

Technical Cooperation Document

1. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Knowledge for Managing Local Pollution in LAC
▪ TC Number:	RG-T3606
▪ Team Leader/Members:	Blackman, Allen (CSD/CSD) Team Leader; Rojas Sanchez, Laura Natalia (CSD/RND) Alternate Team Leader; Almeida Oleas, Natalia (LEG/SGO); Gomez, Juan Carlos (CSD/CCS); Hoffmann, Bridget Lynn (RES/RES); Machado, Fabiana Velasques De Paula (INE/WSA); Martinez, Ynty Koyllor (SRE/PFA); Santa Pena, Camilo Andres (CSD/CSD); Savedoff, Bill (SCL/SPH); Villalobos Fiatt, Laura (CSD/CSD); Vogt-Schilb, Adrien (CSD/CCS); Vogt-Schilb, Adrien (CSD/CCS); Santa, Camilo Andres (Natural Capital Lab); Savedoff, Bill (SCL/SPH)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	28 Feb 2020
▪ Beneficiary:	Latin-American and Caribbean Countries
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC Strategic Development Program for Sustainability(SUS)
▪ IDB Funding Requested:	US\$300,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (Execution):	24 months
▪ Required start date:	August 2020
▪ Types of consultants:	Firms and Individuals
▪ Prepared by Unit:	CSD-Climate Change and Sustainable Development Sector
▪ Unit of Disbursement Responsibility:	CSD-Climate Change and Sustainable Development Sector
▪ TC included in Country Strategy:	No
▪ TC included in CPD:	No
▪ Alignment to the Second Update to the Institutional Strategy:	Social inclusion and equality; Institutional capacity and rule of law; Environmental sustainability

2. Objectives and Justification of the TC

- 2.1 Local pollution is the leading cause of premature mortality in low- and middle-income countries (GAHP 2013). It is associated with more than eight million deaths per year—two to three times the number of deaths from AIDs, tuberculosis and malaria combined and more than 10 times the number from war, crime and other forms of violence (Landrigan et al. 2018). More than 80 percent of deaths associated with pollution are due to air pollution—both indoor and outdoor—and the remainder are associated with water pollution, poor sanitation, and contaminated sites (GAHP 2013).
- 2.2 Pollution-related disease is most prevalent among vulnerable and marginalized populations because they are exposed to more risk factors and have less access to health services (Landrigan et. al. 2018). Women are also disproportionately affected

because they typically have primary responsibility for household activities and therefore are exposed to higher concentrations of indoor pollutants.

- 2.3 As urbanization, industrialization, and commercial agriculture have advanced in Latin America and the Caribbean (LAC), local pollution has become increasingly severe, often despite advances in environmental regulation. At least 150 million people in LAC live in cities that do not meet World Health Organization guidelines. However, this figure may be underestimated since only 22 percent of LAC's population lives in areas with ground level air pollution monitors (Riojas Rodriguez et al., 2016). Air pollution in the region causes more than 170,000 premature deaths per year, five percent of all such deaths. Associated welfare losses exceed two percent of GDP (World Bank/IHME 2016).
- 2.4 Water pollution and sanitation also are significant problems. Roughly a quarter of LAC's water bodies have relatively high concentrations of fecal coliforms (more than 10000 nmp/100ml). These high levels of contamination represent a challenge in both urban and rural areas since approximately 25 million inhabitants of rural areas in LAC are in contact with contaminated surface waters from the cities (UNEP 2016). The region would need to invest more than US\$33 billion to increase the fraction of wastewater treated to just under two-thirds by 2030 (Mejía et al., 2012). Thirty-five percent of the region's population does not have access to safely managed drinking water services, and 78 percent does not have access to safely managed sanitation services (World Bank 2019).
- 2.5 Despite these pressing problems, funding for research, policies, and programs focused on local pollution in low- and middle-income countries is limited: most funding concerns global problems such as climate change and biodiversity loss. A recent high-profile international commission on the pollution therefore recommends that multilateral development banks along with bilateral funding agencies and other international organizations, "...elevate pollution prevention within the agendas of international development and global health and substantially increase the resources they devote to pollution, establishing it as a priority in funding mechanisms." (Landrigan et al. 2018, 499).
- 2.6 The broad objective of this technical cooperation is to develop the knowledge that the IDB and its clients need to develop efficient and effective policies and programs to reduce local pollution and mitigate its effects on human health. The specific objectives are to foster communication and collaboration among research institutions, the IDB and the policy community, and build the knowledge base on which these stakeholders can draw. These specific objectives, in turn, will be accomplished by funding: (i) policy-relevant, rigorous research on local pollution and its links to human health by and/or with key research and policy institutions that are expert on this topic; and (ii) networking, workshops and other dissemination activities.
- 2.7 -The proposed initiative is consistent with the Second Update to the Institutional Strategy (AB3190-2). It is aligned with the 'development challenge' of social inclusion and equality, since local pollution has disproportionate impacts on the poor who often work outdoors and in close proximity to hazards, and who lack access to health care. It is also aligned with the 'cross-cutting themes' of (i) environmental sustainability, as it ultimately intends to reduce the impacts of pollution, (ii) institutional capacity and the rule of law, since the broad objective is to develop the knowledge that IADB and its clients need to develop efficient and effective policies

