



National Institute of Food and Agriculture

U.S. DEPARTMENT OF AGRICULTURE

**BIOENERGY, CLIMATE, AND ENVIRONMENT
FOOD PRODUCTION AND SUSTAINABILITY
YOUTH, FAMILY, AND COMMUNITY
FOOD SAFETY AND NUTRITION
INTERNATIONAL PROGRAMS**

NIFA

National Association of University Forest Resources Programs

Kevin Kephart

Deputy Director, Institute of Bioenergy, Climate, and Environment

September 20, 2022

INVESTING IN SCIENCE | SECURING OUR FUTURE | WWW.NIFA.USDA.GOV

USDA IS AN EQUAL OPPORTUNITY PROVIDER, EMPLOYER, AND LENDER



Non-Discrimination Statement

<https://www.usda.gov/non-discrimination-statement>

- In accordance with federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs, are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.
- Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.
- To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax (202) 690-7442; or (3) email: program.intake@usda.gov.
- USDA is an equal opportunity provider, employer and lender.



Institute of Bioenergy, Climate, and Environment

Kevin Kephart
Deputy Director

Division of Bioenergy
Timothy Conner
Division Director

- William "Bill" Goldner (OCS)
- Victoria "Vicki" Finkenstadt (NPL)
- Toby Ahrens (NPL)
- Melinda Coffman (PC)
- Tammi Neville (PS)
- Nurun Nahar (PS)

- Eric Norland (NSL)
- Megan O'Rourke (NSL)
- Tammy King (AO)
- Valerie Schattilly (Secretary)
- Emma Moran (DA)
- Linsey Haram (AAAS Fellow)

Division of Climate Change
Kevin Kephart
Acting Division Director

- Amy Ganguli (NPL)
- Adam Wilke (NPL)
- Margaret "Meg" Johnston (PA)
- Wendy Flatt (PS)

Division of Environmental Systems
Peter Thompson
Division Director

- Patrick Daniel Cassidy (NPL)
- James "Jim" Dobrowolski (NPL)
- Sandeep Kumar (NPL)
- Diomides "Diomy" Zamora (NPL)
- Monica Jerome (PS)
- Hannah Moshay, (PS)
- Rocio Gutierrez (PS)
- Andrea "Andie" Thompson (PA)



McIntire-Stennis Cooperative Forestry Program

- Approved schools of forestry, land-grant colleges, and state Agricultural Experiment Stations
- Supports research in:
 - 1) reforestation and land management
 - 2) forest and watershed management
 - 3) forest and rangeland management
 - 4) management of forest lands for outdoor recreation
 - 5) protections of forest and resources against fire, insects, disease, etc
 - 6) utilization of wood and other forest related products
 - 7) development of land management policies
 - 8) studies promoting fullest and most effective use of forest resources.



Renewable Resources Extension Act Capacity Grant (RREA)

- Eligibility: A specific list of institutions listed in the RFA
- Supports extension programs to assist:
 - Educational programs on forestry and rangeland related natural resources
 - Disseminate results of forestry and rangeland related research
 - Develop educational programs around fish and wildlife resources
 - Help landowners acquire financial assistance for land management
 - Identify needed natural resource research and outreach for future management





NIFA Funding Opportunities for Forestry

AFRI SAS

Climate-Smart Agriculture and Forestry

Strengthening the Bioeconomy

A1451: Agroecosystems: Health, Functions, Processes and Management

Research projects that focus on improvement of ecosystem health and productivity in managed systems (croplands, forests, grasslands and rangelands)

A1181: Agricultural Biosecurity

Research, extension and integrated projects for detection and diagnostics of transboundary, emerging, or re-emerging pests and diseases and rapid response to, and recovery from, pests and diseases that pose large-scale biosecurity threats to plant production systems

A1712: New-Rapid Response to Extreme Weather Events Across Food and Agricultural Systems

Extension or integrated research and extension grants to rapidly deploy strategies and fill knowledge and information gaps to protect the nation's food and agricultural supply chains and the people who support them during and after weather-related disasters

AFRI Education & Workforce Development RFA: FY 2022 funded at \$68 million



NIFA Funding Opportunities for Forestry

SBIR 8.1 Forests and Related Resources

R&D focused on health, diversity and productivity of forests and grasslands by sustaining forest resources, addressing climate change impacts, developing value-added materials and protecting existing ecosystems.

A1721 Extension, Education and USDA Climate Hubs Partnerships

Supports effective, translatable, and scalable approaches to address climate change through regional partnerships including the USDA Climate Hubs and Extension (e.g., the Cooperative Extension Service).

