

Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-291

Proposal Title: Buen Vivir Minnesota: Latino and Indigenous Place-Based Education

Project Manager Information

Name: Elizabeth Sumida Huaman Organization: U of MN - College of Education and Human Development Office Telephone: (612) 626-5118 Email: eshuaman@umn.edu

Project Basic Information

Project Summary: Buen Vivir Minnesota is a STEM and place-based natural-resource outdoor education project that aims to develop a scalable model across the state's Latino and Latin American Indigenous-serving schools and families.

ENRTF Funds Requested: \$300,000

Proposed Project Completion: June 30, 2028

LCCMR Funding Category: Small Projects (G) Secondary Category: Education and Outdoor Recreation (C)

Project Location

- What is the best scale for describing where your work will take place? Region(s): Metro
- What is the best scale to describe the area impacted by your work? Statewide

When will the work impact occur? During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

We identify two intersecting problems: First, Latino disparities in STEM and the STEM workforce–In Minnesota, Latinos are the third largest minority group, with diverse origins from Central to South America and the Caribbean. Of Minnesota's 345,640 Latinos, the unemployment rate (5.8%) is double the state's average, and the population is young (37% under the age of 18). Although a productive future for this growing population requires employment interventions, Latino career pathways are fraught with achievement gaps, most evident in PK-12 STEM. Nationally, only 12% of STEM undergraduate degrees go to Latinos. Latino perception reveals that STEM is unwelcoming and too difficult, and students cite lack of preparation, mentorship, and adult encouragement. According to Pew (2022), top interventions may include exposure to Latino high achievers and a community of Latino perception.

Second, our project addresses historically underserved K-12 school communities with minimal exposure to Minnesota's natural resources curricula. About a third of Minnesota's Latino population is foreign-born, including Indigenous families from Ecuador, Colombia, Mexico, and Guatemala. Our project tackles student and family connections to Minnesota's environmental sustainability efforts to protect natural resources through learning the state's scientific, historical, and socially blended.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

Buen Vivir refers to "Good Living" between people and nature as an alternative development pathway developed by Latin American nations. Our project focuses on Latino Minnesotans, including Indigenous newcomer students (specifically Mayan and Kichwa), who will gain earth sciences and social history knowledge of the state's natural resources. Latino-serving schools are underresourced in both STEM education linked with natural resources-based programming and are the project's point of entry to working with teachers, school leaders, students and their families.

The project partners University of Minnesota earth sciences and Indigenous Studies researchers and graduate students with Academias La Paz school district as a pilot site (serving 560 K-12 students) for a three-tiered solution to Latinos in STEM linked with cultivating responsible stewardship of Minnesota's natural resources: 1) Earth and environmental sciences teacher training and knowledge exchange between scientists, teachers, and Latino and Indigenous community members; 2) Minnesota earth sciences comprehensive curriculum development—including place-based education and outdoor programming for students (inclusive of families) and Latino and Indigenous STEM student mentorship; and 3) Using the vast Academias La Paz network across the state, dissemination of a scalable school-based model of Latino and Indigenous newcomer environmental engagement that includes family policies and school practices.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

Buen Vivir Minnesota aims to develop a scalable model for school-based Latino and Indigenous newcomer environmental literacy, engagement, and stewardship. Natural resource-focused project outcomes include educational programming such as the development of earth sciences and Indigenous Studies curricula and educational materials; student and family natural resource-based experiential learning with explicit family policy articulation on environmental protection and conservation; and formation and dissemination a model of family and school STEM learning and naturebased programs for Latino and Indigenous-serving schools across the state, including the development of school-based practices for environmental sustainability.

