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Libraries  
Initiative**

# Climate Resilience & Sustainability

Rebekkah Smith Aldrich | July 15, 2025





*Image Source: National Centers for Environmental Information, NOAA*



## Overarching Themes:

- Declining Optimism
- Deepening geopolitical and geoeconomic tensions
- Growing Sense of Societal Fragmentation

## Top Concerns:

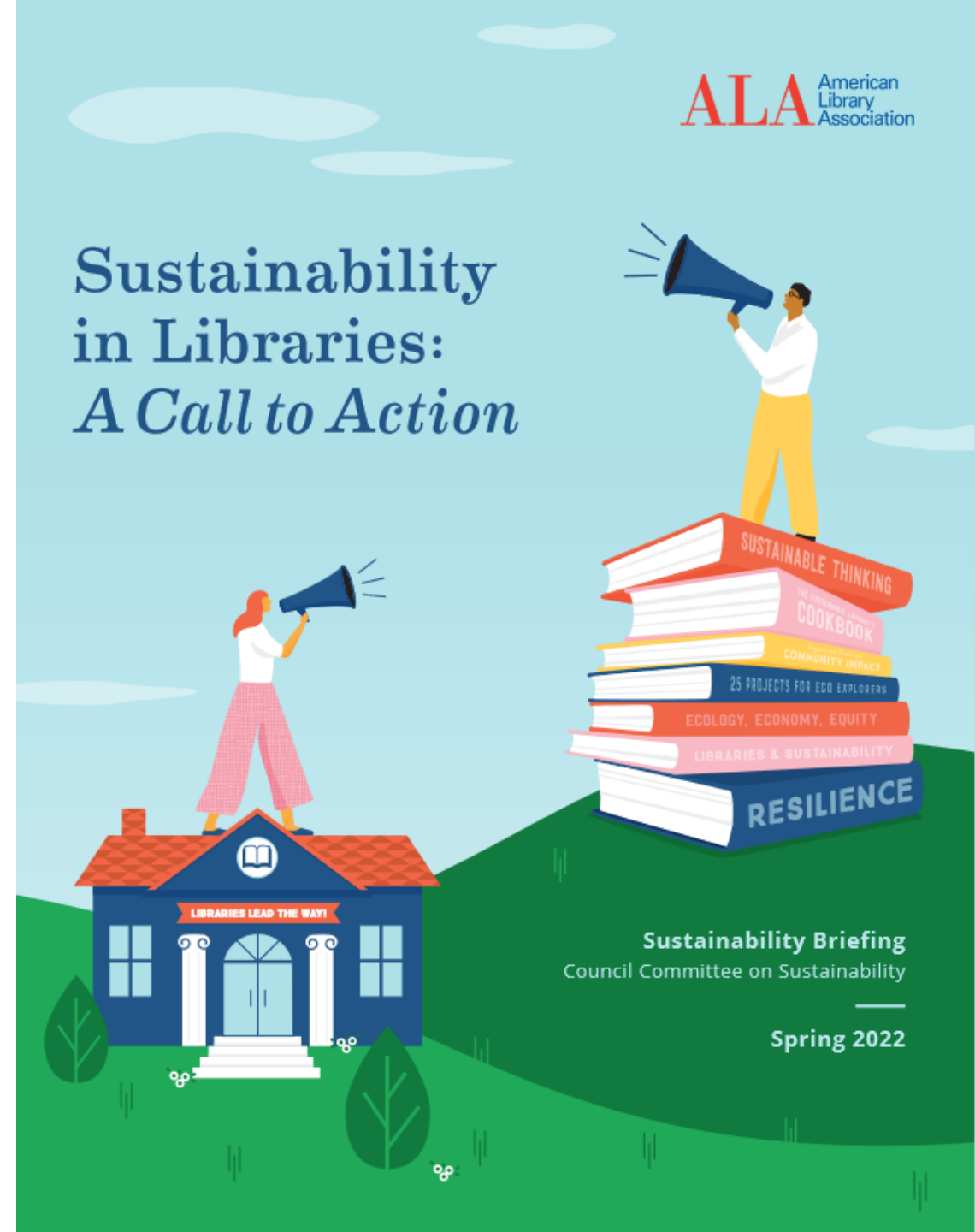
- 2-year horizon:
  - **#1: misinformation and disinformation**
  - **#2: Extreme weather**
- 10-year horizon:
  - **#1: Extreme weather**
  - **#2: Biodiversity loss and ecosystem collapse**

## The Global Risks Report 2025 20th Edition

INSIGHT REPORT



“**Climate change** is the single greatest threat to global health, a “**code red for humanity**,” and is this generation’s **grandest challenge**.”