Projects support the delivery of science-based, region-specific information and technologies to agricultural and natural resource managers in order to enable climate-informed decision-making and provide access to assistance to implement those decisions.

Socioeconomic impacts of climate change are of special interest and importance, including topics such as net-zero emissions agriculture, working lands adapted to climate change, a diverse workforce capable of communicating about climate change effectively, and climate justice including equal opportunities and burden sharing.

American Rescue Plan Act

NEXTGEN

- Available until expended: \$250 Million to NIFA in the new NEXTGEN RFA, due Nov 15, 2022
- Purpose is to engage, recruit, retain, train, and support students in order to help build and sustain the next generation of the food, agriculture, natural resources (e.g. forestry), and human sciences workforce including the future USDA workforce
- Eligible PD applicants: 1890 land-grant institutions, 1994 land-grant institutions, Alaska Native serving institutions and Native Hawaiian serving institutions, Hispanic-serving institutions [specifically, the certified Hispanic-serving agricultural colleges and universities (HSACUs)], and insular area institutions of higher education located in the U.S. territories.
- Student scholarship, experiential learning, outreach & engagement, projects
- Partnerships with other universities or institutions such as non-profits or “professional societies” for \$10 million and \$20 million. Eligible institutions can apply for single institution awards for \$5 million



Infrastructure Investment and Jobs Act

- \$3 billion invested over five years to reduce the risk of wildland fire and restore ecosystems.
- Forest Service to restore buildings, support outdoor recreation and repair roads through the Federal Lands Transportation Program.
- Forest Service to improve postfire reforestation, repair trails, restore fish passage and decommission legacy roads through the Reforestation Trust Fund.
- It strengthens the Joint Chiefs Program for fuels and forest health projects



Inflation Reduction Act

SEC. 23001. NATIONAL FOREST SYSTEM RESTORATION AND FUELS REDUCTION PROJECTS.

\$2.15 billion for fuel reduction, vegetation management, environmental reviews, and protecting old growth forests on National Forest System Lands

SEC. 23002. COMPETITIVE GRANTS FOR NON-FEDERAL FOREST LANDOWNERS

\$450 million will be made to underserved and small-scale forest owners through competitive grants for projects that increase carbon sequestration and support their participation in emerging private markets for climate mitigation or forest resilience

SEC. 23003. STATE AND PRIVATE FORESTRY CONSERVATION PROGRAMS

\$700 million for competitive grants to States through the Forest Legacy Program for the acquisition of land and interests in land; and

\$1.5 billion for multiyear, programmatic, competitive grants to a State agency, a local governmental entity, or a nonprofit organization for tree planting and related activities.

USDA Climate Action Plan

- USDA Department Regulation 1070-001
 - Identify how climate change is likely to affect USDA's ability to achieve its mission, operations, and policy and program objectives
 - Develop, prioritize, implement, and evaluate actions to minimize climate risks and exploit new opportunities
 - Better ensure that taxpayer resources are invested wisely, and that USDA services and operations remain effective
 - Update and provide progress reports on status of implementation annually





Climate **adaptation** is the **process** of adjusting to avoid the expected or actual **consequences** of climate change.

Climate change poses a threat to:

Agricultural Productivity

Water Quantity & Quality

Vulnerable Communities

Resilience to Extreme Weather

Infrastructure and Public Lands

Actions USDA will take to prepare the ag and forestry sectors and communities to be resilient are:

1. Build resilience to climate change across landscapes with **investments in soil and forest health**
2. **Increase climate outreach and education** to promote the application and adoption of climate-smart adaptation strategies
3. **Broaden access and availability of climate data** at regional and local scales for producers, land managers, and USDA Mission Areas
4. **Increase support for research and development** of climate-smart practices and technologies to inform USDA planning, decision-making, and programs to help producers and land managers adapt
5. Leverage the **USDA Climate Hubs as a framework to support USDA Mission Areas** in delivering adaptation science, technology, and tools



NIFA Climate Adaptation Plan

- **KEY CLIMATE CHANGE VULNERABILITIES**
- Water Quality and Quantity
- Agroecosystem Productivity and Sustainability
- Food and Nutrition Security
- Resilience To Extreme and Variable Weather Events
- Education Pipeline
- Continuity of Operations





