

# Today's Presenter



**Rebekkah Smith Aldrich, MLS, LEED AP**  
Executive Director, Mid-Hudson Library System (NY),  
Co-founder/Current President, Sustainable Libraries  
Initiative, and Author

# Climate Action (Part 1)

**Sustainable Libraries: Resources and Webinars for Climate Action**

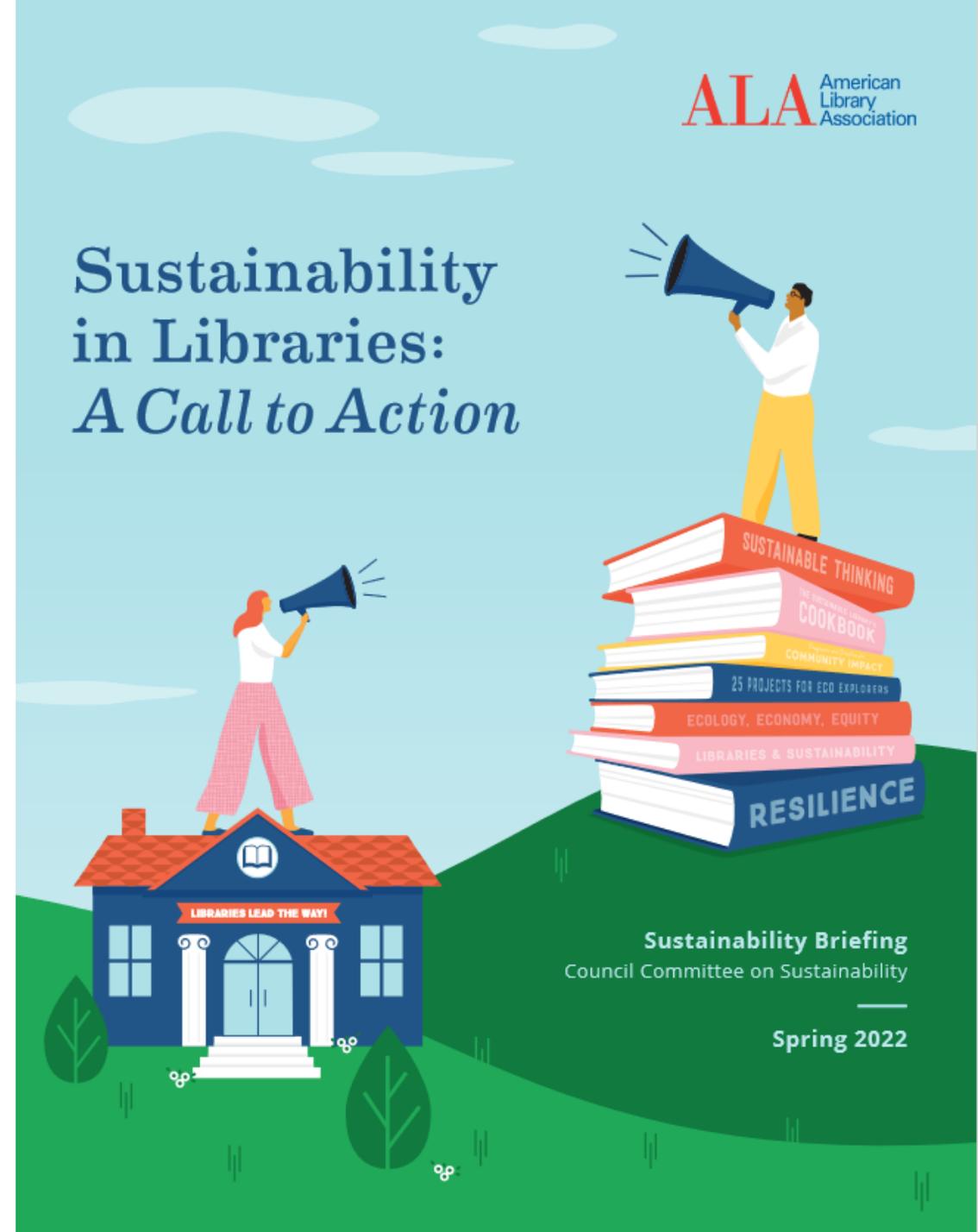
Presented by Rebekkah Smith Aldrich





Image Source: National Centers for Environmental Information, NOAA

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



ALA American Library Association

## Sustainability in Libraries: *A Call to Action*



Sustainability Briefing  
Council Committee on Sustainability  
Spring 2022

# Characteristics of Sustainable Libraries

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

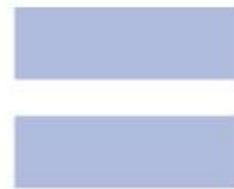


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# Today's Plan

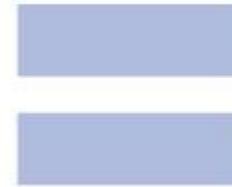
1. Basic Definitions
2. How to Get Started
3. Deeper Dive:
  - Mitigation
  - Adaptation
  - Justice
4. Pulling it All Together





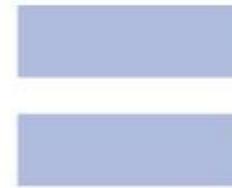
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→ Reduce Greenhouse Gas Emissions



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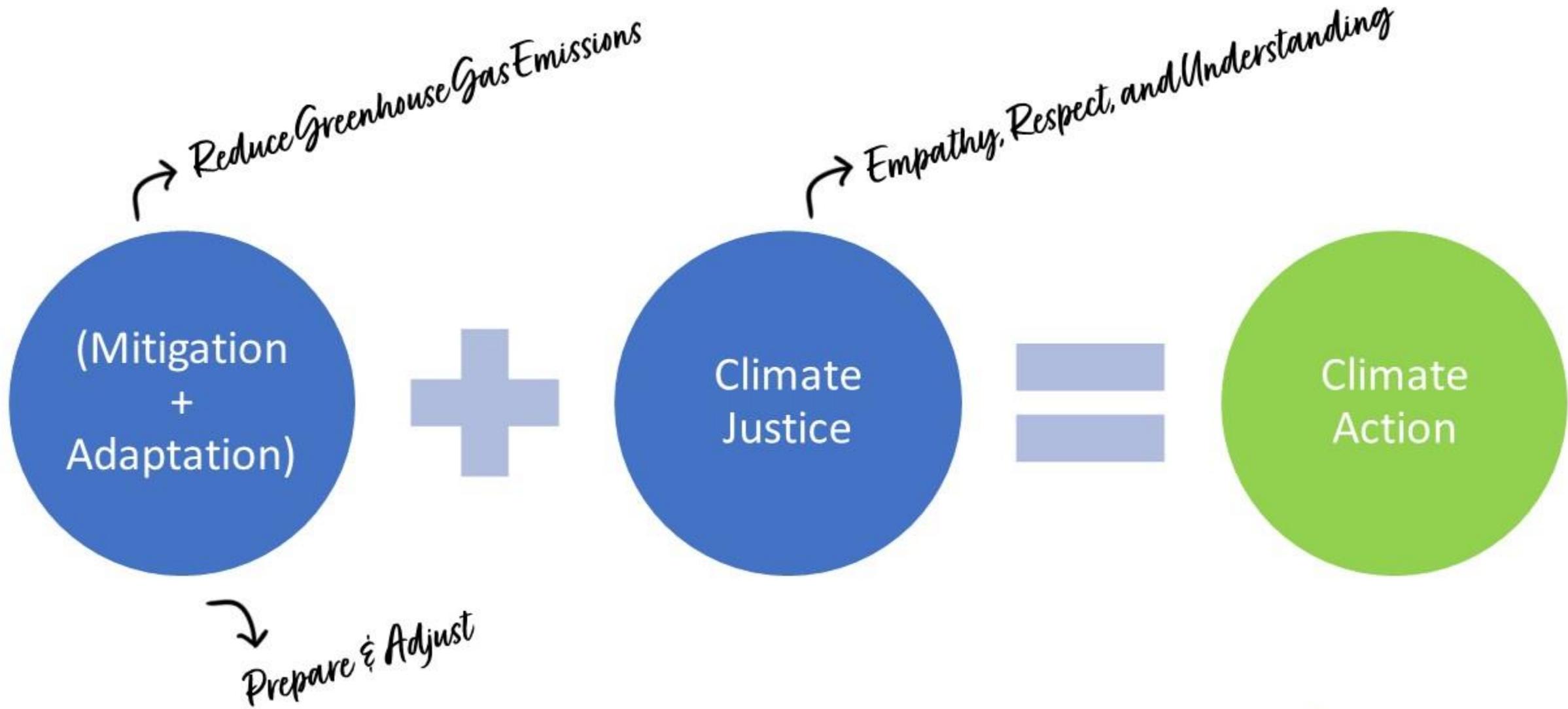
*→ Reduce Greenhouse Gas Emissions*



