

Restore Our Earth

Earth Day 2021



**Earth Day 50 Built Our Movement.
Now it's time to Restore Our Earth.**

Hundreds of millions around the globe took part in activations for the 50th anniversary of Earth Day, inspired by Earth Day 2020's theme of Climate Action.

EarthDay.org now turns that progress, enthusiasm, and resilience towards the 2021 theme of Restore Our Earth.

The theme was announced after consultation with members of the world's largest network in 192 countries. Each year EarthDay.org announces its theme for the coming year after Earth Day.

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2021: Restore Our Earth

Restore Our Earth rejects the idea that our only options to save the planet are to mitigate or adapt to the impacts of human-caused climate change.

Natural systems and emerging green technologies can help restore the world's ecosystems and forests, conserve and rebuild soils, improve farming practices, restore wildlife populations and rid the world's oceans of plastics.

While the world waits for decisive action to reduce carbon emissions, restoration is pragmatic and necessary to reduce climate change and restore the balance of nature using nature-based solutions.

Restoration also brings hope, important in the age of COVID-19. The pandemic illustrates with painful clarity that the planet faces two crises and they are connected: global environmental degradation and its connection to our health.

It's time to Restore Our Earth.



AIR



LAND



BIODIVERSITY



WATER



PEOPLE

AIR

Air Pollution And Climate Change

Burning of fossil fuels like coal, petroleum and other combustibles causes air pollution. The tiny particles that make up air pollution have negative impacts on both the environment and human health.

Technologies to mitigate pollution have become widespread in recent years, and offer new, pared-down approaches using nature to restore ecological balance. Nature based solutions (NBS) are adaptable, cost-effective and can support native wildlife, offering truly "green" solutions to pollution and climate change.

Using publicly available data and factors such as current vegetation cover, air pollutants and land area available for restoration, plans being developed show environmental as well as economic benefits of implementing NBS to mitigate air pollutants. Both urban and rural populations can benefit from NBS.

Our Goals:

- Promote and advocate for natural solutions to air pollution
- Raise awareness of NBS and advance policies to decarbonize global economies
- Electrify transportation systems
- Advance natural heating and cooling systems for buildings



