



**Build on the strong foundation of NCA4:
Recommendations for increasing information accessibility, enhancing framing,
and ensuring information utility of the NCA5**

EDGI's Public Comment on the Fifth National Climate Assessment Draft Prospectus
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Introduction

The Environmental Data and Governance Initiative (EDGI) welcomes the opportunity to comment on ways to make the fifth National Climate Assessment (NCA5) accessible and useful to multiple audiences. We are a cross-professional collective documenting and analyzing changes to environmental governance in the US. We promote open data, accessible information especially in the service of science literacy and democracy, and evidence-based policy making. Overall we commend the proposed themes and framework for NCA5, and offer additional recommendations to strengthen the reception and utilization of the information provided by this assessment.

Increase Information Accessibility

The NCA5 will be a critical resource for policy makers and the general public to learn about the ways in which our climate will change in the coming 25-100 years and the risks posed

by this climate crisis. It is imperative that this information be conveyed in a manner and a means that will reach and be understood by a broad public.

Engage people with a wide range of educational backgrounds and learning styles

Like its predecessor assessments, the NCA5 will be a massive compendium of information. Providing multiple kinds of summaries with different levels of detail is essential for the information consumption by the broadest audience. NCA4 featured engaging summary content with the summary findings highlighted (both the 2-3 sentence pop-out and the 1-2 paragraph summary) and scrolling key messages feature for individual chapters. The inclusion of the “Traceable Accounts” section is excellent as well, as it serves as an intermediate level of depth with a critical synthesis of information to support the take-away messages.

In addition to summary highlights comparable to those in NCA4, we recommend the use of infographics to convey key concepts and key findings. We also recommend the inclusion of short videos or recorded interviews where some of the authors can summarize the findings as well. Including these sorts of resources for people who learn more from audio or visual input could enhance the receptivity and social impact of the assessment.

While significant focus is and should be on making the information provided more accessible to those with less expertise in the area and/or less time to devote to consuming it, the NCA5 could also serve as a launch point for researchers or policy makers who want to dive deeper into some of the information. To enhance the utility of the NCA5 for further research, we recommend the inclusion of appendices with references arranged by topic (e.g. references cited for natural mitigation strategies, references cited regarding agricultural adaptations, references cited regarding impacts to water resources, etc).

Ensure broad distribution of the NCA5

A key component of making the NCA5 accessible to people is to ensure people learn about the existence of this resource. A distribution plan that includes advertisement of the NCA5 in outlets that reach large swaths of the American public is essential. We recommend that authors conduct briefing sessions with major news outlets, and plan to release the assessment at a time when the media are likely to cover it. The NCA4 was released the day after Thanksgiving in 2018; we recommend avoiding a release during the holiday season, and especially avoiding federally recognized or bank holidays. We strongly suggest authors provide the Executive Summary to relevant congressional committees, and we also recommend circulating the Executive Summary to state environmental agencies and local public health departments to post on their websites.

Building anticipation for the release of the NCA5 would support broad distribution and reception as well. Leading up to the release of the NCA5, we recommend creating dedicated accounts on social media platforms to seed expectations of this new resource. In the weeks and months following the release, we recommend posting key messages and

key findings from the NCA5, both to reach a wide audience and to keep the NCA5 on people's minds longer than traditional news media cycles would.

People may be more likely to seek out and utilize a resource if they have been engaged in the process of its development and anticipate that it will contain information that is useful to them. We recommend a series of town hall and community events to seek out more input on what should be included than what might be received through this public comment period. Town hall events could be held in particularly vulnerable communities in each NCA5 region, so people who are the most likely to be impacted by the climate crisis are asked what information would be most helpful to them in this national assessment. We recommend hosting these sorts of listening events prior to the finalization of the topics to be addressed in the NCA5.

Enhance Key Elements of the Framing

The overall themes and framework proposed for the NCA5 are suitable and will enable the assessment to include salient information for many audiences. We do, however, strongly suggest that the authors make two elements of the themes and framing more explicit: differential impacts and mitigation strategies.

Include a justice lens

We urge the authors to make more explicit the ways in which climate change intersects with other social and environmental justice issues. While certain disproportionate impacts of climate change were described in NCA4, they were not identified as injustices, and were not systematically examined. The social impacts of the climate crisis may be severe for many communities, and are worth discussing in the NCA5. For example, forced migration due to climate change may contribute to political instability, and the impacts of that instability will be borne more by vulnerable communities. As mentioned later in this comment with regard to regional details to include, climate-caused migration will have disproportionate impacts on impoverished communities and communities with cultural ties with certain areas. On a broader level, climate-related health consequences will exacerbate existing health inequalities experienced by different races in this country. We recommend both that an entire chapter be devoted to climate justice issues, and that explicit justice language and conceptualization be included where impacts are described, both within US regions and internationally.

Expand the focus on mitigation

We recommend an expanded focus on mitigation and making more explicit that the severity of the climate crisis is something our federal government can largely influence. It is, of course, important to be realistic about the speed with which we can adjust our energy infrastructure, but we think it is equally important to underscore that it is a choice whether policy makers prioritize substantial mitigation efforts. The NCA5 could serve as a critical

resource for American voters to learn about the range of current mitigation possibilities and those potentially on the horizon.

