

Cleveland Climate Action Fund

Neighborhood Workshop



Welcome



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CCAF Advisory Board

Green City Blue Lake Institute

SC2019 Vital Neighborhoods Working Group

Burten, Bell, Carr Development

Workshop Agenda



Discuss climate change basics and terms
Outline Cleveland Climate Action Plan
Identify existing projects in Cleveland neighborhoods
Generate strengths and needs of Kinsman

BREAK - 10 minutes

Highlights carbon reduction project options
Brainstorm your project ideas
Review CCAF grant application process
Feature other area programs / funding



History of CCAF



Launched in 2009 as Cleveland Carbon Fund - the 1st community-based, open-access carbon reduction fund in the United States

Funded projects in 3 Cleveland neighborhoods (Kinsman, Detroit Shoreway and Glenville) which reduced climate impact factors such as traveling/commuting, land use and home/business utilities usage.

The City of Cleveland's Office of Sustainability releases the Cleveland Climate Action Plan in September 2013

- Goal of 80% reduction below 2010 emission level by 2050
- Interim goals of 16% reduction by 2020 and 40% reduction by 2030
- 33 actions outlined in the plan which are split into 6 focus areas

Mission of CCAF



In November 2014, the organization receives additional capital to expand its vision to address the Climate Action Plan's community engagement.

Launching pilot workshops with six designated Cleveland neighborhoods which educate about climate action and fund local projects.

Partnering with other local initiatives to maximize climate action: Neighborhood Progress, Neighborhood Connections, Re-Imagining Cleveland, Western Reserve Land Conservancy, Enterprise Community Partners and Sustainable Cleveland 2019

Intentionally developing funding to ensure ongoing support, allowing the organization to engage all 33 Cleveland neighborhoods by 2017.

words, words, words



carbon
climate
sustainable
eco
footprint
gas
global
greenhouse
green
warming
resilience
mitigation
environment
adaptation

WordItOut

FIVE
THINGS
TO
REMEMBER
ABOUT
CLIMATE
CHANGE

1

The world's climate scientists overwhelmingly agree that climate change is happening and is caused primarily by human activities.

2

People everywhere are finding ways to live that will reduce the impact and help their communities adapt to the changes that are inevitable.

3

Climate change affects different regions in different ways and is already impacting the

4

Cleveland/Northeast Ohio. People in Cleveland / Northeast Ohio are also concerned about climate change and want to understand more about how it relates to their lives.

5

“Climate action” will not only address climate change, but can make our communities better places to live.





Weather versus Climate

Weather is the short-term changes in the atmosphere: what we experience day-to-day.



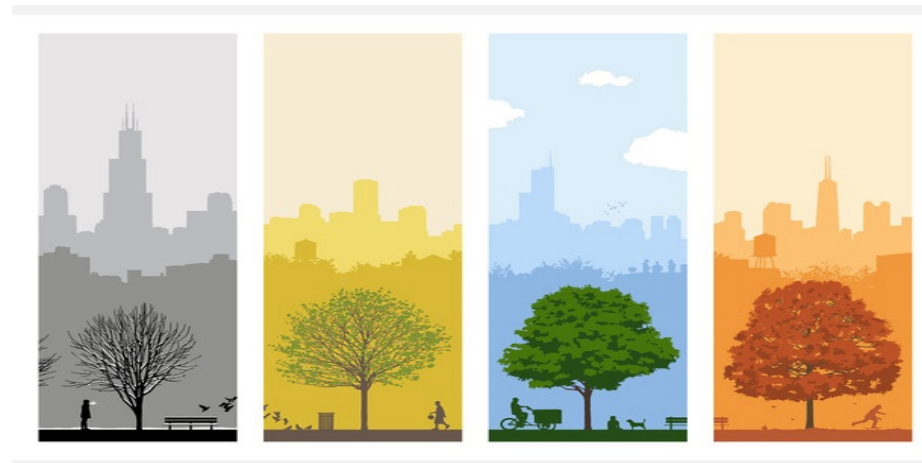
Climate is the large-scale, long-term shift of weather patterns or average at a specific location: how the atmosphere behaves over many years



Climate Change Defined

Climate change refers to any significant change in the measures of climate lasting for an extended period of time.