*↘ Prepare & Adjust*



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# Getting Started

Building Blocks for Your Library's Climate Action Plan

# The Climate Action Planning Framework



# Steps (adapted from C40 model)

1. Leadership Buy-In
2. Stakeholder and Community Engagement
3. Strategy Identification
4. Plan Compilation
5. Governance (i.e. policy, governance structure, enabling conditions)
6. Evidence of Positive Change (i.e. measurement)
7. Action Prioritization and EDI Considerations
8. Monitoring, Evaluation, and Reporting

# Building Blocks



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Regional/Local  
Climate Action  
or Sustainability  
Plans



Community  
Asset Map

GHG Emissions  
Inventory



- **Recognize**
- **Align (or lead)**
- **Benchmark**



# Climate Change Mitigation

Decarbonize = Reduce Greenhouse Gas (GHG) Emissions

# Greenhouse Gas (GHG) Emissions Inventory

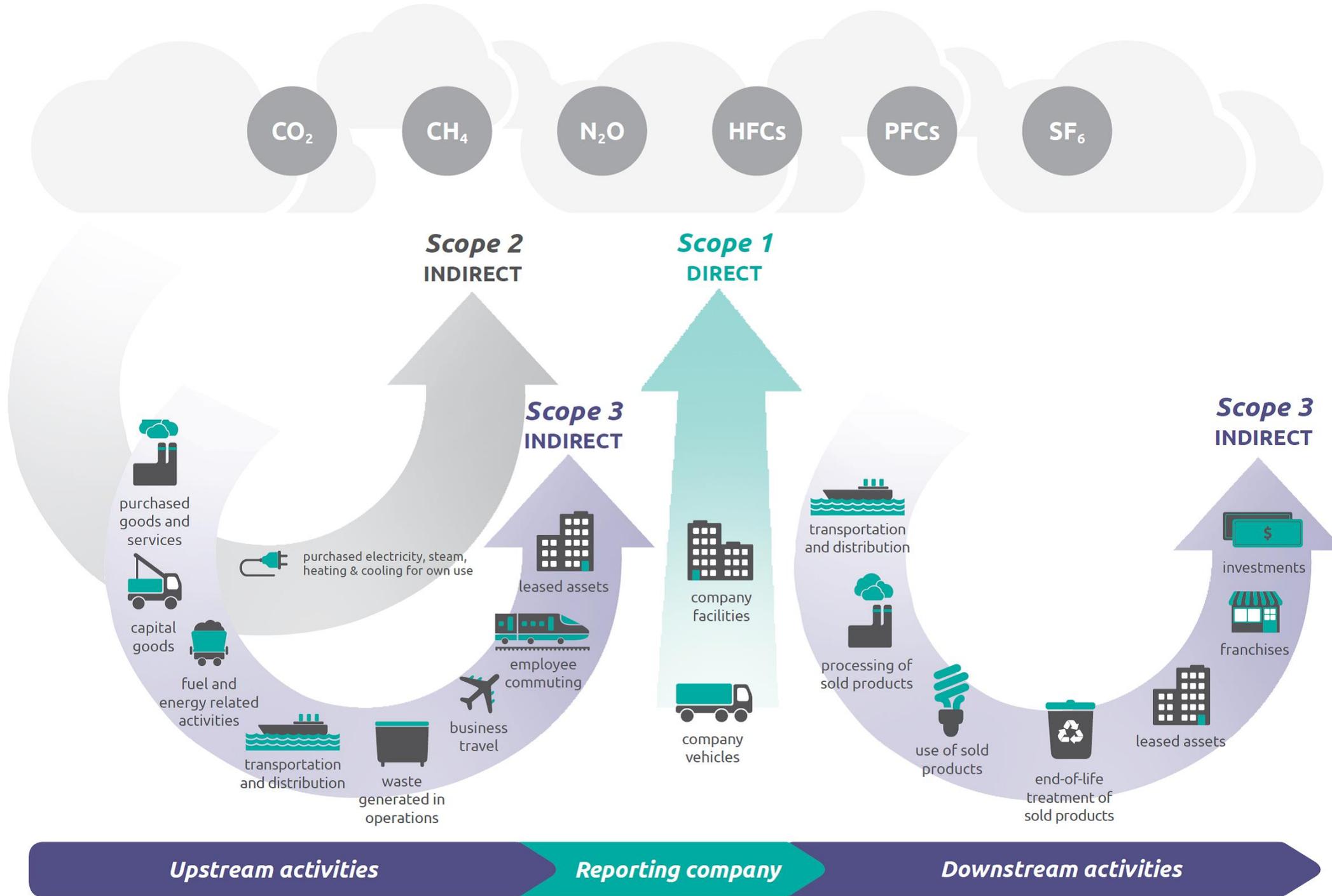
1. Set Goals and Priorities
2. Define Scale of Inventory
3. Collect and Compile Data
4. Set Base Year
5. Calculate Emissions
6. Procure Certification (optional)
7. Analyze and Communicate Results

## Why?

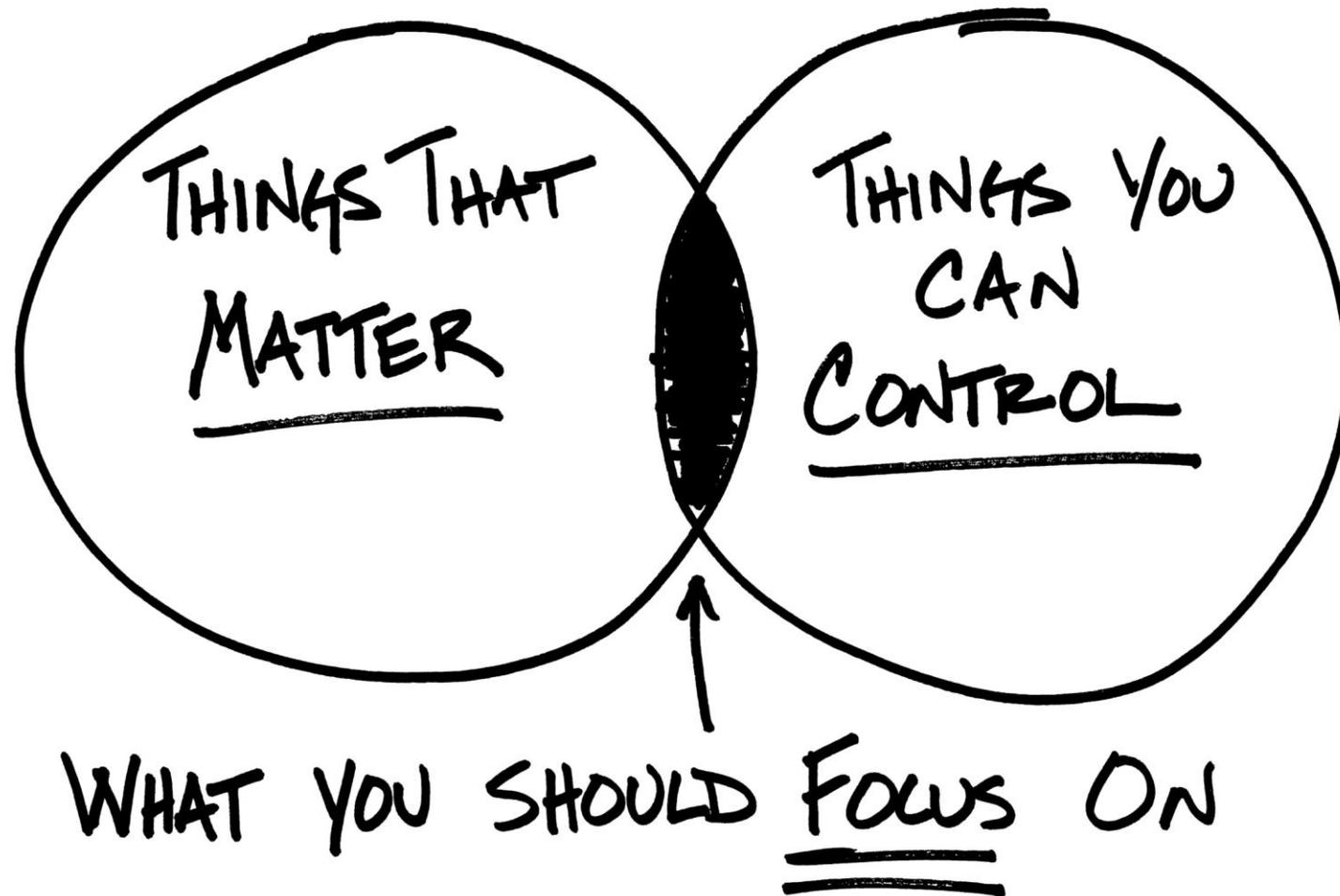
- Save Money
- Improve Energy Efficiency
- Build Your Reputation
- Manage Risk



