PROJECT NAME: Community-led Environmental Education Initiative for Biocultural Heritage Protection

1. **Project duration:** 36 months

2. **Budget (C$)** 1,000,000.00 (Including operational and administrative costs)

3. **Short statement of the issue(s) under this topic, need/gap identified; the project objective(s) and activities to address the issue; and expected outcomes and benefits/beneficiaries (max. 200 words):**

North America grapples with diverse socio-environmental and economic challenges stemming from ecosystem degradation and climate change, which disproportionately affect under-resourced and underrepresented communities such as Indigenous and minority populations, among others. Addressing these issues requires a comprehensive, multidimensional approach, recognizing the economic, ecological, cultural, social, and political[1] diversity across regions. Evidence shows that lasting solutions emerge at the local level.

This initiative aims to develop and test an Environmental Education Framework that fosters reciprocal exchange between diverse knowledges (including but not limited to Traditional Ecological Knowledge (TEK)/Indigenous Knowledge (IK), and academic knowledge) empowering systemically vulnerable communities to tackle challenges related to ecosystem conservation and climate action. This framework will use the principles and practices of knowledge dialogue[2] and education via a focus on biocultural heritage protection, targeting local community engagement. Three pilot projects, one per country, will provide young leaders between 18 and 30 years old with further tools in effective engagement, participatory processes, and community-led projects (e.g., joint fact-finding, participatory mapping, cultural mediation, community action planning) through an intergenerational participatory approach. On the whole, this initiative will enhance community social resilience to foster environmental stewardship and network-building within and across communities.

[1] http://www.cec.org/topics/pollutants/reducing-emissions-from-transportation/We understand as political context a community's local powers, both formal and factual, that have an impact on the use and management of the common natural resources.

[2] Knowledge dialogue is a communication process between diverse groups, integrating research and education, enhancing underrepresented groups' participation, linking science and everyday knowledge, particularly regarding environmental inquiry (adapted from Anderson et al., 2015 & Bastidas et al., 2019).

4. **Select the strategic pillar(s) from the 2021-2025 Strategic Plan that the project addresses:**

- ☐ Clean Air, Land and Water
- ☐ Preventing and Reducing Pollution in the Marine Environment
- ☐ Circular Economy and Sustainable Materials Management
- ☒ Shared Ecosystems and Species
- ☒ Resilient Economies and Communities
- ☐ Effective Enforcement of Environmental Laws

5. **Describe how the project uses strategic cross-cutting approaches in its implementation: Innovative and Effective Solutions and/or Diverse and Inclusive Stakeholder Engagement and Public Participation (including gender and diversity effects and opportunities, and youth) (max 100 words).**

This initiative uses crosscutting approaches by engaging experts, including local and regional ones from the three North American countries to address problems holistically, combining TEK/IK with local expertise and academic knowledge to devise solutions for environmental, social, and economic problems. In this particular context and throughout the duration of the project as well as in subsequent phases, all appropriate measures will need to be in place to protect Indigenous knowledge. This will be achieved through the development of an Environmental Education Framework that includes content – knowledge of environmental, economic, and social issues – as well as a process involving community engagement, collaboration with local entities and facilitation of participatory processes in a spirit of transparency structured in the context of open science principles (e.g., joint fact finding, participatory mapping and research, cultural mediation, citizen science, etc.). The goal of the framework is to support and advance community-led conservation and climate action work.

6. **Explain how the project can achieve more impact through tri-national cooperation (max 100 words):**

Trinational cooperation in this initiative has the potential of harnessing the strengths of Canada, Mexico, and the United States cultural diversity towards common objectives, leading to more impactful solutions to global challenges. In addition, cooperation between the three countries permits designing an Environmental Education Framework that includes different education systems and adds TEK/IK and local knowledge, providing a thoughtful and well-rounded education in environmental and community leadership for future leaders in all three countries. Moreover, trinational cooperation adds value by supporting the deployment of

local and community-based solutions to solve the triple planetary crisis (i.e., climate change, pollution, and biodiversity loss) in areas with highly diverse and contrasting cultural backgrounds, while maintaining common overarching education goals. Finally, this work can serve as an example of how countries can work together to solve environmental, social, and economic problems using environmental education.

7. **Describe how the project complements, or avoids duplication with, other national or international work (max 100 words):**

The initiative will avoid duplication by partnering with TEK/IK keepers, technical experts in environmental education, and/or knowledge dialogue processes (defined in footnote 2, page 1) at local, national, and international levels in all three countries. To the extent of possible, the initiative will consider and will build on past and ongoing environmental education efforts relevant to the proposed work. Moreover, this initiative aligns with global efforts to involve youth actively in addressing environmental, social, and economic challenges, with a focus on environmental and climate justice, intergenerational equity, and workforce development for youth in underrepresented and systemically vulnerable communities.