NIFA Climate Change Vulnerabilities



Water Quality & Quantity



Agroecosystem Productivity & Sustainability



Food & Nutrition Security



Resilience to Extreme & Variable Weather



Education Pipeline

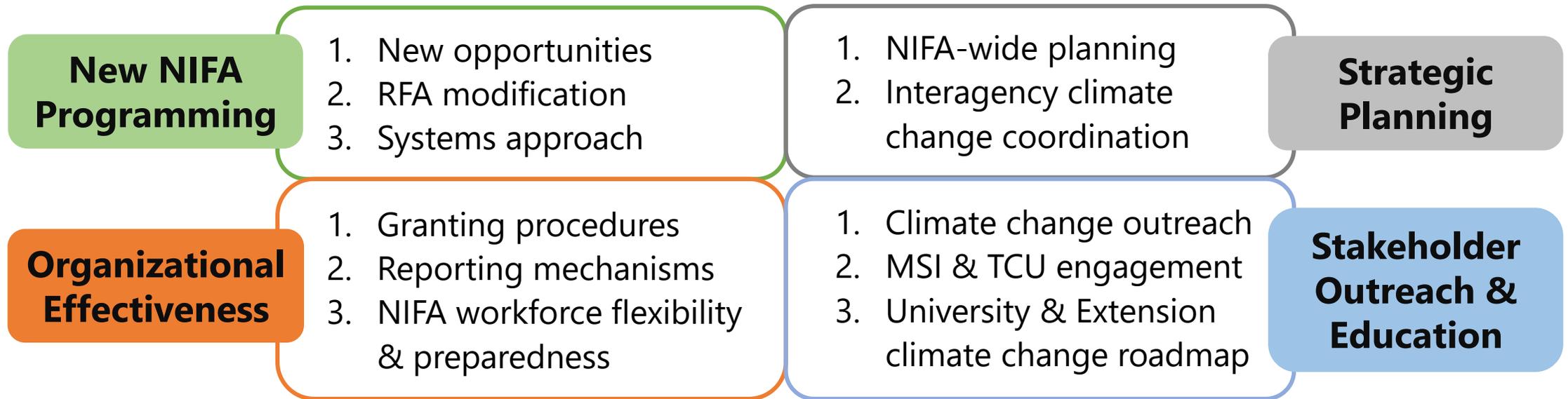


Continuity of Operations

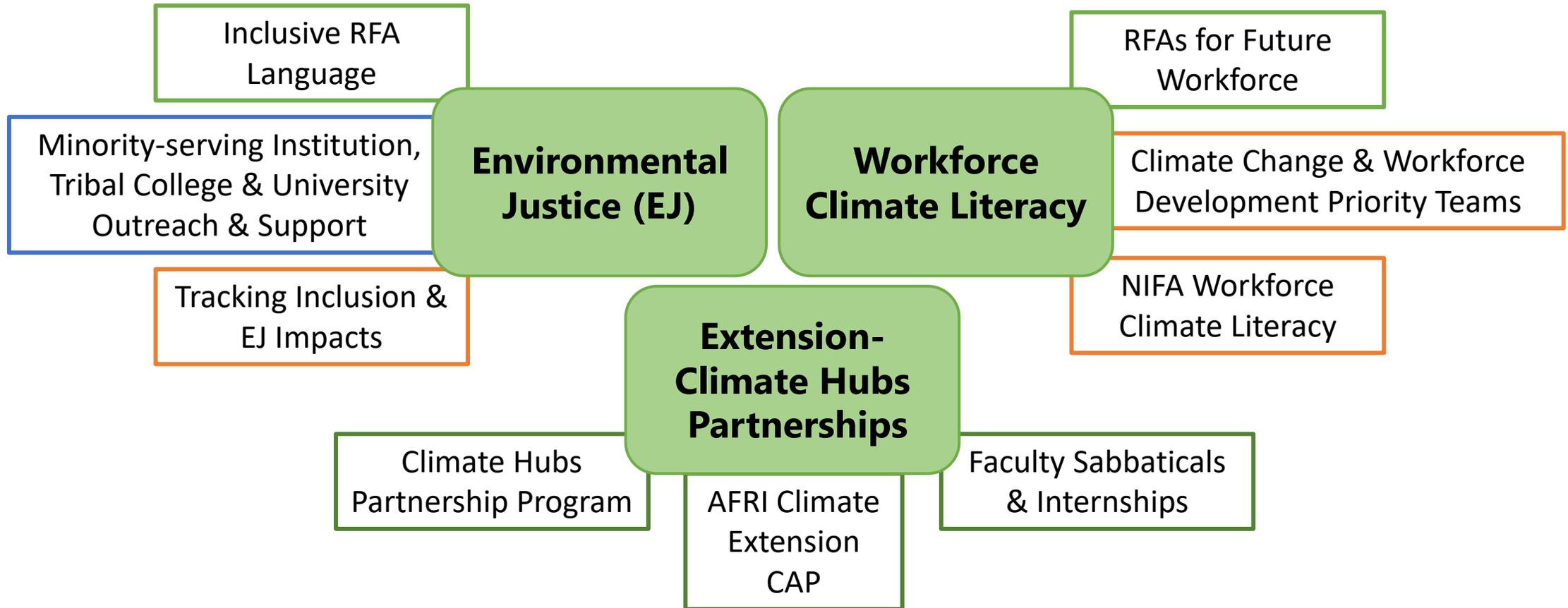




NIFA Climate Change Adaptation Actions



Cross-Cutting Actions



Learn more!

Find more information about NIFA's activities on climate change on nifa.usda.gov

www.nifa.usda.gov/grants/programs/climate-change-adaptation-mitigation-resilience

Megan.Orourke@usda.gov

TOPICS | GRANTS | DATA | RESOURCES | ABOUT

HOME

Climate Change: Adaptation, Mitigation and Resilience



SHARE    

Climate Change: Adaptation, Mitigation And Resilience

> NIFA Climate Adaptation And Resilience

Plan

- > Our Vulnerabilities
- > Our Proposed Actions
- > About The Plan

Rapidly changing climate is one of the most pressing issues facing farmers, ranchers, landowners, households, and communities.

- Temperatures and drought extremes are recorded nearly every year, which stress crop and livestock systems and make them more susceptible to devastating infestations of native and non-native insects and diseases.
- Devastating wildfires are occurring more frequently and with greater intensity.
- Communities are challenged to maintain adequate and safe food systems while climate change threatens existing supply chains.
- Demands for bio-based and other renewable, non-fossil-based fuels are increasing; and
- Agriculture and forestry systems are increasingly looked to for solutions to reduce greenhouse gas emissions and draw carbon dioxide out of the atmosphere.



EO 14008: Biden/Harris Administration Climate Crisis Priorities

