

Town of Ossining

2019 Local Government Operations Climate Action Plan

JUNE, 2024



**Produced by the Town of
Ossining Environmental
Advisory Committee** with
Assistance from the Hudson Valley
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Governments for Sustainability USA



Credits & Acknowledgements

- Liz Feldman, Town Supervisor
- Paige Flanagan, Confidential Secretary to Town Supervisor
- Suzie Ross and Green Ossining
- David Margulis, EAC Member
- Eileen Tacuri, Volunteer
- Charles Bouton, Volunteer
- Leo Valenti, CAPI Intern
- Brook Styer, CAPI Intern
- Meliya Soller, CAPI Intern
- Maddi Zachacz, Village of Ossining

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ICLEI-Local Governments for Sustainability USA

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Executive Summary

The Town of Ossining recognizes its responsibility to reduce greenhouse gas emissions from government operations in order to mitigate climate change. The Town has acted on this responsibility including by participating in Westchester Climate Action Planning Institute (CAPI) cohort to help design and draft this Climate Action Plan. This Plan uses data from the Town of Ossining's 2019 greenhouse gas emissions inventory report to effectively create a set of policies, projects, and actions that the Town will implement to reduce its greenhouse gas emissions.

Climate Change is causing rising temperatures, changing sea and waterway levels, and ecological changes due to human generated greenhouse gas emissions (GHGs). The Town of Ossining recognizes that these changes are caused by human activity and will cause future environmental and human health risks to the community. New York State has committed to ambitious climate goals and towns and cities must do their part to reduce emissions. The Town of Ossining plans to implement actions that also allow the Town to save money, help protect frontline communities, and that generally improve the health, economy, resilience and livability of the Town.

In its 2019 greenhouse gas emissions inventory, the Town analyzed the total amount of greenhouse gases emitted from its government operations. This was posted for the public to review on the Town's webpage under the Projects > [Climate Action Planning Institute Project](#) tab. This Inventory found that transportation is the highest GHG emitting sector for the Town. Following that, employee commute was the second highest sector for GHG emissions contributions. Other sectors were lower, but still significant contributors to the Town's total emissions. The Town plans to reduce emissions by implementing strategies suggested by key stakeholders and residents, and by the New York State Climate Smart Communities program. Completing actions suggested by the New York State Climate Smart Communities program increases the Town's prospects for receiving certain grant funding. The actions the Town will take are detailed in this Plan. It is important to know that reducing emissions in municipal buildings, as they are high emitters as well as low hanging fruit, is not a priority for us as most of the buildings we occupy are shared with and owned by the Village of Ossining.

The Town of Ossining has taken many steps over the years to mitigate and adapt to climate change. In April 2024, the Town had completed enough mitigation measures to become a certified bronze level climate smart community. In 2024, the Town also completed its GHG emissions inventory and used the inventory to help draft a robust set of recommended strategies detailed in this Plan to help the Town reduce its overall GHG emissions and to help meet NY State's ambitious emissions goals. Some of the actions the Town recommends in the coming pages include conducting an energy audit to pinpoint key inefficiencies, purchasing and installing solar panels, reducing its energy usage in its Town buildings, transitioning to electric vehicles, and adopting and promoting environmentally minded policies. The Town of Ossining commits to this Plan to further the sustainable and equitable improvement of the community, while reducing the Town's carbon footprint and environmental impact.

Introduction

Overwhelming evidence has led to the scientific consensus that climate change is the greatest environmental challenge of the 21st century. It poses a serious threat not just to New York's natural resources, but also to our jobs and our health. Simultaneously, climate change presents unprecedented opportunities for creating a healthier, safer, and more equitable zero-carbon world. The Town of Ossining has an unparalleled opportunity to make changes to its facilities and general operations in ways that benefit the local government and act as a model for the community and other public agencies. Scientists expect that with the current trends in Green House Gas (GHG) emissions, Americans will experience more intense heat waves, droughts, rainstorms, floods, wildfires, and landslides in the future. These impacts will have significant repercussions on our economy, stress our natural resources and worsen inequities facing many Americans and millions of people across the globe. Action is required at all levels, and local governments have a unique role to play in building low-carbon communities.

These impacts are caused by the accumulation of GHGs such as carbon dioxide (CO₂) and methane (CH₄) in the atmosphere, primarily resulting from burning fossil fuels and land use changes. Although the natural greenhouse effect is needed to keep the earth warm, human activities have created an enhanced greenhouse effect due to the rapid accumulation of GHGs in the atmosphere. Unprecedented concentrations of these gases in the atmosphere have led to too much heat and radiation being trapped on Earth. Carbon emissions from human activities have soared in recent decades and are currently at the highest rates in human history. About half of all carbon dioxide emitted between the years 1750 and 2010 occurred in the last 40 years. The energy, industry and transportation sectors have dominated these emissions increases. With the current trajectory of population growth, urbanization, and reliance on personal vehicles, global transportation emissions are expected to double by 2050. Given the serious impacts of climate change on humanity, the time to act to reduce GHG and our carbon footprint is now. While there is a great need for community-wide climate action plans, addressing emissions from local government operations and leading by example is critical.

Purpose, Scope, & Process

Behind the Climate Action Plan

The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6), written by a panel of hundreds of climate experts and scientists and approved by a team of external reviewers, states unambiguously that anthropogenic or “man-made” GHG emissions are causing global climate change. For this reason, Town of Ossining is joining an increasing number of local governments committed to addressing climate change at the local level through reducing emissions in their own government operations and by supporting programs such as Green Ossining. The Town of Ossining recognizes the risk that climate change poses to its constituents, and is acting now to reduce the GHG emissions, or “carbon footprint,” of its government operations through the innovative programs laid out in this Climate Action Plan. Furthermore, it is recognized that the Town of Ossining¹ needs to address existing climate risks such as [enter current climate hazards] and adapt its systems and infrastructure to new conditions. Ultimately, action is needed to reduce the Town of Ossining's contribution toward the problem of climate change and adapt to its current and future effects. This Climate Action Plan takes advantage of common-sense approaches and innovative policies that our local government is uniquely positioned to implement – actions that can reduce energy use, waste, and fuel use for Town of Ossining's vehicle fleet and employee commutes.

Purpose

By creating a clear course of action so that everyone has a role in creating and achieving climate and sustainability goals, our Climate Action Plan drives and coordinates efforts towards the New York Stat's goals (see below). The Climate Action Plan is a framework for the development and implementation of actions that reduce Town of Ossining's government operations GHG emissions. The Plan provides guiding objectives and strategies to realize Town of Ossining's government operations GHG reduction goals.