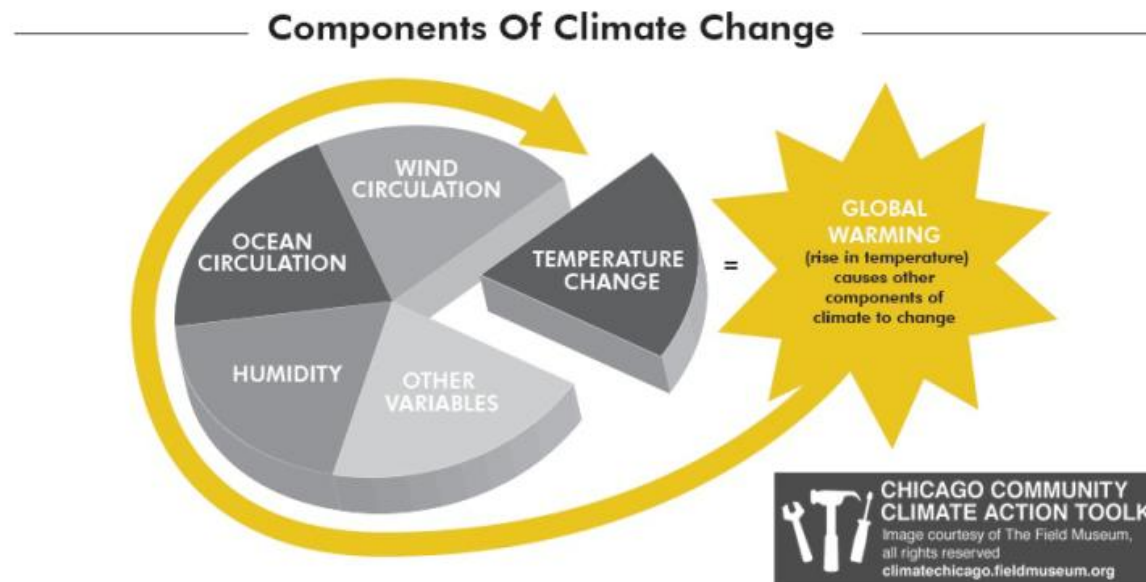
Climate change includes major changes in weather patterns over several decades or longer - specifically patterns in temperature, rainfall / snowfall , humidity, wind and natural bodies of water circulation.





Global Warming is the rise in the Earth's average temperature

It is caused by an increase in the amount of greenhouse gases in the atmosphere. These gases trap heat. This rise in temperature causes other components of climate to change.





Greenhouse Gas

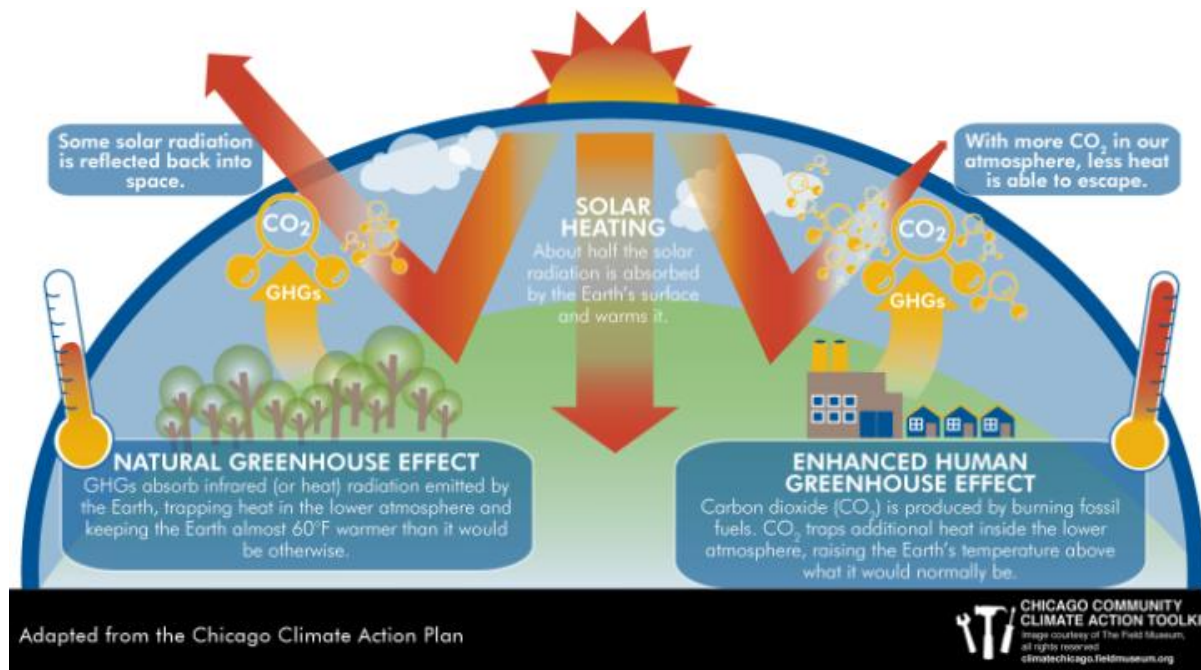
The most important greenhouse gases in Earth's atmosphere are: water vapor, carbon dioxide and methane. When there are more greenhouse gases in the air, the air holds more heat. This is why an increase in greenhouse gases increases global warming.

