Common Logic Model: Tri-Agency Collaboration for Climate Change Education

About the Tri-Agency Collaboration:

The tri-agency climate change education collaboration comprises representatives from the NASA NICE (NASA Innovations in Climate Education), the NOAA ELG (Environmental Literacy Grants), and the NSF CCEP (Climate Change Education Partnerships) programs. These programs, and others like them at the three agencies:

- Support more than 120 competitively funded projects;
- Serve a range of audiences through multi-faceted formal and informal education initiatives; and
- Pursue their own agency-specific, top-level goals

By collaborating, the three agencies intend to **build capacity within the education community, avoid duplication of efforts and investments, and facilitate synergy and collaboration among projects.**

About the Common Logic Model:

This common logic model is the product of a working group of evaluators and project principal investigators, created with the intention of articulating the components of a cross-agency funding portfolio of climate change education initiatives. The model defines the collective goals, outputs, and intended outcomes of the agencies' funding and activities. This logic model will therefore serve to:

- **Communicate and articulate the tri-agency climate change education (CCE) portfolio, and the synergies between the overarching goals and the contributions of each agency's portfolio and of individual projects;**
- **Guide the agencies and projects in reporting on the progress, lessons learned, and impacts of this coordinated portfolio of education initiatives, and of cross-agency collaboration activities; and**
- **Help the individual projects, as part of this tri-agency portfolio, understand where they fit into a broader landscape.**

Inputs

Agency's individual strategic education plans & missions

Agency's sources/assets of climate science data, services, & educational resources

Federal STEM policies

Needs assessments

Partnerships & networks

Current best practices in CC knowledge & skills (scientific, pedagogical, technological)

Cultural context

Research & evaluation plans, priorities, & open questions

Funding opportunities

Audiences

Learners – formal & informal, youth & adult, including workforce preparation & professional development.

Educators – formal & informal, including teachers, teachers of teachers, communicators, & scientists

Community members (e.g., roles as workers, people interested in future of community) & leaders (e.g., policy makers, business leaders, planners, scientists)

Awardees for CC education

Activities

Engaging Audiences

Create materials, resources & opportunities

Engage & recruit diverse audiences (access across socioeconomic status, underrepresented groups, technology access and capability)

Implement materials, resources & opportunities

Incorporate science and mission assets into audience opportunities

Disseminate materials, resources & opportunities

Building Awardee Capacity

Participate in cross-project/ cross-program collaboration & networking opportunities

Plan & conduct education research and evaluation

Outputs

Products & Services

Events

New learning resources

Partnerships

Professional development

Effects on People

Quantitative & qualitative data and measures of participants

Quantitative and qualitative data and measures of awardees

Enhanced networks and partnerships

Enhanced communication between awardees and with scientists

Outcomes

Learners value STEM education and careers; develop skills and knowledge about CC; & are empowered to pursue STEM careers and become scientifically literate citizens.

Educators have scientific knowledge, confidence, pedagogical content knowledge, indigenous & multicultural ways of knowing.

Communities & their Members have deeper understanding & engagement with CC concepts, place greater value on climate literacy, are able to make informed choices, and have access to best practices in CCE (as critical stakeholders and broad, diverse audiences).

Awardees have enhanced capacity for sharing climate science with diverse audiences, carry out synergistic activities with multiple projects and stakeholders, and have evidence of success and lessons learned.

Impacts

Increase in the retention of diverse & larger numbers of learners in the climate-related STEM pipeline.

Increase in retention of technically-skilled climate related STEM workforce

Increased prioritization of climate science literacy

Increased motivation and actions toward stewardship.

A more climate literate public

Increased informed decision-making about adaptation and mitigation

More sustainable management practices in environmental systems

Contributions made to the knowledge base of climate change education research

Wide-scale use of agency products, materials, data & practices

Efforts result in dissemination, scale-up, best practices, resources, models, and systemic collaboration

Each agency contributes its mission, priorities, assets, CCE approach, and disciplinary focus when selecting and supporting projects.

Collaboration across agencies promotes individual agency needs, national priorities, and a balanced portfolio in CCE.

Synergistic activities of the tri-agency collaboration further the goals of each agency portfolio and strengthen the projects. These activities include:
- Annual PI meetings (networking and collaboration opportunities)
- Tri-Agency Climate Education (TrACE) catalog (tracking outputs of the portfolio)
- Common evaluation working group and logic model

The tri-agency collaboration's goals are focused primarily on increasing project performance, resulting in greater breadth and depth of impacts by:
- Broadening the scale and diversity of networks, partnerships, and audiences through community facilitation
- Ensuring that innovations, promising practices, and lessons learned are communicated through presentation and networking venues

NASA, NOAA, & NSF competitively solicit, fund, and support projects to meet agency climate change education goals. The tri-agency collaboration is intended to promote and extend these goals by **building capacity within the education community, avoiding duplication of efforts and investments, and facilitating synergy and collaboration among projects.**