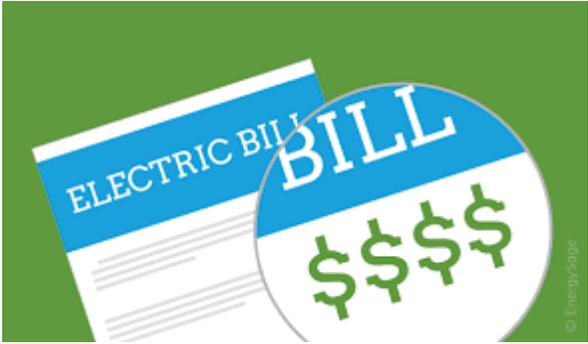
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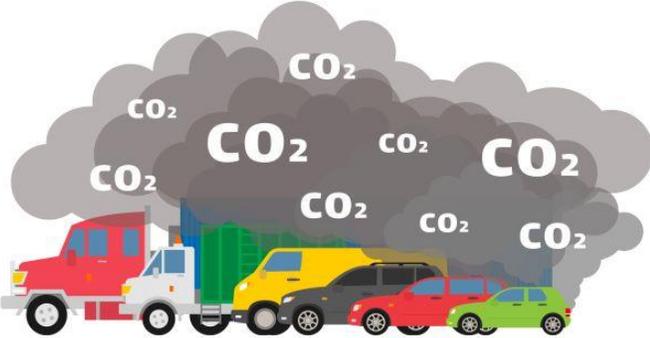
# Organizational Boundaries



# Simplified:



**Electricity Usage**



**Transportation**



**Waste Stream**

# Electricity

- Building Envelope
  - Related Issues:
    - Ventilation
    - Insulation
- Heating & Cooling Equipment
- Lighting
- Appliances & Electronics

If you oversee your own facility an ASHRAE Level 2 Energy Audit is recommended.



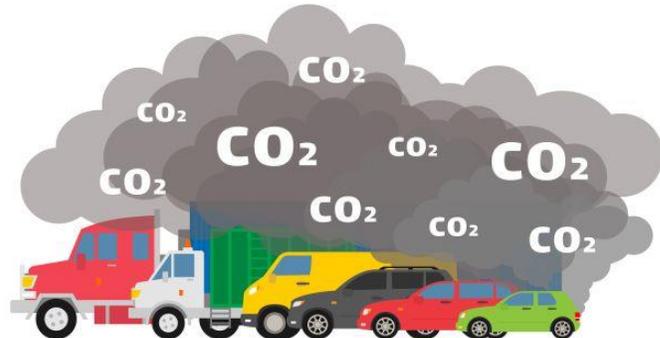
# Transportation

- **Fleet** (including bookmobiles)

- Convert to Electric Vehicles (EV)

- **Commuting**

- Help folks be aware of their options
- Promote public transportation and ride shares



- **Conferences**

- Travel & Conference Policy
- Ethical Carbon Offsets

See: [Carbon Neutral/Carbon Offset FAQ](#) from the ALA Council Committee on Sustainability

- **Delivery**

- From how far away?
- Prioritize local

# ELECTRIC CAR DAY



at the DESMOND-FISH PUBLIC LIBRARY

Thursday, August 19  
5PM



BRING YOUR  
ELECTRIC CAR  
TO THE  
DESMOND-FISH  
PUBLIC LIBRARY  
OR COME MEET  
OUR NEIGHBORS  
WHO DRIVE  
ELECTRIC,  
CHECK OUT  
THEIR CARS,  
AND ASK THEM  
YOUR  
QUESTIONS.  
WE WILL HAVE  
ELECTRIC LAWN  
EQUIPMENT  
AND AN E-BIKE  
ON DISPLAY,  
TOO!

## Electric Cars 101

With Electric Car Guru

Abdur-Rahman Morgan

Followed by a panel of  
Electric Vehicle Owners

Krystal Ford, Martha Upton  
and more

Wednesday  
January 26th  
at 7 pm



A Zoom event - Register at  
<https://bit.ly/electriccarsJan26>

Recording on YouTube <https://youtu.be/MDRXxN4uuNw>

# Waste Stream

- **Every item you purchase is made from raw materials**
  - Are the materials sustainably sourced?
  - How far away are the materials from point of production? From your location?
  - Does the harvest or manufacture of those materials cause harm to the origin community?
- **Every item you purchase had an “end of useful life”**
  - Can it be repurposed?
  - Can it be recycled?
  - Will it biodegrade?