Carbon Footprint

The total amount of greenhouse gases that are produced and emitted directly or indirectly into the atmosphere each year by a person, family, building, organization, or company. The amount is usually expressed in equivalent tons of carbon dioxide (CO₂).

GHGs are produced by many natural sources such as forests and oceans. This is called the “natural greenhouse effect.”

But it is the additional amount of human-produced GHGs, that cause the “enhanced human greenhouse effect” — which is causing the climate to change too quickly today.





The climate has always been changing, but today:

- CO₂ levels are the highest they have been in over 800,000 years
- The rate of increase has never been greater
- It is largely caused by human activities



Cleveland Union Terminal, 1926: Cleveland has long been an industrial city.

Source: Cleveland Memory Project,

<http://images.ulib.csuohio.edu/cdm/singleitem/collection/cutlid/49/rec/20>



Pavement and buildings contribute to higher temperatures in urban areas, while trees help reduce it (Warehouse District).

Photo: David Beach

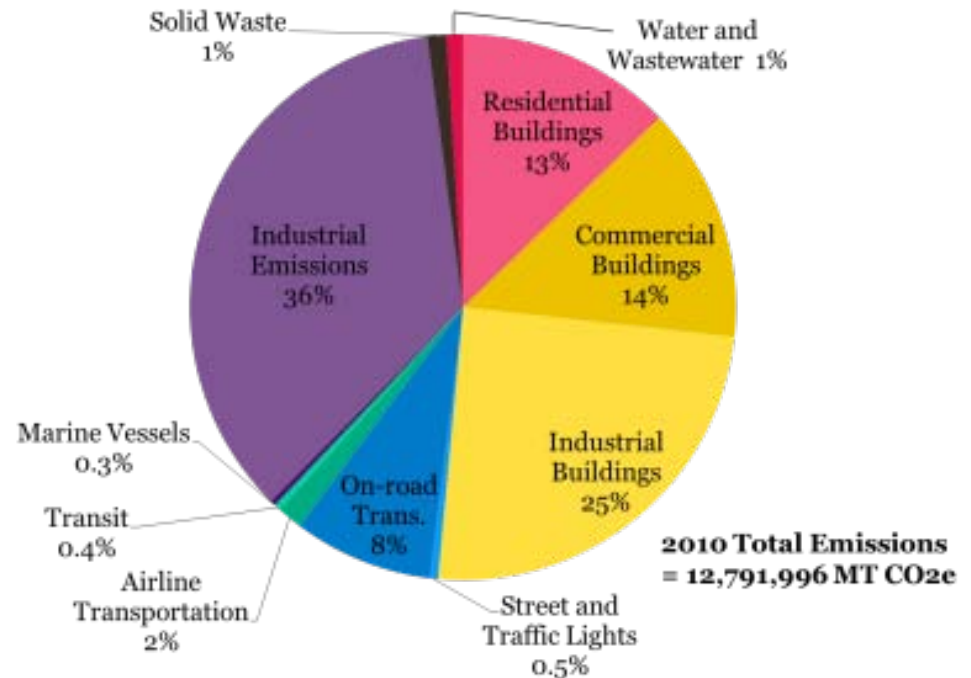


What Causes Climate Change ?

Climate change today is caused in large part by human activity - primarily burning fossil fuels like coal, petroleum, and natural gas.

We burn fossil fuels when we do things like drive, heat our homes, dispose of waste, and process food.

