



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[Docket No. 2307014-0168]

RTID 0648-XV193

Request for Information on Equitable Delivery of Climate Services

AGENCY: Department of Commerce, National Oceanic and Atmospheric Administration.

ACTION: Request for information.

SUMMARY: The U.S. Department of Commerce (Department), via the National Oceanic and Atmospheric Administration (NOAA), requests additional input from interested parties on how to enhance NOAA's delivery of climate data, information, science, and tools ("climate services") and ensure that this delivery is equitable and accounting for the needs and priorities of a diverse set of user communities as they engage in climate preparedness, adaptation, and resilience planning. Building on the work that NOAA is already doing to prepare communities for increasing climate impacts, the input from this Request for Information (RFI) will be used to create an Action Plan that will inform more equitable and inclusive design, production, and delivery of climate services for users of all disciplines and backgrounds.

DATES: Responses are due on or before September 21, 2023.

NOAA will host virtual public listening sessions during the months of August and September for participants to provide comments. See **ADDRESSES** below for more information on dates, times, and registration.

ADDRESSES: You may submit comments on this document by any of the following methods:

- *Email Submission:* Interested individuals and organizations should submit written or recorded comments by email to climate.input@noaa.gov. If submitting via email, include the title of this RFI, “Request for Information on Equitable Delivery of Climate Services” in the subject line of the email. Attachments will be accepted in plain text, Microsoft Word, or Adobe PDF, or recorded formats only, not to exceed a file size of 25 MB. If comments are submitted via recording, they must be in .mpg, mpeg, or .wav file formats. All comments submitted via email in recorded format will be transcribed.
- *Electronic Submission:* Comments may also be submitted in writing only via www.regulations.gov/. Go to <https://www.regulations.gov> and enter the title of this action, “Request for Information on Equitable Delivery of Climate Services” in the Search box. Click the “Comment” icon, complete the required fields, and enter or attach your comments. Enter “N/A” in required fields if you wish to remain anonymous.
- *Mail:* Submit written comments to Ella Clarke, Room 58010/HCHB, 1401 Constitution Ave, NW, Washington, DC 20230. Include the title of this RFI, “Request for Information on Equitable Delivery of Climate Services” in the written response.
- *Public Listening Sessions:* Provide oral comments during virtual public listening sessions, as described under **DATES**. Registration details and additional information about how to participate in these public listening sessions is available at <https://www.eventbrite.com/cc/equitable-climate-service-delivery-2404789>.

Instructions: Response to this RFI is voluntary. Respondents need not reply to all questions listed. Each individual or institution is requested to submit only one response. All comments received are part of the public record and may be posted, without change, on NOAA’s website at <https://www.noaa.gov> and on <https://www.regulations.gov>.

Commenters should include the name of the person and/or organization filing the comment. All identifying information (*e.g.*, name, email address) submitted voluntarily by the sender will be publicly accessible. NOAA, therefore, requests that no business proprietary information, copyrighted information, or sensitive personally identifiable information be submitted in response to this RFI. Comments will be accepted in English and Spanish. Comments submitted in Spanish will be translated to English for public posting.

FOR FURTHER INFORMATION CONTACT: Ella Clarke, Office of the Assistant Secretary for Oceans and Atmosphere, National Oceanic and Atmospheric Administration, (771)216-1352; ella.clarke@noaa.gov.

SUPPLEMENTARY INFORMATION:

I. Background

Climate change is here. Communities around the country and the world are feeling its impacts every day. Brutal heat waves on land and in the ocean, extreme and prolonged drought, and coastal and inland flooding are just some of the risks that are threatening our economies, ecosystems, and ways of life. Communities of color, Indigenous, Tribal communities, and other marginalized communities—communities already facing systemic economic, social, civic, and environmental inequity—experience disproportionate impacts. Historically, these communities have been without access to resources that would support them in advancing their community priorities, preparing for climate-related disasters, adapting to a changing climate, and avoiding the worst future damages.