- A government-wide approach
- Engagement with America's farmers, ranchers, and forest landowners in combating the climate crisis and reducing greenhouse gas emissions (e.g. carbon sequestration, enteric methane)
- Voluntary adoption of climate-smart agricultural and forestry practices.
- Workforce training to advance conservation, agriculture, and reforestation
- Civilian Climate Corps Initiative
 - Help mobilize the next generation of conservation and resilience workers and maximize creation of accessible training opportunities and good jobs.
 - This initiative will aim to conserve and restore public lands and water, bolster community resilience, and address climate change.



EO 14008: Biden/Harris Administration Climate Crisis Priorities

- **Net-zero greenhouse gas emissions** economy-wide by 2050
- **Reducing greenhouse gas emissions** economy-wide by 50-52% of 2005 levels by 2030.
- **Quantification of carbon sequestration and greenhouse gases** so that we can demonstrate the benefits of our investments.
- **Equity will be a vital** consideration in all we do on climate change at USDA.
 - We must ensure that the programs we support and the investments we make are available to everyone and that we take special steps to ensure that farmers of color and small and medium-sized farmers are able to participate and prosper as a result of our work.





EO 14008: Biden/Harris Administration Climate Crisis Priorities

USDA is to develop recommendations for a climate-smart agriculture and forestry (CSAF) strategy.

- Decrease wildfire risk fueled by climate change
- Source sustainable bioproducts and fuels
- Conservation actions that
 - Provide measurable carbon reduction
 - Sequester carbon