**Sustainability = Core Value**

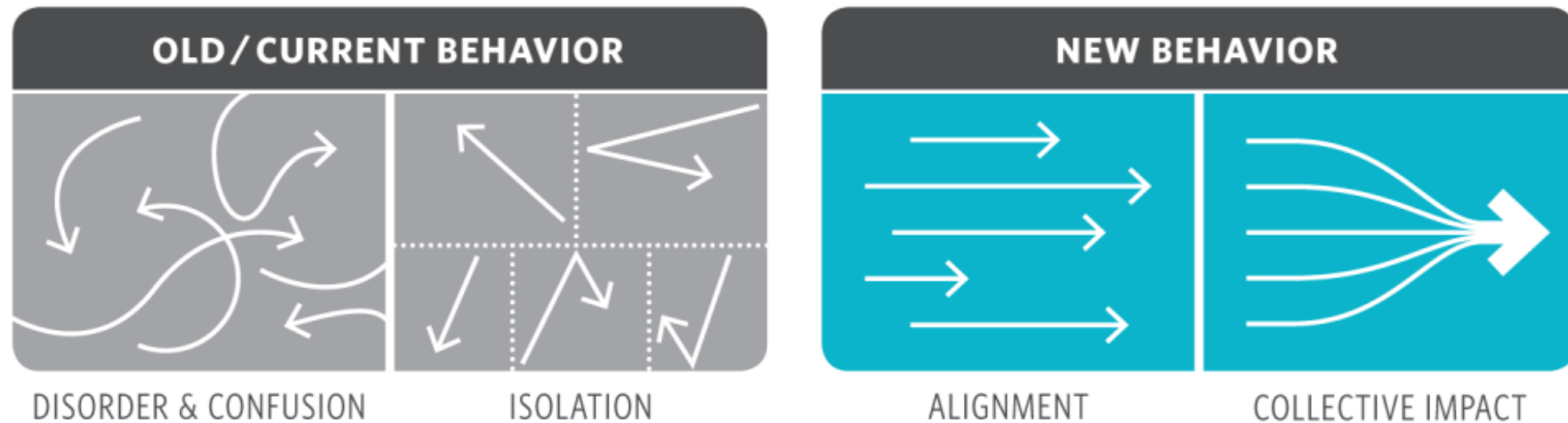




### Triple Bottom Line Definition:

- Environmentally Sound
- Socially Equitable
- Economically Feasible

# Collective Impact



Graphic: AllHandsRaised.org



**EVERY  
JOB  
IS A  
CLIMATE  
JOB**

**PROJECT  
DRAWDOWN.**





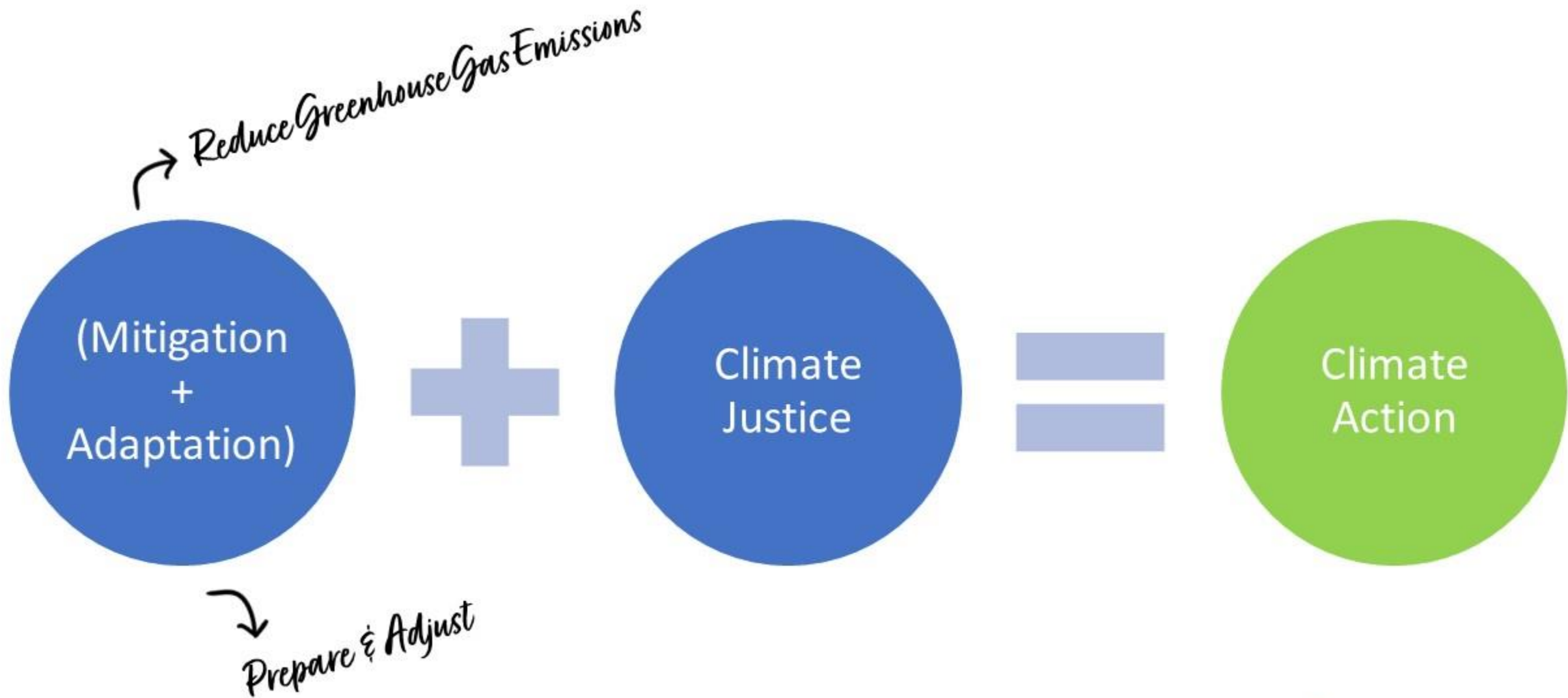
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→ Reduce Greenhouse Gas Emissions