Scope

This Plan covers objectives and strategies for reducing GHG emissions resulting from local government operations within the Town of Ossining. It addresses the major sources of emissions in Town of Ossining's infrastructure and operations and sets forth objectives and strategies in three focus areas that Town of Ossining can implement to achieve greenhouse gas reductions: Energy, Transportation, & Solid Waste

The Plan creates a framework to document, coordinate, measure, and adapt efforts moving forward. In addition to listing actions, the Plan discusses how each action will be implemented via timelines, financing, and assignment of responsibilities to departments, staff, or other partner agencies where known.

¹ Intergovernmental Panel on Climate Change. Climate Change 2014: Impacts, Adaptation, and Vulnerabilities: Summary for Policymakers, 2014.

Process

The Town of Ossining's planning, outreach and engagement process emphasized input from key stakeholders and residents. Supervisor Elizabeth Feldman, EAC Member David Margulis, and volunteer Eileen Tacuri, were involved since the beginning of the CAPI program. Confidential Secretary to the Town Supervisor, Paige Flannagan, was also heavily involved with planning efforts. Town department heads were pulled in as needed. The following were key dates and milestones for the Plan:

- Westchester CAPI Program kick-off – February, 2023
- GHG inventory process began and scope determined – March, 2023
- Municipal data gathered and input into ClearPath – February - April, 2023
- Draft inventory completed in ClearPath – July, 2023
- GHG emissions inventory draft report completed and feedback sought – August, 2023
- Inventory report finalized and government operations climate action plan (GOCAP) begun – September-December, 2023
- Inventory forecasting and draft high-level recommendations completed, and key stakeholder feedback sought – March, 2024
- GOCAP draft plan completed, and key stakeholder feedback continued – April, 2024
- Conducted public outreach and engagement, plan revised and presented to Town Board – April – June, 2024
- Plan posted draft plan to municipal web site for public review and comment – June, 2024

Vision Statements and Objectives

Vision Statement:

The Town is committed to reducing its environmental footprint and to increasing the community's capacity to withstand and adapt to climate change.

With this vision in mind, the Town has chosen to align its GHG emissions reduction target with statewide goals. New York State's Climate Leadership and Community Protection Act (CLCPA), signed into law on July 18, 2019, sets goals to reduce emissions to 40% below 1990 levels by 2030 and then to 85% below 1990 levels by 2050. According to the [2022 Statewide GHG Emissions Report](#), NY has already reduced emissions by 7% from 1990 levels, so the Town is setting its 2030 goal at a 33% reduction, and its 2050 goal at 78% reduction.

This Climate Action Plan offers a robust set of objectives and strategies to reach those goals. Each strategy and objective were created and reviewed through an internal engagement and input process which considered funding constraints, the feasibility of implementation, environmental justice considerations, and other barriers.

The following targets were set to maintain and support safe, efficient, and holistically sustainable Town of Ossining facilities and operations:

By 2030

- Town of Ossining will reduce energy use in its buildings by 20%
- 100% of Town of Ossining's municipal electricity use will come from renewable energy
- 9% of Town of Ossining's employees will carpool or walk to work
- 8% of Town of Ossining's employees will bike to work
- 16% of Town of Ossining's employees will use public transit
- 7% of Town of Ossining's employees will telecommute
- All light-duty Town of Ossining fleet vehicles will be electric
- Town of Ossining will require and enforce net-zero building codes for new government buildings

By 2050

- 90% of Town of Ossining's existing facilities will complete energy-efficiency improvements
- 50% of heating fuel derived from fossil-fuels (natural gas and propane) will be switched to a low- carbon fuel source and/or electric heat
- 18% of Town of Ossining's employees will bike to work
- 15% of Town of Ossining's employees will walk to work
- 18% of Town of Ossining's employees will use public transit
- 100% of public transportation provided by Town of Ossining will be carbon free
- 100% of medium-duty vehicles in Town of Ossining's vehicle fleet will be electric or fueled by carbon-free fuel
- 80% of Town of Ossining's heavy-duty vehicles will be electric or fueled by carbon-free fuel

Co-Benefits of Climate Protection Measures

1. Saving Money

In addition to addressing climate change, measures taken to reduce GHG emissions have other important benefits, such as the potential for significant cost savings. Many of the measures in this plan pay for themselves quickly by reducing direct costs, such as fuel or energy used, as well as indirect costs such as maintenance. For instance, a vehicle fleet is less expensive to purchase, fuel and maintain when it is comprised of vehicles in proportion to the Town's actual needs (including number, size, and function).

Improving energy efficiency, encouraging public transit use, installing on-site renewables, and other measures will also result in lower energy and water bills for the Town of Ossining, thus making taxpayer dollars go farther. Acting now will also save on runaway costs on climate change, especially in the longer term, such as from infrastructure damage from more frequent and intense extreme storms.

2. Enhancing Resource Security

A key strategic side benefit of climate change mitigation activities is enhanced energy security through reduction in total demand. This will put less strain on the energy system as we transition to clean renewable energy. Many of the actions identified here to mitigate GHG emissions will also help the Town of Ossining's government adapt to a changing climate. For example, extreme and prolonged heat waves can put considerable strain on the reliability of energy delivery in peak periods, possibly leading to service disruption during times when cooling is most needed. By increasing efficiency across Town of Ossining facilities, such service disruptions are less likely, and the Town of Ossining will be able to better cope with those situations.

3. Creating Jobs

The renewable energy industry has become a leading sector in job growth. In 2018, clean energy employment rose 3.6%, and the U.S. Bureau of Labor Statistics expects solar installers and wind technicians to be the two fastest-growing jobs through 2026. Energy efficiency jobs are also growing rapidly. These climate protection measures in this plan can spur business and job growth during the design, manufacture, and installation of energy efficient technologies and other green sectors. This presents a particular opportunity to reinvest in the local economy and generate green jobs within the Town of Ossining.

4. Improving Public Health

Climate change mitigation activities, particularly those related to transportation, help to clean the air by reducing vehicle emissions and therefore improve public health throughout the community. Transportation mitigation strategies often focus on encouraging the use of active transportation, such

as biking and walking, to get to work. Town of Ossining employees that increase their use of active transportation will benefit from a healthier lifestyle.

