



## **XIII International Carbon Symposium in Mexico**

Hosted virtually from  
Xalapa, Veracruz

**26 - 28 october 2022**

Main theme:

**Ecosystem Restoration and Conservation for  
Climate Change Mitigation**

# **SECOND CALL**

## Mexican Carbon Program

In recent years, the global mean CO<sub>2</sub> concentration has risen to exceed 400 ppm. This increase in CO<sub>2</sub>, along with those of other greenhouse gases (GHGs) like methane and nitrous oxide, is related to the ~ 1 °C increase in mean global temperature when preindustrial (1850–1900) GHG concentrations and temperatures are taken as reference. By the end of the century, the global mean rise in temperature might reach 4 °C if emission-reduction policies are not implemented.

The main sources of CO<sub>2</sub> emissions to the atmosphere have changed over time. From 1880–1950, changes in land use constituted the main source of CO<sub>2</sub> emissions. At present, fossil fuel CO<sub>2</sub> emissions dominate, although those related to anthropogenic activities like agriculture, animal husbandry, forestry, cement production, and changes in land use are also important. As such, it is essential to better quantify the magnitude of carbon fluxes and ecosystem carbon assimilation and storage while reducing the uncertainty associated with these calculations.

The most recent report of the Intergovernmental Panel on Climate Change (IPCC) irrefutably documents the direct relationship between anthropogenic activities and the global climate emergency, with the former preceding the latter. Ocean acidification; mean sea-level rise; the increasing frequency and intensity of heat waves, wildfires, precipitation and drought events; and the fusion of ice sheets in Greenland and Antarctica have all intensified with global warming. For society to be able to adapt to the effects of global climate change and for its effects to be mitigated, it is necessary to advance local, regional, and global knowledge of the carbon cycle and the social processes that determine carbon emissions and sinks.

The Mexican Carbon Program (PMC, for its Spanish acronym) is a scientific collective formed with the aim of coordinating research efforts related to the physical, geochemical, biological, agricultural, and social aspects of the carbon cycle, which encompasses the ocean, atmosphere, and land and involves terrestrial, aquatic, coastal, and marine ecosystems. For more than 15 years, the PMC has advanced the systematization of the scientific information of the carbon cycle while promoting carbon cycle research. Internationally, the PMC also acts as the scientific representative of Mexico in similar programs involving other countries, such as the Joint North American Carbon Program (today CarboNA) that aims to develop a North American vision for carbon cycle-related themes in coordination with the USA and Canada.

In 2019, the PMC published the “First Report on the Carbon Cycle in Mexico: Blue and Green Agenda” (<http://pmcarbono.org/pmc/publicaciones/eccm.php>), which presents a diagnostic baseline of the research conducted in Mexico up until the year of publication. At the moment, the PMC is working on its second report, which is focused on synthesis, modeling, scenario generation, and public policy evaluations. It remains necessary to continue to generate scientific knowledge of the biogeochemical carbon cycle in terrestrial (green agenda) and marine (blue agenda) ecosystems and of the black carbon produced by combustion processes (gray agenda).

## Symposium Objectives

- Present a national synthesis on the current state of knowledge of the carbon cycle and its interactions in the thematic areas of the Atmosphere, Bioenergy, Social Dimensions, Anthropogenic Ecosystems, Agroecosystems, Marine Ecosystems, Coastal Ecosystems, Terrestrial Ecosystems, and Continental Aquatic Ecosystems.
- Further a common research and development agenda.
  - Promote scientific input from the PMC towards the restoration and conservation of natural ecosystems as a strategy to mitigate climate change. The restoration and conservation of natural ecosystems reduces the sources and increases the sinks of GHGs, increases carbon sequestration rates and those of other essential nutrients, and ensures ecosystem services for human populations. This strategy may be the fastest, functionally supported route to reestablish a terrestrial energy balance while reducing its vulnerability.
  - Promote scientific and academic exchanges within the thematic areas of interest of the PMC to generate collective work agendas with governmental institutions, civil society, and the private sector.
  - Evaluate the common agenda of North American collaboration (Mexico-USA-Canada) within the context of CarboNA to ensure continued international collaboration.

## Workshops and Thematic Meetings

Thematic meetings will be organized and held in the afternoon during the three days of the symposium. Workshops will also be organized and held before and/or after the symposium. The themes of these meetings and workshops will be related to collaboration between the PMC and educational, governmental, and non-governmental institutions and organizations. The workshops will cover topics related to methodological issues related to measuring and modeling carbon stores and fluxes.

## Symposium Format

The symposium will be held virtually over three days and will include:

1. Keynote and plenary presentations on topics of general interest.
2. Oral and poster presentations, which will be pre-recorded by contributors with durations of 10 and 3-5 min, respectively. The presenters should be online at the time their contribution is programmed to answer any questions that attendees may have. Oral contributors will have the option to also present a poster of their work within the symposium's virtual platform.

3. Special sessions and workshops on topics of interest of PMC, INECOL, MexFlux, and other strategic partners.

Additionally, satellite meetings and workshops may be organized on specific topics of collective interest regarding the development of strategic collaborations upon request of Mexican scientific organizations, governmental institutions, or the private sector.



## Symposium Orientation

The Symposium aims to bring together the specialists who work in the study of the carbon cycle in the different environments in Mexico, with the aim of sharing the state of the art in research and developments that are carried out on this topic, as well as future guidelines for border research. The Symposium will focus on high-priority, cross-cutting themes of carbon studies in Mexico: carbon flows between ocean-continent; implementation of Natural Climate Solutions (agricultural, forestry and other land use (AFOLU) strategies for carbon emissions mitigation); relationship between biological diversity and the carbon cycle; estimation of emissions and multi-scale carbon removals; carbon governance and public policies; information and scientific knowledge; the carbon economy; gender; competitive rural landscapes and low carbon development; modeling and synthesis of carbon dynamics; horizontal and vertical flows in the vegetation-atmosphere interface, and strategic mitigation of GHG, among others. In addition to the above, research related to the carbon cycle in the main thematic areas are also welcome.

