

Advice to Council No: 22-03

Public Consultation on new CEC project to improve air quality for environmental justice

The Joint Public Advisory Committee (JPAC) of the Commission for Environmental Cooperation (CEC) of North America:

IN ACCORDANCE with Article 6(4) of the Agreement on Environmental Cooperation (ECA), which states that JPAC “may provide advice to the Council on matters within the scope of this agreement, and may perform such other functions as the Council may direct”;

RECALLING the initial recommendations included in the letter to the Alternate Representatives, sent on 24 November 2020, regarding the CEC budget and upcoming Operational Plan;

RECALLING JPAC Advice to Council 20-01 “Public Consultation on the draft CEC Strategic Plan 2021-2025”;

HAVING reviewed the draft project description and associated budget for the project [*Air Quality Improvement for Environmental Justice*](#);

HAVING conducted an online public consultation on the project description, which took place from 28 April to 19 May 2022;

AND HAVING reviewed the comments received from 30 participants from a diversity of stakeholders throughout North America¹ (see Annex 1);

SUBMITS the following comments and recommendations for the new trilateral project for Council’s consideration:

JPAC commends the Parties for their efforts in the development of the draft *Air Quality Improvement for Environmental Justice* project and takes note of the public interest in participating and collaborating in this initiative which seeks to address the need for additional black carbon/particulate air monitoring through collaborative, cost-effective approaches, especially in communities with disproportionate public health and environmental harm or risk, including those with environmental justice concerns which may include Indigenous communities (see Annex 2, 3 and 4). Public comments highlighted existing gaps in air quality monitoring and mitigation and the need to increase data availability and transparency within the three countries. Public consultation also revealed the existence of several initiatives from academia, NGOs and other civil organizations that are aligned with the objective of this project. As a result, there is an opportunity to scale up the project, or develop a second phase, dedicated to the creation of a collaborative network of community-led air quality monitoring initiatives across North America.

¹ Comments were divided as follows: 22 from Mexico, 7 from Canada, 1 from the United States of America

Public consultation highlighted the complexity of air quality issues in North America, with particularities by country and sector, and in urban and rural environments. Public feedback, however, also makes it clear that different proposals to address them already exist, and that it is urgent and essential to prioritize and implement all relevant measures jointly to take advantage of the synergies between them. This requires the participation of different actors and sectors (i.e., government, academia, civil society, private sector) coordinated through effective mechanisms and with a regional vision. This can produce multiple benefits, including contributing to reducing greenhouse gas emissions and thus combating climate change. In Mexico, specifically, it is important to regulate and prohibit agricultural burning, especially in the sugar industry.

JPAC agrees with the public comment that highlighted the lack of clarity in how communities will be chosen as part of this project and would like to stress the importance of choosing the right communities to showcase best practices and concrete impacts. There are numerous examples of community-led monitoring projects currently being implemented in North America, so the CEC should follow best practices, taking into consideration lessons learned from previous projects, to ensure its success and contribute to the dissemination of the highest standards in North America. This should include the consideration of cumulative impacts.

The public comments received included distinct air quality issues that would require different approaches and types of mitigation measures. Of note were the clear differences between rural, urban and remote communities, which are tackling different environmental challenges (e.g., industry, increased road traffic, agricultural burning, residential wood burning, forest fires, etc.). When choosing potential communities, the CEC should seek to showcase case studies with different approaches where actual impacts could be measured and disseminated within the duration of the project. Furthermore, JPAC would like to highlight links between air quality management and Indigenous perspectives, due to the latter's holistic approach to environmental conservation, and the potential opportunity to involve the Indigenous Guardians program (Canada), depending on the final case studies chosen.

JPAC agrees with public comments on the short project timeline and stresses the importance of properly engaging Indigenous and vulnerable communities that might experience disproportionate environmental harm or risk, and/or have environmental justice concerns, to develop relationships and allow for meaningful engagement.

As part of the consultation, the CEC asked the public to share their thoughts and provide input on challenges, issues, or approaches related to community-driven air quality monitoring strategies that should be considered as part of this project. Additional public comments included:

- Potential lack of capacity and resources in vulnerable and underserved communities and community-based organizations, especially after project completion, to continue with their collaborative efforts;
- Potential issues related to the location, use and maintenance of low-cost sensors and the lack of baseline data;
- The importance of environmental education to help change behavior; and
- The importance of supporting existing efforts.

Please note that participants provided a number of relevant additional comments that can be considered as part of the project development and implementation. We therefore encourage you to work with your appointed experts in carefully considering the public comments included in Annex 1.

In closing, we would like to express our appreciation to all responders for their feedback and contributions. While it was impossible to incorporate all valuable comments and suggestions in the Advice, we are confident that the CEC will find them useful as it develops and implements this project and related ones in the future.

JPAC is confident that the recommendations contained herein are relevant to the CEC Council's strategic priorities and is unanimous in supporting this Advice to Council.