8. **Describe how the project engages traditional ecological knowledge/Indigenous knowledge (TEK/IK) experts or Tribal/First Nations/Indigenous communities, if applicable (max 100 words)**

This Trinational Environmental Education Initiative can play out in many ways, including by identifying strategies and practical solutions/opportunities; respecting and leveraging cultural diversity; engaging intergenerational learning; harnessing existing traditional biocultural knowledge; and advancing evidence-informed pedagogies. To achieve these goals, the Environmental Education Framework will be designed in close and meaningful collaboration with Indigenous and local partners from the three countries. Moreover, this initiative will incorporate diverse knowledges including Indigenous, Traditional Ecological, and academic. The goal is to foster the capacity for collective action to address community ecosystem conservation and climate change that is grounded in the principles and practices of knowledge dialogue and education.

9. **Describe how the project engages new audiences or partners, if applicable (max 100 words):**

The initiative will engage different sectors from North America by bringing together communities, Indigenous partners, local entities, groups and organisations from the environment and education sectors, as well as different levels of government to share experiences, to collaboratively identify different interests and needs, and jointly design and implement solutions to tackle environmental and climate challenges. In this context, the initiative will create opportunities for discussions and exchange, the

development of pilot projects as well as opportunities to create partnerships amongst communities, different levels of government from the environment and education sectors, academia, and NGOs across North America.

10. Identify the designated partner agencies or organizations committed to implementing this project, as well as other organizations that could be involved, or benefit from it, including through outreach efforts, collaborations or partnerships (e.g.: federal agencies; other levels of government; academia; NGOs; the private sector; civil society; and youth):

Lead agencies or organizations	Country
Unidad Coordinadora de Asuntos Internacionales de la Secretaría de Medio Ambiente y Recursos Naturales (UCAI-SEMARNAT)	Mexico
Dirección General de Recursos Naturales y Bioseguridad de la Secretaría de Medio Ambiente y Recursos Naturales (DGRNB - SEMARNAT)	Mexico
Centro de Educación y Capacitación para el Desarrollo Sustentable de la Secretaría de Medio Ambiente y Recursos Naturales (CECADESU-SEMARNAT)	Mexico
U.S. Environmental Protection Agency (EPA)	United States
U.S. Department of Agriculture Forest Service (FS-USDA)	United States
National Park Service (NPS)	United States
Environment and Climate Change Canada (ECCC)	Canada

Other organizations/individuals (if applicable)	Country
Dirección General de Agroecología y Patrimonio Biocultural de la Secretaría de Medio Ambiente y Recursos Naturales (DGAPB-SEMARNAT)	Mexico
Comisión Nacional de Áreas Naturales Protegidas (CONANP)	Mexico
Instituto Nacional de Pueblos Indígenas (INPI)	Mexico
Junta Intermunicipal Biocultural del Puuc	Mexico

NOAA, NAAEE or specifically the Project Director for the Guidelines Project who is familiar with all the EE Guidelines and the work that the Kettering Foundation is doing with democracy and communities	United States
Cornell University, Department of City and Regional Planning	United States
Indigenous-led and local organizations which will be further defined once the locations for the pilot projects are identified	Canada, United States and Mexico
International NGOs	Canada, United States and Mexico

11. In the following table, describe: the project objective(s) and the activities and subtasks planned to achieve the objective(s); the corresponding outputs, expected results and how they will be measured (performance measures); baselines (if known), and targets by end of the project; and the timeline and budget.

OBJECTIVE 1	**Design of the Environmental Education Framework**
Activity 1 **Budget $180,000 CAD**	***Define the Environmental Education Framework document which should include the "Community Learning" strategy.***
Output(s)	• **An initial document with the Environmental Education Framework** that can be implemented with systemically vulnerable communities to strengthen their capacity to tackle challenges related to ecosystem conservation and climate action through practical skills/trainings that can be directly applied to address local environmental issues. This document will be a first version of the Environmental Education Framework (Version 1.0) describing its goals, core curriculum and the "Community learning" strategy. For this initiative, "Community learning" can be understood as the strategy used to bring together environmental education content from diverse knowledge, including TEK/IK, and academic knowledge. This strategy aims to help put together a curriculum that supports youth to lead participatory processes and facilitate the implementation of community climate action or ecosystem conservation work through diverse knowledges.

