



Land Conservation Conference

2020 Vision & Beyond:
Climate, Conservation & Collaboration

Large Landscape Conservation: Global Progress from Beijing to Baltimore

presented by Jim Levitt, Lincoln Institute of Land Policy/Harvard University

Wednesday, May 6th, 2020

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LARGE LANDSCAPE CONSERVATION FOR THE LONG TERM

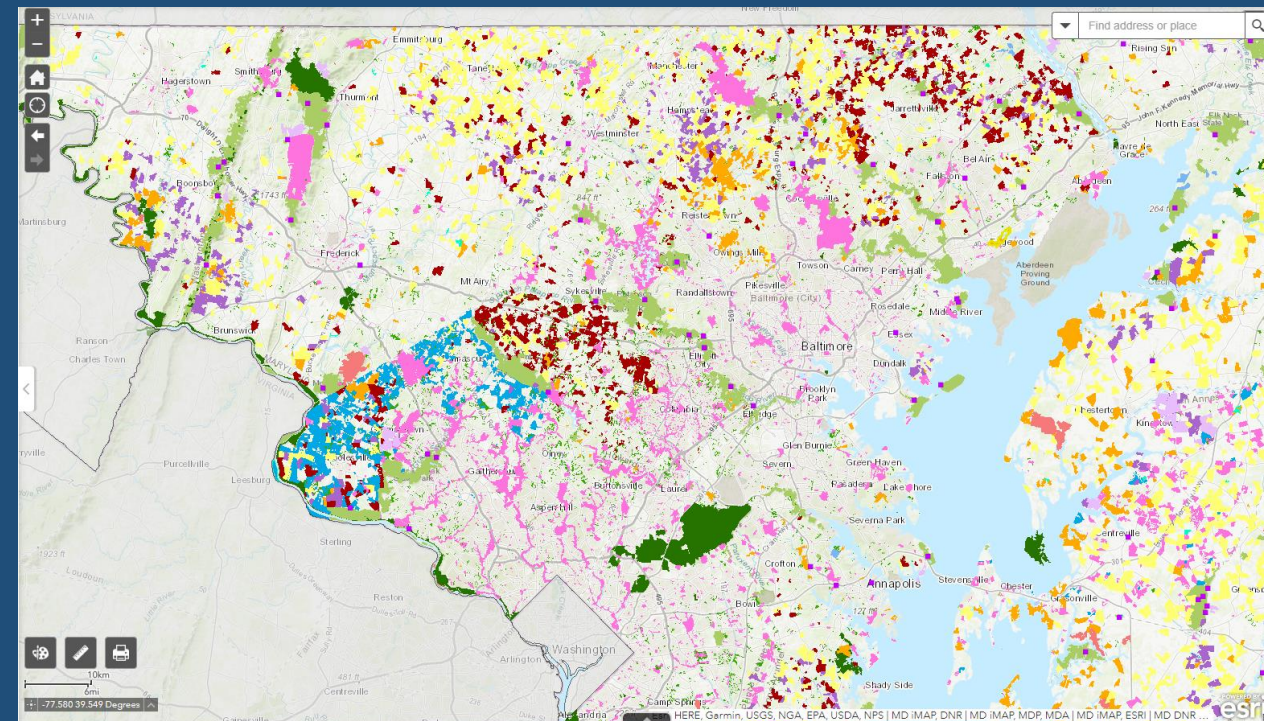
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FELLOW, HARVARD FOREST, HARVARD UNIVERSITY

PREPARED FOR: FOREVER MARYLAND, MAY 2020



Map of Protected Lands from MERLIN -- Maryland's Environmental Resource & Land Information Network

Greetings from your colleagues on six continents



ILCN/ELCN Earth Day Online Plenary



Featured Resource

ILCN ELCN Earth Day Online Plenary

On the fiftieth anniversary of Earth Day, the ILCN/ELCN Earth Day Plenary highlights the importance of leadership at all levels of society – from national, subnational, and local government to civic and grassroots initiatives – to protect natural and cultural resources for the benefit of present and future generations.

[View Webinar](#)

Resource Type
Webinars

Topic
Large Landscape Conservation
and Restoration / Law and
Policy / Organization and
Governance / Privately
Protected Areas

<https://www.landconservationnetwork.org/resources-education>

Written Message of Support from HRH Prince of Wales to the Delegates of the International Land Conservation Network and European Land Conservation Network Global Congress



22 April 2020



CLARENCE HOUSE

Ladies and gentlemen,

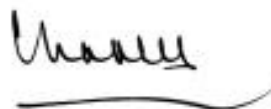
I am very glad to be able to contribute this message of encouragement and support to the delegates of the Global Congress of the International Land Conservation Network and the European Land Conservation Network. Although you may be separated physically due to the Coronavirus, you are nonetheless all present and united in a virtual internet gathering – not to give up, but to find another way, this is human endeavour at its best.

For more than four decades, the conservation of Nature and other matters relating to our collective relationship with the Earth have been at the top of my concerns. As we continue to face the growing challenges of climate change and biodiversity loss, there is an increasingly urgent need for voluntary private and civil society conservation action that works across boundaries to protect the various physical resources and living things upon which we all depend and which, in their own right, are unique.

I have long admired the remarkable dedication and innovation of the individuals, families, communities and private and civil society organizations across the globe who play a vital role in protecting land and biodiversity for present and future generations. No single sector of society – be it public, private or NGO – can face, alone, the conservation challenges all of us face in the twenty-first century. As land-users, owners or guardians, your work to protect and steward land is critical to maintaining and enhancing biodiversity and increasing the resilience of our planet.

In order to achieve our shared goals, it is of the greatest importance to learn from the experiences of those who are advancing and accelerating the pace and quality of public, private and civic land conservation around the world. I am delighted that this virtual Congress and its series of webinars will connect private and civil society land conservation practitioners, policymakers and experts from six continents to exchange experience and best practice on key topics related to enabling and financing conservation, restoring large landscapes, stewarding and managing land and water resources and building and strengthening the capacity of organizations large and small.

