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

Outputs
- 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).
- Awards 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.

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
- Events
  - New learning resources
  - Partnerships
  - Professional development
- Quantitative & qualitative data and measures of participants
- Quantitative and qualitative data and measures of awards
- Enhanced networks and partnerships
- Enhanced communication between awardees and with scientists

Outcomes
- Increased informed decision-making.
- Increased prioritization of climate science literacy.
- Increased motivation and actions toward stewardship.
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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

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.

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.