and programs to reduce local pollution and mitigate its effects on human health and (iii) sustainability, as it ultimately intends to reduce the impacts of pollution in both the air and water for human consumption. Additionally the operation is aligned with: (i) the 'objectives' of providing inclusive infrastructure services like safe drinking water and sanitation, leveraging south-south and triangular cooperation, and strengthening institutional capacity and the rule of law; and (ii) the 'guiding principles' of multisectoriality, leveraging partnerships, and innovation and knowledge. The proposed initiative is closely aligned with the Environment and Biodiversity Sector Framework Document (GN-2827-5). In particular, it is aligned with the 'development challenges' of gaps in environmental governance and water, soil and air pollution, and 'lines of actions' that call for improving environmental governance, reducing exposure to that pollution and raising awareness of health-related impacts. The proposed initiative is also aligned with the IDB Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy (GN-2609-1) as it addresses the human health consequence of air pollutants and greenhouse emissions. This proposed initiative is aligned with the objectives of the OC-SPD for Sustainability (SUS Fund): (i) "expand the knowledge base on climate change mitigation, adaptation, and sustainable energy geared towards leveraging climate investment;" and (ii) "support municipal governments to prepare for challenges related to rapid urban growth in a sustainable manner." It is also aligned with the SUS Fund expected outcome, "knowledge products, data products and operational inputs. Finally, the proposed initiative complements the Bank's on-going work on air pollution through operations ATN/OC 17924-CO and ATN/OC-15677-RG as it opens lines of communication and promotes a regional dialogue between (i) the community of experts who will conduct research funded by this project, (ii) team leaders of these IADB funded operations, and (iii) other policy makers in the region, in order to leverage the lessons learned. to address knowledge gaps.

3. Description of Activities/Components and Budget

3.1 Component 1. Collaborative research on local pollution in LAC (US\$260,000).

This component will finance a set of three to seven rigorous research projects on local pollution by and/or with key research and policy institutions that are experts on this topic. To enhance the quality of the research and dissemination, and to facilitate a bottom-up approach to identify topics that are most important and relevant to our client countries, the projects will be selected via a call for proposals.

3.2 Activities include: (i) compile a list of relevant research institutions and researchers; (ii) design and disseminate a call for proposals; (iii) select projects according to the following criteria: (a) policy relevance; (b) potential for policy impacts by leveraging or building contacts with key stakeholders; (c) contribution to knowledge base; (d) innovation; (e) rigorous and feasible research design; (f) solid dissemination plan; (g) affiliation with a leading center of expertise; facilitates geographical balance with LAC (i.e., not necessarily focused on countries with mature research capacity) and (h) relevance to one of the following three lines of research: air and water pollution, behavioral economics, and environmental governance (however, to ensure that topics that are important in client countries are not ruled out, focus on these three lines of research will not be mandatory); (iv) organize a pre-selection workshop/webinar at which a final or semi-final group of proponents present their proposals to a panel of judges; (v) monitor and coordinate the progress of the reports; and (vi) coordinate and quality -control the final products. Using these

criteria, a scientific committee comprised of TC team members along with outside experts will select proposals to be funded.

- 3.3 The timing for completion of Component 1 will be 18 months to allow the teams to develop the proposed analysis and submit a finalized paper to the IDB project team.
- 3.4 **Component 2. Networking and dissemination (US\$40,000).** This component will finance additional networking among the research teams, policy makers, and IDB staff, and dissemination of research results to target audiences including local and international policy and academic stakeholders. Dissemination of results will include: (i) public disclosure of the awarded proposals with corresponding teams through the Bank's electronic outlets; (ii) a workshop/webinar to present the projects' results; (iii) publication of the research reports as IDB publications; and (iv) the specific local dissemination strategies defined for each project.
- 3.5 The timing for execution of Component 2 will be six months after the deadline for final products from each team.
- 3.6 The expected outputs of this TC include an IDBG publication or set of publications presenting results, policy prescriptions and directions for the future based on the findings of the funded research projects. Results and policy prescriptions may be compiled into one or more IDB publications. The Bank will own the property rights of these knowledge products.
- 3.7 The expected results of this TC include: (i) a broader knowledge base to inform the scientific community and decision makers; and (ii) a network of stakeholders organized around the topic of air pollution in LAC.
- 3.8 The outputs and results of this TC will be shared with the Ordinary Capital Strategic Development Program for Sustainability (SUS) Technical Committee and reported to the fund.
- 3.9 The total amount of funding needed to achieve the expected outputs is US\$300,000, financed with resources from the SUS.