I warmly congratulate the International Land Conservation Network and the European Land Conservation Network for bringing together this extraordinary group of individuals and organizations who are bridging sectors, disciplines, and jurisdictions – and who are united in their commitment to conservation. I can only wish you an inspiring and productive time together, and cheer you on as you accomplish great things in your many and diverse efforts throughout the world.



HRH The Prince of Wales

“Although you may be separated physically due to the Coronavirus, you are nonetheless all present and seated in a virtual Internet gathering – not to give up, but to find another way, that is human endeavour at its best.”

OK, now that you are in such distinguished company, time for a quiz...

1. Where in the United States was the first permanent outdoor statue of George Washington erected?

(A) Washington, DC, (B) Mount Vernon, VA, (C) Baltimore, MD (D) Boston, MA or (E) Richmond, VA

2. Where did English-speaking North Americans first decide, in the context of a democracy, to protect an open space for the public benefit? (A) Montreal, (B) New York, (C) Boston, (D) St. Augustine, Florida, or (E) Yosemite

3. How was this open space acquisition financed?

(A) Federal tax dollars, (B) State tax dollars, (C) Local real estate taxes, (D) Philanthropy, or (E) Payments for an eminent domain taking

4. In what year did this occur?

(A) 1901, (B) 1933, (C) 1967, (D) 1864, or (E) 1634

5. Who led the effort?

(A) Alexander Hamilton, (B) Michelle Obama, (C) John Winthrop, (D) Brooks Robinson, or (E) Theodore Roosevelt

I want to challenge you today to think both large-scale and long-range

- By large, I refer large in scale and/or scope
- By long-range, I refer to initiatives that may have an impact over decades, centuries, even millennia

“Great oaks from little acorns grow.”

Chaucer, 1374: “an ook cometh of a litel spyr”



To imagine a great oak growing from a little acorn, you need to think both “large-scale” and “long-range”

Benton MacKaye had to think “large-scale” in both scope and scale, and “long-range” to have conceived of the Appalachian Trail

NEW YORK EVENING POST, FRIDAY, APRIL 7, 1922.

OUTINGS--A GREAT TRAIL FROM MAINE TO GEORGIA

2,000-Mile Trail On Appalachian Ridges Planned

Benton MacKaye's Idea Supported by Institute Of Architects

New York and New Jersey Hikers Asked to Carry Path Through Their Section

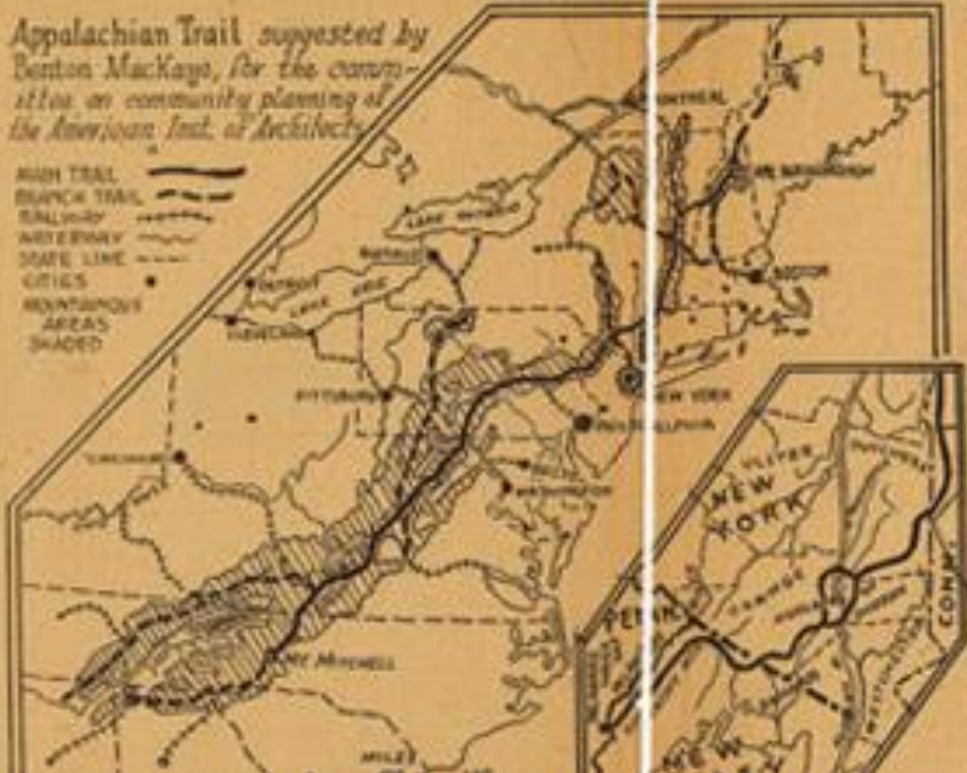
By Raymond H. Tracy

From nearly big things are coming out of the trail movement in the west the idea of its development grows as the year is well along. The spread of idea of connecting wilderness outdoor recreation through trails for hikers and mountaineers which has been the constant for many years in the last few or three years, and now are being more and more planning.

For a long time after its formation in 1915, the Appalachian Mountain Club was about the only mountaineering organization in the United States. It worked steadily for three years, but

Appalachian Trail suggested by Benton MacKaye, for the committee on community planning of the American Inst. of Architects

HIGH TRAIL
BRANCH TRAIL
RAILROAD
HIGHWAY
STATE LINE
CITIES
MOUNTAINOUS AREAS SHADED



Scouts Working on White Bar Trail

40-Mile Route Circles Lake Kanawake Camps

Path With Permanent Camps in Wildest Sections of Interstate Park

When plans were being carried out on a small scale in the region of the Lake Kanawake mountains in the Interstate Park, without carrying such an ambitious trail. This is the plan of Chief Gordon of the Boy Scout camp and it is now being carried out by Scouts of Troop 124, The Brown.