This is how human activity in Cleveland causes climate change.
Source: Cleveland Climate Action Plan





The **United States** accounts for 20% of world CO₂
(India, Russia, Canada, U.K., Brazil, and South Korea combined)

The **Midwest** is responsible for 5% of global greenhouse gases

Cuyahoga County is the 4th largest CO₂-emitting county in the U.S.

In Northeast Ohio, destabilized climate patterns will contribute to:

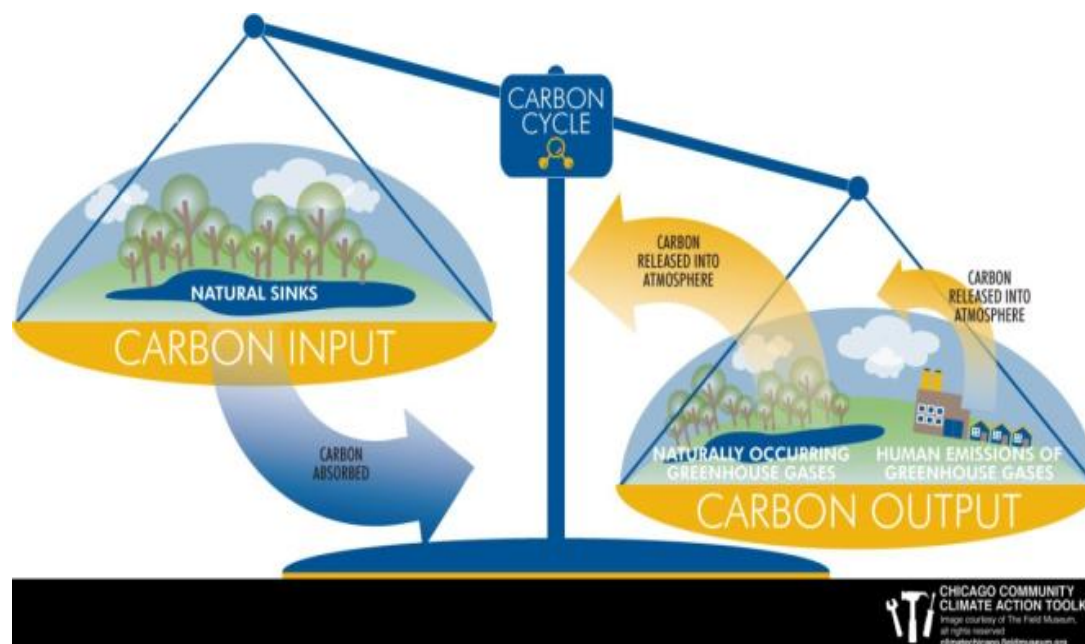
- a warmer and shallower lake
- increased local weather variability
- deteriorated air quality
- worsened water quality



The “carbon cycle” refers to the process of natural “sinks” — like oceans, lakes, forests — absorbing GHGs. In Cleveland, Lake Erie and neighboring green spaces, including 300,000 acres of protected land in Northern Ohio, act as CO₂ sinks. These areas are also critical in providing habitat for the region’s plants and animals.

Until recently, the carbon cycle kept carbon quantities in check. Now, though, this cycle is off kilter, for 2 reasons:

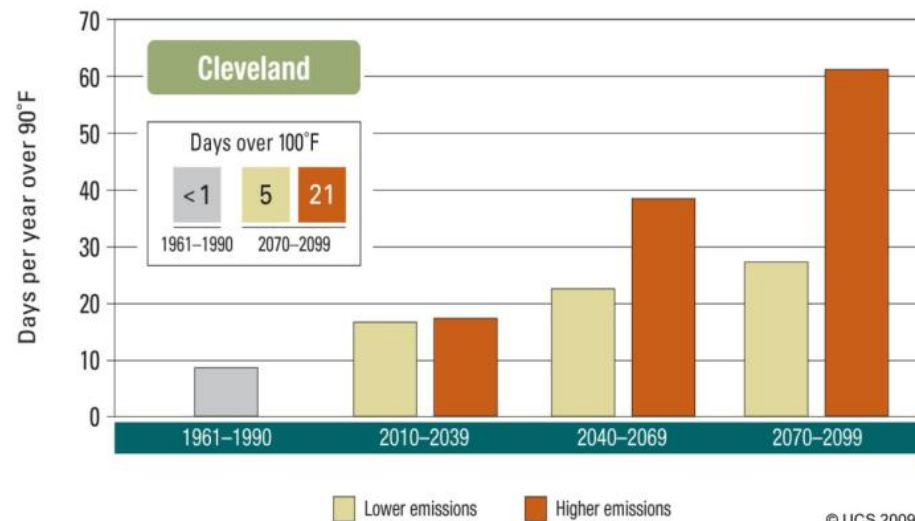
1. We have fewer natural sinks (like trees) — and those we do have are often not healthy, and
2. Humans are emitting more GHGs.