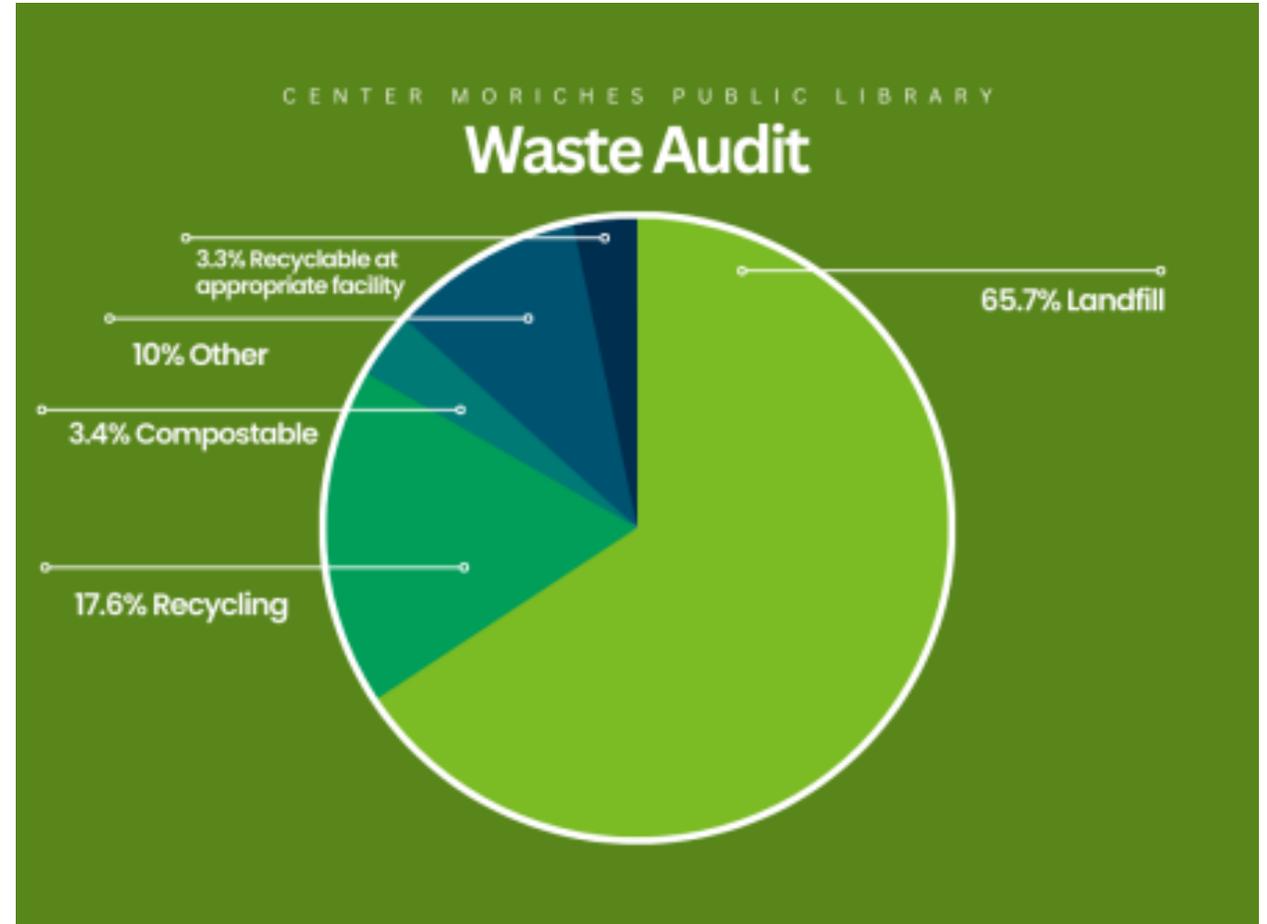
# Waste Audit



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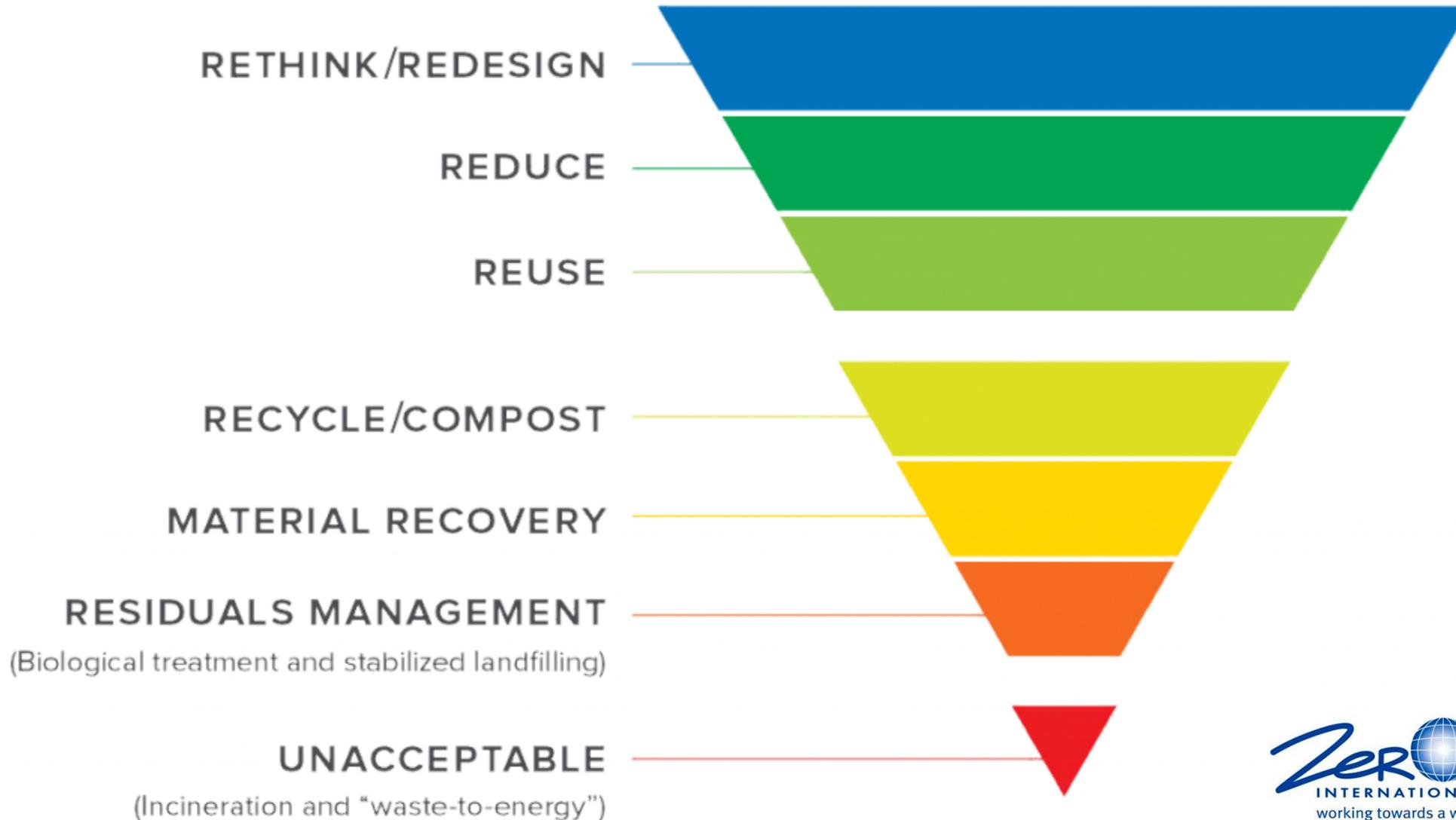


<https://youtu.be/huvvBT2vYJU>



# THE ZERO WASTE HIERARCHY 8.0

For detailed version visit [www.zwia.org/zwh](http://www.zwia.org/zwh)



# Goal Setting

- Include a base year and a target year
- Be aggressive – go beyond “business as usual”
- Use an absolute reduction in GHG emission in your target
  - Example: 30% reduction over 5 years

## **Current U.S. target, announced in 2021 by President Biden:**

- “...50-52% reduction from 2005 levels in economy-wide net greenhouse gas pollution in 2030...”
- “...reaching net zero emission economy-wide by no later than 2050...”

# Example Actions



- Energy Audit\*
- Staff Education
- Energy Conservation through Building Envelope Assets\*
- Switch to Renewable Energy\*
- Planting Trees for Shade
- Plant Native Species
- Support Public Transportation
- Electric Vehicles (EV)
- EV Charging Infrastructure\*
- Ethical Carbon Offsets for Conference Travel
- Prioritize purchasing from local businesses
- Throw Away Less Stuff

*\*Many state energy authorities and utility companies subsidize these items*

# Scale Up

Lead “from the inside out”