NOAA is a leading provider of climate data, information, science, and tools (described as “climate services” for the purpose of this document – see **Definitions** below), and plays a critical role in improving our Nation’s ability to adapt and build resilience to climate change. Equity is a core component of NOAA and the Department

of Commerce's vision. NOAA has committed to making equity central to every part of its mission, including its climate service delivery, as part of NOAA's Strategic Plan (<https://www.noaa.gov/organization/budget-finance-performance/value-to-society/noaa-fy22-26-strategic-plan>) and Climate Ready Nation initiative. This includes improving discovery of, access to, and usability of climate services to adapt to climate change and prepare for and enhance resilience to its impacts. Following through on that equity commitment requires NOAA to center the needs and priorities of historically underserved communities in its delivery of climate services. NOAA has taken strides to improve how underserved communities benefit from NOAA's climate services through a series of Climate Equity Roundtables and subsequent Climate Equity Pilots (<https://www.noaa.gov/regional-collaboration-network/noaas-climate-and-equity-roundtables>), among other efforts, but we acknowledge that there is more that we can do. NOAA also has opportunities to improve equity in its climate service delivery through increased capacity and improved access to climate services for climate preparedness, adaptation, and resilience planning in underserved and Tribal and Indigenous communities, including consideration and inclusion of Indigenous Knowledge in the design and delivery of NOAA's climate services.

NOAA aims to elicit comments on how to enhance the agency's delivery of climate services and ensure that this delivery is equitable and accounting for the needs and priorities of a diverse set of user communities. Building on the work that NOAA is already doing to prepare communities for increasing climate impacts, we will gather critical feedback from a wide swath of users of all disciplines and backgrounds, including but not limited to those working in public health, housing, economic development, environmental justice, and other communities that we aim to better support (see **Target Audience** list below). A summary of responses will be shared publicly and will be used to develop an Action Plan to further embed equity in NOAA's climate service design,

production, and delivery based on feedback received from respondents.

1) RFI Objectives

- Solicit feedback on the climate services and other decision support needed to help a range of user communities, particularly historically underserved, Tribal, and Indigenous communities, move forward with their climate preparedness, adaptation, and resilience planning.
- Leverage responses to spark further conversation within NOAA and with community partners to drive organizational change and ensure that NOAA both 1) provides and co-produces climate services that meet the needs and enhance the capabilities of those we serve, and 2) sustains productive feedback loops with users to adaptively manage its climate services for continual improvement and more equitable outcomes.
- Take concrete action to make NOAA's climate services more accessible, understandable, usable, inclusive of the social and economic impacts of climate change, and capable of addressing complex and compounding hazards.
- Take concrete action to build capacity and support users of all disciplines and backgrounds, particularly for historically underserved communities and Tribal and Indigenous communities, by expanding science literacy and successfully applying technical information and data to science-based decisions about climate preparedness, risk, and resilience.

2) Target Audience

NOAA is particularly interested in hearing from communities that it may not engage with regularly, including but not limited to:

- Community and city planners
- Community organizers
- Public health workers

- Affordable housing advocates
- Environmental non-profits
- Environmental justice groups
- Small business owners
- Food banks, urban and community gardens
- Students and youth organizers
- Community Development Financial Institutions (CDFIs)
- Tribal and Indigenous government officials and community members
- State and territorial governments
- Local government

II. NOAA Investment in Equitable Climate Service Delivery

The Biden-Harris Administration has laid out clear priorities around climate resilience, adaptation, and equity through Executive Order 13985, which calls for the Federal Government to “pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality”; and Executive Order 14008 on Tackling the Climate Crisis at Home and Abroad. Other Federal agencies, including the U.S. Department of Housing and Urban Development, the Federal Emergency Management Administration, and the U.S. Environmental Protection Agency, have used these Executive Orders as impetus for releasing RFIs to enhance their incorporation of equity considerations into existing climate preparedness, adaptation, and resilience programs.