Activities and Milestones

Activity 1: Earth and environmental sciences teacher training and knowledge exchange between scientists, teachers, and Latino and Indigenous community members

Activity Budget: \$188,811

Activity Description:

This Activity constitutes our first of three tiers and targets teachers in science, math, social studies, and art at the two schools in our pilot school district, Academias La Paz School—Academia Cesar Chavez and El Colegio High School. We will collaborate with 17 teachers across grades K–5, 6–8, and 9–12, pairing them with current Earth-sciences and critical Indigenous Studies faculty research at the University of Minnesota. Through four day-long workshops that include natural resources-based outdoor experiences, Academias La Paz teachers and UMN faculty will engage in research, knowledge exchanges, and curricular idea generation. Workshop themes will be oriented to enhance environmental literacy. Workshop #1 will highlight UMN-based research on Minnesota's land history, Tribal Nation land stewardship, Euro-American settlement, and landscape change. Workshop #2 will cover land regeneration projects and Minnesota's vibrant conservation and environmental protection, including community-based programs across the state. Workshop #3 will introduce Latin American environmental issues and conservation efforts in order to invite knowledge exchange and discussion of educator observations of Latin American and Indigenous hemispheric environmental concerns. Workshop #4 will culminate this Activity with place-based educational pedagogy training, nature-mediated educational models, and Indigenous project-based examples.

Activity Milestones:

Description	Approximate Completion Date
Workshop #1: Minnesota's Earth sciences and environmental history	September 30, 2026
Workshop #2: Minnesota's environmental protection and conservation efforts	November 30, 2026
Workshop #3: Latin American, Indigenous, and hemispheric environmental knowledge exchange	January 31, 2027
Workshop #4: Place-based education, nature-mediated and natural resource-based outdoor learning	March 31, 2027

Activity 2: Minnesota Earth and environmental sciences comprehensive curriculum development

Activity Budget: \$79,545

Activity Description:

This Activity is aimed at building a comprehensive curriculum on Minnesota's Earth and environmental sciences that includes creation of lesson plans, development of multilingual learning materials (in Spanish, English, and Indigenous languages of the newcomer Latin American students—Mam and Kichwa), and delivery of natural resource-based learning experiences. With teachers participating in ongoing STEM education workshops (see Activity 1), University of Minnesota faculty and graduate students and Academias La Paz leadership will design 9-month curricula for grades K–5, 6–8, and 9–12 that includes place-based education inclusive of families. Curricula will involve learning materials such as environmental science kits; books, story maps, and digital stories on environmental protection; Latino and Indigenous student mentorship and role modeling; and three outdoor programs per year. Each month, Academias La Paz students will visit with University of Minnesota STEM undergraduate and graduate students (e.g., SACNAS and AISES representatives). Engagement between these groups will involve "Growing Up in Science" methods (see: https://growingupinscience.github.io/#about), including recorded interviews with scientists. Students and teachers will also co-design their own 3-day "field research school" linked with a community service project in the Twin Cities or Lake Superior region.

Activity Milestones:

Description	Approximate Completion Date
Planning meeting with Academias La Paz leadership, University of Minnesota partners, SACNAS and AISES chapters	August 31, 2026
Mentorship and role modeling network schedule launches	September 30, 2026
Co-construction of Earth sciences lesson plans matched with Minnesota social studies and Native science standards	May 31, 2027
Mini "field school" in Lake Superior region	June 30, 2027

Activity 3: Documentation and dissemination of scalable school-based model of Latino and Indigenous newcomer environmental engagement

Activity Budget: \$31,644

Activity Description:

This Activity addresses scalability beyond one pilot school district and a pivot towards long-term viability beyond the grant period. The Activity involves reflection of project work and use of evaluation data focusing on student-family STEM engagement and comfort, linked with co-development of a model of Latino and Indigenous environmental engagement towards natural resources protection in Minnesota. Also prioritized in this Activity is the establishment and documentation of Academias La Paz school and family practices and policies for stewardship and protection of Minnesota's natural resources and daily principles like "reduce, reuse, repair, recycle." In order to disseminate the project's curricula and model of work, UMN faculty and students will create two open-access resources—first, a resource containing Minnesota Earth-sciences research and all materials developed during the project for teachers around the state to access, and second, a schematic of the full model of Latino and Indigenous newcomer student and family engagement with Minnesota's natural resources, including the structure of our natural resource-based outdoor learning activities. Dissemination of the model will also occur through one in-person Superintendents' convening to be held at Academia Cesar Chavez, drawing on the vast Academias La Paz Latino schools and educational leaders network.

