovereign tribal nations to conserve their natural and cultural resources. Tribal nations, however, face a wide range of barriers to implementing the development and land use vision of their choosing, such as hurdles from the federal bureaucracy, the fractionation of tribal lands, the federal government's historical mismanagement of Indian trust accounts, and other legacies of land dispossession, racism, and injustice.[30]

Notwithstanding their high level of ecological integrity and relatively low rate of natural area loss, few tribal lands are categorized as "permanently protected" in the federal government's database of protected areas maintained by the U.S. Geological Survey (USGS). Of the more than 56 million acres that the Bureau of Indian Affairs holds in trust for tribes, the USGS describes only 3,000 acres of these lands as being in a formal protected area status.[31] This finding raises questions as to whether federal and international protected area databases are fairly accounting for tribal nations' stewardship of lands under their jurisdiction. The USGS should engage in formal consultations with tribal nations to determine how to appropriately describe the ecological integrity and stability of tribal lands in the federal government's land use databases. Furthermore, federal, state, and local policymakers as well as national conservation leaders should engage in formal consultations with tribal leaders to determine how to better support the conservation and natural resource priorities and vision of tribal nations, both on tribally owned and non-tribally owned lands.

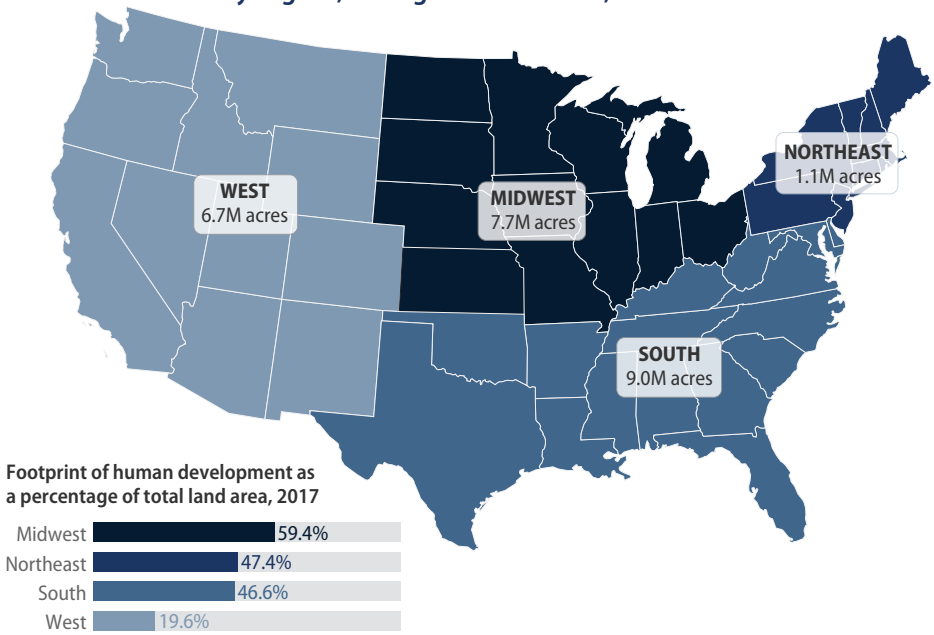
5. The nature crisis is most acute in the South and Midwest

From 2001 to 2017, the South and the Midwest lost more natural area—measured in both total acres lost and natural area loss as a percentage of total land area—than any other region.[32] Meanwhile, less than 4 percent of lands in these two regions are permanently protected for conservation—a lower proportion than anywhere else in the country.[33] Similar regional imbalances in protected areas exist in America's oceans, where the Gulf of Mexico, Alaska, and mid-Atlantic ocean regions do not have any areas that are strongly protected from all extractive and industrial uses.[34]

Nature in the South and Midwest is being squeezed on all sides. An oil boom has chewed through the Dakotas. Southern cities have grown with few limits. Logging and agriculture have also taken a toll.

FIGURE 3

Natural area loss by region, contiguous 48 states, 2001–2017



Footprint of human development as a percentage of total land area, 2017

Source: Conservation Science Partners, "Methods and approach used to estimate the loss and fragmentation of natural lands in the conterminous U.S. from 2001 to 2017" (Truckee, CA: 2019), available at https://www.csp-inc.org/public/CSP_Disappearing_US_Tech_Report_v101719.pdf.