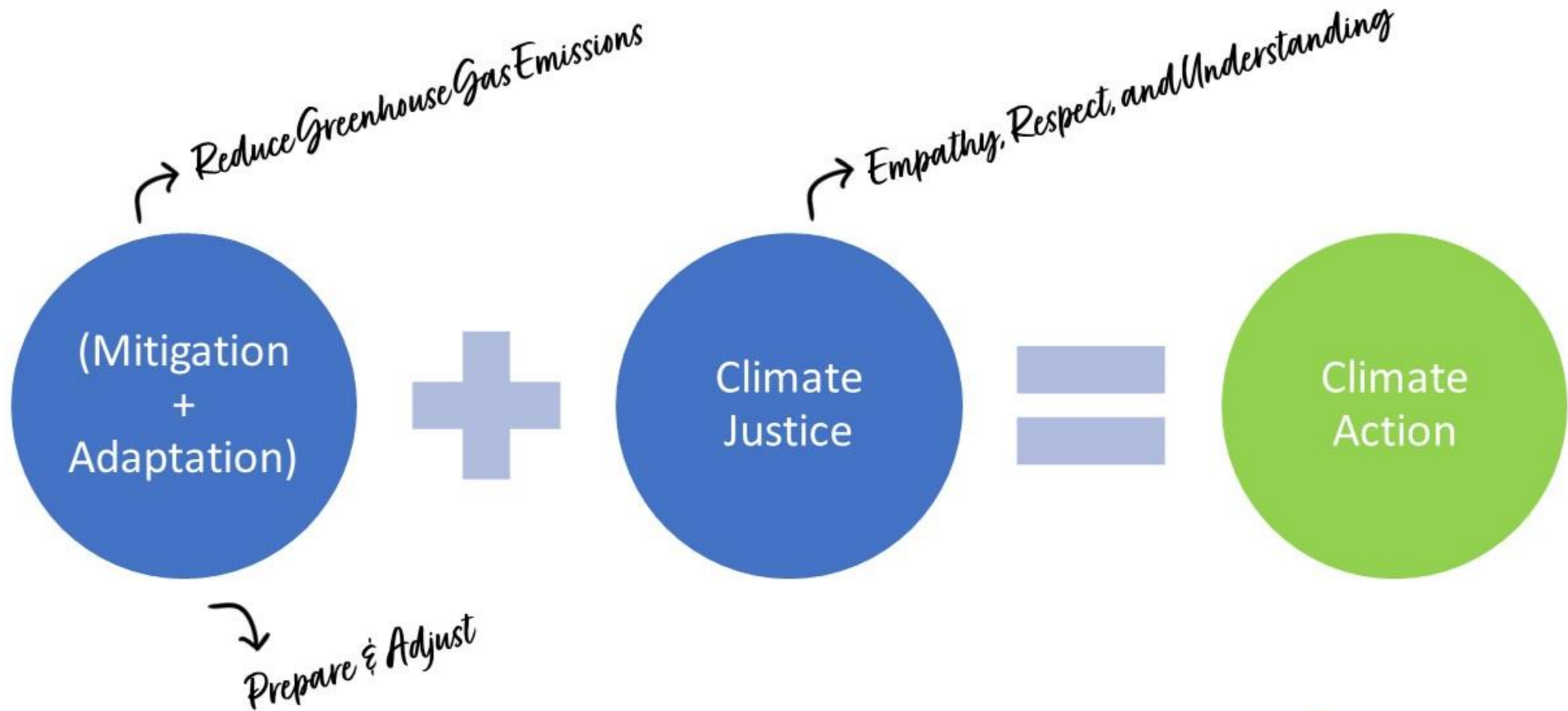


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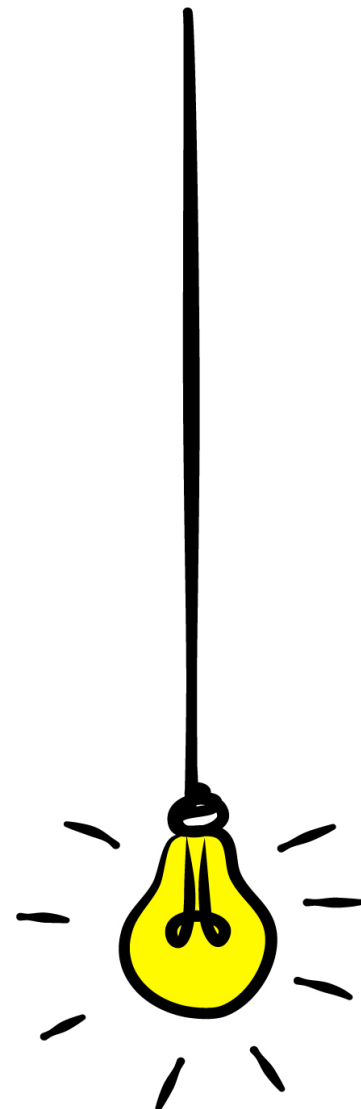
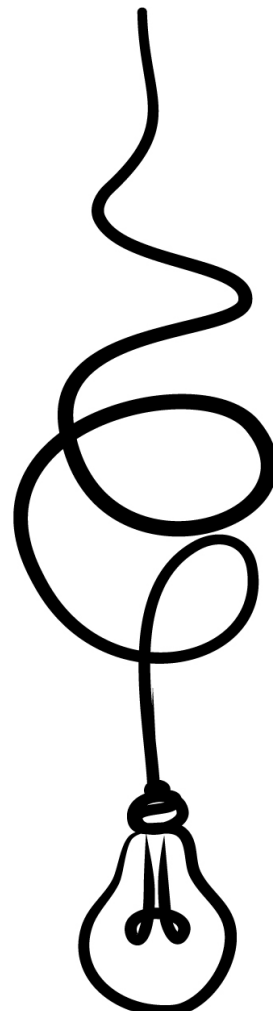
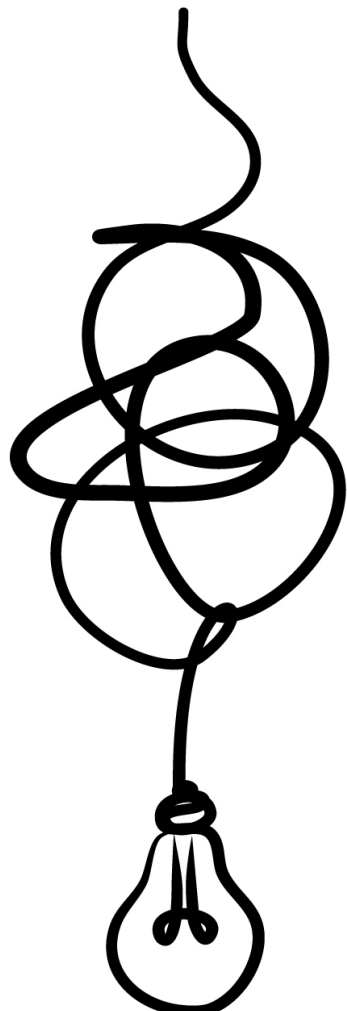
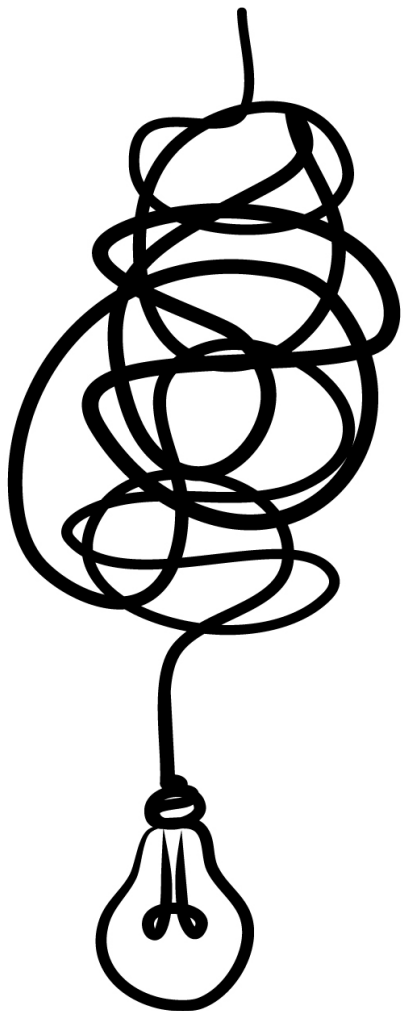
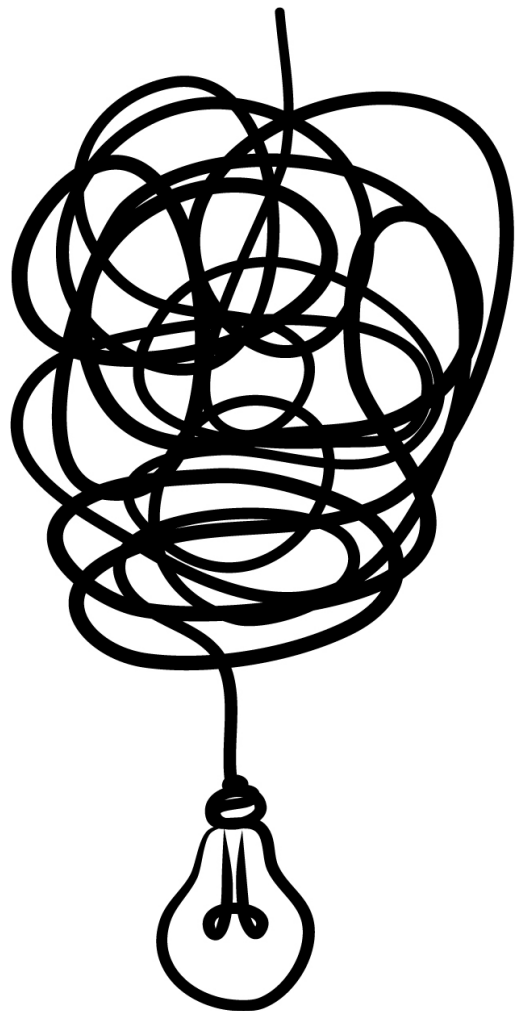