5. Delivering Benefits to Frontline Communities

Social equity is a major concern for addressing climate change. Research shows that vulnerable populations such as the elderly or chronically ill, low-income families, and people of color are more at risk when it comes to experiencing impacts of climate change. These communities already experience institutional and systematic oppression that results in less access to resources, capital, and services. Climate change exacerbates these gaps. By targeting programs and making changes to services or infrastructure before extreme events happen, we can mitigate the most devastating impacts to already vulnerable populations. Additional measures aimed solely at climate adaptation, such as modifying flood protection and heat emergency response programs will also be addressed in this Climate Action Plan.

Climate Equity Within Town of Ossining

Equity is when all individuals have access to the opportunities necessary to satisfy their essential needs, advance their well-being and achieve their full potential. Low-income populations, communities of color, people with disabilities, elders, refugees and immigrants, and other frontline communities often withstand the greater burden of climate impacts without the necessary infrastructure and support systems, and without gaining any of the benefits of a clean and sustainable future. Inequity correlates with greater vulnerability to physical challenges, making many in the Town of Ossining disproportionately at risk from natural disasters and the impacts of climate change.

Creating a resilient community means addressing the social inequities that cause disparities in health outcomes, income, educational attainment, and more.

Climate equity ensures the just distribution of the benefits of climate protection efforts and alleviates unequal burdens created by climate change. This requires intentional policies and projects that simultaneously address the effects of and the systems that perpetuate both climate change and inequity.

Government action alone is not enough to address climate change; everyone must be a part of the solution. Currently, however, not everyone has equitable opportunities to participate and benefit.

Communities of color and low-income populations have historically been under-served by programs and investments and under-represented in decision making on climate policy. The lack of low-carbon, safe transportation options and inefficient housing are examples of disparities experienced by these communities that result in fewer benefits from climate action opportunities. These inequities primarily result from ongoing institutional racial bias and historical discriminatory practices that have resulted in the inequitable distribution of resources and access to opportunities.

Climate change is likely to amplify the impacts of these existing inequities and frontline communities such as lower income, communities of color, unhoused, outdoor workers, the very young, and older residents will disproportionately bear the burdens of climate change impacts. In addition, the many economic and health benefits of carbon reduction investments are not shared equitably across the city, especially among people of color and low-income communities.

The paragraph below describes how climate equity is integrated into the plan. Climate equity shows up in this Climate Action Plan in the following ways:

- Climate equity is included in the overall Climate Action Plan vision and objectives.
- Each of the strategies in this plan was evaluated on whether they help to uplift climate equity and reduce disparities. Some actions were called out explicitly in the strategies. The strategies that do address community health, safety and livability, access, prosperity, and inclusive engagement are marked with a symbol.
- The Town of Ossining will determine climate equity specific metrics to help track the progress made on these actions and allow the Town of Ossining to report on the targets.

Ossining's Local Government Operations Emissions

Inventory Basics

Since the early 1990s, cities in the United States have developed community-wide and local government operations greenhouse gas inventories based on accounting protocols created by ICLEI. Known as the [U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions](#) and the [Local Government Operations Protocol](#), these standards created a credible and defensible methodology which accelerated the number of inventories created and provides consistency within and across U.S. communities. In 2014, ICLEI partnered with the World Resources Institute and C40 Climate Leadership Group to create the Global Protocol for Community Scale GHG Emissions, which allows communities around the world to compare their emissions footprint. Town of Ossining used the Local Government Operations Protocol for the inventory described in this report. Please see Appendix 1 for a link to the full GHG inventory report on the Town of Ossining's web site.

Summary of Inventory Results

Through the completion of a local government operations GHG emissions inventory, Town of Ossining has determined emissions levels for Town of Ossining government operations. Emissions from local government operations represent the sum of total emissions produced by government facilities, vehicle fleets, and other government-owned or operated activities. In this way, the local government operations figures represent emissions for which the local government is responsible. Government operations are therefore a subset of total community emissions.

For this Climate Action Plan, Town of Ossining completed a Local Government Operations inventory that analyzes the 2018-2019 fiscal year. This inventory was conducted using the Local Government Operations Inventory and ICLEI's ClearPath tool. Through this inventory, Ossining determined its overall emissions in the 2018-2019 fiscal year equated to **411 metric tons of carbon dioxide equivalent (MTCO_{2e})**. The Vehicle Fleet is the largest source of emissions, with 183 MTCO_{2e} which is 45% of the total emissions (Figure 1). This is followed by the Employee Commute then the Buildings and Facilities Sectors with 151 MTCO_{2e} (37%) and 41 MTCO_{2e} (10%) respectively (Figure 1).