A trail is being laid out to encircle the Lake Kanawake system. Several lengths will be over 40 or 45 miles, an interesting one a loop. The hills and valleys will make this distance to be 40 or 50 miles. It will be called the White Bar Trail. It is not a brand new trail, such as the Parkway-Deerberg system, but it is a linking of old wood trails already in existence. Where there were some sections, a new trail will be cut. It will connect several peaks and the various portions thereof. Unfortunately, the mountain peaks which show a trail long, packed with—were not appearing in some ways, who can then an entrance, or perhaps had

Indeed, MacKaye conceived of a Landmark Conservation Innovation

- These innovations literally leave a mark on the map, and on the ground
- Characterized by five attributes:
 - **Novelty**, or creativity in conception
 - Strategic **significance**
 - Measurable **effectiveness**
 - **Transferability** to other jurisdictions
 - An ability to **endure over time**
- Key Factors for Success:
 - Relatively advanced technology
 - Inventive organizational & financial tools
 - Exceptional talent

And MacKaye's ideas are **transferable** today, to places as distant as Chilean Patagonia

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Long-range thinking

- In his March 1862 message to the United States Congress, President **Abraham Lincoln** wrote:

"A nation may be said to consist of its territory, its people and its laws. The territory is the only part which is of certain durability."

- Lincoln's greatest biographer, **Carl Sandburg**, summarized the concept in 1954:

"Laws change. People die. The land remains."

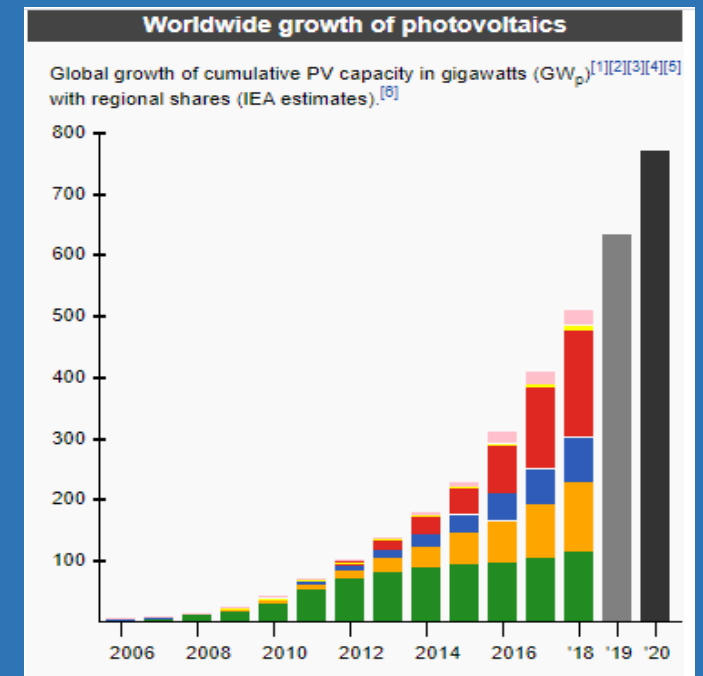
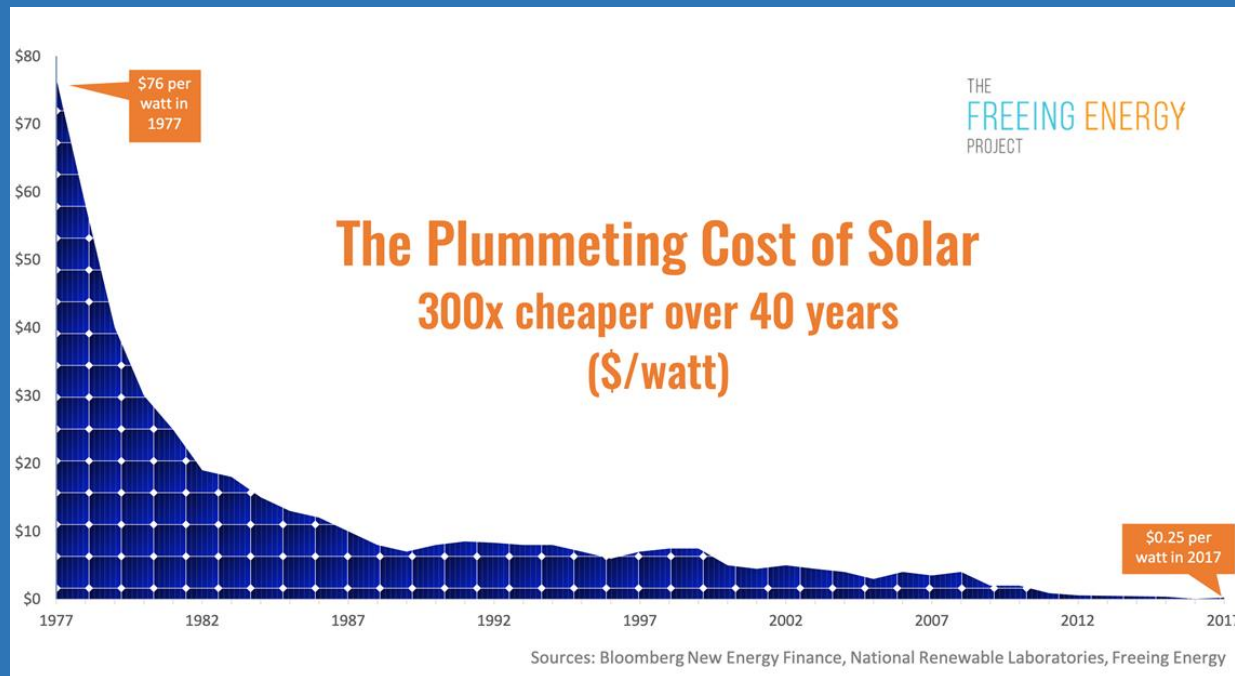
The Long Game – the Cuyahoga, in 1968, a hot mess;
today, home to 40 different species of fish



The Cuyahoga River was once one of the most polluted rivers in the United States. It has caught fire a total of 13 times dating back to 1868, including this blaze in 1952 which caused over \$1.3 million in damages. Photo: Cleveland State

