

Report of the meeting on

**SCIENCE-POLICY DIALOGUE FOR THE
ESTABLISHMENT OF A RESEARCH PARTNERSHIP ON
DECARBONIZATION AND CLIMATE RESILIENT GOVERNANCE
IN MEGACITIES OF THE SOUTH**

A. Background

1. The 9th World Urban Forum has called for a new urban agenda to accelerate the Sustainable Development Goals and support climate action. The Cities and Regions Talanoa Dialogues, facilitated by ICLEI with the Global Covenant of Mayors for Climate and Energy and UN Habitat are aimed at an inclusive and transparent decision-making process. The IPCC Special Report of 1.5C to be released in October will underscore the importance of the scientific knowledge assessed to guide international negotiations.
2. The complexity of social-environmental challenges facing megacities requires an approach that involves multiple, collaborating scientific disciplines and the decision makers responsible for responding to the needs of society. The process discussed at this meeting was inspired by the concept of co-design. Co-design is the co-production of knowledge among scientists, decision makers, and stakeholders affected by global change. In the first phase of the knowledge co-production process affected stakeholders, decision makers and researchers jointly develop research questions and define a research project that will help find solutions for social-environmental challenges. Under this approach, we expect new projects to have greater relevance to society, and greater buy-in from partners and decision makers, while expanding the breadth, depth and quality of research. Once research begins, the collaboration of researchers and partners will continue in an iterative, participatory manner to support outputs and outcomes that benefit cities and their citizens.
3. With 25 years of collaborative research experience promoting the sharing of global change knowledge among all levels of government, scientists and relevant organizations, it is an opportune moment to collaborate with academic partners, decision makers, and affected stakeholders in promoting a co-design process for a research program on climate resilient governance in megacities of the South. In support of the above, the Inter-American Institute for Global Change Research (IAI) and the Belmont Forum are establishing a flexible mechanism to facilitate the funding of scientific projects on global change in the Americas.
4. Date. The meeting was held in Santiago de Chile, Chile, on 2-3 April, 2018.
5. Venue. The meeting was held at CR2 headquarters, Blanco Encalada 2002, 4th floor (Departamento de Geofísica), Santiago, Chile.
6. The IAI is grateful to the Centro de Ciencia del Clima y Resiliencia (CR2/Chile) for its support in the organization and the development of the meeting.

B. Attendance

7. The meeting brought together participants from different fields forming a multi-stakeholder team:

(a) Urban management and policy making from the cities of Buenos Aires, Sao Paulo and Santiago de Chile

- Secretária Executiva do Comitê de Mudança do Clima e Ecoeconomia do Município de São Paulo, Secretaria do Verde e do Meio Ambiente, São Paulo
- International Affairs Office, Secretariat for Environment, São Paulo State Government
- División de Cambio Climático, Ministerio de Medio Ambiente, Chile
- División de Desarrollo Urbano, Ministerio de la Vivienda y Urbanismo (MINVU), Chile
- Agencia de Protección Ambiental, Gobierno de la Ciudad de Buenos Aires

(b) Science and academia from Argentina, Brazil and Chile

- Rede Clima, Brazil
- Comisión Nacional de Energía Atómica, Argentina
- Centro de Ciencia del Clima y Resiliencia (CR2/Chile)
- Instituto de Estudos Avançados da USP, São Paulo, Brazil

(c) Promotion and administration of global change scientific networks

- Inter-American Institute for Global Change Research, IAI

(d) Environment and development, global governance

- ICLEI South America Administrative Council
- Climate and Sustainable Development Programme, UN Office for South-South Cooperation. xiaohua.zhang@undp.org

(e) Project management and support

- Centro de Ciencia del Clima y Resiliencia (CR2/Chile)

8. The full list of participants, working as a team during the meeting, is contained in Annex 1 below.

ITEM 1. OBJECTIVE OF THE MEETING

9. The goal of this initiative is the development of an initiative on climate governance to provide the scientific knowledge needed to guide policy and put into practice decisions for sustainable cities to better cope with climate change.