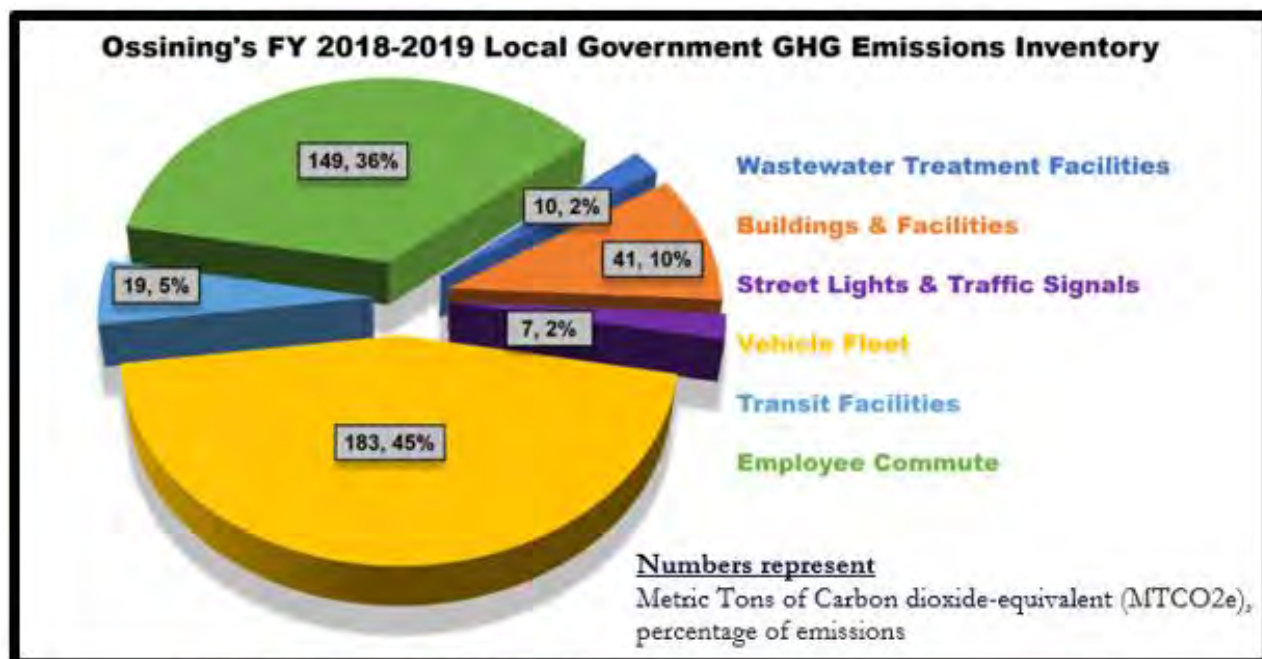


Figure 1: Ossining's FY 2018-2019 Local Government GHG Emissions Inventory

Ossining's Projected Growth in Local Government Operations GHG Emissions

Town of Ossining has also completed an emissions forecast based on projections of current data and expected future trends. The emissions forecast is a “Business-As-Usual” (BAU) forecast, a scenario estimating future emissions levels if no further local action (i.e., projects within this Climate Action Plan) were to take place. The forecast indicates that, if action is not taken, GHG emissions will continue to increase.

Projected Growth in GHG Emissions

Figure 2 shows the projected decrease in GHG emissions in the Town of Ossining from 2019 to 2030. The Town of Ossining's Local Government Operations business as usual forecast shows that emissions will slightly decrease if no action is taken to reduce the emissions trajectory. This emissions decrease is based on employee count projections, electricity grid decarbonization projections, and changes in automotive fuel efficiency standards.

As mentioned in the Vision and Objectives section of this Plan, The Town has set a target to reduce its local government operations emissions 33% by 2030 and 77% by 2050. Figure 2 also compares the reduction target (see dotted lines) with the business-as-usual forecast. If no action is taken, the emissions will not reach the target goal. By implementing the 15 strategies recommended in the Objectives section of this Plan, however, in conjunction with measures already taken, the Town believes it will be able to reach its reduction goals

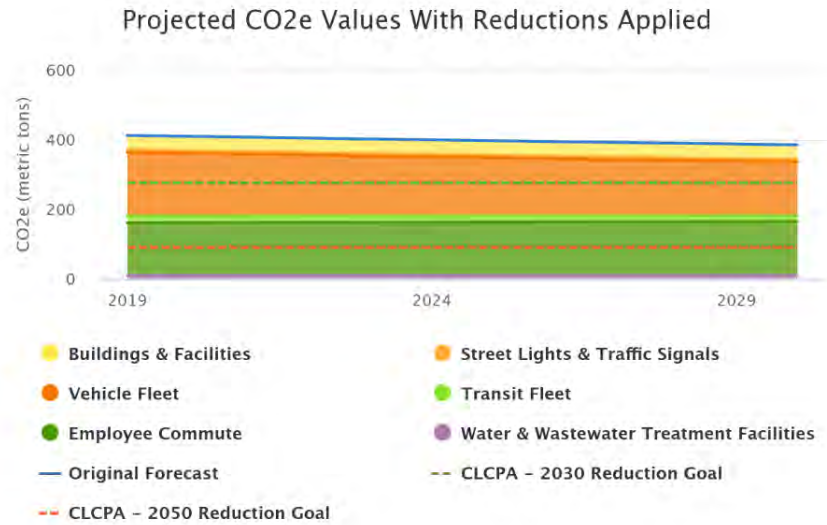


Figure 2: Projected Growth in GHG Emissions from 2019 to 2050

Figure 3 shows the projected decrease in GHG emissions for the Town of Ossining's government operations should the following measures be implemented: 1. Fifty percent of the Town's vehicle fleet transition from gas to electric vehicles; and 2. The Town transitions away from propane to electric. Because the majority of emissions in the Town's buildings and facilities come from propane, reducing propane consumption in Town buildings would be impactful on GHG emissions reductions. The Figure 3 forecast also assumes proper maintenance of vehicle fleet and the current data on projected NYS population uptake of electric vehicles. In this scenario, the Town would meet its 2030 emissions targets.



Figure 3: Projected Growth in GHG Emissions from 2019 to 2050

Government Operations Climate Mitigation

Emissions Reduction Focus Areas

Each of the focus areas within the Town of Ossining Local Government Operations Climate Action Plan is explored in the following pages. In this Climate Action Plan, Town of Ossining has decided to focus their Climate Mitigation measures on the following focus areas:

Energy	Vehicle Fleet	Waste	Natural Resources
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In each focus area, a series of objectives with supporting strategies are outlined. An “Objective” is a goal, result, or target that mitigates emissions in a focus area, and a “Strategy” is an action designed to help realize the objective.

The summary table below (Table 2) identifies the focus areas within the Town of Ossining Local Government Operations Climate Action Plan, the number of strategies within each focus area, and the contribution of each focus area toward the GHG reduction goal. Each focus area has a dedicated section within this document where specific actions (both new and those already employed) are described.

Table 2: Town of Ossining Climate Action Plan Summary Table – Focus Areas

Focus Area	Description	Number of Distinct Strategies
Energy	Policies and programs to reduce municipal energy usage, interfacing with local utility efforts.	5
Vehicle Fleet	Policies and programs to reduce municipal vehicle fleet fuel usage, including transition to electric vehicles and other low-carbon fuel sources	4
Waste Management	Policies and programs that reduce municipal waste and promote sustainable waste management of municipal resources	2
Natural Resources	Policies and Programs that help the Town protect and manage their natural resources for community use	4

Emissions Reduction Potential

Calculating expected emissions reductions for each objective requires making assumptions about the degree of implementation, technology, and individual behavioral changes several years into the future. The uncertainty associated with these assumptions makes it difficult to assign exact reduction totals to each objective or strategy. To address this uncertainty and provide a simple but useful reference for reduction potential, a low/medium/high scale has been used to represent the emission reductions

associated with each objective and its strategies: This is based not only on the GHG emissions reductions associated with the general action, but also on the extent to which this strategy will be implemented throughout the Town in relation to overall GHG emissions.

Co-Benefits

While the Town of Ossining local government cannot address climate change by itself, government policies and practices can dramatically reduce GHG emissions from a range of sources and help prepare the Town of Ossining for the anticipated impacts of climate change. Through this Climate Action Plan, the Town of Ossining can not only do its part toward achieving a stable climate - it can also benefit from healthier air, savings on energy costs, improved government services, and many other positive side effects – or co-benefits - of reducing its carbon footprint.

Each strategy is also evaluated for co-benefits such as public health, equity and justice, jobs and prosperity, and environmental conservation. The symbols below will indicate which co-benefits a measure will generate.