The Long Game

As solar photovoltaic (PV) module costs decline, cumulative installed PV capacity soars

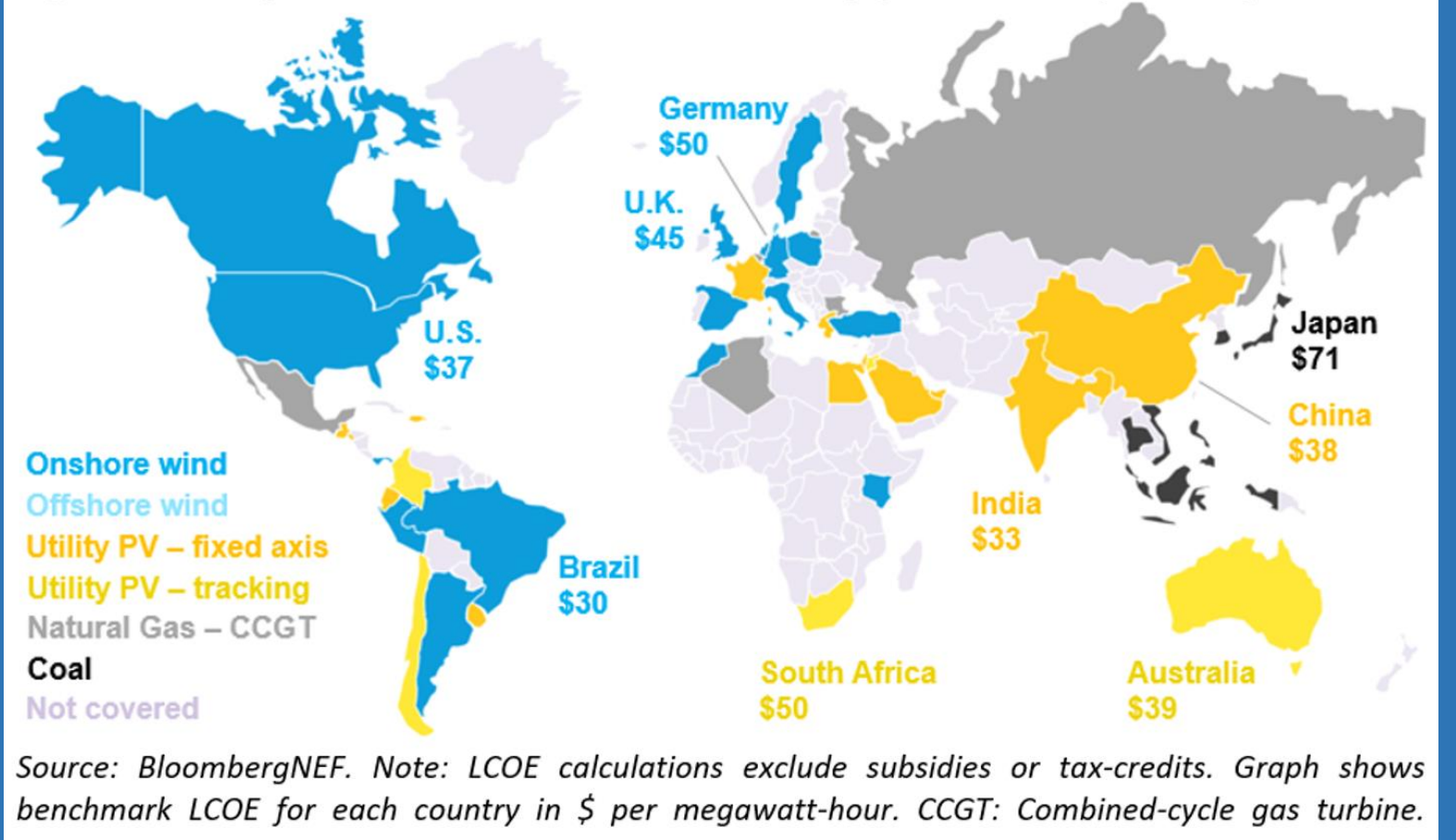


Source: Wikipedia, "Growth of Photovoltaics," as of 4/28/2020

The Long Game

In April 2020, excluding subsidies, wind and solar are the cheapest source of new bulk electric power in most of the world