## Greenhouse Gases and Carbon

The interests of the PMC are not only limited to the biogeochemical carbon cycle but also encompass GHG stores and fluxes that are equivalent to CO<sub>2</sub> emissions, and thus studies related to methane emissions due to enteric fermentation in livestock, nitrous oxide emissions resulting from fertilizer application to soils, black carbon production due to combustion processes, and others are welcomed. Similarly, studies of GHG emissions, acidification, and hypoxia within the context of marine ecosystems are also welcomed.

## Symposium Program

WEDNESDAY, OCTOBER 26TH		THURSDAY, OCTOBER 27TH		FRIDAY, OCTOBER 28TH	
TIME	EVENT	TIME	EVENT	TIME	EVENT
8:00 - 9:00	Connection Tests	9:00 - 12:00	Oral and Poster Presentations	9:00 - 12:00	Oral and Poster Presentations
9:00 - 14:30	<ul style="list-style-type: none"> <li>National and International Awards</li> <li>Keynote Presentations by Award Recipients</li> </ul>	12:00 - 14:00	Keynote Presentations	12:00 - 14:00	Keynote Presentations
14:30 - 16:00	Lunch Break	14:00 - 16:00	Lunch Break	14:00 - 16:00	Lunch Break
16:00 - 19:00	Thematic Meetings	16:00 - 19:00	Thematic Meetings	16:00 - 19:00	Thematic Meetings
				19:00 - 19:50	Awards for the Best Contributions PMC Annual Report
				19:50 - 20:00	Closing

## Abstract Submissions

The deadline to submit short abstracts for oral and poster contributions is August 23th, and extended abstracts will be accepted until August 31st. **Only extended abstracts will enter the peer-review process**, which includes format and style, to be considered for publication in the Conference Proceedings with ISSN, similar to the National Synthesis Proceedings of previous years.

Complete contribution guidelines and format and style examples of both extended and short abstracts (the latter is mandatory for the former) can be found at [www.pmcarbono.org](http://www.pmcarbono.org). Abstracts will only be received via the submission system on the website.

## Costs

Researcher (presenting)	\$ 1,000.00 M.N.
Student (presenting)	\$ 500.00 M.N.
Participant	\$ 300.00 M.N. (Only if proof of attendance is required).

Preferably, the payment is to be received before the event date via bank deposit or wire transfer to the PMC account:

Name: Programa Mexicano del Carbono, A.C.  
Account number: 65503556181  
CLABE (Mexican interbank code): 014 180 65503556181 7  
Bank:   
Branch office: 0473 Texcoco-Av. Juárez Sur 402, Col. San Lorenzo  
SWIFT Code: BMSXMXMMXXX

Once the payment is received, symposium registration may proceed via the PMC website at <http://pmcarbono.org/pmc/simposio/registro.php>

After entering the required information in the registration form and pressing the “register” button, you will receive an email with a link to upload the wire transfer or bank deposit receipt (JPG or PDF) and subsequently generate an official invoice, if needed.

Alternatively, the scanned proof of payment and registration format (Appendix 1) may be sent to the following email address: [martinb72@gmail.com](mailto:martinb72@gmail.com), with the subject “Registration XIII Symposium.” This will streamline the registration process and the preparation of proof of attendance documents.

In case a commercial invoice is required (only electronic invoices are issued according to Mexican tax laws), please provide the following information in the same email:

- Complete name
- Fiscal address
- Federal Contributor Registration code (RFC in Spanish)
- Email address to receive the electronic invoice (CFDI in Spanish)
- CFDI usage
- Tax regime

Grants to cover registration costs for students are available upon request and after a revision of need. Interested students should send their requests to [martinb72@gmail.com](mailto:martinb72@gmail.com), indicating the required support and including a short justification based on their interest in PMC activities.

**Disclaimer:** Prior to the inauguration and during the first day, payments and late registrations will be accepted if it was not possible to do so before via wire transfer or bank deposit. However, as a cautionary measure and to provide better service, you are strongly urged to send the proof of payment to [martinb72@gmail.com](mailto:martinb72@gmail.com) well in advance of the inauguration.

## LOCAL ORGANIZING COMMITTEE

**Dr. Oscar Luis Briones Villarreal**

INECOL

President

oscar.briones@inecol.mx

**Dra. María Elizabeth Hernández Alarcón**

INECOL

elizabeth.hernandez@inecol.mx

**Dra. María Susana Alvarado Barrientos**

INECOL

susana.alvarado@inecol.mx

**Dra. Yareni Perroni Ventura**

UNIVERSIDAD VERACRUZANA

yperroni@uv.mx

---

## NATIONAL ORGANIZING COMMITTEE

**Dr. Martín Hernández Ayón**

UABC

President

martin@uabc.edu.mx

**Dr. Martín A. Bolaños González**

COLPOS

martinb72@gmail.com

---

## INTERNATIONAL ORGANIZING COMMITTEE

**Lic. Alejandra Navarrete**

The Ocean Foundation

anavarrete@oceanfdn.org

**Dr. Blas L. Pérez Henríquez**

Stanford University

blph@stanford.edu

Xalapa, Veracruz, Mexico; July 2022



## Appendix 1: REGISTRATION FORM

**XIII International Carbon Symposium in Mexico  
26–28 October 2022  
Xalapa, Veracruz, Mexico**

Name

Position

Institution

Telephone

Work / Mobile

Email