Table 3: Co-Benefit Symbols

Symbol	Co-Benefit
	High potential to save money
	High potential to enhance resource security
	High potential to create jobs
	High potential to improve public health
	High potential to deliver benefits to frontline communities

Climate Action Objectives

Buildings and Facilities

The Town of Ossining's buildings and facilities are powered by electricity and natural gas. The consumption of fossil fuels for heat and energy on-site contributes directly to the government's emissions, and the electricity used for lighting, heat and other operations is generated from burning fossil fuels as well.

Energy consumed in Ossining owned and operated buildings and facilities account for 10% of the Town of Ossining's total GHG emissions. Improving the efficiency of the Town of Ossining's buildings and infrastructure will contribute significantly to achieving the Ossining's GHG reduction targets, while saving the government money on utility bills and reducing the need for new infrastructure. The objectives in the table below focus on opportunities to retrofit existing facilities and road safety infrastructure and aims to ensure that future management and planning of these operations is compatible with the local government and community climate protection goals.

Install heat pumps in at least one municipal building Potential Impact: Medium/High Potential Cost: Medium Co-Benefits:  	Description: The Town would switch at least one government owned building to be heated by ground and air source heat pumps rather than by natural gas. The Town currently uses both gas and propane for its HVAC purposes in the few buildings it owns. Although the buildings and facilities sector are its third largest sector for emissions, its propane consumption is the largest source of emissions for this sector. Co-benefits: Installing heat pumps in municipal buildings will help reduce the overall GHG emissions by municipal buildings, which account for much of the town's total GHG emissions. This means the Town will save money on energy and resources for other uses. KPI: Number of municipal buildings with heat pumps, Benchmark comparison "before and after" energy usage. Owner: Town Supervisor
Conduct updated energy audit Potential Impact: High Potential Cost: Medium Co-Benefits:  	Description: The Town will assess, survey, and analyze energy usage in all government buildings. Co-benefits: This will help the government identify key issues in energy usage in the Town, allowing the town to fix the equipment that has the highest energy usage. Once the Town fixes the least energy efficient equipment, the Town will save money and energy. KPI: Number of buildings audited. Owner: Town Supervisor

Sign up all government buildings for grid rewards program Potential Impact: Medium Potential Cost: Low Co-Benefits:  	Description: The Town plans to sign all its buildings up for a grid rewards program to analyze and help reduce energy usage. Co-benefits: Signing buildings up for grid rewards will lower the Town's carbon footprint through monitoring energy usage and reducing electricity usage specifically at peak usage hours. Saving energy in government buildings will save money for the Town. KPI: Number of buildings signed up for grid rewards program. Owner: Town Supervisor
Install solar panels on Art Center and solar lights at Cedar Lane dog park Potential Impact: High Potential Cost: High Co-Benefits:    	Description: The town will install solar panels on the Art Center and solar lights at Cedar Lane dog park to decrease reliance on non-renewable energy sources. Co-benefits: Solar energy installation will help reduce fuel outputs and energy used for lighting and heating buildings, in this case the Art Center. This plan will also allow the Cedar Lane dog park to be lit at night to increase safety for citizens without adding to the town's GHG emissions. This will help promote community use of Cedar Lane Park, promoting community health. A grant was obtained to install solar panels on the Art Center. The solar energy installation will help create new green jobs in Ossining. KPI: Completed installation of solar panels and solar lights. Owner: Town Board, Town Supervisor
Purchase solar powered battery generator Potential Impact: Medium Potential Cost: High Co-Benefits:  	Description: The town will purchase a solar powered battery generator to reduce energy usage and address increased need for power in this space. Co-benefits: Purchasing a solar powered battery generator will provide additional resource security for the Town as it is powered by constant renewable energy. KPI: Solar powered battery generator purchased. Owner: Town Supervisor, Town Board

Vehicle Fleet

The Town of Ossining owns and operates a suite of government vehicles, ranging from passenger cars to large construction equipment. Besides emitting GHGs, transportation fuels such as gasoline and diesel also produce many criteria air pollutants when combusted, reducing local air quality, and affecting residents' health.

Energy consumed by fleet vehicles accounts for 45% of the Town of Ossining's total GHG emissions. Transitioning the municipal vehicle fleet to electric vehicles (EVs) and other low-carbon fuel sources will contribute significantly to achieving the Town of Ossining's GHG reduction targets while saving the government money on fuel costs and improving local air quality. The objectives in the table below focus on opportunities to use more efficient vehicles and to electrify the vehicle fleet and aim to ensure that future activities in the sector are compatible with the local government and community climate protection goals.

Adopt a Fleet Efficiency Policy Potential Impact: Medium Potential Cost: Low Co-Benefits: 	Description: The Town will create a policy that outlines a fuel efficiency standard that must be met by all government owned vehicles. Co-benefits: This will reduce the GHGs produced by the Town by lowering transportation costs and fuel usage. KPI: The successful creation of the Fleet Efficiency Policy Owner: Town Supervisor and Town Board
Transition Municipal Fleet into Electric Vehicles Potential Impact: High Potential Cost: High Co-Benefits:  	Description: Transportation is the Town's largest sector for emissions. If the Town transitions its municipal fleet from more inefficient fuel-based vehicles to electric vehicles it will have a significant impact on emissions. Co-benefits: This action will follow the creation of a Fleet Efficiency Policy and will ensure that town owned vehicles meet the standard for fuel efficiency by transitioning to an electric fleet. The Town has already bought a more efficient vehicle for the highway superintendent which was one of the Town's least efficient vehicles. The new fleet of vehicles will have lower emissions, helping improve community health along with saving the Town money on fuel. KPI: Number of vehicles transitioned to electric. Owner: Town Board

Pilot E-bike Program Potential Impact: Medium Potential Cost: High Co-Benefits: 	Description: The Town is currently working on piloting an E-Bike program with Tarrytown and Croton that will encourage green transportation. Co-benefits: One of the Town's main GHG emissions categories of improvement is employee commute which comprises 36% of total emissions. This plan hopes to help lower the emissions of transport for both employees and other citizens of Ossining. The E-bike program will encourage citizens to use active forms of transportation which will likely have positive public health impacts. This E-bike program is one way the Town is working to provide affordable, sustainable, and accessible transportation for all citizens. KPI: Increased use of bikes over time by employees and other citizens. Owner: Town Supervisor
Install chargers for municipal fleet and electric lawn equipment Potential Impact: High Potential Cost: Medium Co-Benefits: 	Description: The transition to an electric vehicle fleet must be accompanied by the installation of electric chargers to charge the vehicles successfully. Co-benefits: The Town will save money on fuel through electric vehicles and equipment as outlined in the above sections. Additionally, the Town will create green jobs by installing enough chargers for the municipal fleet and the lawn equipment. KPI: Number of chargers installed. Owner: Town Supervisor

Waste Management

The Town of Ossining's waste is generally handled by Westchester County. However, the Town could take some local measures to improve materials management. The Town is working on expanding their yard waste programs to encourage new sustainable practices. As part of this, the town is looking into innovative ways to reuse materials to revitalize the town.