Figure 1: Cheapest source of new bulk electricity generation by country, 1H 2020



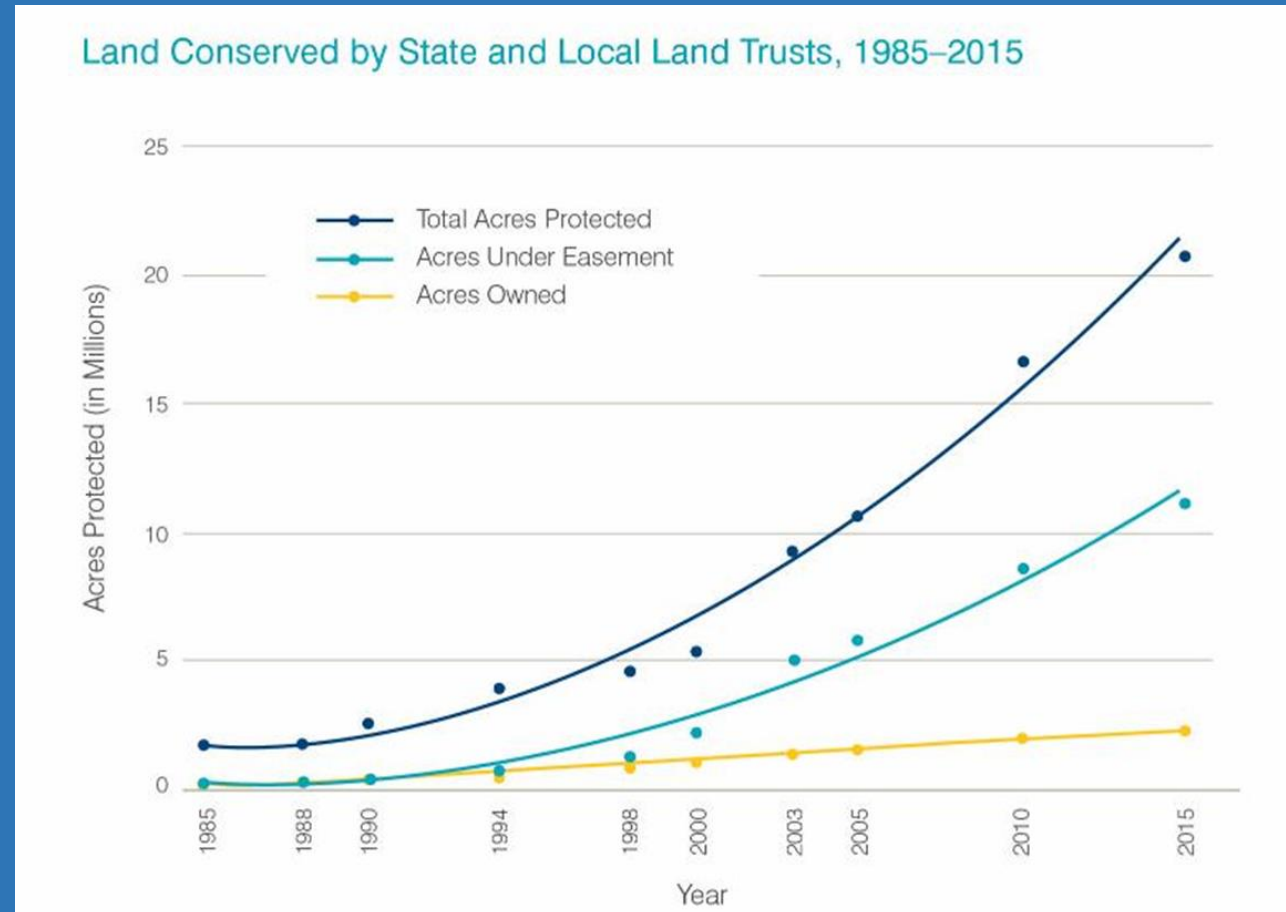
Source: <https://about.bnef.com/blog/scale-up-of-solar-and-wind-puts-existing-coal-gas-at-risk/>

When he conceived of the first regional land trust, Charles Eliot was aiming for an **inter-generational** impact

- The world's first regional land trust, **The Trustees of Reservations (TTOR)** was created in Boston in 1891
- It was design to protect beautiful places for the long term, just as the library preserves books, and the art gallery protects paintings and sculptures



With leadership from the LTA, the state and local land trust community has sharply increased acres under easement



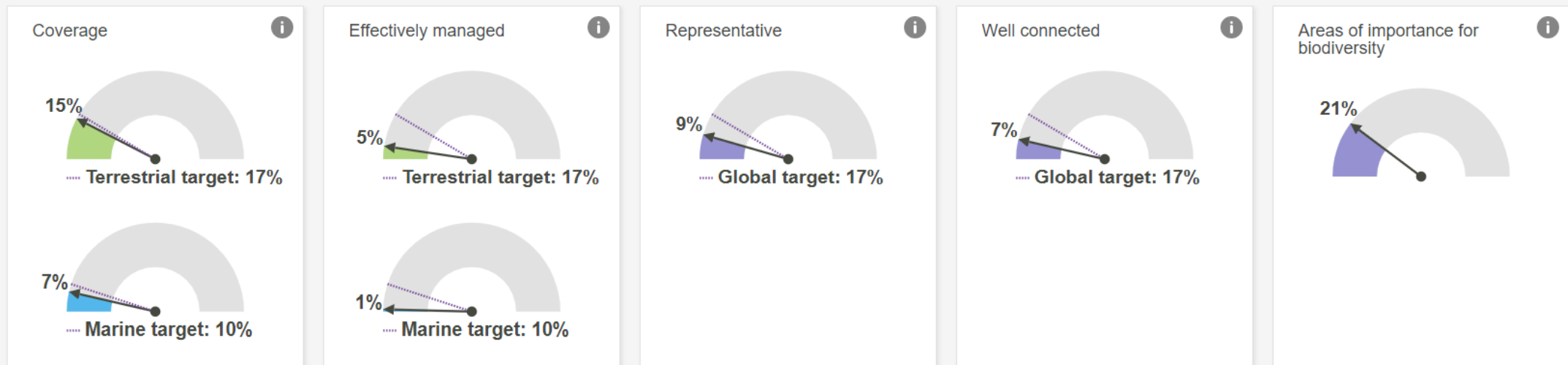
So, we can be proud of how far we have come as conservationists, but we still have a long, long way to go



