



# CLIMATE-SMART OPPORTUNITIES FOR URBAN & SMALL-SCALE PRODUCERS AND COMMUNITIES

Climate change affects everyone, rural and urban alike. Urban residents account for roughly 80% of the nation's population. Thus, people in urban areas face unprecedented threats due to climate change, which can exacerbate existing challenges, such as aging and deteriorating infrastructure, stressed ecosystems, and social inequality.

Climate change often disproportionately impacts vulnerable and socio-economically marginalized groups, including many urban populations, who may have limited capacity to adapt. Urban farmers and gardeners work among diverse populations to expand local access to nutritious foods, foster community engagement, provide jobs, educate communities about farming, and expand green spaces. Urban agriculture can help communities and producers respond to climate change, including support for local resilient food systems. Whether a farm is in a rural area or the middle of a city, USDA is here to help producers and communities as they respond to climate change.

## Climate-Smart Agriculture and Forestry

Climate-smart agriculture and forestry is an integrated approach, that enables farmers, ranchers, and private forest landowners to respond to climate change by reducing or removing greenhouse gas emissions (mitigation) and adapting and building resilience (adaptation), while sustainably increasing agricultural productivity and incomes.

## Climate Change Mitigation

Regardless of the size, location, and type of an operation, agricultural producers and the communities they live in can play a role in delivering climate-smart mitigation solutions.

While USDA's Natural Resources Conservation Service (NRCS) offers a broad suite of voluntary conservation activities, the agency identifies a sub-set as critical to climate change mitigation because of their potential to reduce greenhouse gas emissions or increase carbon sequestration. Many of these [Climate-Smart Mitigation Activities](#) may be applicable on small-scale and urban operations, and may be supported through appropriate financial assistance programs.



Beginning in 2023, the [Inflation Reduction Act](#) provides \$19.5 billion in additional funds over five years to support climate change mitigation through several NRCS conservation programs.

Urban communities can help limit landfill methane emissions by diverting food from landfills through USDA's [Composting and Food Waste Reduction agreements](#).

Increases in urban tree cover can help sequester carbon and also reduce the urban heat island effect. The U.S. Forest Service supports these efforts by working with state partners and community tree groups through the [Urban and Community Forestry Program](#).

## Climate Change Adaptation

NRCS conservation practices may help urban producers cope with shifting growing conditions and adapt to weather events. For example, high tunnels may help small-scale and urban producers protect against extreme rain events, early or late-season frosts or other impacts. Micro-irrigation and drip irrigation systems may improve water use efficiency and help producers adapt to changing growing conditions, while providing cost-saving benefits.

Additional benefits of urban agriculture include showcasing practices that improve soil health, air quality, and water quality to new audiences. Urban agriculture can also change how urban residents think about their role in community food production, nutrition and a healthy environment, by introducing and providing hands-on farming and gardening experience for multiple generations in urban areas.



Communities can build resilience to supply chain disruptions by growing locally. Urban forests enable communities to better adapt to climate change by helping to reduce the urban “heat island” effect, in which urbanized areas with limited greenery experience higher temperatures than outlying areas. Trees and shrubs can also provide fruits & nuts, building materials, medicinals, culturally significant plants, and pollinator habitat. Urban agriculture can help increase water infiltration and reduce water run-off from impermeable surfaces. USDA’s [Urban Agriculture Programs At a Glance](#) includes additional programs that can help urban producers adapt to climate change and support more resilient food systems.

## USDA Can Help

Are you gardening or farming in an urban environment? USDA can provide resources to start, expand, and operate your farm or garden, market what you grow, and help you recover in case of disaster.

Producers and landowners should contact the NRCS office at their local USDA Service Center for additional information and one-on-one technical support specific to their natural resource objectives. [USDA Service Centers](#) are in nearly every county across the United States.

## Helpful Resources

The [Urban Agriculture Toolkit](#) lays out the common operational elements that most urban farmers must consider as they start up or grow their operations.

The [Urban Agriculture Programs At a Glance](#) provides a summary of USDA programs available to support producers and food system partners with urban agriculture.

If you’re new to working with NRCS, see this [Guide to USDA Resources](#) and the [Conservation at Work Video Series](#) that shows examples of conservation practices that may work well for your operation, including options that contribute to climate change mitigation and adaptation.

## More Info

For additional information, visit [farmers.gov/climate-smart](https://farmers.gov/climate-smart) to learn how each NRCS program supports climate-smart agriculture and forestry. In addition, state-specific application ranking dates for NRCS programs are available on the NRCS Program Application Ranking Dates webpage at [nrcs.usda.gov/ranking-dates](https://nrcs.usda.gov/ranking-dates).