How is climate change affecting NEO?

- The temperature in Northeast Ohio has increased by 0.8F since 1951.
- Annual precipitation has increased 9.4% in the same period, but 17.9% during the fall season.
- 2012 was the warmest year ever recorded in Cleveland.
- Increases in the average temperature lead to more extreme weather events and air pollution action days in the region.



How is climate change affecting the health and economic wellness of people in NEO?



- Increased precipitation during winters and springs with more frequent, heavy downpours resulting in flooding
- Decreased air quality, resulting in increased respiratory and cardiac disorders like asthma and allergies
- Increased infestations of insects that cause disease: mosquitoes, ticks and cockroaches
- Increased cost of living: transportation, healthcare, utilities, food, and housing
- Increased heat waves and high heat days during the summer, resulting in a higher demand for energy and /or energy shortages
- Increased government expenses (e.g., road maintenance, emergency response, water processing, etc)

How is climate change affecting nature environments in NEO?



Animals and plants may become stressed.

Rivers, lakes, and wetlands may become more polluted

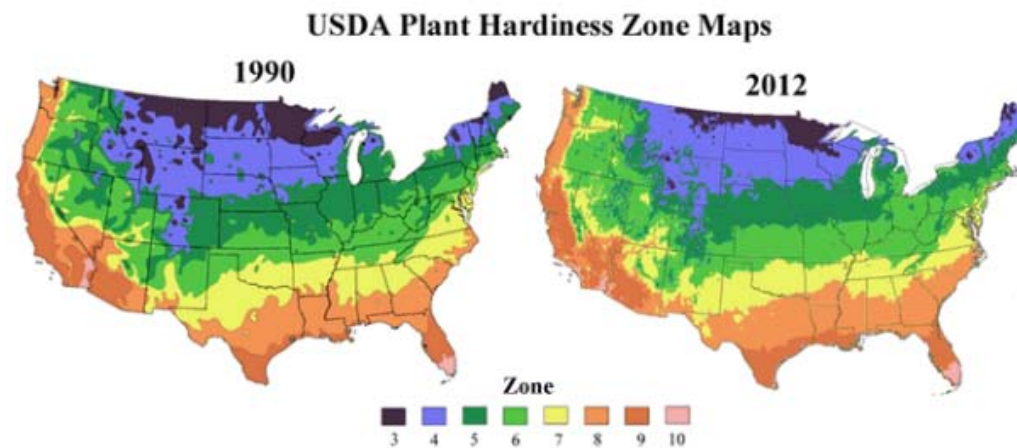
Invasive species and pests may become a bigger problem



We don't have polar bears, but climate change threatens animals here too. The Bobolink is already rare in the region due to a scarcity of large open spaces for nesting and food. Climate change further threatens its habitats. Climate change will also make it harder for species that prefer cool soils, like Eastern hemlock, to find suitable locations to survive. The overall distribution of these "northern" species will be forced to move northward. Harmful algal blooms have the potential to impact water quality in Cleveland like they did in Toledo last summer.



In many regions, spring is coming earlier. Some animals that migrate, such as insect-eating birds, are finding that the animals or plants they are accustomed to eating are no longer around when they arrive. This change in seasons is also impacting what we can grow.



The plant hardiness zone in Ohio is changing. This measurement uses average annual minimum temperatures to determine which plant species thrive in which climatic regions. Since 1990, over half the U.S., including most of Ohio, warmed one hardiness zone. Plants that once thrived in this region now fare better farther north.

Source: [USDA](#) and [Arbor Day Foundation](#).

**If the Earth is experiencing global warming,
then why are winters getting colder ?**



Heat from warmed oceans flow upward into the polar air, creating a high pressure system. High pressure forces the polar air to move in a clockwise swirl that pushes frigid air downwards. This newly formed "Arctic Corridor" pushes the frigid air from Europe into Eastern China and the Americas, dropping temperatures and making winter conditions more extreme than usual.