Library → Patrons → Community



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# Climate Change Adaptation

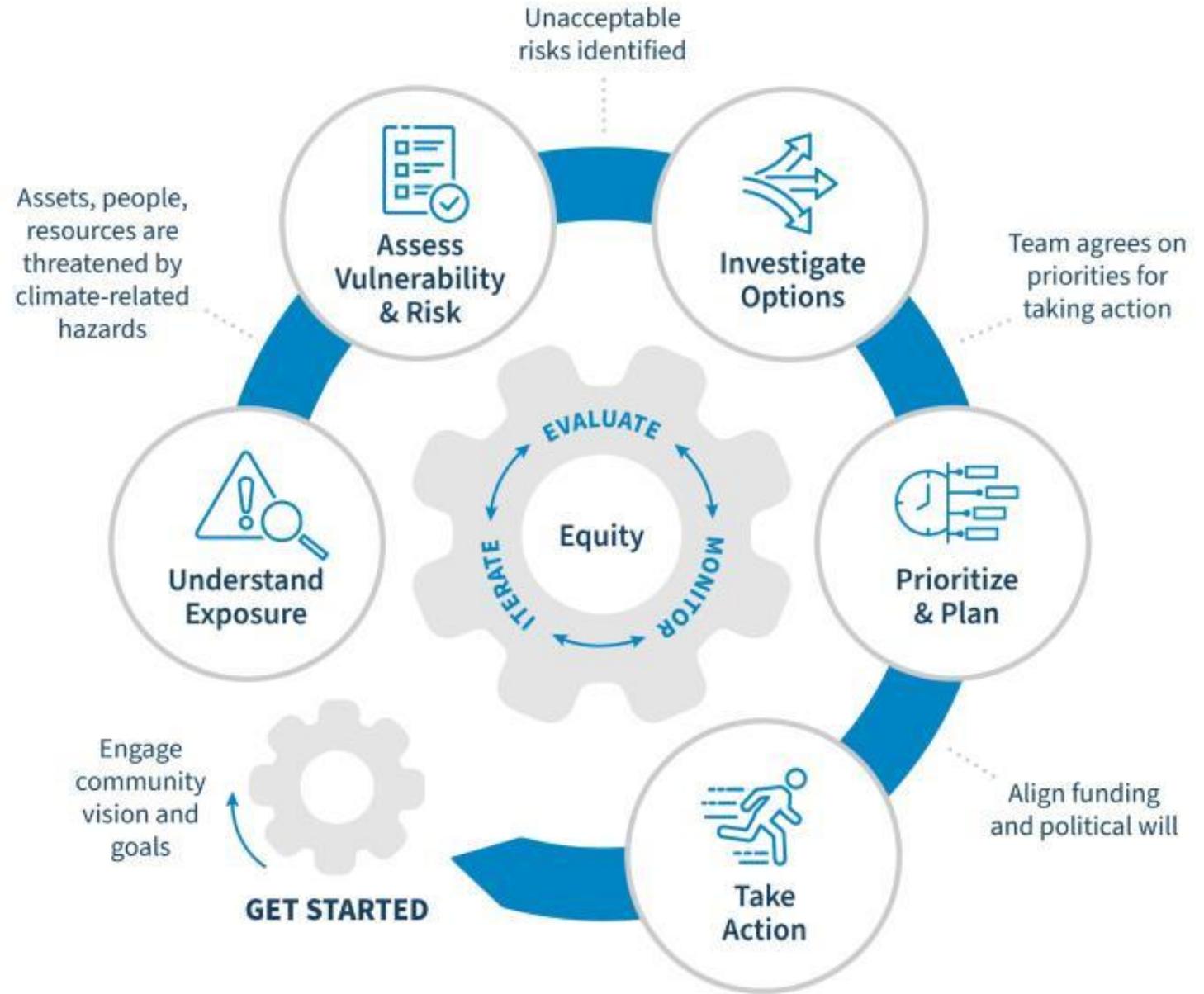
Building Community Resilience



# U.S. Climate Resilience Toolkit

<https://toolkit.climate.gov>

## The Steps to Resilience



# 1. Understand Exposure

What could happen?

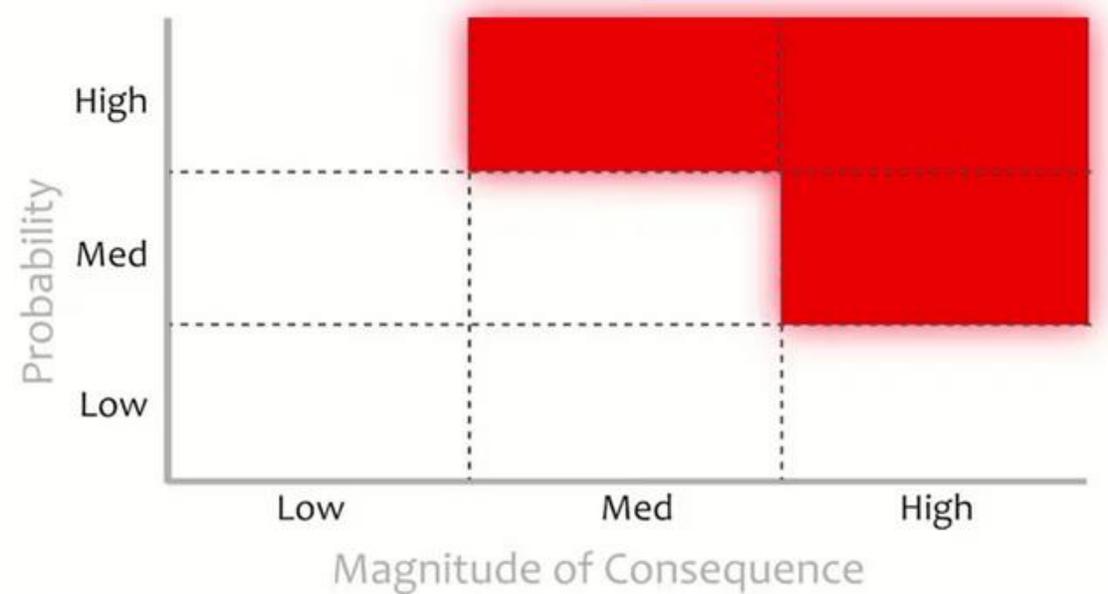
- Identify the things your community cares about
- Explore potential hazards
- Which of your assets are exposed to weather and climate?
- Identify potential hazards for your each of your exposed assets

*Example table:*

	Assets	Hazards
1.	Staff	Extreme Heat; Extended Power Outage; Flooding and Damaging Winds
2.	Library Facility	Extended Power Outage; Flooding and Damaging Winds; Wildfires
3.		

## 2. Assess Vulnerability & Risks

- Not all hazards are equally likely
- Sensitivity determines potential impacts
- Check each assets' adaptive capacity
- Estimate probability of a hazard



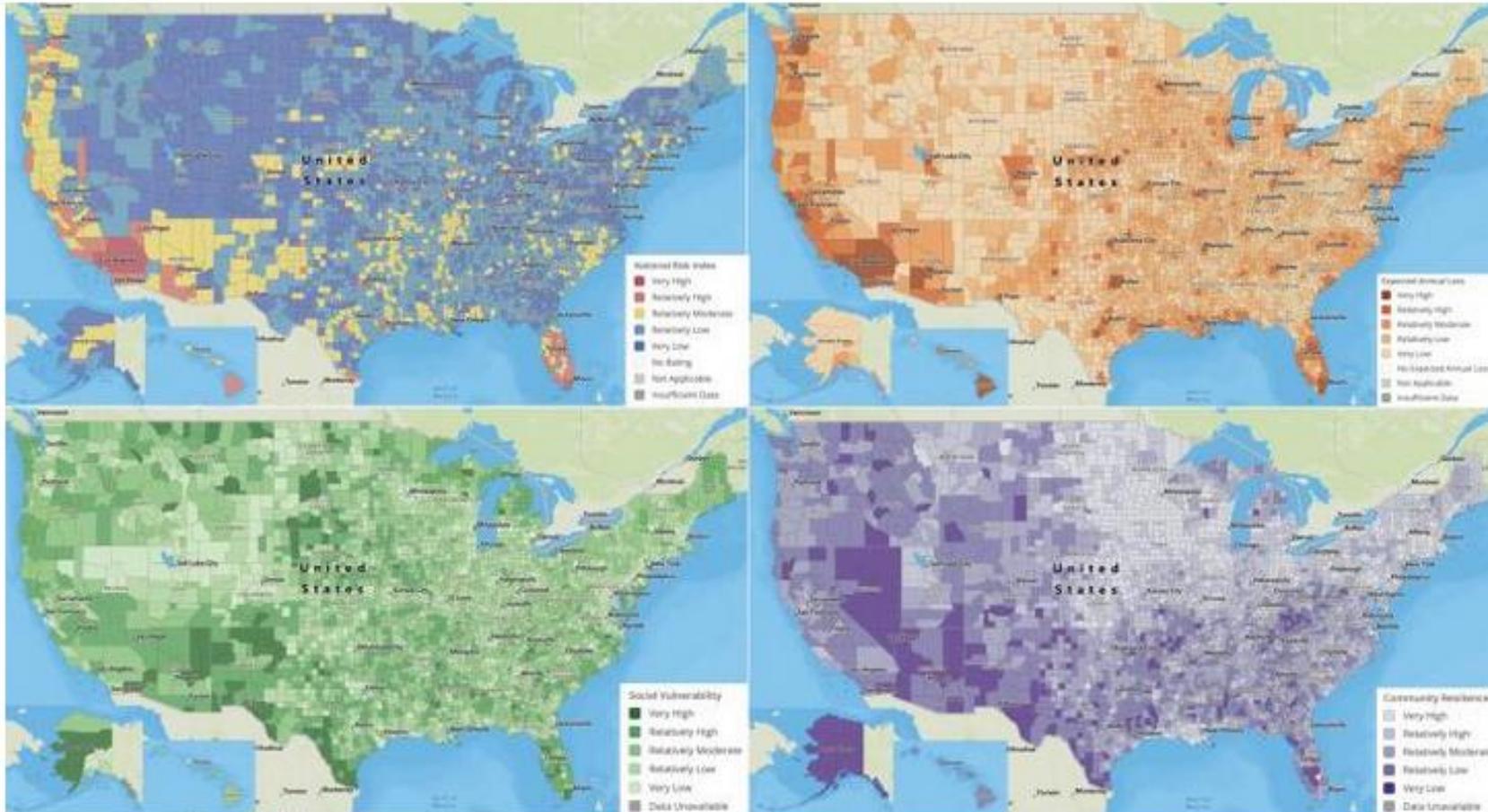
“If a hazard is likely to occur **within 5 years, designate it as a high probability.**

Categorize events that are likely to occur just **once in 5 to 20 years as medium probability.** Designate events that are likely to occur **less frequently than once in 20 years as low probability.”**

# The National Risk Index



# FEMA



Maps in the [National Risk Index](#) let users compare Expected Annual Loss, Social Vulnerability, and Community Resilience for 18 natural hazards. Access the interactive online mapping application from FEMA to check your community's status. Learn more in the [National Risk Index Primer](#).