10. The first meeting of this Initiative was held on 2 to 3 April 2018 in Santiago, Chile, where participants initiated the co-design of a program aimed at providing guidance for adaptation and mitigation actions in the cities of Buenos Aires, Santiago and Sao Paulo. Activities proposed will cover main issues facing these cities such as decarbonization (emission reductions from transportation, land-use, waste management, green spaces and housing), health (impacts of climate and air quality, such as respiratory diseases, dengue and yellow fever) and extreme events and disasters (floods, droughts, heat and cold waves).

ITEM 2. ORGANIZATIONAL MATTERS

11. Agenda. The Agenda of the meeting is attached as Annex 2 to this report.

ITEM 3. OPENING OF THE MEETING

12. The meeting was opened at 9 a.m. on Monday, 2 April 2018 by members of CR2 Chile. The IAI staff presented the initiative “Science-policy dialogue for the establishment of a research partnership on climate resilient governance in megacities of the South”, its purpose and the specific objective of this meeting.

13. Pedro Jacobi, Presidente del Consejo Director of ICLEI América del Sur explained the mission and role of this organization, the ongoing lines of action and projects and the opportunities identified by ICLEI for the cities of South America, emphasizing ICLEI experience in capacity building.

14. Xiaohua Zhang, from the UN Office for South-South Cooperation (SSC), presented the pillars for the action of his office, the relevance of South-South cooperation and explained a context in which the SSC is gaining momentum. He presented the office fields of action in policy guidance, capacity building, financial support, technology development and transfer, infrastructural development and support to institutional building for progressive climate actions required to fill the gap and advance in fulfilling global environmental framework requirements. He also announced the call for proposals for the QIAO Plan.

ITEM 4. MEGACITY MANAGEMENT CHALLENGES

15. Practitioners and policy makers from the three cities presented the current challenges faced by them, namely: (a) global change problems and challenges to sustainable urban development, effective governance, and emissions reductions being faced; (b) strategies, plans and actions to address them; (c) gaps of knowledge -or others- related to those challenges and responses, which were followed by questions, answers and discussions on potential synergies of the attendees around these challenges:

16. Jaquelina Tapia, from the Agencia de Protección Ambiental de Buenos Aires, characterized the City of Buenos Aires, presented climate change facts for the city and the challenges they posed to the city government, for then presenting the strategies in place and the barriers detected for their implementation and existing gaps of information.

17. Jussara de Lima Carvalho presented the challenges posed by the City of Sao Paulo from the perspective of the Regional Government of the State of Sao Paulo. These included: lack of data and lack of certainties in face of changes; lack of integrated action among the several secretaries and sectors involved, between governments and society, and among systems able to handle with those challenges; urban plans that do not consider climate change and its consequences; lack of preparation for disasters; lack of knowledge in climate change vulnerabilities and in how to implement solutions based in nature; need of simplified ways to do GHG inventories.

18. Laura Ceneviva complemented the presentation by the State of Sao Paulo, addressing the urban local perspective of the problems and challenges, the undergoing strategies, plans and actions to address them and the gaps of knowledge related to those challenges and responses. Among the latter, she highlighted the need of concrete guidelines to guide municipal investment under a concept of resilience that needs to be adjusted to a dynamic and heterogeneous society, and the gap between climate change as a global issue and the daily common lives of urban dwellers.

19. Nicolás Romero, from the División de Desarrollo Urbano of the Ministerio de Vivienda y Urbanismo, explained the Chilean climate change adaptation plan for cities, highlighting the need for an integral approach that runs across sectors, which constitutes a challenge to

governance. Gladys Chile of the Ministry of Environment of Chile talked about the new government climate change priorities, indicating that at present, Chile does not have a legal framework that allows allocating emissions reduction responsibilities or demanding implementation and reporting of mitigation and adaptation measures to climate change.

ITEM 5. CURRENT RESEARCH

20. Scientists from Argentina, Brazil and Chile presented: (a) Fields under study; (b) results obtained/to be obtained; (c) practical applications:

21. Darío Gomez, from the Comisión Nacional de Energía Atómica, of Argentina, presented the work of his team on the city of Buenos Aires, which includes issues related to greenhouse gases; CO₂, N₂O, CH₄, halogenated gases; air pollutants and/or precursors; CO, SO₂, NO_x, COVs, NH₃; short lived climate pollutants (SLCPs); aerosols; metals, metalloids, ions; and black carbon. The scope of work also covered vulnerability analyses: stress posed by heat waves and cold waves on the electricity system leading to massive power outages, health effects of temperature and air pollution in Buenos Aires city, and impact of wildfire smoke on ocular surface of people.