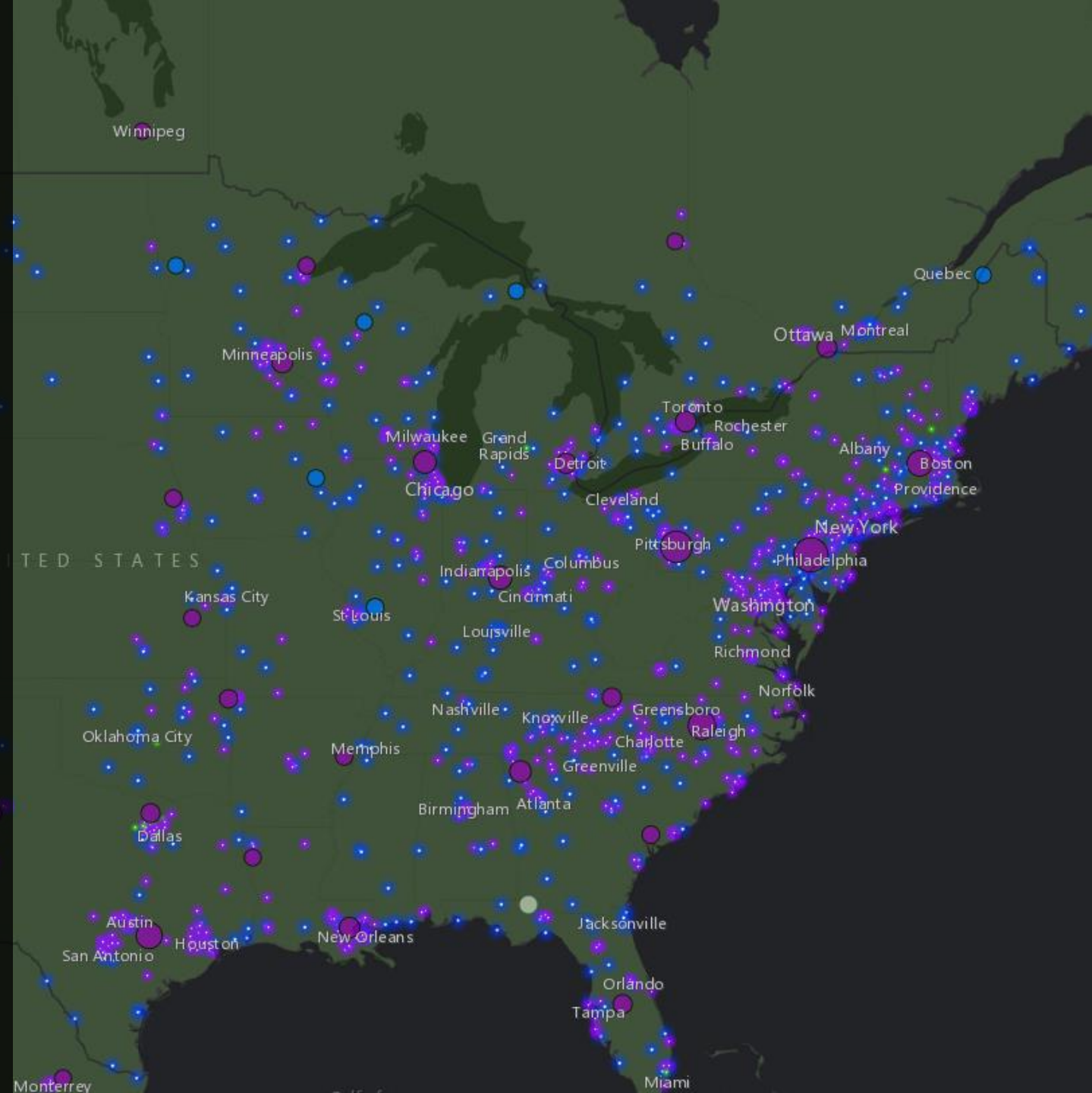
Air Quality Monitoring

EarthDay.org is mobilizing a community of citizen scientists to compile a global snapshot of PM2.5 air quality. Using the Earth Challenge Air Quality App, citizen science volunteers are asked to take pictures of the horizon with our free app and common mobile phones. EarthDay.org partners have designed an innovative data validation method that cross-references volunteer photos with other reference-grade Particulate Matter 2.5 devices.

By gathering large quantities of photos coupled with air quality data from local sensors, we are helping researchers use visual analytics to enhance the accuracy of data generated from widely available smart devices and low-cost sensors.

Our Goals:

- 10 million images submitted
- 500,000 active users
- Partnerships with air quality researchers
- Publishing of open source environmental data





LAND

Reforestation

Reforestation is one of the most effective nature-based strategies to slow the increase of GHGs in our atmosphere. But, 26 million hectares of forest, equivalent to the area of the United Kingdom, are lost every year to human extraction.

Most of the world's forests are in some of the poorest areas on the earth, and when those forests are depleted, communities are left without their livelihood. When expanding cropland and agricultural systems, building roads and harvesting wood for lumber leads to deforestation, poor communities who depend on the forests are again threatened.

Through EarthDay.org's reforestation program, The Canopy Project, hundreds of millions of trees have been planted to aid vulnerable communities, sequester carbon, and rehabilitate vital habitats. Active planting programs are currently underway in India, Mexico, Uganda, Cameroon and Madagascar.

Our Goals:

- 10 million trees planted
- 50,000 people impacted
- 2100 acres of land reforested
- 3:1 ratio of downstream benefits to cost of planting



Regenerative Agriculture

The International Food & Agriculture Organization estimates we only have 60 years of healthy topsoil left, if we keep business-as-usual practices. By shifting to regenerative practices we can save our soils. Some of these regenerative practices include composting, planting cover crops, investing in agroforestry and avoiding tilling. All this could help mitigate the climate crisis, making soil the carbon sink it once was before big agriculture threw it off.

EarthDay.org is already working to change dietary habits and promote plant-based eating through Foodprints for the Future. By incorporating a combination of new technology and emphasis on nature-based land management practices, we can work further to revolutionize our food systems and champion sustainable agriculture.

Our Goals:

- 200,000 pledges to adopt to plant-based diets
- 500,000 students educated on regenerative ag best practices
- 50,000 downloads of Nature Based Land Management Toolkits
- Replication and expansion of pilot projects including Earth Day India's Farmers for the Earth



BIODIVERSITY

Habitat Restoration

Maintaining and restoring healthy ecosystems means preserving all parts of a healthy habitat – resources, species, populations densities, genetic variation. Global human activities have fractured or outright destroyed large areas of habitat, hurting animal populations and ecosystem health.

Habitat destruction remains the primary threat to species. 98% of all land on the planet that is suitable for agriculture has already been transformed for human use, and over 53% of all the Earth's surface has been altered by people.

The global pandemic emphasizes our unhealthy relationship with natural spaces. As habitats continue to fragment into smaller areas, wildlife populations will increase in density and will become exposed to new pathogens, other wild species, and humans. We must understand and plan against the increased risks of diseases transmitted from unhealthy habitats.

Our Habitat Focus:

Terrestrial: Amazon Rainforest
Aquatic: Coral Reefs



Insect Populations

Earth's insect population has shrunk 27% in 30 Years. Globally land bugs are disappearing at a rate of nearly 1% a year. Our ecosystems and agricultural production are dependent on healthy populations to pollinate plants. To face the daunting task of restoring these populations, EarthDay.org is engaging citizen scientists to monitor, track and protect insects. This type of community-based science not only contributes to existing scientific data; it also educates and engages the public on critical environmental issues.