In the Upper Midwest, for example, sodbusting of grasslands for farming has torn up lands that hunters sometimes refer to as America's "duck factory" due to the value of their wetlands to migratory waterfowl.[35] The Nature Conservancy estimates that grasslands in this region are being plowed up or otherwise lost at a rate of 1.1 percent a year.[36] Between 50 and 90 percent of the potholes—shallow ponds and water bodies—in some areas of the Upper Midwest have been lost or severely degraded.[37]

Meanwhile, in the Southeast, logging in recent decades has caused significant changes to the region's natural systems.[38] Though the region holds just 2 percent of the world's forests, it provides 63 percent of U.S. timber and 12 percent of the world's wood products.[39] And while mill and market decline has made headlines in recent decades, it has not translated into a slowdown in timber harvest. In fact, from 2000 to 2012, tree cover disturbance in the Southeastern United States was four times higher than it was in South American rainforests.[40] Furthermore, a University of Maryland study found that the Southern United States lost around 18 percent of its overall tree cover from 2001 through 2014.[41]

As of 2017, cities, farms, roads, power plants, and other human development covered 47 percent of the South and 59 percent of the Midwest.[42]

TABLE 1

Land protection and development by state

	Percentage of lands permanently protected, 2017	Percentage of lands modified by human development, 2017	Loss of natural area in acres, 2001–2017	State rankings for proportion of lands lost to development, 2001–2017*
Midwest				
Illinois	3%	74%	382,201	24
Indiana	3%	72%	241,254	26
Iowa	1%	78%	379,478	25
Kansas	1%	64%	1,072,069	6
Michigan	8%	29%	449,491	16
Minnesota	7%	51%	690,195	13
Missouri	3%	53%	495,834	21
Nebraska	1%	50%	275,764	40
North Dakota	2%	62%	2,367,325	1
Ohio	1%	65%	484,803	7
South Dakota	2%	48%	387,458	34
Wisconsin	7%	45%	478,468	12
Northeast				
Connecticut	2%	61%	10,808	47
Maine	5%	20%	57,936	48
Massachusetts	4%	49%	22,419	44
New Hampshire	5%	37%	59,283	27
New Jersey	14%	59%	17,900	46
New York	9%	43%	164,915	41
Pennsylvania	3%	57%	714,877	3
Rhode Island	6%	47%	2,728	45
Vermont	4%	38%	27,026	42
Southcentral				
Arkansas	8%	44%	809,189	14
Louisiana	5%	41%	582,088	5
Oklahoma	2%	51%	1,373,778	2
Texas	2%	40%	2,877,642	8

continues

	Percentage of lands permanently protected, 2017	Percentage of lands modified by human development, 2017	Loss of natural area in acres, 2001–2017	State rankings for proportion of lands lost to development, 2001–2017*
Southeast				
Alabama	2%	42%	395,679	17
Delaware	3%	60%	8,684	37
District of Columbia	1%	79%	264	38
Florida	11%	41%	588,412	9
Georgia	4%	48%	398,317	23
Kentucky	1%	56%	330,415	14
Maryland	3%	53%	38,914	39
Mississippi	4%	43%	393,555	15
North Carolina	4%	52%	228,281	35
South Carolina	4%	49%	234,399	18
Tennessee	4%	51%	229,185	32
Virginia	4%	48%	360,199	11
West Virginia	4%	40%	174,707	20
West				
Arizona	10%	12%	594,184	33
California	22%	25%	1,019,594	28
Colorado	10%	28%	676,827	29
Idaho	14%	20%	238,752	43
Montana	8%	27%	669,408	36
Nevada	15%	6%	177,755	49
New Mexico	6%	15%	759,091	30
Oregon	13%	20%	724,885	19
Utah	12%	13%	576,611	22
Washington	14%	29%	376,769	31
Wyoming	11%	16%	908,463	10
Hawaii	13%	N/A	N/A	N/A
Alaska	35%	N/A	N/A	N/A

* States are ranked from highest (1) to lowest (49) proportion of lands lost to development.

Sources: Conservation Science Partners, "Methods and approach used to estimate the loss and fragmentation of natural lands in the conterminous U.S. from 2001 to 2017" (Truckee, CA: 2019), available at https://www.csp-inc.org/public/CSP_Disappearing_US_Tech_Report_v101719.pdf; CAP analysis of data from U.S. Geological Survey, "Protected Areas Database of the United States (PAD-US) 1.4," available at https://doi.org/10.5066/P955KPLE (last accessed October 2019).