22. Tercio Ambrizzi presented the Brazilian Research Network on Global (RedeClima) and their research in cities in particular. He also introduced the INCLINE (INter-Disciplinary CLimate INvEstigation) Center at the University of São Paulo (USP), Brazil to the group, highlighting two Sao Paulo focused projects relevant to this initiative: “Megacities / air pollution” and “Past and future evolution of rainfall”.

23. Raúl O’Ryan, from CR2 Chile presented the evolution of the air quality in Santiago, Chile, for then relating it to the associated governance challenges, which led into a group discussion on science-policy, and on how to ensure that the knowledge produced would be effectively considered into policy and decision-making.

ITEM 6. INTEGRATION OF MULTISTAKEHOLDERS CAPACITIES INTO A DECARBONIZATION AND CLIMATE RESILIENT GOVERNANCE PLAN FOR MEGACITIES OF THE SOUTH

24. The multi-stakeholder team devoted Tuesday 3 April to integrate the demands from the representatives from Buenos Aires, Santiago de Chile and Sao Paulo, the scientific capacities, and the contributions of all partners in outlining the first draft of a plan for addressing decarbonization and climate resilient governance.

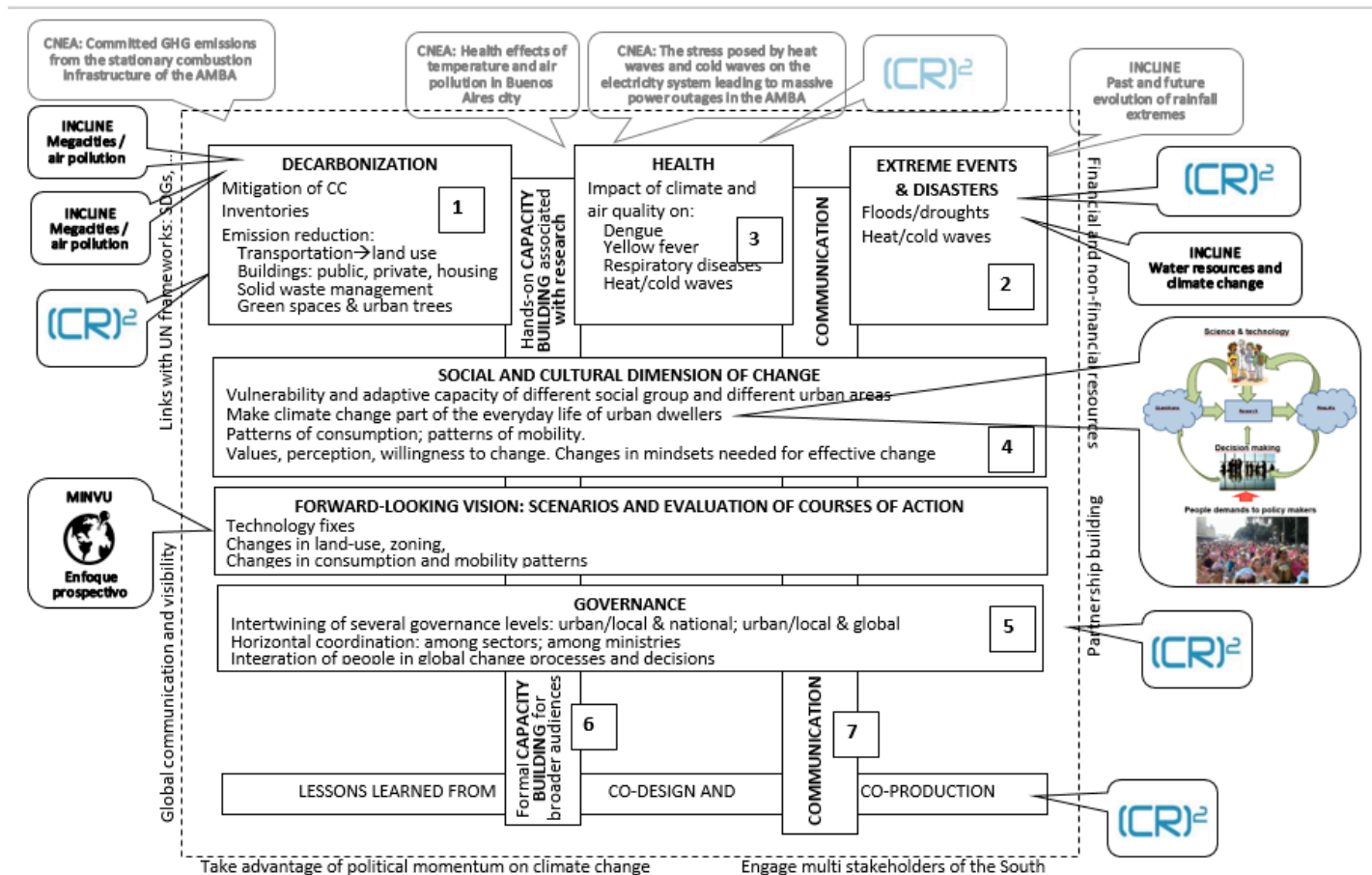
ITEM 7. OUTCOMES OF THE MEETING

25. The team identified problems and challenges to sustainable urban development, effective governance, and emissions reductions of common interest in Buenos Aires, Santiago and Sao Paulo: decarbonization / emission reduction in several areas (transportation, buildings and housing, land use, solid waste management, green spaces and urban trees, among others); climate-related health issues such as dengue, yellow fever, respiratory diseases; extreme events and disasters such as floods and droughts and others associated with heat and cold waves.

26. Following the priorities resulting from the teamwork, the group outlined a first idea of a joint research program for decarbonization and climate resilient governance in megacities of

South America, consisting of 7 working components to which all the participants could contribute, as summarized in the Figure 1 below:

Figure 1: First draft of Research Program for
Decarbonization and Climate Resilient Governance in Megacities of South America