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# **Sustainable Libraries Initiative**



# Sustainable Libraries

- ✓ **Strong & Authentic Institutions** that Live their Values Out Loud
- ✓ Catalyst for **Civic Participation & Social Cohesion** in Communities
- ✓ Working on **Climate Mitigation** (reducing Greenhouse Gas Emissions (GHG))
- ✓ Active Participants in **Climate Adaptation** (strengthening community resilience)



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# The National Climate Action Strategy for Libraries Implementation Guide

ALA American Library Association



## The Strategy

### • Climate Change Mitigation

Libraries align greenhouse gas emission reduction goals with those that international climate scientists and policy makers have indicated are necessary to prevent catastrophic cascading effects. This strategy recommends a goal for all libraries to reduce their institution's greenhouse gas emissions by 43%, from 2015 levels, by 2030 and to achieve net-zero greenhouse gas emissions by 2050<sup>1</sup>.

### • Climate Change Adaptation & Contributions Community Resilience

Libraries adopt both internal disaster preparedness plans and strategic goals that speak to the most likely climate hazards facing their area to contribute to their community's resilience.

### • Climate Justice Work

Libraries harness the transformative power of education for climate justice and develop relationships with local community organizations working on climate justice to embed a deeper awareness of the intersection of human and civil rights with climate stewardship than is presently found<sup>2</sup>.

<sup>1</sup> Paris Agreement, United Nations, [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf)

<sup>2</sup> Principles of Climate Justice, Mary Robinson Foundation, <https://www.mrfc.org/principles-of-climate-justice/harness-the-transformative-power-of-education-for-climate-stewardship/>

ALA American Library Association



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**ALA** American  
Library  
Association

# Climate Change Mitigation

Decarbonize = Reduce Greenhouse Gas (GhG) Emissions



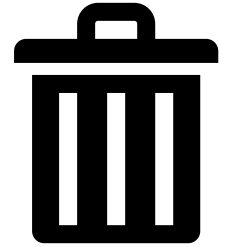
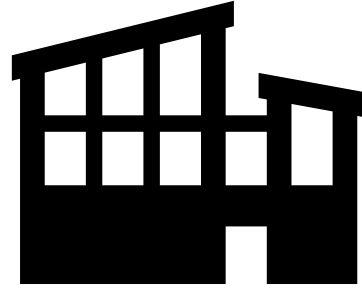
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# Top Areas of Focus for Libraries:

## Scope 1:

- Facilities
- Transportation



## Scope 2

- Purchased goods and services
- Transportation of goods, services, people
- Waste generated in operations

# Artificial Intelligence (A.I.)

- **One query to ChatGPT** uses approximately as much electricity as could **light one lightbulb for about 20 minutes.**
- Making **an image** with generative AI uses **as much energy as charging your phone.**
- By 2027, the water needed to cool **AI servers** could reach **1.7 trillion gallons** – more than half the water the UK uses in a year



# american libraries



- prioritize energy-efficient hardware and cloud providers
- [more efficient large language models](#) result in algorithms that can minimize the number of computations required
- Avoid unnecessary AI applications
- Work with data center locations that prioritize renewable energy
- Use local data centers to minimize the distance that data travels, reducing the energy consumed to transfer data

*"Assessing AI: How libraries can lessen artificial intelligence's energy impact,"*  
Sarah Tribelhorn, American Libraries Magazine, March 3, 2025



# Valencia College

- All new devices are ENERGYSTAR® certified
- Electronic equipment recycled
- Free Bus Rapid Transit service  
(over 1 million free bus rides!)
- Carpooling offered through rethink your commute
- Garbage bins made from post-consumer milk jugs
- Plastic writing instruments and battery recycling



## Winter Park Campus: Solar Umbrella

The single-building campus offers three solar umbrellas with USB ports at each base.



# Concord Free Library





*1<sup>st</sup> library in Massachusetts to complete the Sustainable Library Certification Program*

## Sustainability Plan



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### BUILT ENVIRONMENT AND OPERATIONS

Goals	Strategies	Sustainable Concord Plan
<b>1 GHG REDUCTION</b>  The Library has an implementation plan for its buildings to be carbon neutral in 2030.	<b>1.1</b> Planning for net zero Develop a net-zero plan for existing buildings  <b>1.2</b> Sustainable building principles Develop sustainable building principles for upgrades of all buildings  <b>1.3</b> Sustainable operations guide Collaborate with the Town to create a sustainable operations and maintenance guide	<b>BUILT ENVIRONMENT</b> 
<b>2 NATURAL RESOURCES</b>  The Library's landscape and grounds demonstrate resilience for the community.	<b>2.1</b> Inventory practices Inventory current resilient landscaping practices of the Library  <b>2.2</b> Sustainable landscape design Implement sustainable landscape design infrastructure and practices that support water conservation  <b>2.3</b> Biodiversity Increase native biodiversity on Library grounds	<b>NATURAL RESOURCES</b> 
<b>3 MATERIALS MANAGEMENT</b>  The Library's materials and resource system uses zero-waste principles.	<b>3.1</b> Opportunities for zero waste Develop a zero-waste plan for operations  <b>3.2</b> Evaluate waste stream Assess the current waste stream to better understand opportunities for waste reduction  <b>3.3</b> Partnership with CPW Partner with Concord Public Works to demonstrate sustainable materials management	<b>BUILT ENVIRONMENT</b> 
<b>4 MOBILITY</b>  The Library supports sustainable transportation options.	<b>4.1</b> Commuting Understand transportation options for staff and commuting GHG emissions to and from the Library  <b>4.2</b> Inter-building transportation Explore low-emissions transportation for inter-building Library collaboration  <b>4.3</b> Low-emissions travel partnerships Create and promote partnerships with other Town institutions for low-emissions travel, including safe biking and pedestrian options	<b>MOBILITY</b> 