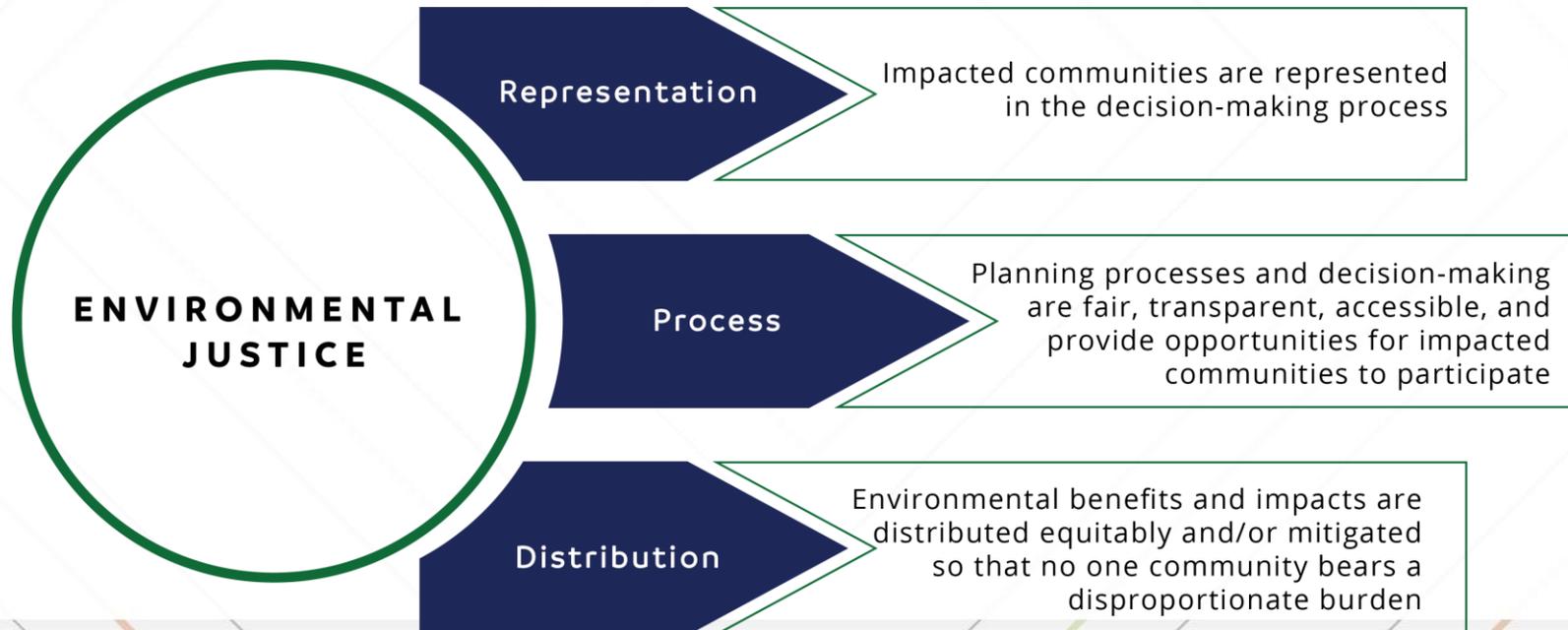


Additional Climate Priorities

Environmental Justice

Executive Order 14008: Tackling the Climate Crisis at Home and Abroad

Defines Justice40: 40 percent of benefits from covered programs should be directed to disadvantaged communities





Justice40

Covered Priority Areas:

- climate change
- clean energy and energy efficiency
- clean transportation
- affordable and sustainable housing
- training and workforce development (related to topics of other covered programs)
- remediation and reduction of legacy pollution
- critical clean water and waste infrastructure

Underserved Communities:

- Historically marginalized and/or overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and healthcare

Justice40

NIFA Covered Programs

- Hispanic-Serving Institutions Education Grants Program
- Alaska Native-Serving and Native Hawaiian-Serving Institutions Education Competitive Grants Program
- Insular Programs (DEG, RIIA, and AGEI)
- Tribal College Research Grant Program
- Tribal College Extension Grant Program
- Tribal College Equity Grant Program
- Federally Recognized Tribes Extension Program
- New Beginning for Tribal Students
- Scholarships at 1890 Institutions
- 1890 Facilities Grants Program
- Centers of Excellence at 1890 Institutions
- 1890 Institution Teaching, Research and Extension Capacity Building Grants (CBG) Program
- Agriculture Research at 1890 Land-Grant Institutions (Evans-Allen)
- Agricultural Extension Programs at 1890 Institutions
- Bioproduct Pilot Program (IIJA)



Justice40

Actions Underway

- Assessment of statutory language for the covered programs
- Added language to RFAs
- Outreach with stakeholders and partners to identify and prioritize current topics and priority concerns of tribal, national or multistate significance.
- Promoting awareness of Justice40 activities and implementation among NIFA's stakeholders and partners.
- Highlight impacts for environmental justice from throughout NIFA
- Determination of OMB reporting requirements
- Collaborations with other USDA and USG agencies to identify data and methods for tracking investments and benefits.



We Look Forward To The Work Ahead

Contact:

Kevin Kephart

Deputy Director, IBCE

Kevin.Kephart@USDA.GOV