1) Climate Service Delivery for Tribal Nations and Indigenous Peoples

NOAA recognizes the critical contributions of Indigenous Knowledge that Tribal Nations and Indigenous Peoples make to climate preparedness, adaptation, and resilience practices, and the importance of ensuring that NOAA’s consideration and

inclusion of Indigenous Knowledge is guided by respect for the sovereignty and self-determination of Tribal Nations; the Nation-to-Nation Relationship between the United States and Tribal Nations, and the United States' trust responsibility; and the need for the consent of and honest engagement with Tribal Nations and Indigenous Peoples. NOAA, in response to the Indigenous Knowledge Guidance (<https://www.whitehouse.gov/wp-content/uploads/2022/12/OSTP-CEQ-IK-Guidance.pdf>) provided by the White House Office of Science and Technology Policy and the White House Council on Environmental Quality, has updated its NOAA Tribal Consultation Handbook (<https://www.noaa.gov/legislative-and-intergovernmental-affairs/noaa-tribal-resources-updates>) and reaffirmed NOAA Administrative Order NAO 218-8A: Policy on Government-to-Government Consultation with Federally Recognized Indian Tribal Governments (<https://www.noaa.gov/organization/administration/nao-218-8A-policy-on-G2G-consultation-with-federally-Recognized-Tribal-Governments>). This RFI seeks to further understand Tribal and Indigenous needs around and contributions to NOAA's suite of climate services.

2) Climate Ready Nation

NOAA launched Climate Ready Nation to better organize and deliver NOAA's climate services and get actionable weather, water, and climate information and data in the hands of decision makers to help them build a thriving, equitable, and resilient future in the face of climate change. But, NOAA and the Federal Government cannot ready the Nation alone. Through the Climate-Ready Nation initiative, the focus is on strengthening a broad range of partnerships with the end goal of creating and sustaining a climate service enterprise that extends far beyond what NOAA alone can do. This includes:

- Serving climate needs within the Department of Commerce;
- Supporting other members of the Federal Government in climate-proofing

their investments;

- Tailoring service delivery to state and local leaders, including leaders in communities, with academic institutions and non-governmental organizations (NGOs), and across the U.S. and territories;
- Engaging with Tribal and Indigenous communities and leaders, recognizing the value of traditional knowledge and, simultaneously, that climate change poses particular threats to indigenous populations;
- Working with businesses and the private sector to enable a robust public-private service delivery enterprise; and
- empowering the public to take action in their own lives.

This will be successful only if we take a purposeful approach to our partnerships and ensure that this vast, multi-stakeholder group of climate service providers is using authoritative and fit-for-purpose information to inform climate actions.

3) NOAA Climate Equity Roundtables and Pilots

The NOAA Regional Collaboration Network is supporting NOAA's commitment to sustained engagement with underserved communities through seven pilot projects in the coming years. Each regional pilot will respond directly to feedback received from partners during Climate and Equity roundtable discussions. Pilots will take a unique, place-based approach to helping vulnerable communities better understand, prepare for, and respond to climate change. You can read more about the Pilots here:

<https://www.noaa.gov/noaa-regional-collaboration-network-announces-climate-and-equity-pilot-projects>.

4) NOAA Grant Programs under the Bipartisan Infrastructure Law and Inflation Reduction Act

On June 6, 2023, U.S. Secretary of Commerce Gina Raimondo announced historic funding for NOAA under the Inflation Reduction Act (*IRA*;

<https://www.noaa.gov/inflation-reduction-act>), highlighting plans to implement \$3.3 billion in investments focused on ensuring America's communities and economy are ready for and resilient to climate change. Through the IRA, and building on investments made under the Bipartisan Infrastructure Act (*BIL*; <https://www.noaa.gov/infrastructure-law>), NOAA will continue its efforts to build a climate-ready nation. This includes funding that will empower NOAA to address the growing demand for climate services and support for climate preparedness, adaptation, and resilience planning in a way that is accessible and equitable for users of all disciplines and backgrounds. More information on these investments can be found here: <https://www.noaa.gov/inflation-reduction-act>.