# Climate Change Adaptation

Building Community Resilience

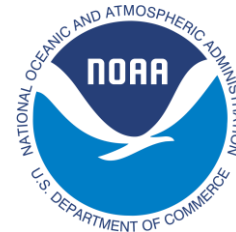


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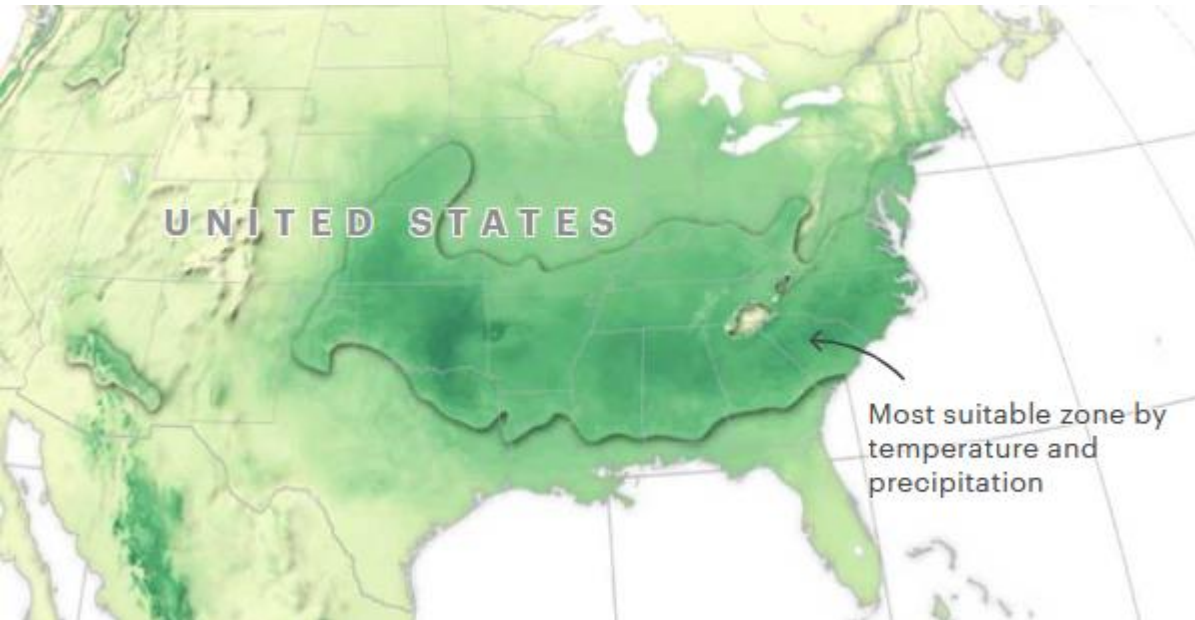


# Top Climate Hazards in the Northeast

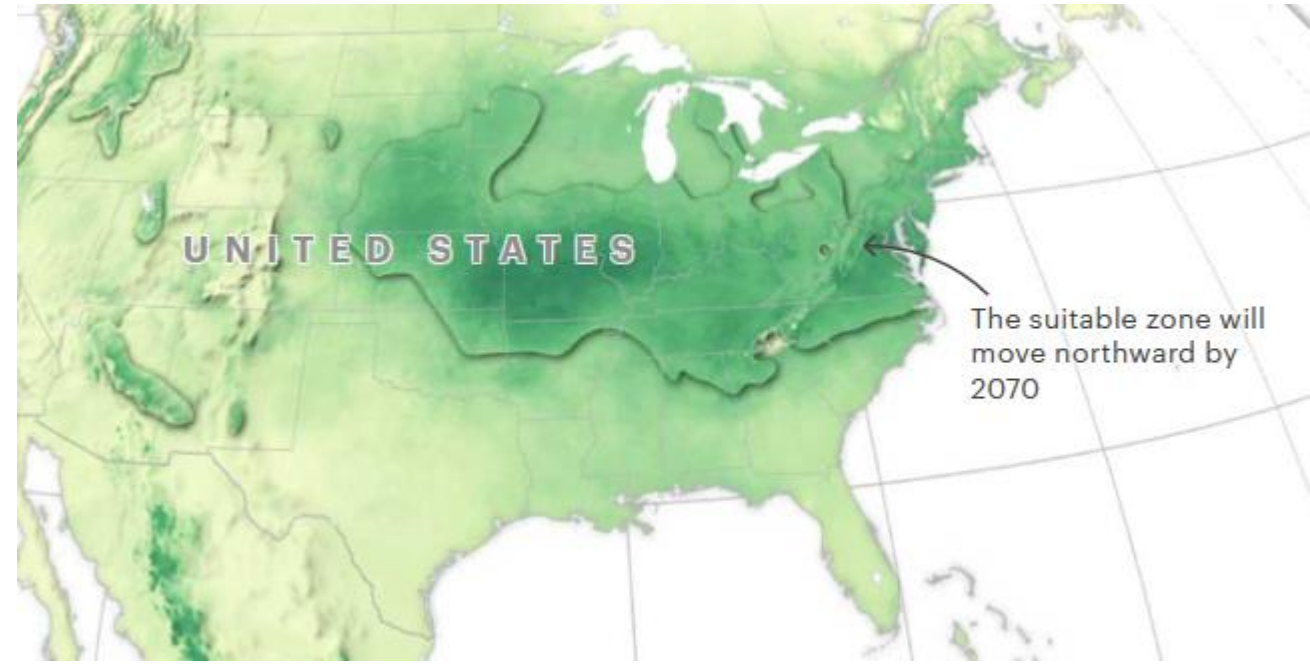
- **Extreme Weather** (e.g. severe thunderstorms, severe snowstorms, ice storms, blizzards, hurricanes, and high winds)
- **More Intense and Extended Heat Waves**
- **Lower Air and Water Quality**
- **Changing Precipitation Patterns**
  - Flooding
    - Inland
    - Waterway
    - Coastal
  - Drought
- **Rising Sea Levels**