Expand Yard Waste Programs Potential Impact: Low Potential Cost: Medium Co-Benefits: 	Description: The town of Ossining plans to expand yard waste programs to reduce waste and use it in new ways. One plan for this is to encourage and support organizations in turning felled trees into tables and benches for community use. Co-benefits: These programs will create new jobs in the Town of Ossining. The Town will need to hire new employees to run the expansion of yard waste programs. The development and implementation of new yard waste programs will encourage sustainable waste practices that include reuse, recycling, and overall reduction of waste. The expanded waste programs will ensure equality in waste collection for the community. KPI: Reduction in waste going to Westchester County landfills. Owner: Town Supervisor
Implement an environmentally friendly purchasing policy for municipal buildings Potential Impact: Medium Potential Cost: Low Co-Benefits: 	Description: The creation of an environmentally friendly purchasing policy will begin the transition of products bought by the Town towards more environmentally friendly options. This includes appliances, technology, and goods. Co-benefits: This objective will reduce the energy that government operations use, lowering GHG emissions for the Town. Additionally, over time, the Town will save money because the products bought will use less energy. KPI: The successful creation and implementation of a new purchasing plan. Owner: Town supervisor and Town Board

Natural Resources

The Town of Ossining prioritizes its natural resources, including maintaining over 130 acres of parks which are available for use by citizens and others. These parks are used for recreation and are valuable natural resources for the town. Urban green spaces help maintain air quality and mitigate high temperatures meaning they are valuable spaces to protect. The Town of Ossining is one of the towns located on the Hudson River which means it attains many benefits from the river, but also means the Town has the responsibility to ensure that it protects the quality of this resource.

Create a natural resources inventory (NRI) Potential Impact: Low Potential Cost: Low Co-Benefits: 	Description: Creating an inventory of all the natural resources in the Town of Ossining. The NRI will help the town determine strategies for future protection of key natural resources and will maintain both ecological and community health. Co-benefits: Increase resilience, Resource Security, Benefits to frontline communities, Potential to create jobs The NRI will help the town determine strategies for future protection of key natural resources and will maintain both ecological and community health. The NRI can help the Town recognize vulnerable communities and support them in future projects. Creating an NRI may also help the Town create new jobs. KPI: The creation on an NRI. Owner: Town Board and Climate Smart Communities Task Force
Monitor water quality from Hudson River outfalls Potential Impact: Low Potential Cost: High Co-Benefits: 	Description: This would include testing all outfalls from the Hudson River and looking into opening the beach in Ossining. A DEC grant was received to offset the cost of this action and ensure the Town is keeping the Hudson River clean. Co-benefits: By monitoring water quality in the Hudson River, the Town can be made aware of issues that are affecting community health. This action will also likely create new jobs to help maintain the water quality of the Hudson River. KPI: Percentage of outfalls from the Hudson River tested. Owner: Town Supervisor
Electrify lawn equipment Potential Impact: High Potential Cost: Moderate Co-Benefits: 	Description: The Town plans to electrify lawn equipment to reduce emissions created from lawn and garden maintenance. Co-benefits: The reduction in GHG-based lawn equipment will eliminate some particulates from the air at a time when air quality is poorest. KPI: Number of pieces of equipment electrified. Owner: Town Supervisor

Develop and implement a local zoning ordinance that helps to conserve natural areas Potential Impact: High Potential Cost: High Co-Benefits: 	Description: The development of a local zoning ordinance with a focus on conservation of natural areas will help the town ensure that development is not eliminating key natural areas in the community. Co-benefits: Conserving these natural areas is important for community and ecological health. This zoning ordinance will ensure that all development is considering conservation and protecting natural resources. An open space grant was received to offset this action's cost. KPI: The successful development and implementation of the zoning ordinance. Owner: Town Board and Town Supervisor
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Monitoring and Implementation

Implementation

While some of the actions within the Town of Ossining's Local Government Operations Climate Action Plan are well underway, the Town will take immediate steps to kick off other actions in line with the implementation timeline below. The Town of Ossining staff will both be involved in planning and monitoring this Plan and will engage with key stakeholders to prepare for any prerequisite or additional actions needed to begin Plan implementation.

Table 9: Implementation Plan 2025-2030

Timeline for Action - Completion Year	2025	2026	2027	2028	2029	2030
BUILDINGS AND FACILITIES						
Install heat pumps in at least one municipal building			X	X	X	X
Conduct updated energy audit	X			X	X	
Sign up all government buildings for grid rewards program	X					
Install solar panels on Art Center and solar lights at Cedar Lane Dog Park	X	X				
Purchase solar powered battery generator	X					
TRANSPORTATION						
Adopt a fleet efficiency policy		X	X			
Transition municipal fleet to electric vehicles		X	X	X	X	X
Pilot E-bike program	X	X				
Install chargers for municipal fleet and electric lawn equipment	X	X	X	X	X	X
WASTE						
Expand yard waste program	X	X				
Implement an environmentally friendly purchasing policy for municipal buildings		X				
NATURAL RESOURCES (INCLUDES WATER / WASTEWATER)						
<u>Create a natural resources inventory</u>		X	X			
Monitor water quality from Hudson River outfalls	X	X	X	X	X	X
Electrify lawn equipment for Parks and Highway Departments	X	X				
<u>Develop / implement a local zoning ordinance to conserve natural areas</u>		X	X			

Monitoring Plan

Establishing a monitoring process enables Town of Ossining to track the impacts of the actions included in the plan and compare estimated impacts to what is actually achieved in terms of energy savings, renewable energy production, and GHG emissions reduction. Assessing the implementation status of the actions will allow for determination of whether the action is performing well or to identify corrective measures. This process is also an opportunity to understand the barriers to implementation and identify best practices or new opportunities for moving forward.