<https://hazards.fema.gov/nri/>



# 3. Investigate Options

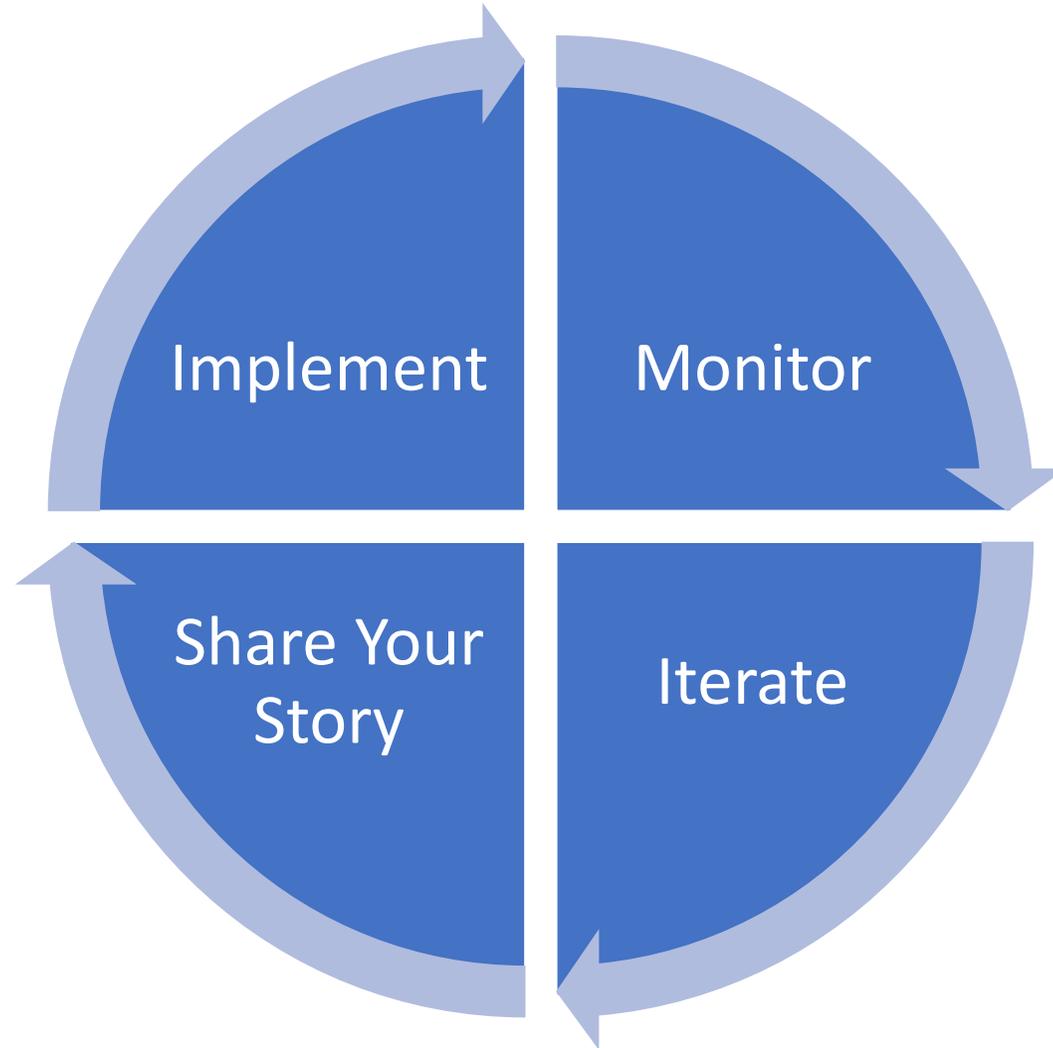
- **Has this happened before in the community?**
  - Work backwards: look for points in the process at which an intervention could have improved the outcome
- **Have other communities dealt with something similar?**
  - Explore case studies and adaptation planning resources:  
<https://toolkit.climate.gov/case-studies>
- **If money were no object, what would you do?**
- **What steps could improve resilience without spending any money?**
- **Is there a partial solution that you could implement now, and complement with further action at a later time?**



## 4. Prioritize & Plan

- What are the top three things that would increase the resilience of **your library** in the face of identified climate hazards?
- What are the top three things that your library can influence that would increase the resilience of **your community** in the face of identified climate hazards?
- What can you implement with **existing resources**?
- Who is working on similar things in the community already? Can you **partner** with them?

# 5. Take Action



# Universal Vulnerabilities

- Air Quality
- Water Quality
- Extreme Heat
- Frequent, Severe Weather Patterns



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# Example: Extreme Heat

- Raising Awareness
- Green Infrastructure to Reduce Urban Heat Island Hot-Spots
- Retrofitting Public Buildings
- Establishment of Cooling Centers
- Air Quality Warning System



Kingston Public Library Purple Air Install

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Below are the current Hudson Valley Library Air Quality Network Purple Air devices affiliated with the  
Community Sciences Lab

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**Bard College**

CENTER FOR  
ENVIRONMENTAL  
SCIENCES AND  
HUMANITIES

# Example Actions



- Disaster Preparedness Plan for the library
- Continuity of Operations Plan for the library
- Preparedness Training for staff to use at home
- Participation in / hosting of community-based preparedness training
- Enhance air filtration in the facility
- Participate in air quality monitoring
- Installation of a whole-building generator
- Install solar with battery backup
- Host a community garden
- Participation in National Preparedness Month (September)
- Become Designated as a Climate Resilience Hub [[climatecrew.org](https://climatecrew.org)]
- Add items to the Library of Things to aid in the aftermath of a disaster