Mitigation

A human intervention to reduce the human impact on the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks

Adaptation

Adjustment or preparation of natural or human systems to a new or changing environment which moderates harm or exploits beneficial opportunities.

Resilience

A capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment.

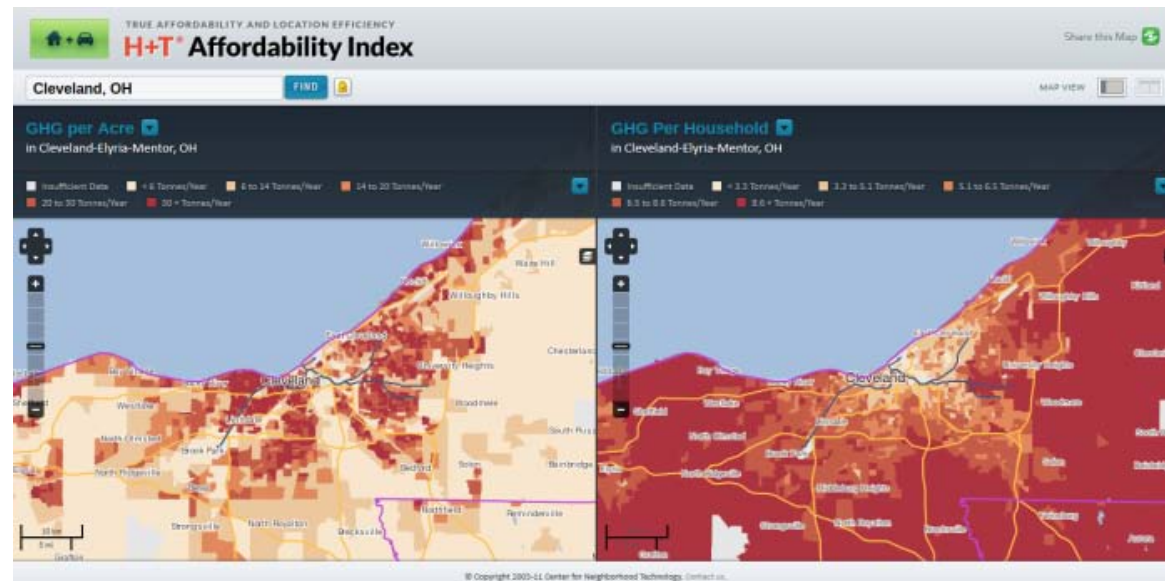
MORE IN DEPTH COVERAGE ON THESE TERMS IN CLIMATE 102 SESSION!!!!

CITIES WILL LEAD THE WAY

Cities are often pointed to as a major cause of climate change because they produce so many emissions. **But in fact, cities offer many solutions.**

In cities, everything is closer together. This pattern supports local businesses, encourages people to ride trains and buses instead of drive, and shortens travel times.

The effect: much lower emissions per household.



The map on the left shows emissions from household driving are higher on a per square mile basis in Cleveland than the surrounding area. But, the map on the right shows that, when measured per household, Cleveland is more efficient and emits less,

CLIMATE CHANGE ACTION

YOU AND YOUR
NEIGHBORHOOD
CAN MAKE A
DIFFERENCE

Cleveland's Climate Action Plan, released in 2013, aims to lower GHGs (“mitigation”) and help the region cope with changes already underway (“adaptation”).

It commits to reducing GHGs to 80% below 2010 levels by 2050, with interim goals of 16% by 2020 and 40% by 2030. Goals will be achieved through implementation of 33 actions divided into 6 focus areas.

Of the 33 actions, more than half relate to increased equity. For example, Action 15 is to “Support Cleveland businesses to reduce emission” and Action 29 is to “Scale up the local food system.”

CLEVELAND CLIMATE ACTION PLAN: 6 Focus Areas

- Energy Efficiency & Green Building
- Advanced & Renewable Energy
- Sustainable Mobility
- Waste Reduction & Resource Conservation
- Land Use & Clean Water
- Community Engagement & Public Health

Learn more: sustainablecleveland.org/about/climate-action-plan/

CLEVELAND IS BECOMING A NATIONAL LEADER

Robust Community Engagement in Sustainability

Recognizing that success depends upon widespread participation, Cleveland utilizes a robust and inclusive process for the Sustainable Cleveland 2019 initiative, including development of the 33 actions in the Cleveland Climate Action Plan.