Activity Milestones:

Description	Approximate Completion Date
Project evaluation and state-wide stakeholder-wide interpretation, discussion, and documentation	August 31, 2027
Reflection and documentation of the project's model, including engagement approaches	September 30, 2027
Academias La Paz school-based and family practices and policies for environmental stewardship	December 31, 2027
Creation and dissemination of open access resources	February 28, 2028
Academias La Paz statewide Latino-serving schools and educators convening	May 31, 2028

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Andrew Wickert	SAFL, University of Minnesota	co-Project Manager	Yes
Norma Garces	Academias La Paz	Superintendent	No
Katie Groh de Aviña	Academias La Paz	Vice-Superintendent	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

When the project is completed, the model (process, protocols, content, and materials) will be available for open access download from University of Minnesota servers. Sharing of materials will also take place at educator conferences, which will be funded through collaborative fundraising between participating schools and University of Minnesota researchers. The participating University of Minnesota faculty also commit to coordinating and funding through other sources at least two student, family, teacher, and school leader workshops on Latino and Indigenous environmental literacy, engagement, and stewardship–specifically themes that include curricula, educator professional development, family and school policy.

Project Manager and Organization Qualifications

Project Manager Name: Elizabeth Sumida Huaman

Job Title: Professor

Provide description of the project manager's qualifications to manage the proposed project.

Elizabeth Sumida Huaman is Professor in the College of Education and Human Development and affiliated faculty with the Departments of American Indian Studies and American Studies, the Interdisciplinary Center for the Study of Global Change, and the Institute on the Environment at the University of Minnesota, Twin Cities. She studies the relationship between Indigenous lands, cultural practices, and in and out-of-school learning with Indigenous communities and Tribal institutions in the Americas. Her work bridges Indigenous Knowledges with science and the humanities and is situated across three areas—the interfaces between modernity, development, and Indigenous places; Indigenous communitybased educational design and generative environmental pedagogies; and Indigenous and comparative frameworks and enactments of human and earth rights. She also works to advance Indigenous research methodologies and writes about participatory research design in fellowship with other Indigenous methodologists worldwide. Her PI and co-PI roles include university, foundation, and National Science Foundation-funded projects that examine, 1) Indigenous land stewardship and climate change impacts in Peru and Ecuador; 2) Earth and human rights research toward Andean school curriculum development; 3) American Indian scientists, Tribal Colleges and Universities, and STEM degrees; 4) the histories and educational practices of small Indigenous schools in Canada, the U.S., and Peru; and 5) labor, violence, and life aspirations across three generations of Andean Quechua women. She produces community and research reports, educational curricula, peer-reviewed publications and writing for the public--including the volume Indigenous research design: Transnational perspectives in practice (Canadian Scholars' Press), and her research has been featured in the Journal of American Indian Education, AlterNative, Anthropology & Education Quarterly, and Cultural Studies of Science Education. She is also the lead editor of the two-volume SAGE Encyclopedia of Indigenous Education.

Organization: U of MN - College of Education and Human Development

Organization Description:

The mission of the University of Minnesota College of Education and Human Development is to contribute to a just and sustainable future through engagement with local and global communities to enhance human learning and development at all stages of the life span.

The College will advance research, teaching, and community engagement to increase opportunities for all individuals to have a successful start in life and to foster healthy human development, and will provide programs that meet the demands of the 21st century.