The table below describes the components of the monitoring reports. Action reports are to be developed every two years and will only include status updates on the overall strategy, the mitigation action plan, and the adaptation action plan. A full monitoring report will be developed every four years, and in addition to the components in the action report, it will include an updated local government operations GHG inventory. This will help the Town of Ossining track its GHG emissions reduction progress. With the approval of this Local Government Operations Climate Action Plan in 2024, the first monitoring action report will be due in 2025 and the first full monitoring report with the updated GHG inventory will be due in 2025. Ideally, the most recent GHG inventory should be no more than four years old.

Table 4: Monitoring Status

Monitoring Report Component	Action Reporting	Full Reporting
Overall Strategy: Reporting any changes to initial strategy as well as updated information on human and financial resources	Yes	Yes
GHG Emissions Inventories: Provide updated energy consumption and GHG emissions data for the reporting year	No	Yes
Mitigation and Adaptation Action Plans: Report the implementation status (completed, in progress, on hold) of key actions and update their impacts	Yes	Yes

Appendix I: Town of Ossining LGO GHG 2019 Inventory

The Town of Ossining's Local Government Operations GHG Emissions Inventory report provides estimates of greenhouse gas emissions resulting from activities within the Town's governmental operations during the year 2019. The full Local Government Operations GHG Emissions Inventory Report can be found [here](#).

Appendix II: Climate Change Science

The Intergovernmental Panel on Climate Change (IPCC)’s Fifth Assessment Report affirms that “warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.”² Researchers have made progress in their understanding of how the Earth’s climate is changing in space and time through improvements and extensions of numerous datasets and data analyses, broader geographical coverage, better understanding of uncertainties and a wider variety of measurements.³ These refinements expand upon the findings of previous IPCC Assessments – today, observational evidence from all continents and most oceans shows that “regional changes in temperature have had discernible impacts on physical and biological systems.”

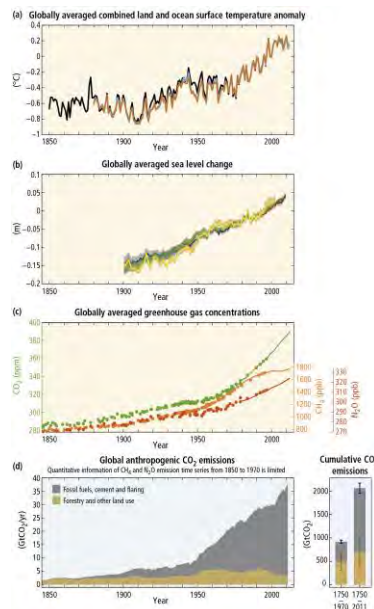


Figure A1: Observations and other indicators of a changing global climate system⁴

² IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K Pachauri, and L.A. Meyer (eds.)]. Geneva, Switzerland, 151 pp

³ IPCC, 2014: Summary for Policymakers. In: Climate Change 2014: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

⁴ IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K Pachauri, and L.A. Meyer (eds.)]. Geneva, Switzerland, 151 pp

The Fifth Assessment asserts that “it is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forces. Globally, economic and population growth continue to be the most important drivers of increases in CO₂ emissions from fossil fuel combustion. Changes in many extreme weather and climate events have been observed since about 1950. Some of these changes have been linked to human influences, including a decrease in cold temperature extremes, an increase in warm temperature extremes, an increase in extreme high sea levels and an increase in the number of heavy precipitation events in a number of regions.”

In short, the Earth is already responding to climate change drivers introduced by mankind.

Temperatures and Extreme Events are Increasing Globally

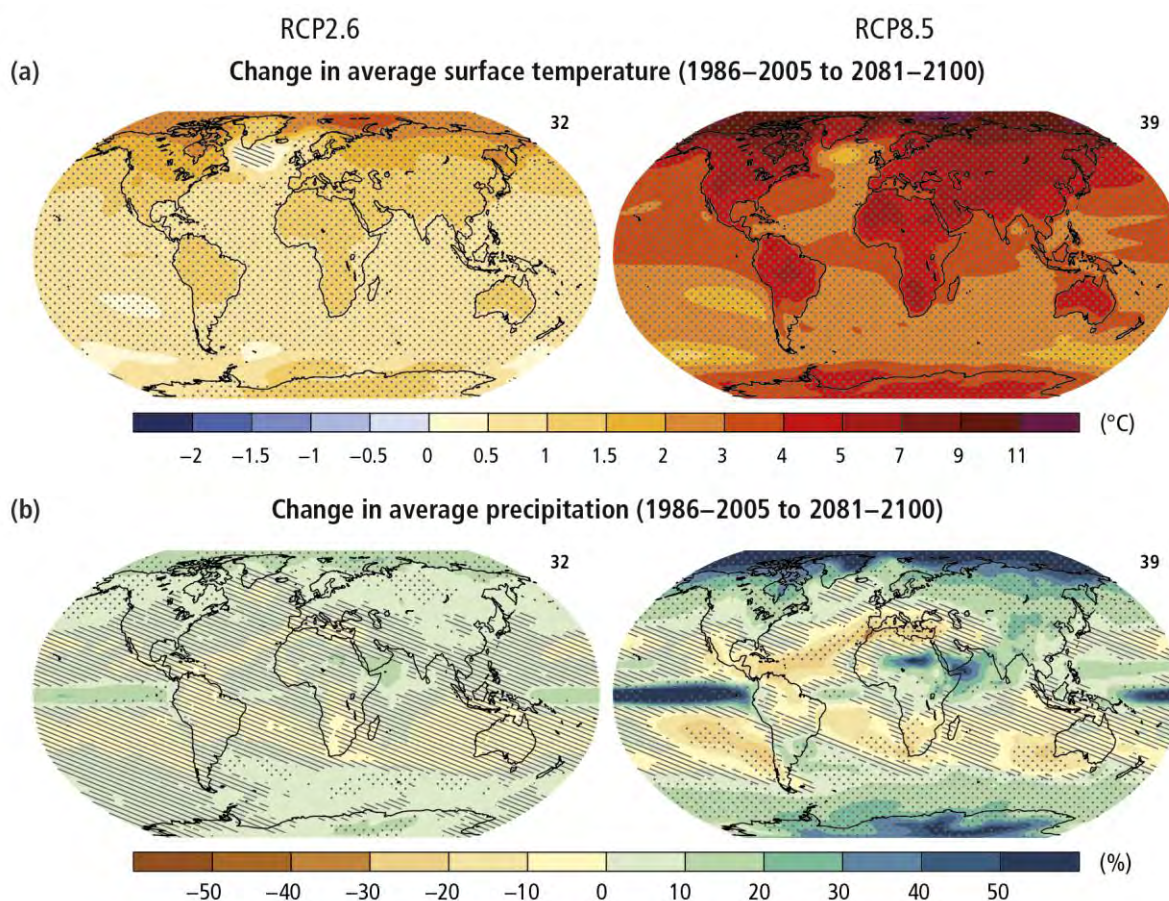


Figure A2: Change in average surface temperature (a) and change in average precipitation (b) based on multi-model mean projections for 2081–2100 relative to 1986–2005 under the RCP2.6 (left) and RCP8.5 (right) scenarios.