Green Affordable Housing Policy

Ohio and Cleveland are leading the country by incorporating comprehensive sustainability standards into their housing programs.

Land Use

Cleveland and Northeast Ohio are forging ahead with progressive zoning laws that allow for urban farming, green energy production, and green infrastructure.



CLEVELAND NEIGHBORHOODS ARE TAKING ACTION

In 2013, the City of Cleveland and Enterprise Community Partners worked with partners in Kinsman, Detroit Shoreway, and Glenville/ Greater University Circle to identify local climate action and neighborhood champions who are improving quality of life and advancing the Cleveland Climate Action Plan at the same time.

Drink Local, Drink Tap emerged from the 2009 Sustainable Cleveland 2019 Summit. It engages Cleveland residents in creative education and action around water issues, in Cleveland and East Africa.

The Vital Neighborhoods working group grew out of the 2010 Sustainable Cleveland 2019 Summit. Diverse residents collaborate on activities such as energy efficiency and local food competitions, skill sharing, and an annual “Potlucks in the Park.”



Adapted from Teaching Cleveland



LOCAL ORGANIZATIONS ARE MOBILIZING RESIDENTS

Bridgeport Café/ CornUcopia, located in the Kinsman EcoDistrict, was developed by Burten, Bell, Carr Development Inc. (BBC) with input from Kinsman residents. It serves healthy, affordable meals, serves as a community gathering place, and employs local residents.



The Detroit Shoreway Community Development Organization (DSCDO) has worked with builders in the Detroit Shoreway EcoVillage to build green homes, including the first Cleveland LEED Platinum home (Leadership in Energy and Environmental Design).



The Famicos Foundation Green Team runs sustainability workshops at the Gateway 105 Farmers' Market on the fourth Friday of every month, deemed "Sustainable Friday." Topics have included bin composting, do-it-yourself rain barrels, and GardenSoxx.



RESIDENTS ARE TAKING CLIMATE ACTION THAT IMPROVES QUALITY OF LIFE

EcoVillage residents started EcoVillage Produce and worked with Detroit Shoreway Community Development Organization and Reimagining Cleveland to scale up their social venture.

In 1992, Detroit Shoreway residents formed a “Bridge Brigade” to take back their street from crime and drug-dealing. Their efforts created a safer and closer-knit neighborhood and paved the way for increased home ownership, energy efficient housing, and corner parks.

BBC is transforming twenty-eight acres of vacant land in a “forgotten” inner-city neighborhood into one of the largest, most innovative urban agriculture districts in the United States. Rid All Partnership and decorative orchard are main highlights.



CLEVELAND NEIGHBORHOOD CLIMATE ACTION TOOLKIT

The City of Cleveland and Enterprise Community Partners worked with community development corporations in Kinsman, Detroit Shoreway, and Glenville/Greater University Circle to create the Cleveland Neighborhood Climate Action Toolkit. It includes over 10 tools that neighborhoods across the city can use to identify and scale up local action that's good for people and the planet.

Learn more and download tools at:

<http://www.sustainablecleveland.org/toolkit>





What else is happening?

Kinsman – 20 street trees have been planted along E. 38th and E. 39th Streets between Cedar and Central Avenues in St. John's Village West with 250 additional trees to be planted this year.

Central - Green City Growers Cooperative, Inc. is a 3.25-acre leafy greens, hydroponic greenhouse in the Central neighborhood of Cleveland, OH. The greenhouse, which officially opened on February 25th, 2013, has 15,000 square feet of packing house and office space, and is currently producing Bibb lettuce, green leaf lettuce, gourmet lettuces and basil.

Hough – In May 2010, a $\frac{3}{4}$ acre site was converted into a vineyard is comprised of 294 vines. And an abandoned house was converted into a biocellar ; currently growing mushrooms, and slated to expand to aquaponics in another building situated immediately west of the vineyard.

What else is happening?



Glenville - Turned one of its vacant lots located at the corner of East 105th and Ashbury Avenue into Gateway 105 Farmers' Market which operates every Friday, June through October from 3:00 to 7:00 pm outdoors.