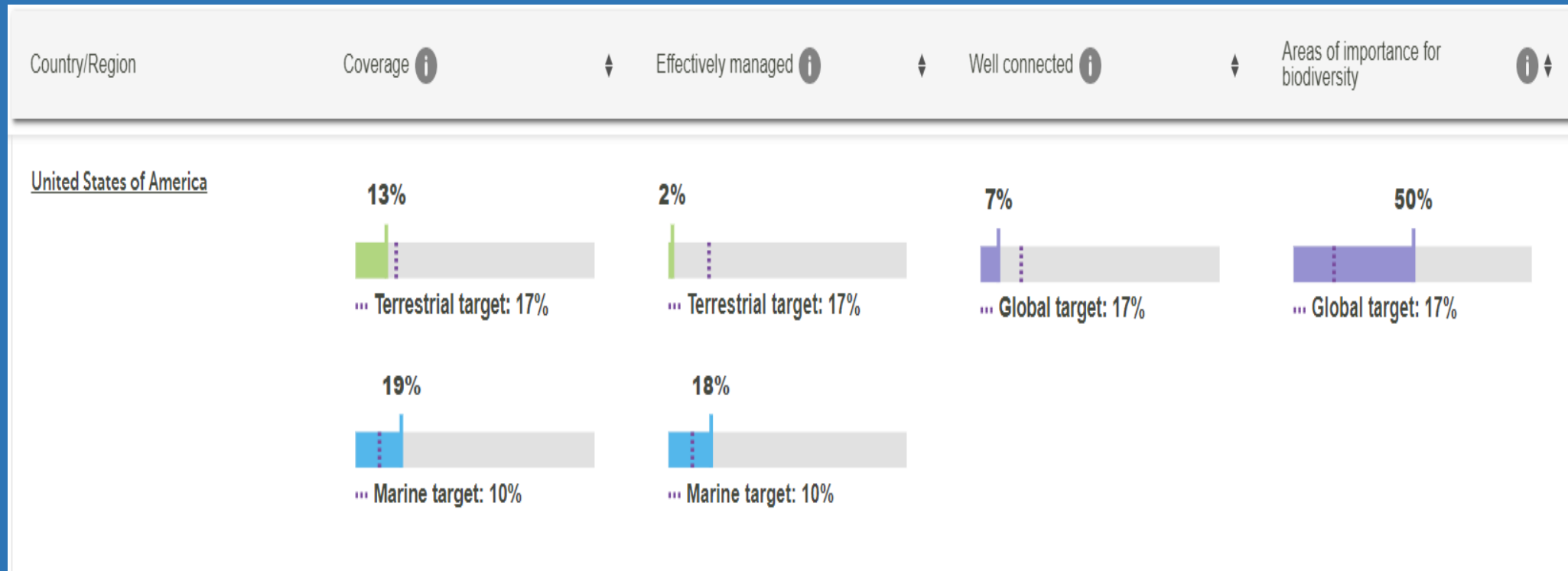
Aichi Target 11 Dashboard

Aichi Target 11 was agreed to by 196 countries in October 2010 at a meeting in Japan of the UN Conference on Biological Diversity

Global Level



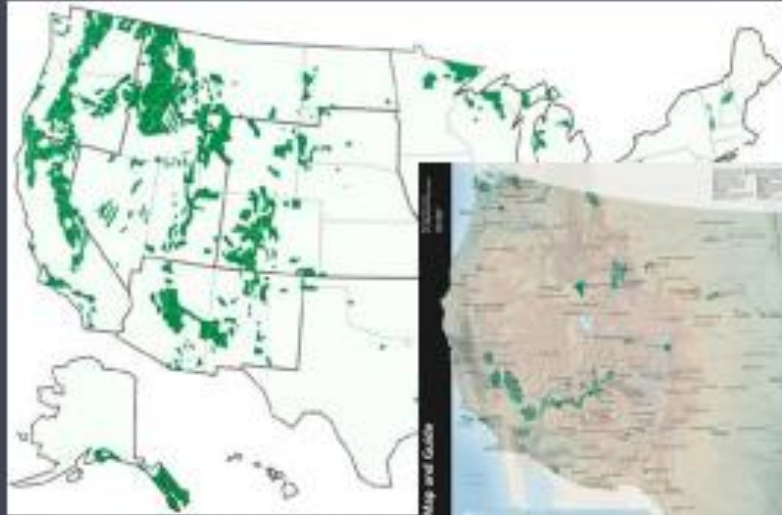
Likewise, as citizens of the United States, we have our work cut out for us



We can observe the impacts of climate change, such as drought conditions, in minute detail



We are still learning, however, how to manage across systems to connect and protect whole landscapes



Maryland has experience in pioneering large-scale, long-range conservation projects that cross sectors and jurisdictions

- Relevant examples

- The realization of the Appalachian Trail (at continental scale)
- The restoration of the Chesapeake Bay (at regional scale)
- The revitalization of urban neighborhoods (at a local scale), and
- Sharing your insights with colleagues at home and internationally.

Appalachian Trail Landscape Partnership



National Park Service

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Partnering to Protect the Appalachian Trail

Appalachian National Scenic Trail

Whether it is for an afternoon hike or a several month, multi-state trek, the Appalachian National Scenic Trail provides world-class backcountry recreational opportunities.

The Appalachian Trail, often called the AT, is a continuously marked footpath stretching approximately 2,190 miles across 14 states from Georgia to Maine. The trail travels through eight national forests, six national parks, two national wildlife refuges, and dozens of state forest or park areas. The trail corridor encompasses five major geologic provinces and eight ecological zones, in addition to countless cultural resources that represent the regional character and cultural landscapes of the Appalachian Mountains. The long-distance trail is an impressive and unique resource in itself and a testament to the endless labor of dedicated volunteer networks and partnerships in coordination across the east coast.



Appalachian Trail map, 1951

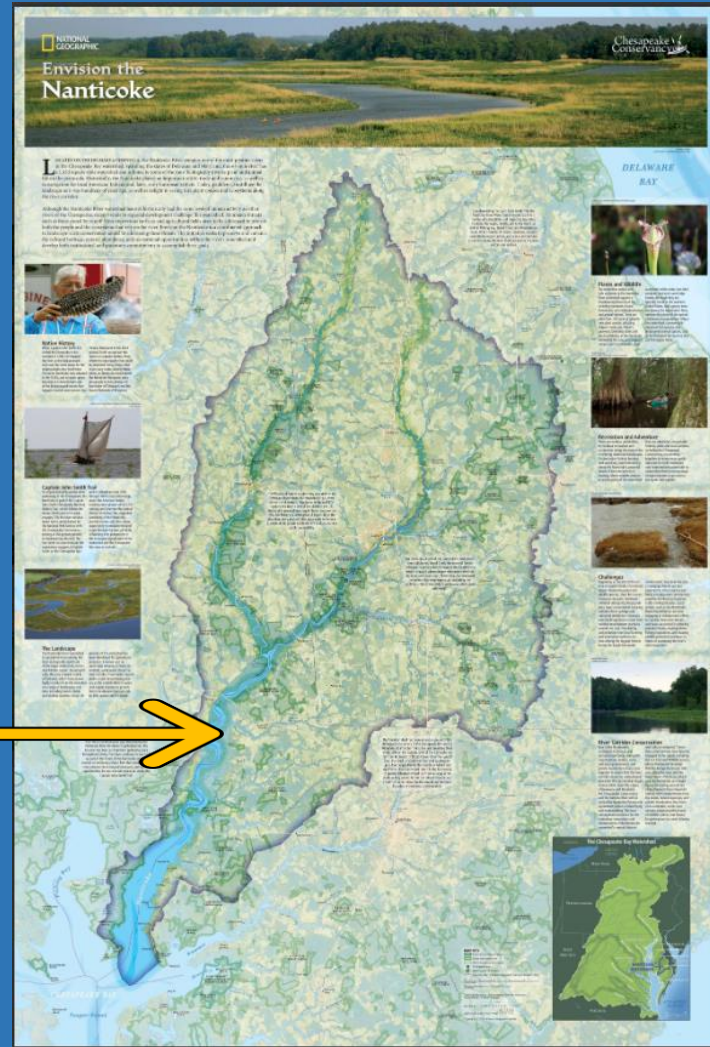
Appalachian Trail Project Office, National Park Service. Accessed at Library of Congress.