6. The effects of nature's decline—and the benefits of its protection—are not being equitably shared across communities

Currently, the costs of nature's deterioration—and the uneven distribution of protected areas—are falling disproportionately on economically disadvantaged communities and communities of color. A 2016 CAP and CSP analysis of natural area loss found that communities of color and low-income communities in the West have disproportionately less open space and natural areas nearby than do the overall populations in their states.[43] Nearly 84 percent of communities of color and 80 percent of low-income communities in the West live in locations where the proportion of remaining natural area is lower than the state average.[44]

Furthermore, many of the development activities that are driving the loss and decline of nature result in pollution that disproportionately affects low-income communities and communities of color. A study of the natural gas boom in Pennsylvania, for example, found that companies tend to concentrate their drilling and fracking operations near low-income communities.[45] Likewise, the tens of thousands of abandoned mines that litter the West threaten the drinking water supplies and health of tribal nations across the region. Uranium mining, in particular, was correlated with a doubling of cancer rates in the Navajo Nation from the 1970s through the 1990s.[46]

7. The United States still has plenty of healthy, wild, natural places that can be protected

A substantial portion of America's lands and waters can still be protected in a natural state. While human infrastructure and development covers nearly 40 percent of the continental United States, the remaining 60 percent of lands are still in a largely natural condition or could plausibly be restored to a natural condition.[47]

Not only that, but there is still an opportunity to protect some of the nation's most wild places. According to CSP's analysis, just 75,000 acres of the United States' most wild lands were lost to development from 2001 to 2017—less than one-tenth of 1 percent of all remaining wild lands. In this case, a "wild land" is defined as acres where human modification of the landscape is as low as it is in a national park, wilderness area, or another strongly protected area.

CSP's analysis found that there are still more than 262 million acres of wild land left in the contiguous 48 states, some of which is already protected and some of which is not.[48] This finding is supported by data published in the journal *Nature* that identify the United States as being among the top five countries in the world for the total amount of wilderness-quality land that remains.[49]

The bottom line: The United States still has plenty of space for both people and nature.

Policy implications

The condition of nature in the United States cannot solely be measured by the quantity of remaining natural areas and the extent to which they are protected from development. After all, even the places in the United States that are most natural, intact, and well-protected are being disrupted by invasive species, pollution, climate change, and other human-driven stressors. Still, the bird's-eye view of the landscape that emerges from the CSP and CAP analyses reveals a wide gap between the rapid loss of America's natural areas and tepid progress on conservation. In total, only 12 percent of U.S. lands—and just 7 percent of lands in the lower 48 states—are permanently conserved for future generations.[50]

Given the relatively low proportion of U.S. lands that are currently protected, conserving 30 percent of America's lands and oceans by 2030 will require policymakers at all levels of government to be far more ambitious in their efforts to safeguard nature. This work must be anchored in meaningful and inclusive conversations about the conservation needs and priorities of America's communities. It should also be informed by an understanding of the patterns of natural area loss across the country and the inequities and gaps in the United States' existing network of protected lands. For example, the CSP and CAP findings discussed above suggest that to achieve a 30x30 goal, policymakers, communities, and conservation advocates will need to focus particular attention on several core challenges, including:

- **Confront the sprawl of cities, suburbs, and exurbs.** With urban sprawl being the top driver of natural area loss, the United States needs more policy tools and resources dedicated to helping cities, towns, and communities meet the needs of a growing population while minimizing the development footprint.

- **Protect and restore large, intact landscapes and wildlife corridors.** A recent study published in the journal *Science* confirms that wildlife corridors and other strategies for stitching fragmented ecosystems together are successful in increasing biodiversity and combating extinction.[51] The United States will need to double down on its efforts to protect and restore large landscapes—not just in the West, where many migration corridors remain largely intact, but also in regions such as the South and Midwest, where habitat fragmentation is severe and protected areas are fewer and more scattered.

- **Dramatically accelerate private land conservation.** Especially in regions where there are fewer state, federal, or tribal lands, the health of America's wildlife and natural systems will depend on whether policymakers can better incentivize private landowners—particularly farmers, ranchers, and private forest owners—to conserve far more wildlife habitat on their properties.