# Climate Justice

Climate Justice = Social + Economic + Environmental Justice

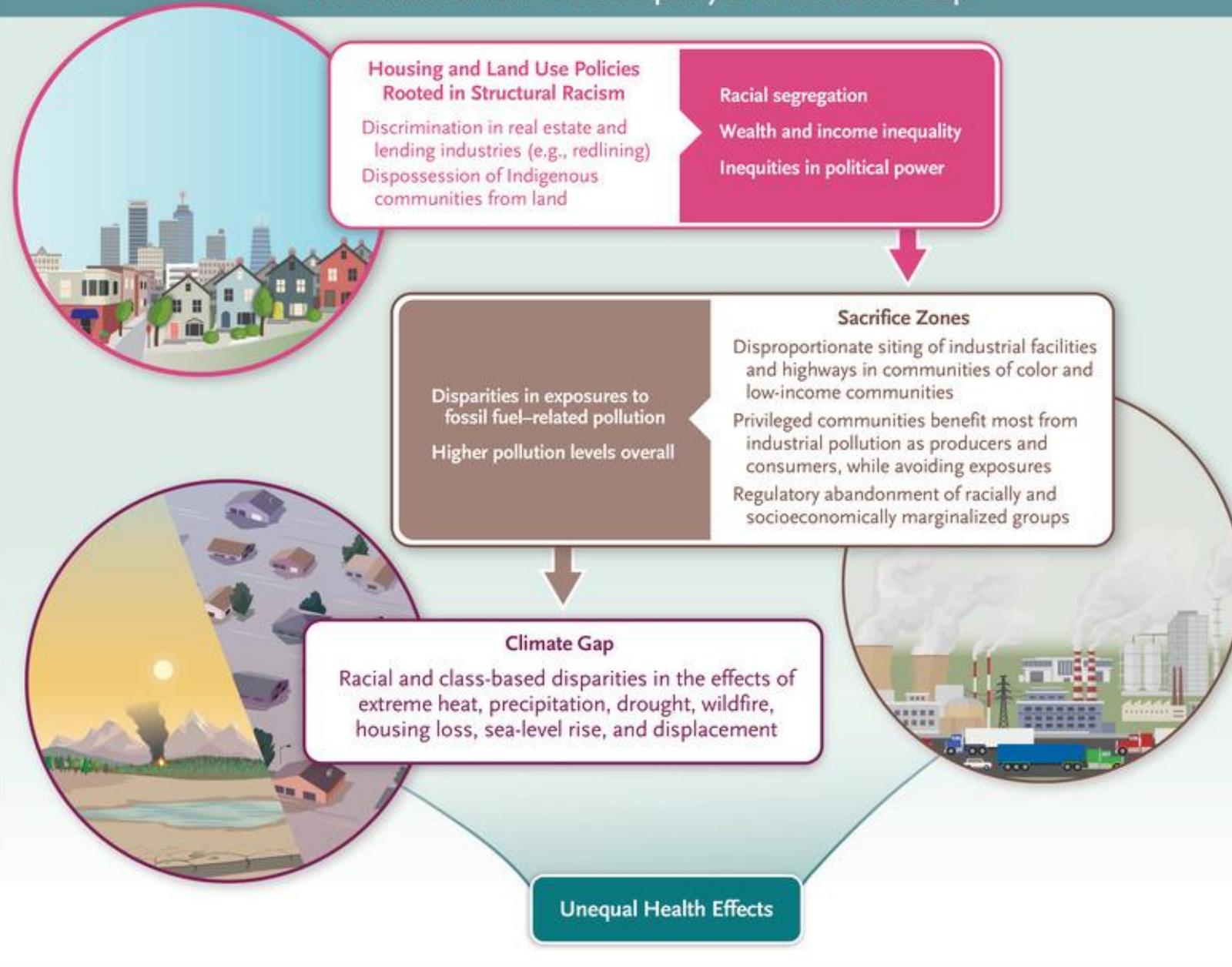


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# “The Six Pillars”



## How Structural Racism and Inequality Drive the Climate Gap

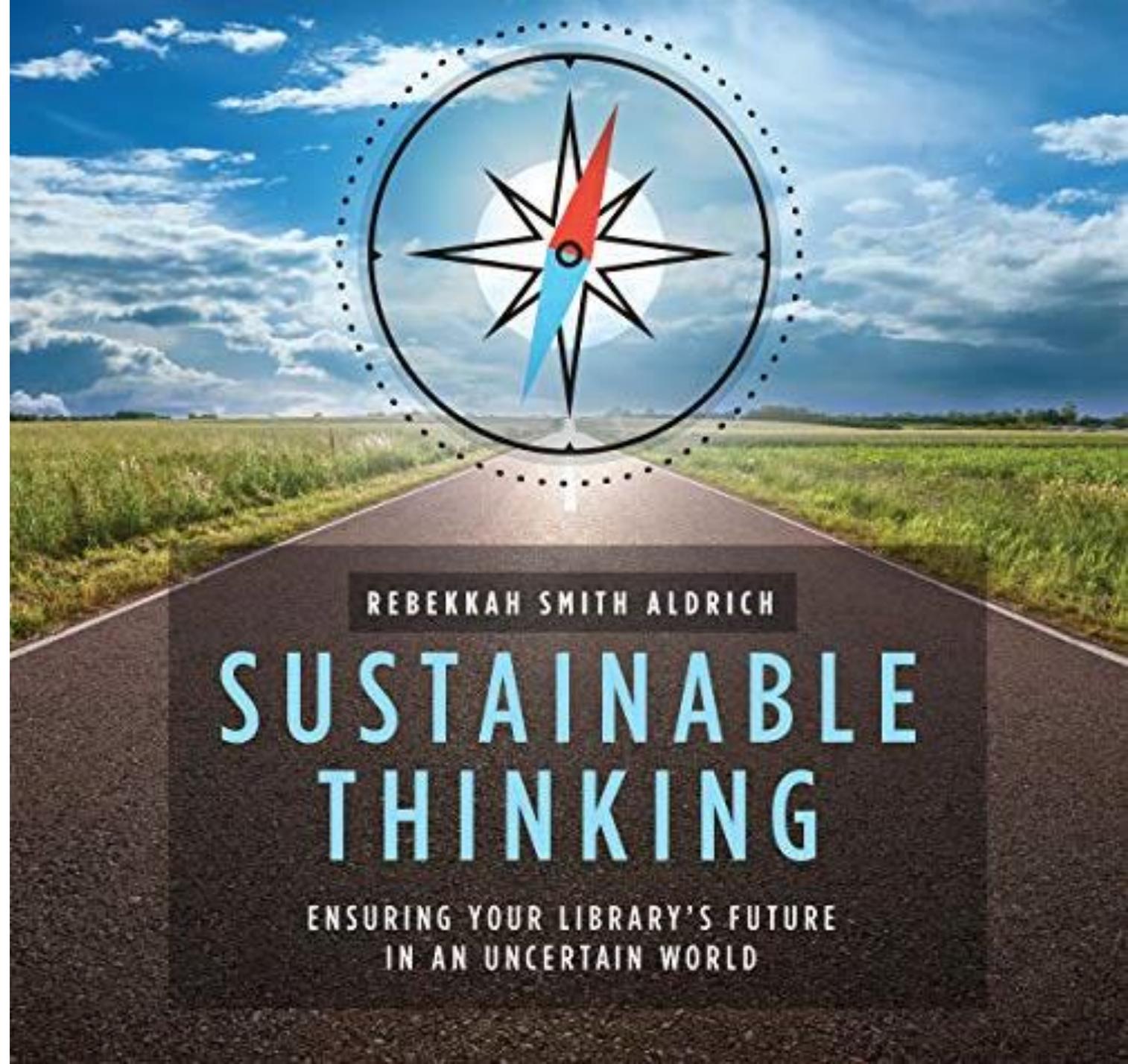


# Just Transition Framework

1. Acknowledge the past historic burdens placed upon communities of color and low-income communities.
2. Develop strong coalitions and community voice for shared decision-making in the present.
3. Ensure future-orientated policies reduce, rather than enhance, inequity.

# Libraries as Climate Justice Catalysts

- Focus on “Local”
- Working Together
- Focus on Diversity
- Help All Be Heard



# Think like a 21<sup>st</sup> Century Economist

1. Change the Goal
2. See the Big Picture
3. Nurture Human Nature
4. Get Savvy with Systems
5. Design to Distribute
6. Create to Regenerate
7. Be Agnostic about Growth

Rollins College

[Rollins Scholarship Online](#)

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[Faculty Publications](#)

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2022

## **Libraries in the Doughnut Economy**

Monika Antonelli

*Minnesota State University, Mankato*, [monika.antonelli@mnsu.edu](mailto:monika.antonelli@mnsu.edu)

Rene Tanner

*Rollins College*, [rtanner@rollins.edu](mailto:rtanner@rollins.edu)

Rebekkah Smith Aldrich

*Mid-Hudson Library System*, [rsmith@midhudson.org](mailto:rsmith@midhudson.org)

Adrian K. Ho

*University of Chicago*, [hoadriank@uchicago.edu](mailto:hoadriank@uchicago.edu)

# Example Actions



- Equity, Diversity, Inclusion, Access, and Justice Statement
- Staff Education
- Culturally appropriate terminology in the library's catalog
- Prioritize Open Access to Scientific Research
- Voter Registration Drives
- Citizen Science Programs
- Programs highlighting local indigenous knowledge as it applies to climate action
- Prioritize doing business with women and minority-owned businesses
- Eliminate the Digital Divide
- Repair Café events