27. It was agreed that science needed to develop the 7 components, especially (1), (2) and (3), would be based on previous research, focusing resources to be obtained on filling gaps, and developing tools and producing outputs required by urban practitioners in the three cities. The co-design placed emphasis on component (5) governance as a key to effective implementation; and on component (4) citizen and social dimension of adaptation as crucial for the massive adoption of proposed changes. These components will also contribute to the sustainability of the project beyond the support of any specific support to be obtained for a limited period of time. Moreover, component (6) Capacity building activities would provide hands-on training to practitioners while scientific and technical components are being developed as a co-benefit of a transdisciplinary approach to the implementation of the project. Capacity building initiatives will be in the format of workshops, courses during implementation. (7) Communication will also be developed at all levels (including innovative social media public campaigns), jointly with strategic partners such as the United Nations Framework Convention on Climate Change (UNFCCC). As a key partner in this initiative, ICLEI's experience with social learning to promote an active involvement of stakeholders and the public at large will be important to achieve integrated resource management.

28. Participants noted great potential of the initiative based on the synergies identified by the = policy makers, scientists, scientific network promoters, and actors from the environmental and development global governance. Political decision-makers and practitioners provide =a unique opportunity of knowledge transfer for concrete action and implementation. Scientists contribute with a high level of scientific information and knowledge on urban climate gained over years of experience in the field. Representatives of civil society as the Local Governments for Sustainability (ICLEI) are able reach multiple civil society groups of these three cities in order to mobilize the desired changes. PAHO can provide support in urban public health working with ministries of health in the three countries. The Inter-American Institute for Global Change Research, with over 25 years of experience in funding and brokering action-oriented global change science to guide political action ("science for action") can provide coordination.

29. Participants recognized in this initiative and meeting the value of the co-design process for a research program that will enables a wide range of actors involved in urban planning and development to make creative contributions in the formulation and solutions to global change problems faced by megacities. In addition, participants recognized the opportunity to address, including meeting the Sustainable Development Goals targets and implementing the Paris Agreement. Participants agreed decided to identify funding opportunities for plan the work of the research initiative.