- **Support the conservation and stewardship vision and priorities of tribal nations.** Federal and state policymakers and national conservation leaders should engage in formal consultations with tribal leaders to determine how to better support the conservation priorities and vision of tribal nations, both on tribally owned and non-tribally owned lands.

- **Conserve more open lands, parks, and coastal access points near communities of color and economically disadvantaged communities.** According to the Trust for Public Land, 100 million people in the United States do not have a park within a 10-minute walk from their home.[52] Providing equitable access to nature, reducing the disproportionate impact of pollution on communities of color and economically disadvantaged communities, and addressing the legacies of racism and injustice in natural resource policy must be core priorities in any effort to better conserve nature in America.

- **Protect more of America's oceans and lands in a truly wild and natural condition.** The federal government's efforts to conserve the nation's remaining wild places have slowed to a crawl. Over the past 10 years, Congress has protected almost 70 percent fewer acres of wilderness than it did during the first 10 years after the 1964 passage of the Wilderness Act, with the total amount of land under its protection having fallen in the past three decades.[53] Despite halting efforts by the executive branch to establish more national monuments and wildlife refuges, almost 90 percent of BLM lands and the majority of national forests remain open to industrial and extractive uses.[54] Moreover, of the country's marine protected areas that prohibit resource extraction, only 1 percent are in the lower 48 states.[55] To conserve a substantial share of the nation's remaining wild land and ocean areas, congressional and executive branch leaders should modernize the systemwide management of the nation's public lands so that it better reflects the overwhelming public and national interest in the stewardship of nature.

- **Fight climate change by restoring America's natural lands.** By absorbing vast quantities of carbon pollution, America's natural lands, especially forests and wetlands, can be the nation's most valuable ally in the fight against climate change. Policymakers should simultaneously work to protect, restore, and expand America's natural areas while reforming federal fossil fuel programs to make the nation's public lands and forests pollution-free.

This list of preliminary recommendations for additional discussion, policy development, and resource investment is far from exhaustive. The scale of America's nature crisis is so vast that to achieve a 30x30 goal and safeguard the natural systems upon which everyone depends, the country will need to conserve nature in many ways, in many forms, and in all geographies. National leadership on conservation, though currently in short supply, is indispensable. America's most innovative and enduring conservation solutions tend to be forged at the local level, but the country also needs a president, Congress, and national environmental leaders to articulate a compelling vision and create a marketplace for new ideas and strategies to emerge and spread.

Conclusion

"The natural resources of our country are in danger of exhaustion if we permit the old wasteful methods of exploiting them longer to continue."[56]

President Theodore Roosevelt

In 1908, President Theodore Roosevelt cautioned the nation's governors not to take America's natural resources for granted. He feared that without national- and state-level reforms, the country would soon run through its available supply of timber, coal, and other natural resources.[57] Indeed, the paradigm that has guided U.S. land management policy since Roosevelt's call to action has effectively safeguarded the country against the "exhaustion" of its timber, fossil fuel, mineral, and big game resources.

Existing conservation policies, though updated and supplemented since the Roosevelt era, have nonetheless failed to prevent the collapse of natural systems whose economic value has not been commodified. Nearly 3 billion birds have disappeared from North America in the past 50 years.[58] Half of all river miles in the West have been clogged by dams or culverts, or otherwise damaged by human development.[59] And those natural places in America that are not widely known—places that may not have their own visitors centers or Instagram accounts—are steadily being carved up or built over.

Today, it is understood that the country's living things and natural places are not merely amenities but essential to our very survival. For this reason, it is time to grapple with the difficult question of how much of the natural world we want and need to conserve for future generations. A good answer to this question starts with protecting 30 percent of U.S. lands and oceans by 2030; but it must also be anchored in a profound and lasting realignment of the nation's natural resource, land use, and environmental policies. The goal must be to conserve all of America's natural systems—not just its marketable commodities—for the benefit of all communities.

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Acknowledgments

The authors would like to thank Brett Dickson, Dave Theobald, and the scientific team at Conservation Science Partners for their research on natural area loss; Kate Kelly, Miriam Goldstein, and Nicole Gentile for their contributions to this report; and Carl Chancellor, Steve Bonitatibus, and Chester Hawkins for their editing and artistic expertise.

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