Surface temperature is projected to rise over the 21st century under all assessed emission scenarios. It is very likely that heat waves will occur more often and last longer, and that extreme precipitation events will become more intense and frequent in many regions. The ocean will continue to warm and acidify, and global mean sea level to rise. Changes in many extreme weather and climate events have been observed since about 1950. Some of these changes have been linked to human influences,

including a decrease in cold temperature extremes, an increase in warm temperature extremes, an increase in extreme high sea levels, and an increase in the number of heavy precipitation events in a number of regions. [OBJ]

Climate Risks

Climate change is expected to cause significant negative effects on food security. Due to projected climate change by the mid-21st century and beyond, global marine species redistribution and marine biodiversity reduction in sensitive regions will challenge the sustained provision of fisheries productivity and other ecosystem services. For wheat, rice and maize in tropical and temperate regions, climate change is projected to negatively impact production under local temperature increases of 2°C or more above late 20th century levels, although in some cases individual locations may benefit. Global temperature increases of ~4°C or more above late 20th century levels, combined with increasing food demand, would pose drastic risks to food security globally. Climate change is projected to reduce renewable surface water and groundwater resources in most dry subtropical regions, intensifying competition for water among sectors.

Until mid-century, projected climate change will impact human health mainly by exacerbating health problems that already exist. Throughout the 21st century, climate change is expected to lead to increases in ill-health in many regions, particularly in developing countries. Health impacts include greater likelihood of injury and death due to more intense heat waves and fires, increased risks from foodborne and waterborne diseases and loss of work capacity and reduced labor productivity in vulnerable populations. Risks of undernutrition in poor regions will increase. Risks from vector-borne diseases are projected to generally increase with warming, due to the extension of the infection area and season, despite reductions in some areas that become too hot for disease vectors.

In urban areas, climate change is projected to increase risks for people, assets, economies, and ecosystems, including risks from heat stress, storms and extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, water scarcity, sea level rise and storm surges. These risks are amplified for those lacking essential infrastructure and services or living in exposed areas. Rural areas are expected to experience major impacts on water availability and supply, food security, infrastructure, and agricultural incomes, including shifts in the production areas of food and non-food crops around the world.

Climate change is projected to increase displacement of people. Populations that lack the resources for planned migration experience higher exposure to extreme weather events, particularly in developing countries with low income. Climate change can indirectly increase risks of violent conflicts by amplifying well-documented drivers of these conflicts such as poverty and economic shocks.⁵

Regional and Local Impacts

Because the impacts of climate change vary geographically, it is important to know what effects are specifically expected for your corner of the globe.

⁵. IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K Pachauri, and L.A. Meyer (eds.)]. Geneva, Switzerland, 151 pp

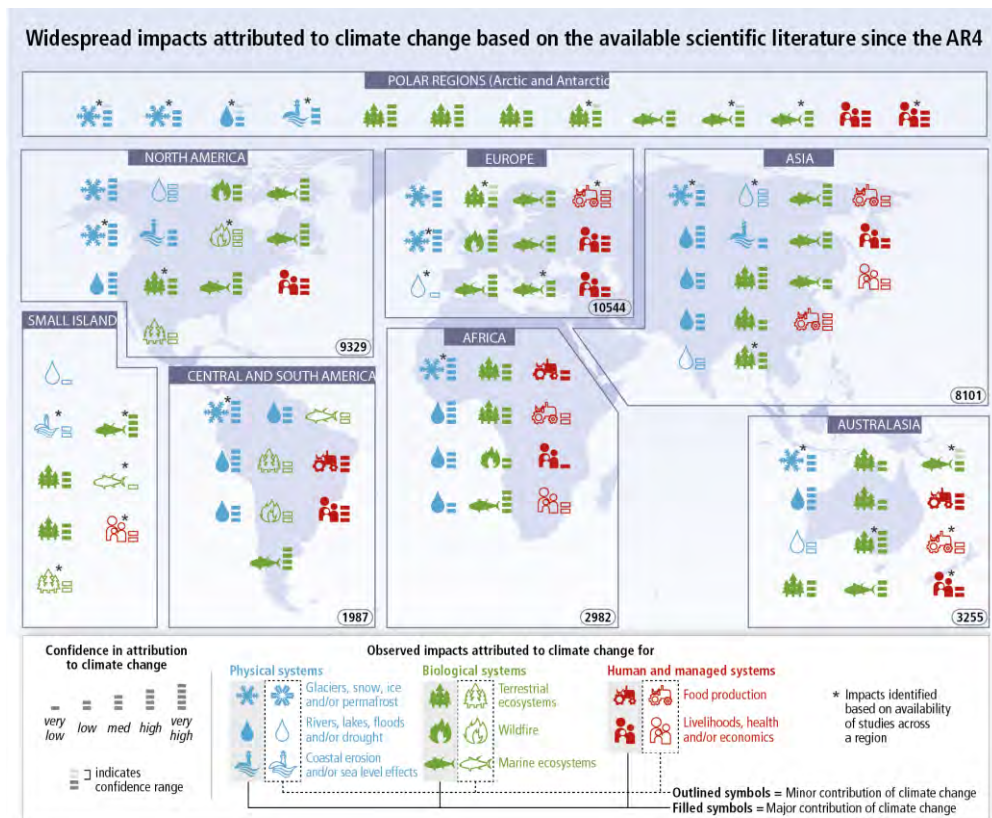


Figure A3: Climate impacts around the world. Symbols indicate categories of attributed impacts, the relative contribution of climate change (major or minor) to the observed impact and confidence in attribution.

Numbers in ovals indicate regional totals of climate change publications from 2001 to 2010, based on the Scopus bibliographic database for publications in English with individual countries mentioned in title, abstract or keywords (as of July 2011). These numbers provide an overall measure of the available scientific literature on climate change across regions; they do not indicate the number of publications supporting attribution of climate change impacts in each region. Studies for polar regions and small islands are grouped with neighboring continental regions.⁶



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⁶. IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K Pachauri, and L.A. Meyer (eds.)]. Geneva, Switzerland, 151 pp