# Climate Havens



**Today**



**2070**

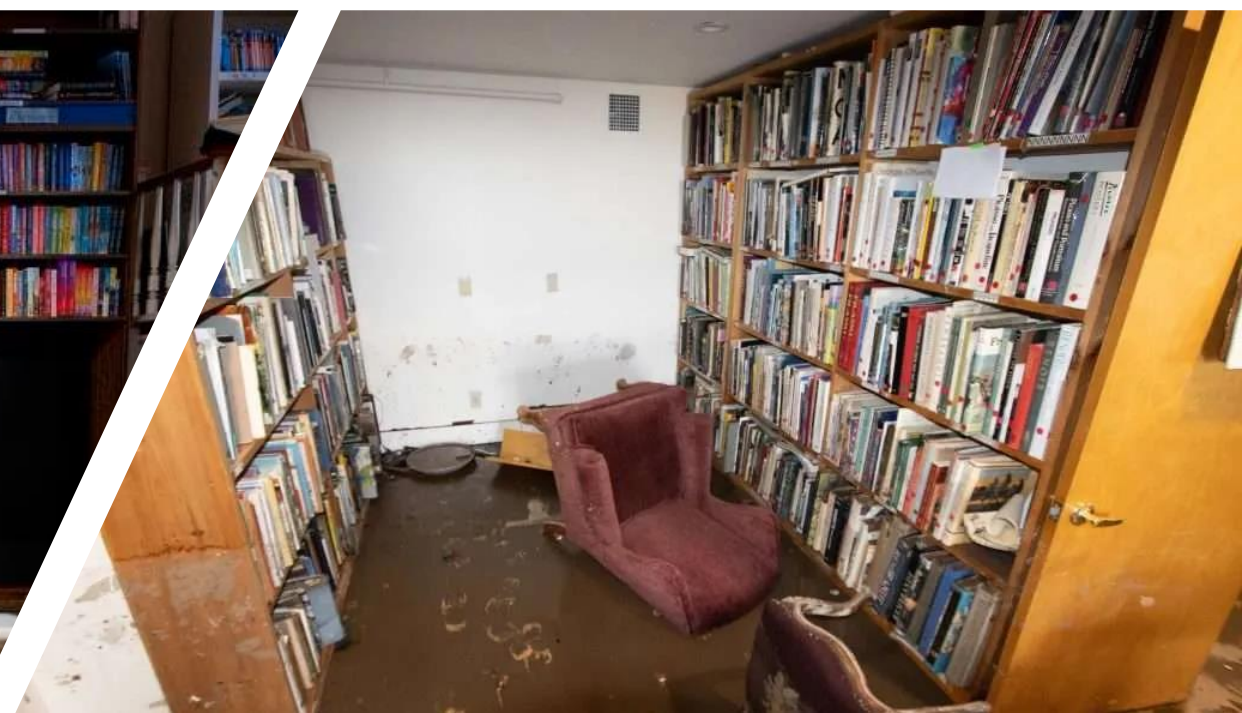




# LIBRARIES SUFFER DAMAGES AFTER FLOODING



7:03  
59°





# Adaptation = Two Fronts

## Disaster Preparedness (internal)

- Planning:
  - Disaster Preparedness
  - Continuity of Operations
  - Incident Action Plan
- Facility Redundancies
  - Power
  - Water
- Staff Preparedness

## Community Resilience (external)

- Acute
  - Citizen Preparedness
  - Emergency Communication Networks
  - Transportation
  - Food Security
- Long-Term
  - Equity, Diversity, Inclusion, Access & CLIMATE JUSTICE

# Reduce Risk

## 1. Reduce Exposure

- Reduce the presence of assets in locations that could be adversely affected

## 2. Reduce Sensitivity

- Lower the degree to which a system is adversely affected

## 3. Increase Adaptive Capacity

- Raise the ability of natural systems to prepare for, adjust to, respond to, and recover from disruption

## The Steps to Resilience



# Flood Protection

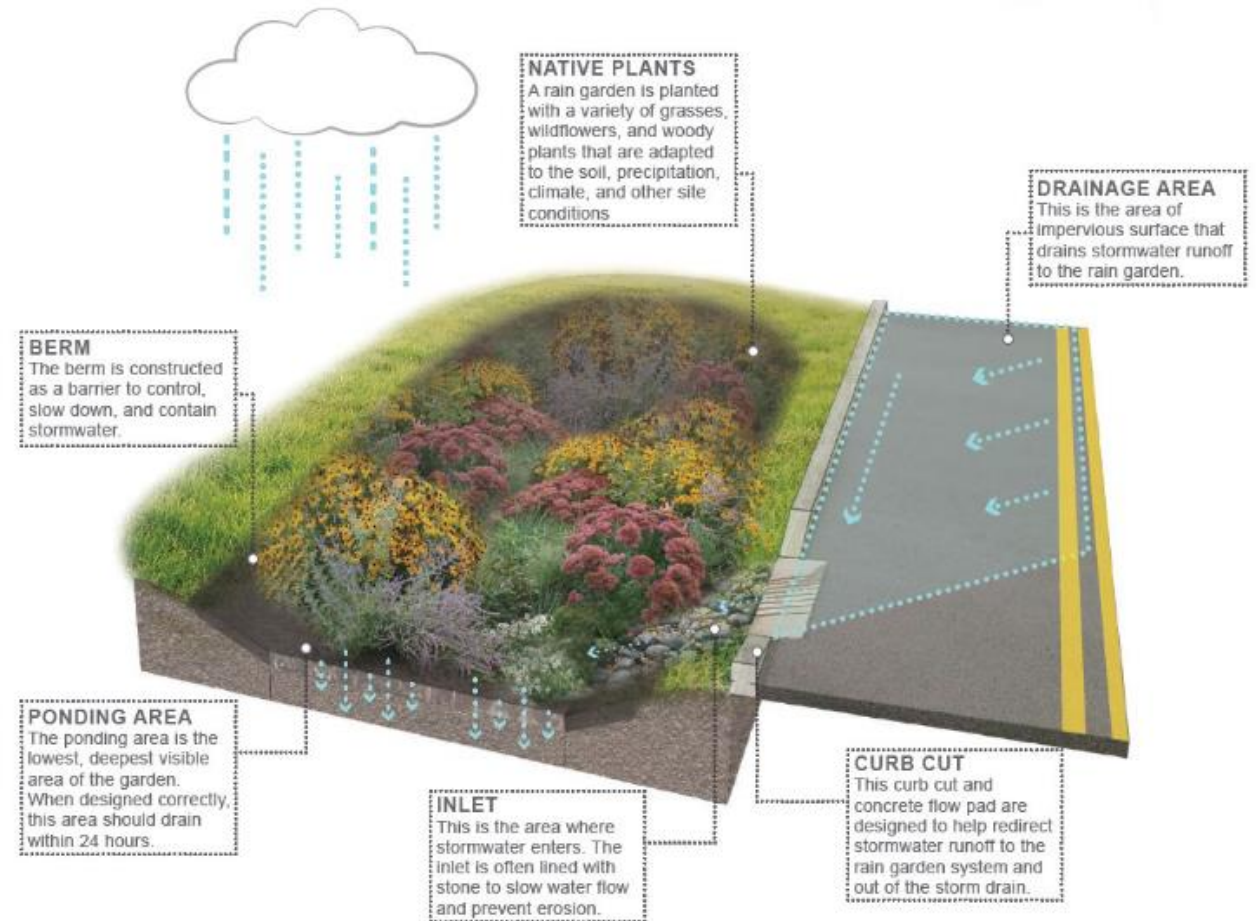
- ✓ Avoid building in a floodplain unless you **elevate and reinforce** the facility
- ✓ **Elevate the HVAC equipment** if susceptible to flooding
- ✓ Install **check valves** in sewer traps to prevent flood water from backing up into the library
- ✓ Construct **barriers** to stop floodwater from entering the building
- ✓ **Seal walls in basements** with waterproofing compounds to avoid seepage





# Green Infrastructure

- Native Plants
- Stormwater Management
- Rain Gardens & Bioswales
- Permeable Pavement
- Protect Wetlands
- Trees, Trees, Trees



# Disaster Preparedness

## Preparedness Programs & First Responder Appreciation

### Wacky Weather: Are You Prepared?



This program on preparedness taught children how to stay safe and prepare for power outages, hurricanes, & fires. They receive a pillowcase "go-bag" to customize, as well as a digital workbook from the Red Cross.