III. List of Questions for Commenters

NOAA seeks responses to three categories of questions below in Sections A, B, and C. We invite any member of the public, particularly those in the Target Audience list above, to provide input on some or all of the questions in the below categories:

- A. Enhancing Accessibility of NOAA Climate Services
- B. Capacity Building, Education, and Technical Assistance
- C. Community Outreach, Engagement, and Co-production of Climate Services

Respondents are welcome to respond to as many or as few questions below as are applicable to their experience with NOAA's climate services. Response to all questions listed below is NOT required. You may also include links to online material or interactive presentations. If including data sets, please make the data available in a downloadable, machine-readable format with accompanying metadata. (See **ADDRESSES** for further instructions.)

A. Enhancing Accessibility of NOAA Climate Services

NOAA is a leading provider of climate data, information, science, and tools, and maintains a rich array of climate services that are designed to inform decisions on climate preparedness, adaptation, and resilience. However, an abundance of scientific resources

and gaps in climate services, particularly at smaller scales, can create challenges as communities look to access, understand, and use information that suit their particular needs. In addition, the data, tools, and services that NOAA provides may also not be accessible, understandable, or usable for all communities. The questions below seek to gather feedback on how NOAA is, or is not, addressing the information needs and priorities of communities as they seek to make decisions about their climate preparedness, risk, and resilience. Responses could include (but are not limited to): feedback on discoverability (finding the right data for use), ease of accessing NOAA data, tools, and services; scale of data; usability of data; translation of NOAA data and tools into multiple languages; and/or data gaps related to Indigenous and place-based knowledge, community expertise, and/or social and economic impacts of climate change. NOAA invites comment on the following questions:

Use of Climate Services

1. When and why do you seek information about climate and the environment?
What are your priorities when looking for this information, and what do you want to do with the information you are seeking?
2. What data, information, science, and tools (“climate services”) do you use to make decisions about your risk from climate-related natural hazards (*e.g.* drought, heat waves, wildfires, floods, intense precipitation, extreme weather) and your preparedness, resilience, and adaptation planning and actions?
 - a. What do you find most useful about the data, tools and information you use? What’s missing?
 - b. Are these resources from NOAA? If not, where are they from?

Access/Accessibility

3. Please tell us, with stories or examples, about your experiences accessing NOAA climate services on climate hazards, risk, and resilience.

4. What obstacles or challenges have you faced in accessing NOAA climate services for decision-making around climate preparedness, adaptation, and resilience in your community?

Understanding

5. Please tell us, with stories or examples, about your experiences understanding NOAA climate services on climate hazards, risk, and resilience.
6. What obstacles or challenges have you faced in understanding NOAA climate services for decision-making around climate preparedness, adaptation, and resilience in your community?

Use/Application

7. Please tell us, with stories or examples, about your experiences applying NOAA climate services to support decision-making around climate preparedness, adaptation, and resilience in your community.
8. What obstacles or challenges have you faced in applying NOAA climate services to decision-making around climate preparedness, adaptation, and resilience in your community?

Barriers/Opportunities for Improvement

9. Does NOAA provide climate resilience science, data, tools, and/or information that is relevant to you and in your preferred language? How has this impacted your climate preparedness and resilience planning?
10. Does NOAA provide climate services that are relevant to your needs and at a scale that is useful in your decision-making around climate preparedness and resilience? Please explain your answer.
11. What climate services (science, data, tools, and/or information) would you like to have about the socioeconomic impacts of climate, such as on housing, the economy, food security, workforce, migration, *etc.*? Please explain your

answer.

- a. What would you like to be able to do with these data, tools, and/or information?
- b. How can socioeconomic impacts of climate change be better integrated into the climate services NOAA provides?