**Approved by the JPAC members
29 June 2022**

Annex 1- Comments Received

Annex 2 Communities Interested in Participating in the Collaborative Project – Potential Monitoring Locations

Country	State/Province	Community	Air Quality Concern
Canada	Alberta	Edmonton	Edmonton is a rapidly growing city of 1.5 million with multiple sources of air pollution, including industry (e.g. petrochemical industry, refineries, nearby coal-fired electric power plant), yearly wildfire smoke exposure, as well as more typical city pollutants like traffic .
Canada	Alberta	Edmonton	We are concerned about wildfire smoke, emissions from vehicles idling in public places (e.g., schools), and the contribution of local industry to air pollution and health impacts. We lack monitoring data.
Canada	Ontario	Ottawa	Not Specified.
Canada	Ontario	Sault Ste. Marie	The community has a serious pollution problem, with one of the highest cancer rates in the province of Ontario, and is home to industrial facilities. Current air emissions monitoring for particulate matter is greatly inadequate, as only PM ₄₄ is measured for the steel plant.
Canada	Ontario	Waterloo Region	The region is in the top three fastest-growing regions nationally, has three medium-size cities, four townships, and a population of ~623,930, as of 2020. Increased traffic and other sources of pollution disproportionately impact different sites. There is no infrastructure to directly measure greenhouse gases (GHG) or particulate matter (PM).
Canada	Northwest Territories	Sahtu	There are concerns with pollution from industry , due as well as to wildfire smoke. There is not currently much capacity to address these concerns.
Mexico	Baja California	Ensenada	Fumes from plants processing fish products for fishmeal production.
Mexico	Baja California Sur	La Paz	Sources of pollutant emissions include the two largest electricity generation plants in the state, which use mainly fuel oil. There is a high rate of motorization , reaching values close to 80 vehicles per 100 inhabitants, a lot of streets are not paved , and there is pollution from the burning of garbage and tires . Finally, there is no air quality monitoring network offering information to the general public in real time that includes PM _{2.5} .

Mexico	Baja California	Tijuana	Tijuana is a highly industrialized city with a high dependence on fossil fuels for processes, cargo transportation, and public transportation , among others.
Mexico	Baja California	Tijuana	The air quality is poor, and no information is available on pollutant levels.
Mexico	Coahuila	Torreon	They currently measure PM ₁₀ only and lack monitoring of other pollutants.
Mexico	Jalisco	Guadalajara	The air quality is poor.
Mexico	Jalisco	Tala, Teuchitlán, Aqualulco, Etzatlán and Arenal	The air quality issue is related to the harvesting and burning of sugar cane bagasse for the sugar mill .
Mexico	Mexico	Jilotepec	Residential wood burning (e.g., for cooking)
Mexico	Mexico City	Colonia Escadón	There has been increased traffic in the area in the last 6 to 8 years and there are no environmental measures.
Mexico	Mexico City	Ciudad Universitaria and Coapa in the municipality of Coyoacán	Not specified.
Mexico	Mexico City, Jalisco, Guanajuato, Nuevo León	Metropolitan Zone of the Valley of Mexico, the Metropolitan Area of Guadalajara), the Metropolitan Zone of the Toluca Valley, Irapuato and the Metropolitan Area of Monterrey	In 2021 and early 2022, these communities have known the most days with ozone and particulate matter concentrations exceeding environmental health standards.
Mexico	Oaxaca	State of Oaxaca and Puerto Escondido	Based on the State Inventory for Black Carbon (<i>Inventario Estatal de Carbono Negro</i>), the main sources are associated with the burning of combustible materials such as firewood and sugarcane bagasse , as well as forest fires and agricultural burns , whose contribution reaches 78% of the total estimated in the state. According to this Inventory, the main source of emissions is the burning of firewood at the residential level, which is used intensively mainly in rural communities for food preparation and for heating . In second order of importance is the use of

			<p>sugarcane bagasse in sugar mills for the cogeneration of electrical and thermal energy.</p> <p>In the coastal city of Puerto Escondido, there are fires in landfills due to oversaturation.</p>
Mexico	Oaxaca	Oaxaca	Waste from livestock industries is a major source of air pollution.
Mexico	Puebla	Puebla	There is a lot of dust in the air of the city. Also, the public transportation system is poor , lacking maintenance and over-polluting (exhausting dark clouds of poorly burnt combustibles), overcrowded and insecure, which is why people prefer to use private vehicles .
Mexico	Puebla	Puebla	There is no air quality monitoring network that covers the metropolitan area of the state since there are only 5 air quality monitoring stations in the state. The main source of pollutant emissions comes from vehicles .
Mexico	San Lui Potosí	San Lui Potosí	Not specified.
Mexico	San Lui Potosi	San Lui Potosí	PM _{2.5} and black carbon levels were detected near a brick-manufacturing area from the burning of different types of fuels .
Mexico	San Lui Potosi	Huasteca Potosina	Residential wood burning .
Mexico	Sonora	Obregón	Intensive agriculture area with overuse of agrochemicals and burning of agricultural residues . Health issues include acute respiratory infections as well as cancers in the upper respiratory tract.
Mexico	Yucatán	Tetiz	Residential wood and waste burning .
USA	Texas	Greater Houston Area/ Harris County	Houston is consistently ranked as one of the worst cities in the country for air pollution and Harris County has the largest concentration of chemical manufacturing and refining facilities in the nation. Black carbon is a major concern for each of these communities since their neighborhoods are bordered by major interstate highways and house many industrial facilities that burn fossil fuels .