	The document should also include: - **General considerations:** Vision and goals of the framework, core concepts, learning outcomes, integration across disciplines, and applicability in a trinational/international context, among other key elements that shape the framework. - **Core curriculum:** the syllabus of the framework, that is the educational content or recommended better practices that will guide and support youth to facilitate and implement conservation and climate work in their communities. - **Implementation methodology:** a proposed process or workplan (steps that should be followed) to implement the Environmental Education Framework in a selected community. - **Criteria for selection, engagement, and participation of community leaders:** the Environmental Education Framework will set criteria and methodology for the selection of future community potential leaders (youth from 18 to 30 years old). - **Evaluation criteria:** the criteria that will be used to measure the success of the project, such as key performance indicators or participatory evaluation methods. The periodicity for each evaluation will also be defined. - **Management aspects:** financial information, required institutional agreements and potential partners. - **Trilateral experience sharing:** the Environmental Education Framework should include mechanisms for iterative sharing between youth implementing conservation or climate action projects in the three countries. - **Other information:** defined by the Design Team and/or Steering Committee.

	• **A strategy for the pilot tests**. This should include the criteria for the selection of the participating communities (e.g., urban, peri-urban, or rural or both, what size, etc.), as well as an exit strategy from the consultant for each pilot.
Expected results, performance measures	• **An initial Environmental Education Framework** (Version 1.0) focused on engaging diverse knowledges to foster community for collective action and capacity to address community ecosystem conservation and climate action, while addressing local economic and socioenvironmental challenges. This framework will be designed by the consultant(s) making sure diverse perspectives and knowledges are taken into account. This document will work as a baseline and will be tailored with and by communities in Activity 2. The development of this framework will provide the selected community potential leaders with the tools and knowledge to act as catalysts for change to facilitate a community-led process while helping the communities become more resilient to the effects of ecosystem degradation and climate change. • **A community learning implementation strategy**: Create a high-level, skill-building, learning implementation strategy to support youth to develop the capacities to facilitate the implementation of community climate action or ecosystem conservation, through an intergenerational participatory approach. • **A strategy for pilot testing**: Design the strategy that the pilots should follow in Activity 2. This should include the criteria for the selection of the participating communities in the pilot projects, as well as a pilot pitch that is succinct, clear, and accessible to communicate to the communities what the project is about and help them decide if they want to collaborate in the initiative.
Baseline (current status), if known	N/A
Target (by project end)	An initial Environmental Education Framework completed (Version 1.0)

Sub-task 1.1	With the support of a consultant(s) managed by the Secretariat and the guidance and supervision of the Steering Committee, define and design an initial version of the Environmental Education Framework (Version 1.0) that integrates the action plan, core curriculum, the "community learning" implementation strategy template and define the criteria for the selection of youth partners as well as the evaluation criteria to measure the progress of the project.	**When:** Year 1
Sub-task 1.2	Design a strategy for pilot testing which will be implemented in the Activity 2. This will include the criteria for the selection of the communities where the pilots will be implemented.	**When:** Year 1
OBJECTIVE 2	**Piloting of the Environmental Education Program Framework**	
Activity 2 Budget $600,000 CAD	***Implement pilot testing – one community per country***	
Output(s)	• **Three pilot projects** will be implemented. Each pilot project will be conducted in one community per country. To do so, the Secretariat and the Steering Committee, which includes representatives from the CEC TEK group, will identify communities that want to collaborate in the initiative and become the pilot communities. The identification and selection of communities will be based on the strategy and criteria set on Activity 1. • **A collaboration agreement** with the three pilot communities will be convened. In addition, a collaboration strategy, and a protocol for sharing TEK/IK will be generated with the selected communities. This will include discussions on Indigenous data sovereignty and the protection of TEK/IK. The Environmental Education Framework will be pilot tested in each of the selected communities to provide selected young partners between 18 and 30 years old with further tools in effective engagement, participatory processes, and community-led projects to address a climate action or ecosystem conservation issue particularly relevant to that community. During each pilot project the framework will be first reviewed with the communities to complement it with the community's own knowledge, education systems and youth-focused initiatives and adapt it to the particularities of the	

	specific community, and periodically evaluated as defined in the framework. The implementation of the pilot projects will include iterative sharing between the youth leading the implementation of the projects, and an intergenerational participatory approach in the three countries. As part of this iterative process, a specific curriculum, complementary to the core curriculum, will be designed with and by the communities according to their needs.	
Expected results, performance measures	• **Selected youth partners** have the capacity to use environmental education and traditional biocultural knowledge to work collaboratively within communities. • **An iterative sharing between youth partners** leading the implementation of the projects in the three countries. • **A community of practice** to share challenges and lessons learned. During these pilots, communities will select their own youth partners who will be using similar implementation strategies to foster community knowledge dialogues around local issues of environmental protection. These same youth in collaboration with other community leaders will apply their new/strengthened capacities to facilitate community-led work to address a local climate or conservation-related issue in their communities. • **Three activity reports** will be produced (one for each pilot) documenting the pilot-testing effort and lessons learned.	
Baseline (current status), if known	N/A	
Target (by project end)	Three activity reports (one per pilot). A draft of challenges and lessons learned as well as reflective feedback from projects to inform the next steps of the work. A community of practice to share challenges and lessons learned on conservation and climate action.	
Sub-task 2.1	The selection of three communities to collaborate with, one per country.	**When:** Year 1 & 2