# Putting it All Together

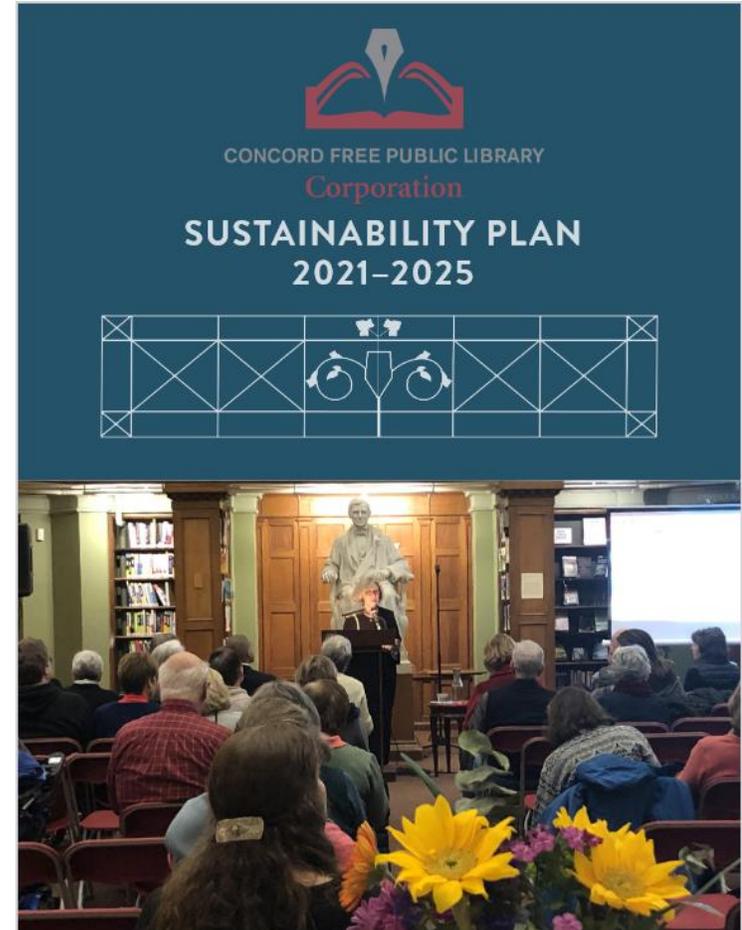
Written, Administration or Board-Approved, Climate Action Plan

# General Themes to Address

- Strategic Framework – why are you taking this action/background info
- Emissions Inventory – benchmark and trajectory
- Mitigation Strategy
- Resilience/Adaptation Strategy
- Educational, Research, Community Outreach Efforts
- Financing
- Implementation and Tracking Progress

# Anatomy of a Climate Action Plan

- Letters of Support from Key Stakeholders
- Executive Summary
- Summary of Goals and Strategies
- Key Terms
- Introduction
- Current State of Sustainability Efforts
- About the Plan
- Focus Area: Built Environment & Operations
- Focus Area: Outreach & Education
- Implementation and Tracking Progress
- Alignment Partners



# Concord Free Library

## Sustainability Plan



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### BUILT ENVIRONMENT AND OPERATIONS

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

# Case Studies

- Sustainable Library Certification Program Final Presentations  
<https://sustainablelibrariesinitiative.org/>
- ALA's Resilient Communities: A Programming Guide for Libraries  
[https://www.ala.org/tools/sites/ala.org.tools/files/content/ResComm\\_ProgGuide%20FINAL100820.pdf](https://www.ala.org/tools/sites/ala.org.tools/files/content/ResComm_ProgGuide%20FINAL100820.pdf)
- U.S. Climate Resilience Toolkit <https://toolkit.climate.gov/#case-studies>
- Urban Sustainability Directors Network Resilience Hubs  
<http://resilience-hub.org/resources/>

Finish



Start





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# Climate Action Plan Template

Think about your library and community and all you've learned about climate change through this series. Below, brainstorm ways your library can change or things that could be done that would have a positive impact on the local and global community.

## Part 1: Climate Change Mitigation

- A. Brainstorm ways your library can reduce its carbon footprint:
  - a. Facility
    - i. What would it take to make your facility net zero?
  - b. Operations
  - c. Transportation
  - d. Materials Management
- B. How can the library use its facility as a "living laboratory" to educate visitors about how the library works to reduce its carbon footprint?
- C. What collections, programs, services, and partnerships can the library seek to help accelerate climate change mitigation in the community?

## Part 2: Climate Change Adaptation

- A. What are the climate hazards in your region?
- B. What needs to be done to minimize service interruptions at your library?
  - a. Staff Preparation & Education
  - b. Policy & Procedures
  - c. Facility/Infrastructure
  - d. Partnerships
  - e. Communications
- C. Who/which agencies in the community is involved with emergency management? Are they aware of what your library can offer in the aftermath of a disaster?
- D. How can the library partner with others to increase the food security in the community?
- E. How can the library be part of air quality strategies in the community?
- F. How can the library be listed as a cooling and/or warming center?



## Part 3: The Library's Role in Climate Justice

- A. Include the library statement on equity, diversity, and inclusion
- B. How can the library prioritize climate education and engagement through collection development, programming, and partnerships?
- C. What indigenous cultures are tied to your region? How can your library connect the community with this/these cultures?
- D. How can your library support the local economy? Local workforce development?
- E. How can your library increase civic participation in the community?
- F. How can your library increase the social cohesion of your community?



## Triple Bottom Line Definition:

- Environmentally Sound
- Socially Equitable
- Economically Feasible

SUSTAINABLE LIBRARIES INITIATIVE



Read Map to

SUSTAINABILITY



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# Sustainable Library Certification Program



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<https://sustainablelibrariesinitiative.org/>

SCAN ME



# Sustainable Library Certification Program

## Public & Academic Libraries

- Organizational Commitment
- Energy, Land, and Water Use
- Waste, Recycling & Purchasing
- Partnerships
- Community Involvement
- Social Equity
- Community Resiliency
- Financial Sustainability
- Collections

SCAN ME



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# Next up...



- September 26: Climate Action Planning (Part 2) **Disaster Preparedness and Community Resilience**
  - **Keith Adams**, Executive Director, New Jersey Voluntary Organizations Active in Disaster (VOAD)
  - **Deborah Costa**, Region 2 Community Preparedness Officer, Federal Emergency Management Agency (FEMA)
  - **Michele Stricker**, Deputy State Librarian, New Jersey State Library



- October 3: **Climate Justice**
- November 28: **Living Our Values Out Loud: Programs that Walk the Talk**
- December 13: **Stronger Together: Collective Impact and Climate Action Programming**

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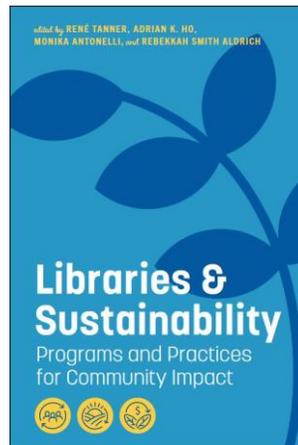
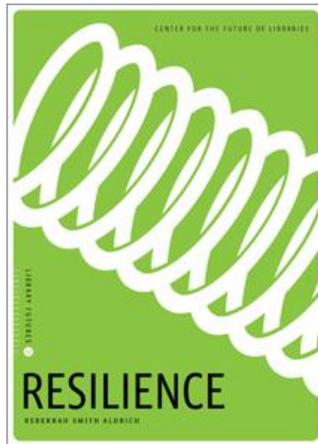
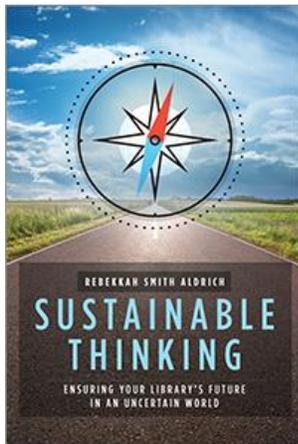
## Executive Director, **Mid-Hudson Library System**

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

Member, Center for the Future of Libraries Advisory Group, **American Library Association**

Sustainability Columnist, **Library Journal**

**Author:** Handbook for Library Trustees in New York State; Handbook for New Public Library Directors in New York State; Public Library District Toolkit: Strategies to Assure Your Library's Legal and Financial Stability; and:



Thank You