30. Effective action towards a safe and sustainable low-carbon and climate-resilient energy system is essential to tackling climate change and achieving the objectives of the 2030 Agenda. Activities of this Initiative will cover some of the main issues facing these cities today, such as decarbonization (emission reductions from transportation, land-use, waste management, green spaces and housing), health (impacts of climate and air quality, such as respiratory diseases, dengue and yellow fever) and extreme events and disasters (floods, droughts, heat and cold waves). The initiative will provide the results of cutting edge science and research to IAI Parties to assist in reaching better decisions at sub-national levels, including the municipal and local communities level.

31. Expected results of this Network will enhance the capacity of stakeholders involved in NDC planning and implementation, improve the capacity of stakeholders to cooperate on climate action, information sharing and outreach and enhance inter-agency collaboration.

ITEM 8. CLOSURE OF THE MEETING

32. The meeting closed at 17:00 p.m. on Tuesday, 3 April 2018.

CONCLUSIONS

33. The team will continue to work together to develop the Initiative. Under the leadership of the IAI Directorate, the team will seek funding opportunities including with QIAO Plan.

34. The representatives of the governments involved in this alliance will obtain the institutional and political endorsement and formal support for the proposals to be presented. Letters of support submitted with the pre-proposal to the QIAO Plan Call are attached in Annex 3, below.

35. The team aims to publicly announce the Initiative at an event in the context of the U20 summit in Buenos Aires, Oct. 2018, with the presence of the majors of Buenos Aires, Sao Paulo and Santiago.

ANNEX 1

LIST OF PARTICIPANTS TO THE MEETING

(a) Urban management and policy making from the cities of Buenos Aires, Sao Paulo and Santiago de Chile

- Laura CENEVIVA, Secretária Executiva do Comitê de Mudança do Clima e Ecoeconomia do Município de São Paulo, Secretaria do Verde e do Meio Ambiente, São Paulo. lauraceneviva@prefeitura.sp.gov.br
- Jussara DE LIMA CARVALHO, International Affairs Advisor, Secretariat for Environment, São Paulo State Government. jicarvalho@sp.gov.br
- Maritza JADRIJEVIC. Encargada de política nacional de cambio climático, Ministerio de Medio Ambiente, Chile. MJadrijevic@mma.gob.cl
- Nicolás ROMERO, Asesor en Desarrollo Urbano, Ministerio de la Vivienda y Urbanismo (MINVU), representando a la División de Desarrollo Urbano del MINVU, Chile. nromero@minvu.cl
- Gladys SANTIS. División de Cambio Climático. Ministerio de Medio Ambiente, Chile. GSantis@mma.gob.cl
- Jaqueline TAPIA, Gerente de Producción más Limpia, Gobierno de la Ciudad de Buenos Aires. Jaquelinatapia@gmail.com

(b) Science and academia from Argentina, Brazil and Chile

- Tercio AMBRIZZI. Researcher of IAI Collaborative Research Network 3005 - Rede Clima, Brazil. tercio.ambrizzi@iag.usp.br
- Darío GOMEZ, Researcher. Comisión Nacional de Energía Atómica, Argentina. dgomez@cnea.gov.ar
- Nicolás HUNEEUS. Coordinador Líneas Ciudades y Contaminación Centro de Ciencia del Clima y Resiliencia (CR2/Chile). nhuneeus@dgf.uchile.cl
- Cecilia IBARRA, Postdoc. Gobernanza Centro de Ciencia del Clima y Resiliencia (CR2/Chile)
- Pilar LAPUENTE, Coordinadora Técnica Nacional, Chile, Iniciativa Global de Energía Distrital en Ciudades, Centro de Ciencia del Clima y Resiliencia (CR2/Chile). pmoraga@derecho.uchile.cl
- Raúl O'RYAN, Director, Centro de Ciencia del Clima y Resiliencia (CR2/Chile) - Centro UAI-Earth. Raul.oryan@uai.cl

(c) Promotion and administration of global change scientific networks: IAI as inter-American organization