Annex 3 Organizations Interested in Supporting the Project, Depending on Location (e.g., by offering input, providing low-cost sensors, or acting as technical expert)

Name of Organization	Sector	Type of Role	Location
Environmental Defense Fund	NGO	Support partnership building, technical expertise, input	US, Texas
Clean North	NGO	Support partnership building, input	Canada, Ontario
Wilfrid Laurier University	Academia	Support partnership building, technical expertise, input	Canada, Ontario
Sahtu Renewable Resources Board	NGO	Support partnership building, input	Canada, Northwest Territories
Sierra Club Canada Foundation	NGO	Providing low-cost sensors, input, leveraging volunteer network	Canada, Ontario
University of Alberta	Academia	Technical expertise, low-cost sensors, Support partnership building	Canada, Alberta
University of Alberta	Academia	Technical expertise, input, support partnership building	Canada, Alberta
Instituto Tecnológico Superior de Cajeme	Academia	Technical expertise, input	Sonora, Mexico
Autonomous University of Baja California Sur (UABCS)	Academia	Technical expertise, input, support partnership building	Mexico, Baja California
Oaxacan Fund for the Conservation of Nature A.C.	NGO	Support partnership building	Mexico, Oaxaca
World Resources Institute, WRI.	NGO	Support partnership building, technical expertise, input	Mexico
Florawa, Luis Alfonso Cruz Cueto	Academia, Individual	Input	Mexico, Oaxaca
Institute of Atmospheric Sciences and Climate Change UNAM	Academia	Technical expertise	Mexico, Mexico City
Technological University of Tijuana	Academia	Technical expertise	Mexico, Baja California
Secretary Of Environment,	Government	Technical expertise, input	Mexico, Puebla

Sustainable Development and Land Use Planning			
Directorate-General for the Environment	Government	Support partnership building, technical expertise, input	Mexico, Coahuila
Foundation for Air Quality Research, A. C.	NGO	Technical expertise, low-cost sensors, support partnership building	Mexico, Baja California
Jorge David Santacruz Morhy, Air Quality and Marine Chemistry Consultant	Academia, Private sector	Technical expertise	Mexico, San Luis Potosí
Colectivo Ecologista Jalisco A.C.	NGO	Support partnership building, education, technical expertise,	Mexico, Jalisco
National Association of Agricultural Engineers of the Autonomous Metropolitan University, A.C.	Academia, NGO	Technical expertise, support partnership building	Mexico, Mexico
Universidad Autónoma de San Luis Potosí, WHO/PAHO Collaborating Center for Health Risk Assessment	Academia, International Organization	Technical expertise, support partnership building	Mexico, San Luis Potosí
Nacion Verde	NGO	Input, diffusion	Mexico, Baja California
Centro de Innovación y Gestión Ambiental	NGO	Technical expertise, input	Mexico, Baja California
Jalisco Mario Molina	Academia	Input, support partnership building	Mexico, Jalisco
Center for Scientific Research and Higher Education of Ensenada, Baja California (CICESE)	Academia	Technical expertise	Mexico, Baja California

Annex 4- Potential Organizations to Engage During Project Implementation

Organization/stakeholders
Agrarian Autonomous University Antonio Narro
Baja California Secretary of the Environment
Canadian Environmental Law Association
Canadian Environmental Network
Children's Environmental Health Clinics
CERCA
City of Hermosillo, Sonora
Clean North
Colectivo Ecologista de Jalisco
Colleges in Puebla (e.g., UPAEP, BUAP, UDLAP, IBERO, ITSM)
Comité Integral de Ecología
Cómo Vamos La Paz (CVLP)
EcoSENSHI
En Defensa del Ambiente
Environmental justice communities
General Directorate of Environment of Naucalpan
General Directorate of Environmental Management of León
Government of Canada
Government of Northwest Territories
Indigenous communities of Baja California (Kumiai)
INECC
Institute for Planning and Management of Development of the Guadalajara Metropolitan Area
Instituto Tecnológico de la Laguna
IPN-Cicimar
Latinos Unidos
Marginalized communities practicing waste burning, open burning of crops and cooking with biomass
Ministry of Environment and Territorial Planning of Guanajuato
Ministry of the Environment of Nuevo León
Ministry of the Environment of the State of Mexico
Municipal governments
National Autonomous University of Mexico
National School of Biological Sciences, Zacatenco campus. CdMX
RCEN
Sahtu organizations (e.g., Sahtu Land-use Planning Board, local Dene and Metís offices)
Schools
Secretary of Environment and Territorial Development of Jalisco
Semarnat
Sener
Small communities of indigenous peoples in Yucatan

StackWatch SSM
SUEMA
Technological University of the Mixteca
Tijuana Directorate of Environmental Protection
University of Alberta
University of Calgary
University of Chapingo
University of Papaloapan
University of Waterloo