Relating mitigation efforts to likely impacts is important to make this information resonate with people's daily lives. Rather than describing only the direct effects of mitigation on the reduction in emissions or lowering projected atmospheric carbon dioxide, we recommend including estimates of what those changes in emissions and/or atmospheric concentrations of greenhouse gases might mean in terms of the risk of various impacts.

We think it is imperative to not constrain the discussion of mitigation efforts by financial or economic considerations. Centering current costs limits our imagination and innovation by what is available in the current market versus that of a market primed to address climate change. Moreover, focusing on "costs" as perceived in our current economic system, which largely ignores ecosystem sustenance and quality of life for human and non-human species, gives the current economic system prioritization above life itself. Rather than leading with economics, we recommend leading with analyses regarding indicators of life, such as biodiversity, ecosystem stability, human health and quality of life.

When discussing costs of mitigation and adaptation approaches, we recommend also explicitly including estimates of the costs of human health consequences of the climate crisis absent those mitigation or adaptation efforts. Otherwise, any action appears more costly than inaction, even though it is abundantly clear that inaction will be extremely costly in multiple arenas.

Ensure Information Utility

The ultimate impact of the NCA5 will pivot upon the utility of the information provided. Two key elements are essential to make this information useful and actionable for people: being tangible and local.

Underscore the climate crisis with appropriate language

We recommend using language that is commensurate with the catastrophe we globally face. Several outlets have begun referring to the changing climate as a "climate crisis," to indicate its wide-ranging and severe consequences. We support this language, and recommend using specific language when discussing risks, adaptation, and mitigation potentials. Avoid vague terms such as "sustainability" and "resilience," and focus on discernable language with clear definitions.

In addition to using language that communicates the severity of the issues discussed in the NCA5, we also recommend making explicit that there are certain inevitabilities. While we recommend explaining that there is a choice as to whether we as a country curb or continue current levels of emissions and there are choices involved in the ways that we adapt to the climate crisis, there is no choice but to adapt. There is no future without some

form of adaptation: the same crops won't grow in the same places, there will be persistent water shortages in certain areas, etc.

Continually relate climate change to estimates of concrete impacts

It is important to relate abstract concepts like the accumulation of greenhouse gases in the atmosphere to tangible impacts. The NCA4 did include substantial discussion of tangible impacts; we think the NCA5 could include even more. Two specific areas where we think a more thorough discussion of tangible impacts is important are the problems associated with winters getting warmer and the impacts on freshwater and groundwater resources associated with climate change and potential adaptations to climate change.

Focus a majority of the assessment on regions and sub-regions

People are more likely to engage with information that resonates with them, which often means relating the information to their own experiences and understanding of the world. Focusing information as locally as possible will help people internalize the information. Furthermore, discussion of issues at sub-regional and state levels will help American voters understand issues that they can request their representatives address. We appreciate the strong regional focus in the NCA4 and would recommend enhancing that with more sub-regional foci and local case studies in the NCA5. We also recommend an expansion of information included in each regional section.

Water resources, especially fresh water and ground water resources, are vital to human life and most of our agricultural, industrial, and recreational activities. Including the effects of the climate crisis and potential adaptation or mitigation strategies on a region's water resources will be important. For example, what might happen to sustained freshwater resources if prolonged droughts dry up ephemeral and intermittent streams in the arid southwest?

Discussion of the effects of climate change on the natural disasters that each region currently faces will be of interest to many people. For example, how might climate change affect landslide frequency or severity in the Northwest? How might climate change affect the frequency or severity of tornadoes in the Great Plains regions?

Due to the ubiquitous importance of local and regional ecosystems, we recommend analyzing land use changes, crop and vegetative changes, and ecosystem and ecosystem services changes in each region. Each of the NCA5 regions will, of course, include myriad ecosystems and land uses, and we recommend including brief analyses of as many as is feasible, both to convey the pervasive impacts and create a more complete picture of what potential futures may look like where people live and have livelihoods.

Finally, we think it is essential to include a humanitarian lens in discussions of regional climate change impacts. In addition to adding an overall framing of climate justice, each region will see differential impacts on more and less vulnerable communities. Challenges

that face unhoused populations may differ across regions, such as extreme heat or extreme rain events, and these challenges deserve acknowledgement and discussion. Each region may also experience forced migration for different reasons such as land loss or insufficient fresh water, and there will be different effects of migration on impoverished versus affluent communities, and communities with cultural ties to certain lands versus more recent transplants to the area. We think it is imperative to communicate the burdens that the most vulnerable among us will bear.

Conclusion

The themes and framework proposed for the NCA5 will provide for a thorough assessment, such as that offered in the NCA4. We recommend enhancing the overall framework with a climate justice lens, more substantial discussion of mitigation strategies and potential effects, and using language commensurate with the climate crisis we are facing.

We appreciate the commitment to making information accessible to multiple audiences, and strides toward that goal with features like summary highlights and key messages for each chapter. We recommend a handful of additional features, such as infographics and appendices with topic-specific resources, to reach even broader audiences.

The regional focus of the NCA4 is commendable, and we recommend expanding and enhancing that focus. We recommend including assessments related to water resources, ecosystems, and natural disasters in each region. We also recommend including more sub-regional analyses and substantially more local case-studies in order to provide information that will be the most resonant and actionable for diverse audiences.