B. Capacity Building, Education, and Technical Assistance

NOAA recognizes that many communities, particularly underserved communities and Tribal and Indigenous communities, may not have equitable access to NOAA climate services, nor to NOAA staff, scientists, and project development processes to help ensure their voices, needs, and priorities are heard. There is an opportunity for NOAA to make its climate services easier for users of all disciplines and backgrounds to apply. NOAA wants to hear more about what we can do to help communities increase their capacity to understand and apply NOAA climate services to assess their climate risk and develop resilience and adaptation strategies to prepare for the impacts of climate change. This could include feedback on gaps in NOAA training and workforce development for climate preparedness, resilience, and adaptation, supporting users of all disciplines and backgrounds across sectors, scales, and hazards, or leveraging existing delivery mechanisms or technical assistance programs to reach users more broadly. NOAA invites comment on the following questions:

1. Do you have capacity in your organization or community to use NOAA climate data, information, science, and tools (“climate services”) in preparedness, adaptation, and resilience planning? Please explain your answer - what additional capacity or resources would be helpful and why?
2. How could NOAA climate services be improved to support your organization or community in adapting to climate change?
3. What are the training and workforce development needs that NOAA could

better address through our climate services?

4. What are the specific ways in which NOAA can support communities in assessing their climate risk, preparing for the range of hazards they face, and building long-term resilience – particularly through capacity building and technical assistance?
5. How can NOAA climate services be better used to advance climate and environmental justice and prioritize underserved communities?

C. Community Outreach, Engagement, and Co-production of Climate Services

Fully understanding the needs, priorities, capacity, and capabilities of the communities we serve, and where additional capacity, training, and education gaps may exist requires a meaningful and continued commitment to outreach, engagement, and relationship building with communities. This could include better leveraging NOAA and other agency "extension" programs and other public/private partnerships; better understanding what users want/need to know about climate change; or co-producing climate services and guidance on how to use them based on user experience and needs.

NOAA invites comment on the following questions:

1. Has NOAA directly engaged with your community to gather feedback, jointly design or produce climate data, information, science, or tools (“climate services”)? Please provide a brief description.
 - a. If so, was it effective and in what ways? If not, how could it be improved to better build a strong trust relationship with your community?
2. Is NOAA effectively using community feedback and relationships to co-design and disseminate climate services? How can NOAA improve meaningful community engagement that leads to design and dissemination of climate services that communities need?
3. Are there partnerships that have enhanced your access to or understanding

of climate change and/or potential preparedness, adaptation, and resilience solutions? Are there partnerships NOAA should invest in to enhance and sustain community access and understanding? Please explain your answer.

4. How can NOAA more meaningfully integrate your organization or community, including individuals with lived expertise, in the co-production of climate services?
5. How can Indigenous Knowledge, local, place-based knowledge, and other ways of knowing be included meaningfully into the climate services that NOAA provides, particularly for climate preparedness, adaptation, and resilience?

IV. Definitions

There are several terms used throughout this RFI that NOAA will define here to ensure clarity and ease of response to the questions.

- *Adaptation*: The process of adjusting to new (climate) conditions in order to reduce risks to valued assets (<https://toolkit.climate.gov/content/glossary>).
- *Capacity Building*: The process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world (<https://www.un.org/en/academic-impact/capacity-building>).
- *Climate Services*: “Scientifically-based, usable information and products that enhance knowledge and understanding about the impacts of climate change on potential decisions and actions.” This may involve services that are available for consistent use as well as more ongoing, deliberative services shaped by engagement, knowledge co-production, and capacity-building. In addition, Indigenous, traditional and local knowledge are important components for developing climate services in some contexts or for specific cultures and

communities (https://www.whitehouse.gov/wp-content/uploads/2023/03/FTAC_Report_03222023_508.pdf). In the context of this RFI, “climate services” refer to NOAA climate data, information, science, and tools, as well as decision-support, designed to address climate-related hazards, such as heat, drought, sea level rise and coastal inundation, inland flooding, and wildfire. An example of a climate service that NOAA provides to the general public is Climate.gov (<https://www.climate.gov>), which includes a host of maps, data sets, educational materials on climate change, and the U.S. Climate Resilience Toolkit. The Climate Resilience Toolkit is designed to help communities meet the challenges of a changing climate, learn about potential climate hazards, and understand how to protect and prepare for climate hazards.