### Crafts For A Cause

This take & make program gave patrons the opportunity to create thank you cards for our police officers, firefighters and first aid squad members. We then donated them along with goodie bags made by our teens in a monthly community service program.

### Meet Your Community Helpers



Families were invited to meet local first responders and check out their vehicles, including a fire truck, police car and ambulance.







An official website of New York State. [Here's how you know.](#) ▾

 Translate ▾

Search



## Division of Homeland Security and Emergency Services

[Emergency Management](#) [State Fire](#) [Emergency Communications](#) [Counter Terrorism](#) [Disaster Recovery](#) [Grants](#) [Training](#) [About](#) [Careers](#)

# Citizen Preparedness Corps

## Citizen Preparedness Corps Training

Giving residents tools and resources to prepare for any type of disaster, respond accordingly, and recover as quickly as possible.







# GROWING LITERACY

## WINTER GARDEN WORKSHOPS

Sundays  
3:00-4:30pm

**Bring your curiosity, questions, and join us!**

All gardening abilities welcome.

**JAN 22**

Let's Diversify! Minimizing Lawn and Maximizing Habitat  
with Gary Fish - via zoom

**JAN 29**

Home-based (backyard) Aerobic Composting  
with Mark King - via zoom

**FEB 5**

Sowing Native Seeds for the Community with Ellen  
Maling - at Curtis Memorial Library

**MAR 5**

Scalable No-Till Gardening: Prioritizing Soil Health for  
Better Yields with Theda Lyden & Carrie Asselin - at  
Growing to Give

**MAR 12**

Seed Starting and Greenhouse Tour at Whatley Farm  
with Ben Whatley - at Whatley Farm

**MAR 19**

Planting and Growing by the Lunar Calendar:  
The Biodynamic Approach to Growing Our Food  
with Barbara Shinn - via zoom



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To learn more and register:  
[www.btlf.org/growing-literacy-2023/](http://www.btlf.org/growing-literacy-2023/)







Support the Library Farm by purchasing a 5 oz hot sauce made with locally grown serrano peppers. Visit our **Cicero Branch** to pick up a bottle for only \$10; all proceeds go directly to the Library Farm.



# Repair Café

Saratoga Springs



★ Sunday, April 16, 2023

★ 12:30 PM - 3:30 PM

★ Skidmore College, Case Center

Sustainable  
Saratoga 

[www.sustainablesaratoga.org](http://www.sustainablesaratoga.org)

Educate.  
Advocate.  
Act.







<https://www.libraryoflocal.org/>

- Seed Library & Tool Lending
- Special Collections:
  - Food Security (Y1)
  - Climate Solutions (Y2)
  - Disaster Preparedness (Y3)
- Programming led by local experts
- Alignment with NYS Climate Smart Communities



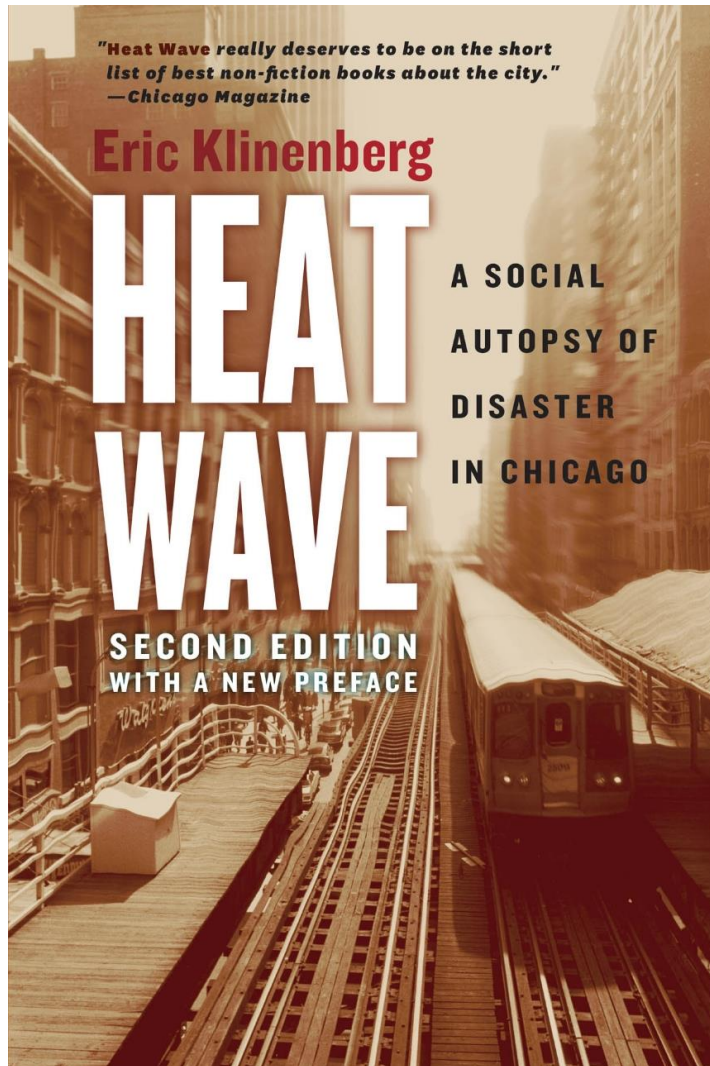
# Climate Justice

Climate Justice = Social + Economic + Environmental Justice



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**“A natural disaster is always a human-made disaster because social conditions determine who is most vulnerable and because the meaning of any disaster is culturally negotiated.”**