Working together for the Heart of Maryland

The **HEART OF MARYLAND CONSERVATION ALLIANCE** is a network of partners and people fostering collaborative conservation of our region's significant farmlands, forests, water, and historical and recreational resources. Our priority focus areas for collaboration are:

Our partners include:

- Appalachian Trail Conservancy
- Catoctin Land Trust
- Central Maryland Heritage League
- Forever Maryland Foundation
- Frederick County Land Preservation Program
- Heart of the Civil War Heritage Area
- Maryland Land Trust
- Washington County Land Preservation Office



NANTICOKE WATERSHED TIMELINE

2008: Chesapeake Conservancy (CC) and others agree to focus on the Nanticoke Watershed

2013: Chesapeake Conservancy raises \$1.5 million to protect Nanticoke River parcels; 1 m x 1 m, high resolution land use cover data produced

2014: CC's Nanticoke River proposal awarded \$1 million through the Department of Defense's REPI Challenge

2015: USDA, DOD, USDOJ designate the Nanticoke River and surroundings as the Middle Chesapeake Sentinel Landscape; CC raises \$1.65 for Nanticoke land protection

2016: DOD's [REPI Challenge awarded \\$1 million](#) to help conserve lands in Southern Maryland and along the Nanticoke River.

2017: Chesapeake Conservancy raises \$1.5 million to protect an additional 533 acres of Nanticoke farmland

2018: Chesapeake Conservancy protects an additional 223 acres of farmland in the Nanticoke watershed; gifts a small urban park to the City of Seaford, DE

As of April 2020, Chesapeake Conservancy has contributed to the permanent protection of 18 properties totaling 2,264 acres within the corridor. There are an additional 1239 acres in the pipeline. In total, more than 19,000 contiguous acres have been protected in the watershed.

Neighborspace, a land trust in Baltimore County, is creating urban parks that exemplify “large-scale” and “long-range” thinking



Powhatan Park



Ridgely Manor Park

LID initiatives in Maryland inform Sponge City Pilot Projects in China



Contents lists available at [ScienceDirect](#)