- *Co-production*: The process is generically described as one that “brings together diverse groups to iteratively create new knowledge and practices,” whether to generate actionable knowledge or spur the redistribution of power and societal transformation” (<https://onlinelibrary.wiley.com/doi/10.1029/2022CSJ000021>). Co-production is a methodology that leverages the expertise of practitioners and community members to develop holistic solutions to multifaceted problems at the intersection of society and the environment. By fostering collaboration and integrating diverse perspectives, co-production enables a deeper understanding of causes and potential remedies of environmental stressors

(<https://www.nationalacademies.org/our-work/co-production-of-environmental-knowledge-methods-and-approaches>). For more information and examples of co-production in a NOAA context, see the following:

https://repository.library.noaa.gov/view/noaa/45596/noaa_45596_DS1.pdf

- *Equity*: The consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that

have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality (<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>).

- *Indigenous Knowledge*: A body of observations, oral and written knowledge, innovations, practices, and beliefs developed by Tribes and Indigenous Peoples through interaction and experience with the environment (<https://www.whitehouse.gov/wp-content/uploads/2022/12/OSTP-CEQ-IK-Guidance.pdf>).
- *Resilience*: The capacity of a community, business, or natural environment to prevent, withstand, respond to, and recover from a disruption (<https://toolkit.climate.gov/content/glossary>).
- *Service Delivery*: The continuous process of engaging with users in order to provide relevant and timely information via appropriate mechanisms (https://www.noaa.gov/sites/default/files/2022-02/A-Model-of-Service-Delivery-for-the-NOAA-Water-Initiative_FINAL.pdf).
- *Technical Assistance*: Targeted coaching for users to help them access, understand, and use NOAA products and services for their own decisions (https://www.noaa.gov/sites/default/files/2022-02/A-Model-of-Service-Delivery-for-the-NOAA-Water-Initiative_FINAL.pdf).
- *Underserved Communities*: Populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full

opportunity to participate in aspects of economic, social, and civic life, as exemplified by the list in the preceding definition of “equity” (<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>).

- *User(s)*: A person(s), group, or organization who accesses and applies information, products, or services (https://www.noaa.gov/sites/default/files/2022-02/A-Model-of-Service-Delivery-for-the-NOAA-Water-Initiative_FINAL.pdf).

V. **Other**

Please note that this is an RFI only. In accordance with the implementing regulations of the Paperwork Reduction Act of 1995 (PRA), specifically 5 CFR 1320.3(h)(4), this general solicitation is exempt from the PRA. Facts or opinions submitted in response to general solicitations of comments from the public, published in the **Federal Register** or other publications, regardless of the form or format thereof, provided that no person is required to supply specific information pertaining to the commenter, other than that necessary for self-identification, as a condition of the agency's full consideration, are not generally considered information collections and therefore not subject to the PRA.

This RFI is issued solely for information and planning purposes; it does not constitute a request for proposals, applications, proposal abstracts, or quotations. This RFI does not commit the U.S. Government to contract for any supplies or services or make a grant award. Further, we are not seeking proposals through this RFI and will not accept unsolicited proposals. Choosing not to respond to this RFI does not preclude participation in any future procurement, if conducted.

Dated: July 17, 2023.

Jainey Kumar Bavishi,

Assistant Secretary for Oceans and Atmosphere and Deputy Administrator,

National Oceanic and Atmospheric Administration.

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