Detroit Shoreway - Rust Belt Riders transport 5 gallon buckets of food scraps via bicycle from homes and businesses to community gardens, where the refuse can be used for compost.

Collinwood – Quasar Energy launches an anaerobic digester business which turns waste into energy; has a generating capacity of 1.3 million watts. Company plans a pipeline of five additional projects



What else is happening?

St. Clair Superior - Upcycle Parts Shop is a retail store dedicated to diverting usable pieces and parts from Cleveland's waste streams. Their mission is to provoke creativity & promote community through reuse

Cleveland – Raising chickens or keeping bees can be part of individuals' and families' income-earning and food-producing activities in urban as well as rural areas. Hive and Coop is a local business which now builds habitats and materials for keeping chickens and bees.

Cleveland – Tunnel Vision Hoops designs and builds pre-fabricated hoop house structures that give farmers and families the ability to provide food during a longer growing season.



Kinsman Strengths & Needs

STRENGTHS

- Urban Agricultural Zone
- Green City Growers
- Burten Bell Carr

NEEDS



B R E A K



Climate change project ideas

Community Engagement and Public Health

- Healthy recipe potlucks, swap sessions or progressive dinners
- Beautify with art: murals, dumpsters, planters, etc.
- Create group walking / biking / fitness series
- Communal green space maintenance
- Gardening, food production, tree planting
- Establish a tool lending library
- Develop neighborhood watch groups
- Create walking maps of the neighborhood
- Reduce fencing in the neighborhood
- Increase sustainable information
- Host a neighborhood garage sale
- Compile list of local businesses to use



Climate change project ideas



Energy Efficiency and Green Building

- Energy reduction: sealing, insulation, power strips, sensors
- Energy audits
- Thermostat retrofitting
- Lighting retrofitting
- Facilitate an electronics drive
- Electronic free days
- Door sweep installations
- Window film installations
- Alternative energy sourcing
- Greenhouse construction
- Re-introduction of clotheslines





Climate change project ideas

Sustainable Mobility

- Maximizing public transportation
- Carpooling programs
- Car / bike sharing programs
- Bike rack installations
- Bike trail creation or mapping
- Cycling safety and repair courses
- Reduced work week / work from home
- Anti idling exhaust campaigns
- Trip optimization program
- Enhance bus waiting areas



Climate change project ideas



Waste Reduction and Resource Conservation

- Recycling campaigns
- Composting program or business
- Takeout container program
- Bring your own bag program
- Deconstruction business
- Trash container installation
- Meatless / Plant based programs
- Product creation from recyclables
- Swap meets
- Paperless kitchens
- Green cleaning products





Climate change project ideas

Land Use and Clean Water

- Remediation of contaminated soil
- Vacant lot usage
- Chemical fertilization reduction
- Asphalt reduction
- Downspout disconnection and rain barrels
- Neighborhood clean up days
- Water audits
- Storm drain tagging
- Tree planting
- Stream clean ups



Breakout and Brainstorm



Reflect on your neighborhood strengths and needs

Discuss existing pro-neighborhood, climate friendly projects. Is there an existing project that can be replicated and / or expanded?

Identify which populations or what areas could benefit most from taking climate action.

Generate both realistic and far reaching project ideas.

Consider what groups should get involved to ensure project success.

Reconvene to download with larger group

CCAF Grant Application



First round of workshops in Glenville, Detroit Shoreway, & Kinsman

First round grant applications are due **April 3rd**

First round grants to be awarded April 30th



Second round of workshops in Old Brooklyn, St. Clair Superior, & Slavic Village

Second round of grant applications are due **May 1st**

Second round of grants to be awarded May May 28th

Grant Application Walkthrough



Additional Local Resources



Re-Imagining Cleveland - Returning vacant space into non-traditional land use
Funding available for 2-3 projects this construction season

Neighborhood Connections - Grant programs supporting network initiatives
Grant applications just due February 13th. Second round of grant funding in Fall 2015

Kresge Climate Resilience & Urban Opportunity - Community Climate Ambassador Program
Engage 18 community leaders for training and deployment.
Applications due March 20th

Western Reserve Land Conservancy - Reforest Our City Program
Approximately \$35,000 is available to fund tree planting projects in the City of Cleveland.
Applications are due March 31st.

Solarize Cleveland - Cleveland homeowners can find discounts and a variety of financing options for installing home solar



THANK
YOU