- Ione ANDERSON, Policy, Partnerships & Communication Inter-American Institute for Global Change Research (IAI). ianderson@dir.iai.int
- Elma MONTANA, Director, Science Programs, Inter-American Institute for Global Change Research (IAI). emontana@dir.iai.int

(d) Environment and development, global governance

- Pedro Roberto JACOBI, President of ICLEI South America Administrative Council - Instituto de Estudos Avançados da USP. priacobi@gmail.com
- Xiaohua ZHANG, Manager, Climate and Sustainable Development Programme, UN Office for South South Cooperation. xiaohua.zhang@undp.org
- Representative of WHO-PAHO (*)

(e) Project management and support

- Cecilia MONTECINOS. Centro de Ciencia del Clima y Resiliencia (CR2/Chile) cmontecino@dgf.uchile.cl
- Andrea RUDNICK. Executive Director. Centro de Ciencia del Clima y Resiliencia (CR2/Chile). andrea.rudnick@uchile.cl

ANNEX 2

AGENDA OF THE MEETING

Monday 2 April

Morning 1st session (9:00-10:30)

- Welcome and opening CR2 and IAI
- Presentation of attendees
- Presentation of the initiative “Science-policy dialogue for the establishment of a research partnership on climate resilient governance in megacities of the South”. Meeting purpose and expected outcomes. Work plan for the next 2 days. IAI
- Environment and development global governance presentations on cities sustainability
 - ICLEI South America Pedro JACOBI
 - UN Office for South-South Cooperation Xiaohua ZHANG

Break (10:30-11:00)

Morning 2nd session (11:00-12:30)

Practitioners and policy makers present: (a) global change problems and challenges to sustainable urban development, effective governance, and emissions reductions being faced; (b) strategies, plans and actions to address them; (c) gaps of knowledge -or others- related to those challenges and responses.

30 minutes per city: Presentations of 20 minutes, followed by 10 minutes of Q&A

- Buenos Aires Jaquelina TAPIA
- Sao Paulo Jussara DE LIMA CARVALHO
- Santiago Laura CENEVIVA
- Maritza JADRIJEVIC
- Nicolás ROMERO
- Gladys SANTIS

Lunch (12:30-13:30)

Afternoon 1st session (13:30-15:00)

Scientists present: (a) Fields under study; (b) results obtained/to be obtained; (c) practical applications

30 minutes per city: Presentations of 20 minutes, followed by 10 minutes of Q&A

- Buenos Aires Darío GOMEZ
- Sao Paulo Tercio AMBRIZZI
- Santiago CR2

Break (15:00-15:30)

Afternoon 2nd session (15:30-17:00)

- Group discussion:
 - Shared problems and common interests on different issues of sustainable urban development. Similarities and differences
 - Opportunities and potential synergies: science to policy and policy to science; science-science and policy-policy across megacities
 - Knowledge gaps
- Recap what we discussed today and expectations for day 2

Tuesday 3 April

Morning 1st session (9:00-10:30)

- Group discussion on potential networking for a science-policy program

Break (10:30-11:00)

Morning 2nd session (11:00-12:30)

- Group work for drafting a “Towards a research partnership on climate resilient governance in megacities of the South”, 1st session.
 - Background
 - Objectives
 - Components / lines of research

Lunch (12:30-13:30)

Afternoon 1st session (13:30-15:00)

- Group work for drafting a “Towards a research partnership on climate resilient governance in megacities of the South”, 2nd session.
 - Impact on decision making
 - Harmonization with local milestones and global frameworks
 - Roles and responsibilities
 - Funding / search for funding

Break (15:00-15:30)

Afternoon 2nd session (15:30-17:00)

- Group work on action items and next steps:
 - Goals and expected outcomes for the next 3 months, 6 months, 1 year.
 - Resources and funding
 - Work plan (3 months, 6 months, 1 year): activities, milestones, outcomes/results/deliverables, responsibilities.
 - Next meeting: date, venue, resources.
- End of the meeting

ANNEX 3

**LETTERS OF SUPPORT OF GOVERNMENTS TO THE PROPOSAL SUBMITTED TO
THE QUIAO PLAN CALL**



AGENCIA DE PROTECCIÓN AMBIENTAL

Ciudad Autónoma de Buenos Aires, 18 de mayo de 2018.-

Por medio de la presente, manifestamos nuestro apoyo al proyecto "International collaborative initiative for decarbonization and climate resilient governance in megacities of South America".