-Ann E. Larabee in her review of *Heat Wave*

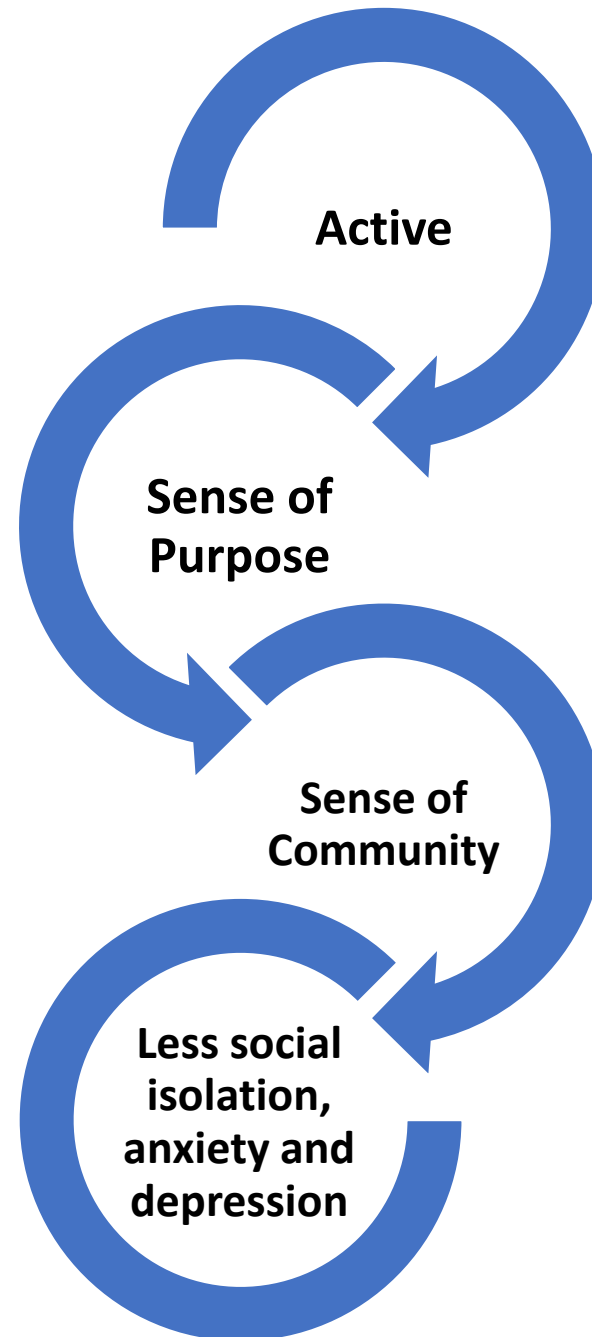
# Social Cohesion & Civic Participation

## Social Cohesion:

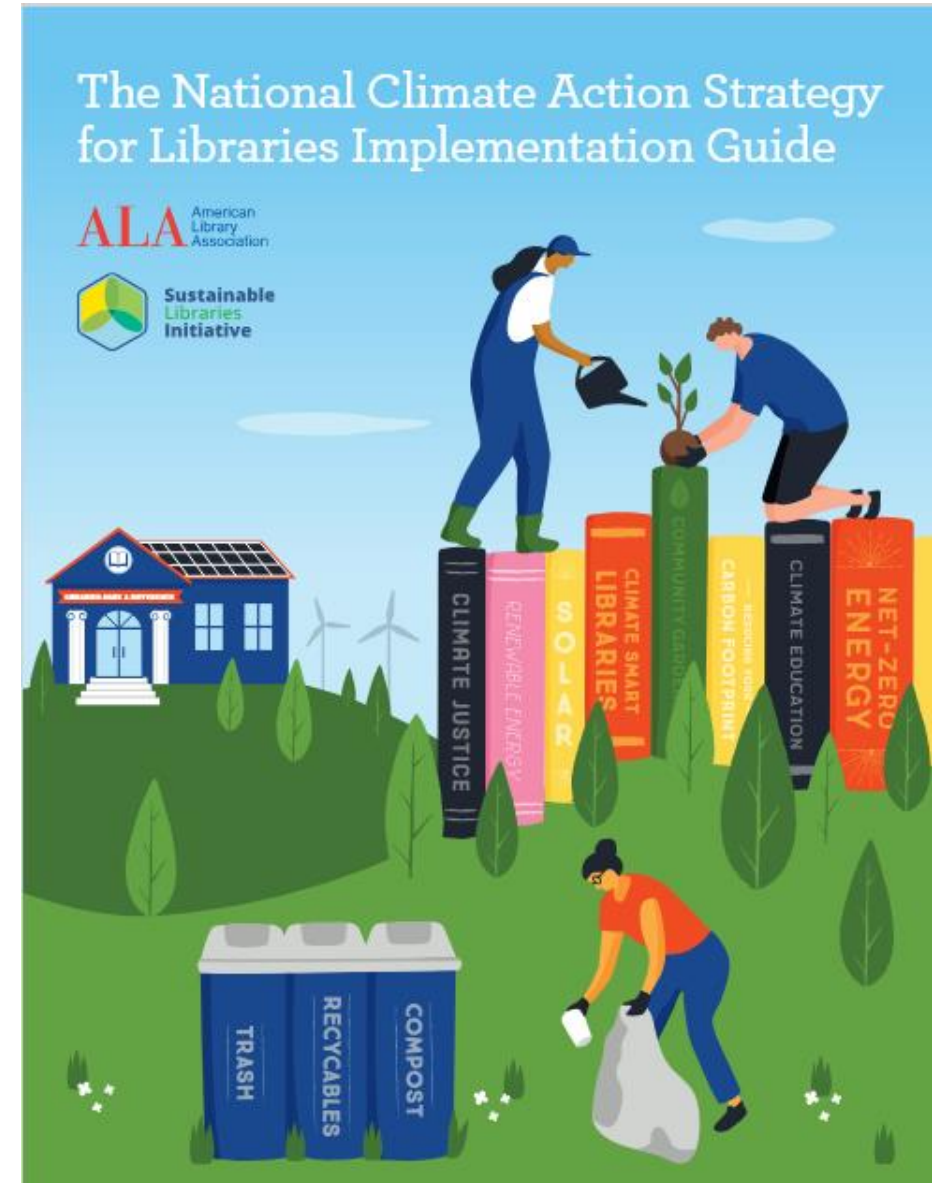
Respect, Empathy, and Understanding  
Strength of Relationships  
Sense of Solidarity  
Social Capital through Social Networks

## Civic Participation:

Voting  
Volunteering  
Participating in Group Activities  
Community Gardening



**“Libraries harness the transformative power of education** for climate justice and develop relationships...to embed a deeper awareness of the intersection of human and civil rights with climate stewardship than is presently found.”



Mindset shifts do not happen overnight.



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**START WHERE YOU ARE.**

**USE WHAT YOU HAVE.**

**DO WHAT YOU CAN.**

**-ARTHUR ASHE**

*and George Washington Carver, Squire Bill Widener, and Teddy Roosevelt...*



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Work  
“from the  
inside  
out.”



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SUSTAINABLE LIBRARIES INITIATIVE



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# Sustainable Library Certification Program



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<https://sustainablelibrariesinitiative.org/>

SCAN ME





# Sustainable Libraries Initiative

<https://sustainablelibrariesinitiative.org>



## Free

- Newsletter
- Mobile App
- Webinars
- Resources
- Facebook Page & Instagram

## SLI Members - [FREE FOR ALL NYLA MEMBERS](#)

- Curated Resources
- Access to On Demand Training
- CO<sub>2</sub> Calculator
- Vendor and Program Ideas
- American Library Association - SLI eCourse

## Sustainable Library Certification Program - [20% discount for NYLA Members](#)

- Online Dashboard to Track Action Items
- Example policies, program ideas, and more
- Assigned Mentor
- Meet Ups with Others in the Program



# Rebekkah Smith Aldrich, MLS, LEED AP

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Co-Founder & Board President, **Sustainable Libraries Initiative**

Co-Founder, **The Library of Local**

Sustainability Columnist, **Library Journal**

Thank You

## Author:

