



December 17, 2021

National Science Foundation
2415 Eisenhower Avenue
Alexandria, Virginia 22314

Re: Executive Order 13985 and the Navigating the New Arctic Program

Dear Director Sethuraman Panchanathan:

Introduction

The phrase “nothing about us without us” communicates the concept that no decisions or policies should be made without the full and direct participation of the affected group or groups. This phrase has been used by, for example, human rights, disability-based, and marginalized and underrepresented groups. Similarly, in Alaska, Indigenous Peoples commonly say “nothing about us without us” because federal programs and policies that do not include Alaska Native peoples, communities and organizations in the design process, as has been the status quo with climate change research, adaptation and mitigation initiatives and policies, are unlikely to be effective for our people. This phrase is applicable to the National Science Foundation’s (NSF) Navigating the New Arctic (NNA) program. NSF did not meaningfully include Indigenous peoples and organizations in the design of the NNA program. Since its inception, NNA has generally been unable to make investments that result in societal benefit for Arctic peoples on the frontlines of climate change. The program does not achieve its stated purpose.

After observing numerous ineffective and problematic initial NNA grant awards, we provided specific recommendations to improve the NNA program in March 2020.¹ Subsequently, hundreds of Arctic researchers have written to NSF in solidarity with our letter.² There is widespread frustration and disappointment with NSF’s poor design and development of the NNA program and the resulting ineffective awarded projects. Tens of millions of dollars of federal funding has been invested in research that does not achieve societal benefits for Arctic peoples who are currently

¹ Letter from AVCP, Kawerak, Inc., BSEG, and Aleut Community of St. Paul Island to Navigating the New Arctic Program (March 19, 2020), <https://kawerak.org/download/navigating-the-new-arctic-program-comment-letter/>.

² Wesley Early, *Researchers ask for more Indigenous input in national Arctic science initiative*, KTOO (Feb. 5, 2021), <https://www.ktoo.org/2021/02/05/more-than-200-researchers-sign-letter-requesting-more-indigenous-input-in-national-arctic-science-initiative/>.

experiencing disproportionate and extreme impacts of climate change. Today, approximately a year and a half after our initial recommendations, NSF has yet to make substantive adjustments to the program. More recently, NNA staff have requested that we provide recommendations for “low hanging fruit.” There are no low-hanging fruits. The NNA program requires transformative changes to its design and implementation. Our communications with NNA staff and the agency’s May 4, 2021 “*Dear Colleagues Letter: Update on NSF’s Efforts to Improve the Inclusion of Local and Indigenous Voices in Arctic Research*” demonstrates that NSF has yet to take our concerns seriously.³

We—federally recognized Tribes and regional Tribal Consortia representing or comprised of over 75 federally recognized Tribes⁴—are writing to provide additional specific recommendations that can be used by NSF to ensure that NNA funding is spent well and achieves societal benefits. The recommendations provided here are relevant to Executive Order 13985, which directs NSF to identify barriers that underserved communities face in accessing NSF programs and provide recommendations for how NSF can allocate resources to address the historic failure to invest sufficiently, justly, and equally in underserved communities.⁵

Due to its inequitable program design, NNA has inadvertently disadvantaged and excluded Alaska Native people, and Alaska Native Tribes and Tribal Consortia from accessing NNA funding for community-driven solutions. For example, the application, scoring criteria, and review make it very difficult, for small, rural Alaskan communities with average population counts of under 500 people to apply to NNA for science and engineering to inform climate adaptation decisions (e.g., factors that make it difficult for small rural communities include low populations, limited staff at Tribal and City offices, English may be a second language, unreliable Internet connections, etc.). Similarly, the ineffective program design—such as the lack of focus on Indigenous priorities, awards to projects that duplicate ongoing efforts, and the limited ability for NNA-funded research to reach community decision-makers—has largely prevented Alaska Native people and Alaska Native Tribes from receiving benefits from NNA investments. Consequently, NNA has generally been a poor use of federal funding. NSF must take action to produce transformative change the NNA program such that NNA funding achieves societal benefits for Indigenous Arctic people.

³ National Science Foundation, *Dear Colleague Letter: Update on NSF’s Efforts to Improve the Inclusion of Local and Indigenous Voices in Arctic Research* (May 4, 2021), <https://www.nsf.gov/pubs/2021/nsf21077/nsf21077.jsp>.

⁴ *Indian Entities Recognized by and Eligible To Receive Services From the United States Bureau of Indian Affairs*, 86 Fed. Reg. 7554, 7557-58 (Jan. 29, 2021). A Tribal Consortium is an organization formally designated by two or more Tribes that have chosen to join together to address specific priorities across communities. Tribal consortia often serve as a unified voice for their member Tribes and a mechanism through which Tribes effectuate self-governance without incurring the heavy financial and administrative burden of each doing it by themselves. These consortia are generally formed along cultural, historical, regional, and ecological bonds, and allow Tribes to pool their resources and take advantage of efficiencies of scale when providing social services, healthcare services, and advocacy services for their members. Federal self-determination policy is flexible and allows Tribes to design and deliver services “appropriate to their diverse demographic, geographic, economic[,] and institutional needs.” S. Rep. No. 100-274 (Dec. 21, 1987) *as reprinted in* 1988 U.S.C.C.A.N. 2620, **2625 (Select Committee on Indian Affairs Report).

⁵ Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, 86 Fed. Reg. 7009 (Jan. 25, 2021), <https://www.govinfo.gov/content/pkg/FR-2021-01-25/pdf/2021-01753.pdf>.

Recommendations

Pause awards

It is unreasonable to continue the NNA program without significant revision. NSF should pause grant awards until a revised evaluation process has been created to ensure selected projects will achieve societal benefits.

Adjust NNA program staff and structure

- *Problem:* NNA decision-making must be led by people with the knowledge and experience to ensure that investments achieve societal benefits for Arctic people. Based on past NNA awards, we are concerned about the ability of NSF and NNA staff to evaluate the efficacy of the NNA program and specific NNA project proposals in this regard.

Recommended solution: We recommend adjusting NNA program staff and the NNA personnel structure. Examples of changes include:

- NNA program leadership and staff should have significant experience supporting community-driven research in general, as well as climate-specific solutions in Alaska, awarding funding to Alaska Native Tribes and Tribal Consortia, and conducting research with Alaska Native communities.
- Create a hands-on Advisory Council to guide the NNA program to produce a thorough synthesis of previous investments and how these investments have benefited affected Alaska Indigenous communities, other program areas, and the general public; as well as a roadmap for incorporating these existing data and programs into future use at NSF; and evaluate the efficacy of the current program, including the performance of the new Community Office (the Community Office advisory bodies do not address the structural problems raised here). Similar to the recommended NNA staff qualifications, no less than the majority of the NNA Advisory Council should be composed of representatives from Alaska Native Tribes and Tribal Consortia with experience supporting community-driven solutions to environmental problems, awarding funding to Alaska Native communities, and conducting research with Alaska Native communities.

Develop program priorities

- Instead of the current shotgun approach where researchers propose projects of all types, NNA investments should be driven by the priorities of Arctic people. NNA should develop a strategic plan with key focal areas that guide the development of the Request for Proposals (RFP) and evaluation methods. We repeat our recommendation from our letter

submitted to NSF in March 2020: NNA should focus on food security and climate impacts on infrastructure in Alaska Native communities.⁶

Revamp planning grants

- *Problem:* NNA planning grants effectively fund research on what to research. At best, the outcome is a future research proposal to NNA. The recent NNA award for the “*Coastal Arctic Communities in the Context of Climate Change: Interaction between Coastal and Riverine Processes and the Built Environment*” project is an example of a NNA planning grant that funded planning by outside researchers for a future NNA project proposal in an area where the gaps and methods are already defined. The same funding in different hands could be used to complete the needed research and fill known data collection and analysis gaps. It is critically important to invest in relationships between communities, partners, and outside researchers, however past NNA-funded methods have largely been ineffective.

Recommended solution: After developing program priorities, NNA staff should carefully consider the value of continuing the current structure of planning grants.

Invest in training and education

- In 2019, the Journal of Higher Education reported that American Indian, Alaska Natives, and Native Hawaiians combined comprised only one percent (1%) of all enrollment in United States (U.S.) undergraduate institutions. Also, during the 2018-2019 academic year one third of one percent (0.3%) of doctorate degrees in the U.S. were awarded to Native students. NSF should significantly increase investments that build the capacity of Indigenous peoples to participate in research such as full scholarships to undergraduate and graduate institutions, filling student roles with Indigenous students, other actions that address the historic failure to invest sufficiently, justly, and equitably in underserved communities and deliver benefits to underserved communities. We recommend that NSF make this a top national priority.

Prioritize awards to Alaska communities

- *Problem:* Few NNA projects have resulted in tangible benefits to Arctic people. This is partly due to the lack of awards directly to communities and partly due to the inability of NSF to support projects driven by communities. Despite NSF’s claim of funding “community-engaged research” a review of awarded NSF projects in Alaska found that 99% of NNA research projects had no prior relationship with communities.⁷

Recommended solutions:

⁶ See March 19, 2020 Letter, *supra* note 1.

⁷ Kristen Barnett, Research for an Indigenous Future, Presentation at Kawerak Knowledge and Research Workshop, (May 20, 2021), <https://www.youtube.com/watch?v=NdvWB06jEIw>.

1. NNA should prioritize awarding funding to Alaska Native Tribes and Tribal Consortia by making the proportion of awards to Alaska Native Tribes and Tribal Consortia a key performance indicator for the NNA program. Success is when 50% or more NNA funding is awarded to Alaska Native Tribes and Tribal Consortia.
2. NNA should create a Tribal set-aside, where 50% of annual NNA funding is reserved for Tribal and Tribal Consortia applicants, or city governments with written approval from the community's Tribe.

Prioritize investments based on need

- Within the program priorities defined in the recommended strategic plan, NNA investments should target the areas of greatest needs.

Recommended solution: Investments related to climate impacts on infrastructure in Alaska Native communities should incorporate existing prioritization tools such that research investments benefit the communities with the greatest threats. The Denali Commission Statewide Threat Assessment combined rank is an example of a relevant tool to inform funding decisions.

Communication materials

- *Problem:* Many potentially interested applicants are not aware of the NNA program. Our communities cannot apply to NNA if they do not know it exists.

Recommended solution: Develop and distribute communications materials to all Alaska communities through a variety of formats including mailed informational sheets, email, social media (Facebook), and radio. Including a brief program summary published in Alaska Native languages would further improve equity.

Reduce barriers to applying

- *Problem:* In our experience, the two main factors that drive the decision to submit an application to the NNA program are (1) the anticipated effort and (2) the probability of award. The current application process is a significant barrier to applying because it can take over 100 hours to prepare a competitive proposal. This aspect of the program design is inequitable and it disadvantages small, rural communities, including Alaska Tribes and Tribal Consortia. Most of Alaska's communities and organizations simply do not have 100 hours to dedicate to a grant application that is perceived to have a low probability of an award.

The NNA application and application process also favors academic or other applicants that have grant writing written into their job duties (or institutions which, unfairly but successfully, expect academic staff to write grants to maintain their positions).

Recommended solution: NNA could simplify the application to by creating a two-stage process. Stage one could invite two-page pre-proposals that are evaluated prior to inviting a selected project to apply for a full proposal. Stage two could be a brief (e.g. six-page) project proposal that can be submitted via email and mail, as well as online.

- *Problem:* Another major barrier to applying is the perception that Alaska Tribes and Tribal Consortia will not receive an award due to lack of affiliation with a research university or if the proposed project team does not have significant Western education.

Recommended solutions:

1. In addition to creating the Tribal set-aside, clearly identify that these perceived barriers do not affect award decision-making.
 2. Ensure application scoring criteria do not favor applicants with university affiliations and project teams with significant Western education.
- *Problem:* Interested applicants have varying capability and capacity to apply to the NNA program. Barriers include limited internet access and limited grant writing experience.

Recommended solution: NNA staff should provide ample technical assistance to interested applicants to support project development and the development and submission of applications. This includes understanding and navigating NNA requirements and hands-on support in writing NNA grant applications.

Application requirements

In order to improve the NNA program's ability to deliver societal benefits for Arctic peoples, NNA applications should have the following requirements:

- Proposals that partner with or mention specific communities must have a Letter of Support from the community's leadership (Tribal President, City Mayor, or authorized signatory) dated within three months of the application submission.
- Projects that aim to address erosion, permafrost degradation, and flooding impacts to infrastructure in Alaska should serve communities either identified in the top two categories of "combined threat rank" in the Denali Commission Statewide Threat Assessment or receive written support from the manager of the State of Alaska Coastal Hazards Program that states the proposed project is a priority of statewide significance and does not duplicate existing or planned efforts. The aim here is to steer NNA funding toward the areas of greatest need.
- Projects that aim to address region-wide food security threats should receive written support from a respective regional Tribal Consortium.⁸ The aim here is to provide NSF with increased confidence that the project's implementation methodology will address the

⁸ See, *supra* note 4.

root cause of the problem and lead to significant societal benefit, as well as eliminate duplication of current and planned efforts in the respective region.

Application scoring

Problem: The design of the NNA review process and current evaluation criteria of intellectual merit and societal benefit has not led to investments that achieve societal benefit.

Recommended solutions:

1. Across federal programs, we have observed that program staff with Alaska-specific knowledge and experience are more effective at creating impactful investments in Alaska compared to competitive programs with short-duration external reviewers with varying levels of experience and varying opinions on the merits of project personnel, methods, and outcomes. Instead of external review panels, we recommend that NNA give the adjusted NNA staff (recommended above in the section titled “Adjust NNA program staff and structure”) the authority to evaluate project proposals. After staff review and rank proposals based on the recommended NNA strategic plan and priorities of the redesigned NNA program, NNA staff should advance the rank of priority projects to the hands-on Advisory Board (described above in the section titled “Adjust NNA program staff and structure”) for detailed review and decision-making.
2. We recommend a global NNA review of the ‘broader impacts’ statements of funded projects and a program evaluation to characterize if those broader impacts were appropriate to begin with and if they have been achieved. The review and evaluation should include adjusted NNA staff, advisory panel, and communities listed in the proposal.
3. Increase transparency regarding decision-making by publishing detailed scoring methodology in the RFP.
4. NNA has favored international projects and regional projects, which is incongruent with the need for site-specific data collection and analysis that leads to tangible benefits for Arctic people. NNA should not prioritize investments in international and regional collaborations. We recommend removing this from scoring criteria and the RFP.
5. As described in our letter submitted to NSF in March 2020, NNA awards to academic researchers have not equitably incorporated Co-Production of Knowledge (CPK).⁹ For non-community applicants, NNA proposal review criteria should include an evaluation of the following, which are not currently review criteria:
 - a. If a proposed project was not developed co-productively, and does not plan to use co-productive tools and methods, why not? Researchers should have to

⁹ See March 19, 2020 Letter, *supra* note 1.

explain why a proposed project is best conducted in a non-collaborative, non-co-productive way.

- b. If a project claims to be co-productive or collaborative, when were project partners approached? What inputs have project partners made to the proposal? Do the budget, timeline, tasks, etc. reflect co-production concepts?

Training for grant recipients

- *Problem:* Past NNA projects awarded to research institutions have generally not equitably included Indigenous peoples' knowledge and science when developing research questions and conducting research.

Recommended solution: NNA leadership has discussed developing mandatory training on CPK for all Western research award recipients that is presented and facilitated by Arctic Indigenous organization representatives. This training ideally would include a history of Arctic peoples, the history of colonialism, the government to government relationship between Alaska Tribes and the federal government and the federal trust responsibility, decolonization training, the history of research in the Arctic, and cultural awareness and sensitivity training. We expect that NSF will follow-through to implement this training. There should also be mandatory training regarding the Principles for Conducting Research in the Arctic.

Make information generated by NNA projects accessible to all

- *Problem:* Too often, NSF research does not reach the general public or our communities.

Recommended solution: Develop and implement a plan to distribute NNA-generated information throughout Alaska and to the general public nationwide. For example, all NNA projects should be required to present via a webinar and develop a summary of the project written in plain English upon completion. Additionally, NNA should take significant steps to create other informational products that summarize new knowledge generated and distribute products via e-newsletter, the NNA website, social media, and monthly teleconferences, etc.

Conclusion

In summary, transformative change is needed to make NNA effective. NNA should pause awards, adjust NNA staff and structure, create an advisory council and a strategic plan, and equitably administer the NNA program to maximize benefits to Arctic Indigenous Peoples.

We request a meeting with you to discuss the issues raised in this and our previous letter to the NNA program leadership, and to achieve meaningful future engagement in a respectful and equitable way. To reach us, please contact our designated contact person, Dr. Lauren Divine, Director, Ecosystem Conservation Office, Aleut Community of Saint Paul Island at (907) 891-3031 or lmdivine@aleut.com.

Sincerely,



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Vivian Korthuis
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Mellisa Johnson
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CC:
NNA-CO, Indigenous Advisory Board
NNA-CO, Research Advisory Board