The Earth Challenge Insect App will be able to snap photos of the insects that the user sees in everyday life. Once the data has been verified, the user can view their datapoint alongside others around the world. This system also allows scientists to get a clear view of the distribution of insect populations and their migrations. With this knowledge, they can identify regions that need habitat restoration and understand the extent of the declining pollinator crisis.

Our Goals:

- 500,000 active users
- 10 million user submissions
- 10,000 No Pesticide Pledges signed by individuals and partner organizations





WATER

Freshwater

Clean water is the basis of healthy and sustainable communities. Since 1970 when the first Earth Day led to the passage of the U.S. Clean Water Act, many of our rivers, bays and other vital water resources have been protected but — globally and in the US — we still face enormous water quality and quantity challenges.

NBS use or mimic natural processes to enhance water availability (e.g., soil moisture retention, groundwater recharge), improve water quality (e.g., natural and constructed wetlands, riparian buffer strips), and reduce risks associated with water-related disasters and climate change (e.g., floodplain restoration, green roofs).

NBS for water are central to achieving the 2030 Agenda for Sustainable Development because they also generate social, economic and environmental co-benefits, including human health and livelihoods, food and energy security, sustainable economic growth, decent jobs, ecosystem rehabilitation and maintenance, and biodiversity.

Working with nature improves the management of water resources, helps achieve water security for all, and supports the core aspects of sustainable development.

Our Goals:

- 10 million people participating in riverside cleanups
- Green cities partnerships and commitments to increase water quality and security
- Incorporating irrigation and soil moisture retention into all Canopy Project initiatives



Oceans

Our oceans are becoming choked with plastic pollution. An estimated 150 million metric tons of plastic waste currently circulates our oceans, with 8 million tons more - 3% of all plastic produced annually - added every year. The floating plastics and microplastics are ingested by marine life, with seabirds, turtles, fish and aquatic mammals testing positive for plastic consumption. This harms the health of ocean habitats, species, and creates health concerns for the billions of humans who rely on healthy fisheries as their primary source of protein.

EarthDay.org has worked to reduce pollution for decades. From our 1990 international call for recycling to our 2018 End Plastic Pollution campaign, we have committed to addressing and reducing the volume of plastic waste in the environment, supporting business and policies that end single-use plastics and reduce material and resource consumption.

In addition to labor intensive cleanups and supporting actions to reuse and reduce plastics, we're turning to nature-based solutions to address the complexities of marine and coastal environments through initiatives that provide co-benefits for sustainable development.

Our Goals:

- 10 million people participating in coastal cleanups
- 500,000 active users of Earth Challenge Plastics App



PEOPLE



Activism

EarthDay.org's goal is to infuse people with a sense of purpose and belief in their ability to build a better world regardless of their race, creed, social status, or economic standing.

The problems facing our planet are caused by humans. It's up to us to work together to fix them, coming together and using our voices to create change based on science and fact.

EarthDay.org works with green cities, civic and community institutions, thousands of student organizers and partners around the world to recruit passionate individuals into the environmental movement. Under the theme of Restore Our Earth, we've taken on a new challenge to educate, activate and achieve goals related to natural solutions.

Our Goals:

- 100 million volunteer hours
- 10 million more people observing Earth Day 2021
- 1 million petition signatures
- Dissemination of Restore Our Earth toolkits to 50,000 partner organizations



Vote Earth

Vote Earth is a global initiative that mobilizes millions of people to demonstrate their concern for our planet by rejecting inaction and demanding change at the polls. As voting citizens, we have enormous power to drive change by making our voices heard. Vote Earth encourages citizens everywhere to use their voting power as a manner to ensure we address the climate crisis, combat environmental problems and restore, conserve and protect the natural world.

EarthDay.org will focus voter registration on youth groups and first-time voters. Using cutting-edge digital communications tools and the high-profile brand of Earth Day, our efforts will activate voters who are passionate about environmental protection and who expect action on climate change from elected officials.

Our Goals:

- 425,000 new voters registered
- 1-2 million voters engaged



Global Climate Literacy

To create a more sustainable planet, students and their administrations must work to unite with local officials and citizen leaders to take action, with a special focus on how climate change impacts local communities. Using what they have learned, students will return to their academics to seek broader innovation and purpose.


EarthDay.org creates and disseminates resources for students and teachers to learn about local environmental issues, equipping learners with inspiration and skills for environmental civic action. We encourage teachers and students to engage in all our campaigns, in 2021, adding a new focus on nature-based solutions to Restore Our Earth.

EarthDay.org continues to work towards climate education as a core curriculum around the world. Building off the successful initiatives in Italy and Mexico, we will continue to work with international governments and NGOs to make climate education universal.

Our Goals:

- Climate education commitments from international governments
- Climate science taught in youth education



An aerial photograph of a rocky coastline. The water is a vibrant turquoise color, and the rocks are dark and jagged. White foam from the waves is visible as it crashes against the shore.

The problems facing our planet are complex and interconnected.

The solutions will require all of us working together.

It's time to **Restore our Earth.**

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