Resources, Conservation & Recycling

journal homepage: www.elsevier.com/locate/resourcon

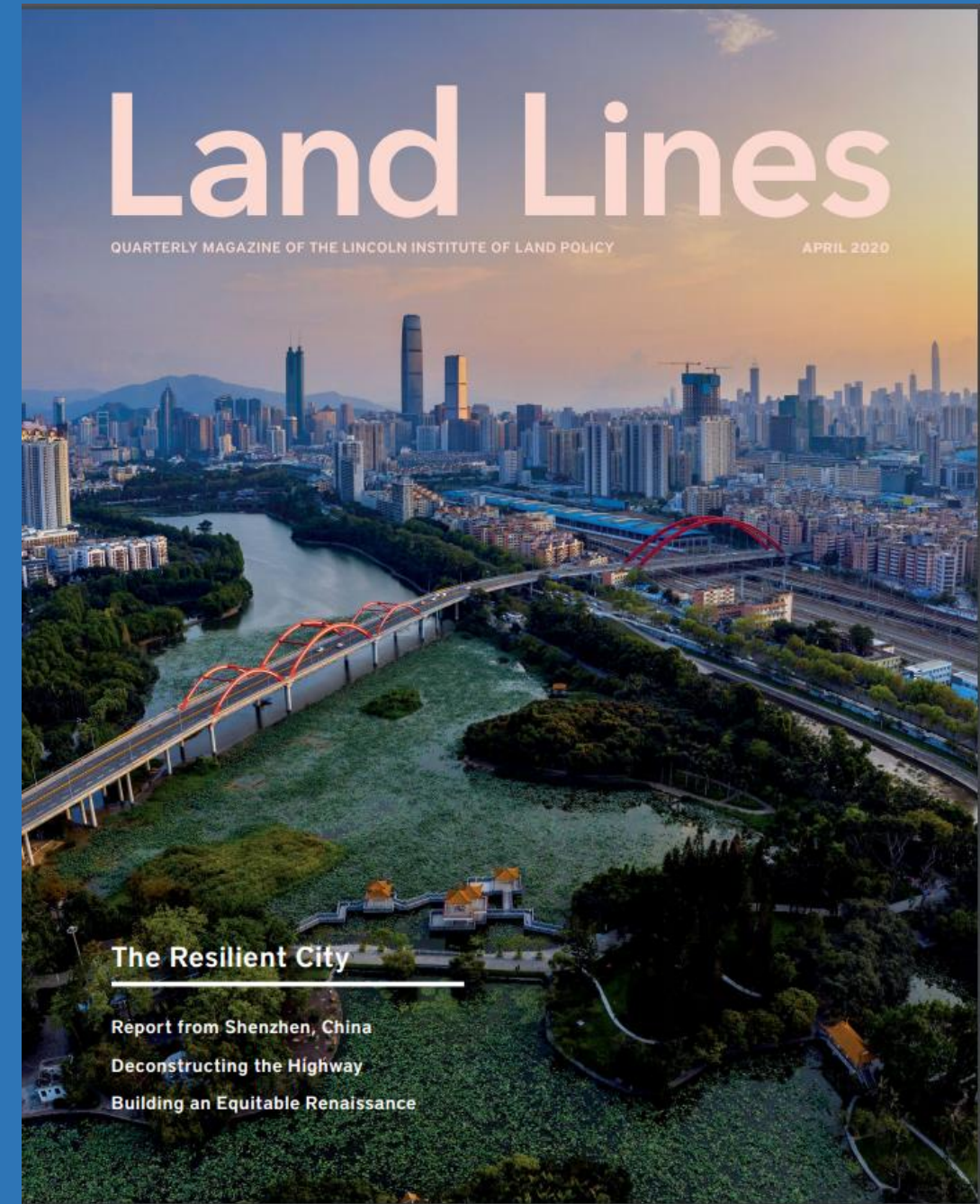
Full length article

Benefits of coupled green and grey infrastructure systems: an analytic hierarchy process and life cycle costing

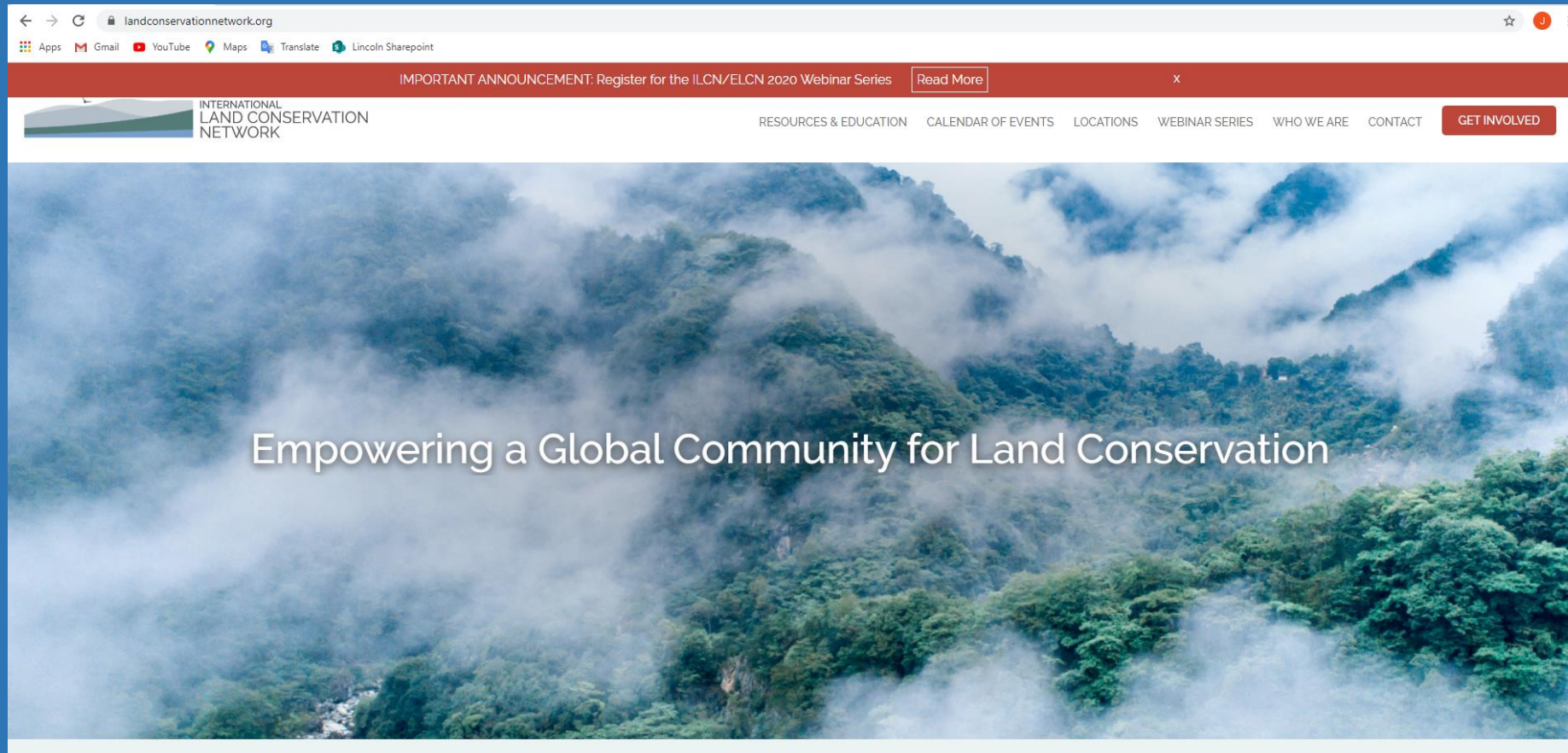
Changqing Xu^a, Tang Tang^{a,b}, Haifeng Jia^{a,*}, Ming Xu^{c,d}, Te Xu^a, Zijing Li^a, Rongrong Zhang^a

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New strategies for urban runoff control can be summarized as best management practices (BMPs) (Schueler, 1987; Clar et al., 2004), low impact development (LID) (Prince George's County, 1999a and 1999b), sustainable urban drainage systems (SuDS) (Martin et al., 2000; Martin, 2001), and water sensitive urban design (WSUD) (Whelans et al., 1994; Wong, 2007). These new strategies emphasize the use of green infrastructure to protect, restore, or mimic the natural water cycle to effectively and efficiently improve community resilience and quality of life (Allen, 2013). Despite their benefits, green infrastructure cannot replace grey infrastructures completely considering the safety during



Each of you now belongs to a global community-of-practice.
Welcome to the **International Land Conservation Network**.



Join our weekly webinars at www.landconservationnetwork.org

“The creation of a thousand forests is in one acorn.”

Ralph Waldo Emerson, 1841





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