Bajo la coordinación de IAI, el proyecto en cuestión tiene como objetivo la descarbonización, así como también el diseño e implementación de planes y acciones de mitigación del cambio climático en las tres ciudades más grandes de América del Sur: Santiago de Chile, São Paulo y Buenos Aires.

En virtud de ello, esta alianza representa una valiosa oportunidad no sólo para la Ciudad Autónoma de Buenos Aires y el resto de los actores intervinientes, sino también para la comunidad toda, permitiendo identificar intereses y prioridades comunes e integrar el potencial político y científico de cada una de las partes.

Asimismo, teniendo presente que el cambio climático es una preocupación de toda la humanidad, desde esta Agencia de Protección Ambiental reconocemos la importancia de aunar esfuerzos y coordinar de manera integrada las respuestas a dicho fenómeno.

Por lo expuesto, celebramos esta enriquecedora y estratégica iniciativa y nos ponemos a disposición a fin de alcanzar los objetivos propuestos.

Atentamente,



Dr. Juan Bautista Filgueira Risso

Presidente

Agencia de Protección Ambiental

Ministerio de Ambiente y Espacio Público

Gobierno de la Ciudad Autónoma de Buenos Aires

Santiago de Chile, 18 de mayo de 2018

To
**The United Nations QIAO Plan
on Climate Change and Nature Conservation**

I hereby have the pleasure of presenting my support to the Proposal "*International collaborative initiative for decarbonization and climate resilient governance in megacities of South America*"; presented to the 2018/2019 Projects of the United Nations QIAO Plan on Climate Change and Nature Conservation.

This proposal is the outcome of a multi-stakeholder international alliance of three cities: Buenos Aires; São Paulo and Santiago and brings together: political decision-makers and practitioners from the three cities administrations; scientists and experts to contribute with a high level of scientific information and knowledge on urban climate; representatives of civil society and IGO: the Pan American Health Organization (PAHO).

The objective of the proposed project is to directly support decarbonization and global change adaptation plans and actions in the three cities and the governance, capacity building and communication necessary to achieve the expected transformations. The objective is aligned with the climate change and air pollution policies of the city of Santiago de Chile.

Sincerely,



GLADYS SANTIS
**FOCAL POINT OF CHILE FOR THE INTER-AMERICAN INSTITUTE
FOR GLOBAL CHANGE RESEARCH**

São Paulo 17.th May 2018

Oficio 03/CMMCE/2018

To the
**QIAO PLAN ON CLIMATE CHANGE
AND NATURE CONSERVATION**
At www.unsouthsouth.org

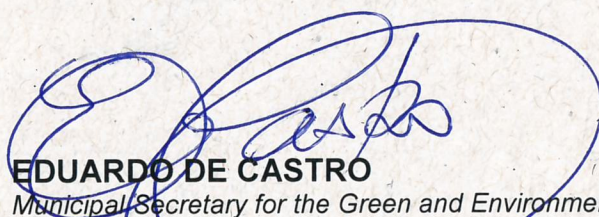
Dear Sirs,

The Inter-American Institute for Global Change Research (IAI) invited the Municipality of São Paulo, in Brazil, through its Secretariat for the Green and Environment, to support a research project on decarbonization and global change adaptation plans and actions in the three biggest South American cities, Buenos Aires (Argentina), Santiago de Chile and São Paulo. This project will be presented to the Qiao Plan on Climate Change and Nature Conservation in a plea for funding.

Climate change is an enormous challenge that local governments must face. Local authorities most probably will be the first public authorities affected during climate extreme events, because they are nearer to the citizens at their common life. On the other hand, local governments usually do not have some of the legal competences to address such problems.

Therefore, the Municipality of São Paulo will always encourage knowledge production that may improve its management performance. This is the reason we send you this supporting letter.

Sincerely yours,



EDUARDO DE CASTRO
Municipal Secretary for the Green and Environment