Indicative Budget (US\$)

Component	IDB/Fund	Counterpart	Total
Component 1. Collaborative research on local pollution in LAC	260,000	0	260,000
Component 2. Networking and dissemination	40,000	0	40,000
Total	300,000	0	300,000

4. Executing Agency and Execution Structure

- 4.1 This operation will be executed by the IDB given the regional coverage of the activities to be performed and possible synergies and complementarities with Bank operations and research. The Climate Change and Sustainable Development Department's (CSD) Front Office will be responsible for the preparation, execution, and supervision of Components 1 and 2 following the policies established by the Bank. The team leader (Allen Blackman–Principal Economic Advisor for CSD) will be responsible for the execution and monitoring of the operation. He will directly supervise the submission of deliverables and track that these products are delivered according to the project's planned timeline with the support of the alternate team leader and the team members of the project.
- 4.2 There will be no supervision by the IDB's Country Offices (COF) for the execution of the TC. However, the COFs, and in particular, country representatives, will be consulted during the selection process and once the project team has selected the

countries where each funded study will take place. The COF may have the following roles: (i) for Component 1, advise on project selection criteria such as policy relevance and dissemination plans, and facilitating networking among key stakeholders; and (ii) for Component 2, help to disseminate the lessons learned by acting as the bridge between academia and policy makers. COFs will be informed and consulted about government contacts and all missions, both related to preparation and implementation.

- 4.3 The principal reason for this execution structure is that the IDB has roughly 30 years of experience working with a network of about 300 research centers in LAC (*Red de Centros*, hosted within The IDB's Research Department). The Bank has expertise, capacity and experience commissioning research projects granted via a call for proposals. A second reason is that the Bank has the capacity to identify and fill knowledge gaps at the regional scale. A final reason has to do with dissemination. The policy implications from the proposed studies will be informative for other countries. Execution of the project by IDB will facilitate communication and dissemination of the results of the proposed studies across countries.
- 4.4 All activities to be executed under this TC have been included in the Procurement Plan (see Annex IV) and will be contracted in accordance with Bank policies as follows: AM-650 for Individual consultants; (b) GN-2765-4 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature and; (c) GN-2303-28 for logistics and other related services. The consultants and firms selected will be hired using the Single Source Selection (SSS) method because each individual and firm contract will be relatively small (less than US\$100,000).
- 4.5 Due to sanitary restrictions, the proposal kick-off workshop will be conducted remotely as a webinar. The location of the dissemination workshop will be determined once the proposals are received and selected. In case an in-person dissemination workshop is not feasible due to sanitary restrictions, a virtual workshop will be hosted, and the corresponding budget will be re-allocated to research and/or local dissemination activities. A non-objection letter from a country's Liaison Agency with the IDB will be obtained prior to the start of any activities related to the operation in that country.

5. Major issues

- 5.1 The main risk to successful and timely execution of the project is that research teams may not have the capacity or data needed to complete their individual projects. To minimize that risk, we will carefully select both consultants and research projects through a competitive process: we will engage with consultants with track record of successful execution and select only projects with well-designed research plans. In addition, we will structure contracts and monitor those projects in a way so as to ensure continued incentives for timely performance.
- 5.2 A secondary risk is that the knowledge developed does not impact the decision-making process. To minimize that risk, policy relevance and potential for policy impacts will be included as part of the selection criteria. Also, we will request a dissemination strategy from each granted proposal. Finally, points of contact in COF will be involved to connect researchers with policy makers.

6. Exceptions to Bank policy

- 6.1 This operation does not involve exceptions to Bank's policies.

7. Environmental and Social Strategy

- 7.1 Per the Environment and Safeguards Compliance Policy of the Bank (OP 703), the operation has been classified as “Category C”. No environmental assessments are required (see the [Safeguard Policy Filter](#) and the [Safeguard Screening Form](#)).

Required Annexes

[Results Matrix - RG-T3606](#)

[Terms of Reference - RG-T3606](#)

[Procurement Plan - RG-T3606](#)