For more than 100 years, our faculty, students, staff, and alumni have had a deep and historic impact on society. We are driven by a sustained belief in the value of each child, each person, as an individual with unique talents and challenges; an understanding that research and collaboration with community professionals will lead to solutions that will improve lives; and a dedication to preparing educational and human service professionals to carry the values and knowledge discovered here into the world to make it a better place.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineli gible	% Bene fits	# FTE	Class ified Staff?	\$ Amount
Personnel								
Project manager		Coordinate project, including educational activities, school-district collaborations, and reporting. ,Supervise graduate students.			26.8%	0.08		\$19,993
Earth- science expert		Provide Earth-science knowledge, aid in curriculum development, supervise graduate students			26.8%	0.08		\$17,295
Graduate students (2)		Develop curriculum, communicate curriculum to schools, lead activities			45.2%	1		\$110,784
							Sub Total	\$148,072
Contracts and Services								
Academias La Paz	Subaward	Advising on curriculum co-development Pilot curriculum implementation Personnel (coordinator, 2 years): \$77,000 Services: Classroom support funds (\$250/classroom/yr): \$8500 Family workshops: \$1200 Travel: \$18,000 for transportation to field-trip sites				1		\$104,700
Evaluator	Service Contract	Professional outside evaluation of effectiveness of our materials and programs, including learning, appreciation of nature, and identifying with Minnesota's outdoors				0.08		\$8,000
Curriculum- development professional	Service Contract	Assist in turning concepts for curriculum into reality by building and co-designing educational technology				0.1		\$7,500
U-Spatial	Service Contract	Teach students how to build story maps				0.04		\$4,000
							Sub Total	\$124,200

Equipment, Tools, and Supplies					
	Tools and Supplies	Science-learning kits (x100)	We will develop these science kits as part of the project and distribute 100 to be used by classes.		\$5,328
				Sub Total	\$5,328
Capital Expenditures					
				Sub Total	-
Acquisitions and Stewardship					
				Sub Total	-
Travel In Minnesota					
	Miles/ Meals/ Lodging	Flat-rate support to assist participants in attending our planned Superintendent Meeting	Gather school-district superintendents to share our curriculum and results and expand its reach across Minnesota		\$5,000
				Sub Total	\$5,000
Travel Outside Minnesota					
				Sub Total	-
Printing and Publication					
				Sub Total	-
Other Expenses					
		Stipends for teachers taking part in the workshops: \$100/teacher/workshop	Nominal compensation for time and transport		\$12,000
		Honoraria for guest speakers: 18 months x 1 visit/month x \$300/visit	Each month, we will bring one guest scientist to the schools for a day of sharing knowledge and connecting with the students		\$5,400

			Sub	\$17,400
			Tota	1
			Gra	nd \$300,000
			Tota	1

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub	-
			Total	
Non-State				
			Non State	-
			Sub Total	
			Funds	-
			Total	

Total Project Cost: \$300,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component File: <u>863b6272-b44.pdf</u>

Alternate Text for Visual Component

The Latino-student community, represented as a corn plant, nurtured by the work by UMN researchers and Academias La Paz through the three Activities. The products, offered as the edible corn, comprise natural-resorces curriculum and enhanced STEM capacity on one side, and environmental engagement and education on the other....

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
UMN Sponsored Projects Administration letter	40e5fc8a-6dd.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I understand the UMN Policy on travel applies.

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

Yes

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

No

- Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF? No
- Does your project include original, hypothesis-driven research?

Yes

Does the organization have a fiscal agent for this project?

No

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?

No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

Yes

Do you certify that background checks are performed for background check crimes, as defined in Minnesota Statutes, section 299C.61, Subd. 2, on all employees, contractors, and volunteers who have or may have access to a child to whom children's services are provided by your organization?

Yes

Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:

Andrew Wickert (St. Anthony Falls Laboratory, University of Minnesota), Angela Boutch (St. Anthony Falls Laboratory, University of Minnesota), Ellen Freeman (College of Education and Human Development, University of Minnesota), Katie Groh de Aviña (Academias La Paz School District)

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

Yes, I understand