Sub-task 2.2	For each selected community, identify key community members to join other experts and create a Community Design Group to review, design, and adapt the Environmental Education Framework to the specific conditions of the community.	**When:** Year 1 & 2
Sub-task 2.3	For each selected community, following the guidance of the community leaders, the Community Design Group will select the youth partners that will participate on the capacity building focused on the core and specific curriculum and will work with their communities to undertake the specific activities to address the climate action or ecosystem conservation issue of their community.	**When:** Year 2
Sub-task 2.4	For each community, the Community Design Group and the selected youth partners identify the climate action or ecosystem conservation issue that needs to be addressed in the community. The Community Design Group develops the specific curriculum for that community.	**When:** Year 2
Sub-task 2.5	For each selected community, the training of the selected youth partners takes place. A community action plan to address the specific issue of the community is developed.	**When:** Year 2
Sub-task 2.6	For each selected community, the trained youth partners work with their communities to address the climate action or ecosystem conservation issue identified for their community by following the action plan.	**When:** Year 2
Sub-task 2.7	For each selected community, an activity report will be produced (one per pilot) to document the experience and lessons learned.	**When:** Year 2
OBJECTIVE 3	**Conclusions, Version 2.0 of Environmental Education Framework, Scale-up and lessons learned**	
Activity 3 Budget $220,000 CAD	***Intercommunity knowledge sharing workshop and final report/brief***	
Output(s)	• **An Intercommunity knowledge sharing workshop** will be organized with selected communities from the three countries, so they can share and learn from others' experiences during the implementation of the pilot projects.	

	• **A Version 2.0 of the Environmental Education Framework**. The framework will be revised and complemented based on the results of the pilot projects and the intercommunity workshop. This document seeks to be flexible enough so it can be adapted to other contexts and used by other communities across North America. • **A final report** will include the final revised version of the Environmental Education Framework (Version 2.0), the results from the intercommunity knowledge sharing workshop and pilot projects, recommendations to ensure the sustainability of the initiative (for example, mechanisms for community planning, and financing or self-financing) and its future replicability. In addition, this document will include a synthesis of lessons learned and principles for spreading work into other communities in North America, which might include an adaptive implementation plan to facilitate the use of the framework by other communities.
Expected results, performance measures	• **An inter-community network:** Promote shared learning and networking between the selected communities from the three countries to learn and share thinking as work unfolds. This will include documentation and storytelling of the work in each community to ensure it can be communicated more broadly. • **Community networks** with the capacity to share lessons and challenges among and between communities. • **Pilot-tested examples** of how this work can be done for other communities wishing to engage in such efforts. • **Final report**, pilot projects, and recommendations for spreading of work to other communities.
Baseline (current status), if known	N/A
Target (by project end)	An inter-community network working on community-led ecosystem conservation and climate action. Version 2.0 of the Environmental Education Framework.

	A final report including a revised Environmental Education Framework, an adaptive implementation plan and case studies (pilot projects).	
Sub-task 3.1	Intercommunity knowledge sharing workshop.	**When:** Year 3
Sub-task 3.2	A revised Environmental Education Framework (Version 2.0).	**When:** Year 3
Sub-task 3.3	A final report including the revised Environmental Education Framework (Version 2.0), an adaptive implementation plan and pilot projects.	**When:** Year 3

12. Describe <u>post-project</u> expected impacts:

Expected impact (by when: month, year)	SMART performance measure(s)
By late 2026, youth in systemically vulnerable communities will have the capacity to lead and facilitate ecosystem conservation and climate action work in their communities.	Number of potential leaders that participated on the capacity-building using the Environmental Education Framework. Evidence based on surveys that youth in the participant communities have: - strengthened their capacities to lead community-based environmental work, - increased their involvement in conservation or climate action work in their communities.
By late 2026, three systemically vulnerable communities participating in the pilot project will be testing the Environmental Education Framework to tackle local environmental challenges.	Number of communities engaged in the region. Evidence based on surveys that communities: - are using the framework to build capacity among youth and tackle environmental local issues. - perceive that environmental governance has been strengthened through the implementation of the framework.

By late 2026, a final Environmental Education Framework incorporating diverse knowledges will provide the Parties and systemically vulnerable communities with tools to increase community's resilience to climate change and conduct community-based ecosystem conservation and climate action work.	Stakeholder perception (i.e., community representatives, Indigenous, youth and local collaborators), before (as a baseline) and after the implementation of the initiative, relative to: - incorporation of diverse knowledges, - efficiency of the framework, - use of the framework, - replicability of the framework's content.