

MID TERM REVIEW
Final Report

GRULAC region

**Continuing Regional Support for the POPs GMP
under the Stockholm Convention**

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for



This report covers the project titled ‘Continuing regional support for the POPs Global Monitoring Plan under the Stockholm Convention in the in the GRULAC Region’ funded by the Global Environment Facility (GEF) and implemented by UN Environment:

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Executive Summary

The global monitoring plan for persistent organic pollutants (POPs) is an important component of the effectiveness evaluation of the Stockholm Convention and provides a harmonized organizational framework for the collection of comparable monitoring data on the presence of POPs from all regions, in order to identify changes in their concentrations over time, as well as on regional and global environmental transport.

Article 16 of the Stockholm Convention indicates that the effectiveness of the Convention shall be evaluated four years after the date of entry into force of the Convention and periodically thereafter. The Effectiveness Evaluation includes a Global Monitoring Plan (GMP), which monitors the presence of POPs in the environment and in humans. Such monitoring and subsequent assessment should be undertaken on a regional basis. One of the objectives of the GMP is to assess regional and global transport. The GMP focuses initially on the core media mother’s milk/blood to examine human exposure, and ambient air to examine long-range transport.

The first and second regional monitoring reports have been welcomed by the Conference of the Parties at its fourth and seventh meetings respectively. While the first monitoring reports provide information on the baseline concentrations of the 12 legacy POPs, the second global monitoring report provides first indications as to the changes in concentrations of the chemicals initially listed in the Convention, as well as baseline information on the newly listed POPs.

The second phase of the GMP is actually ongoing. In line with the GMP implementation plan, the project builds on existing POPs monitoring programmes and networks, and operates in close collaboration with the coordination groups established under the Stockholm Convention. The present Mid Term Review is intended to assess progress in the implementation during the period of the project from December 2015 to the present in the region and will make recommendations for adjustment for the rest of the project duration.

Key conclusions

Whole conclusions can be found at paragraph 5 of this document.

- **Strategic relevance**

Thus far the project has little influence on policy decisions or prioritisation of POPs. It is not possible at this stage to secure financial commitment to continue monitoring POPs. The project is of strategic relevance to the regional objective of monitoring air, which is carried on by the GAPS and LAPAN networks and also for the regional ARPAL project.
- **Institutional arrangement and collaborations**

The GMP2 project in the GRULAC region is coordinated by the BCCC-SCRC, appropriate institutions are involved in project delivery and there are good linkages between several research institutions. The project involves committed stakeholders and it has been possible to sign a MoU in almost all the countries.
- **Achievement of project objectives**

Even if there have been delays in starting the project, all the participating countries stated that they will respect the deadlines for sampling and analysis. It is not clear how the objectives relating to political visibility, sustainability and overall reduction and control of POPs will be achieved.
- **Effectiveness**

Feedback from national laboratories is that the technical support, SOPS and training aspects of the project have been effective in building capacity. The sampling and analysis is proceeding effectively. Doubts remain about the real effectiveness of the Interlaboratory assessment, which is conducted on a large scale not allowing direct feedback that would enable poorly performing laboratories to learn from their mistakes.
- **Sustainability**

The participating countries don't have a plan for sustainability yet. The stakeholders agreed during the regional meeting in Colombia (June 2018) that POPs monitoring is essential but not sufficient to achieve an impact on the management of POPs. Communication of the results is important. The GMP2 project in Colombia is confined to the laboratories, with little engagement with decision makers. In Ecuador, there's a period of austerity, so continued financial sustainability is in doubt.

- **Communications (internal and outward facing)**

The internal communication between UNEP in Geneva and the regional centre has been frequent and smooth and so has been the exchange between the participating countries and the regional centre. There have been some problems in communications between institutions in the countries, now resolved. Communications plans are limited at this stage. UNEP (Geneva) intends to summarize the results of the project to inform stakeholders in an accessible way.

- **Efficiency**

There have been some delays in signing the agreements, but after the signature of the MoU and internal agreements all the countries started the sampling which is now on track. The main problem seems to have been the ethical clearance that has taken a lot of time in all the countries. Only 5 laboratory trainings have been done, but the countries managed to organise the sampling and stated that they will be able to finish the analysis on time.

- **Procurement management**

There have been few or no problems in receiving the equipment and materials sent from Europe while it has been difficult to send samples to the reference laboratories. The problem has been solved sending samples to Sweden and from Sweden to Spain. The organisation of samples shipment has proven to be difficult and to request time and negotiation with the custom offices.

- **Monitoring and reporting the project**

The system in place to monitor the progress of the project doesn't seem to work very well. The participating countries were supposed to prepare and send a financial and activity report every six months, but only 8 out of 33 activity report have been collected by the regional centre. A feedback from the people participating to the trainings would be useful, but no template is available for this purpose.

Key recommendations

Whole recommendations can be found at paragraph 6 of this document.

- For the regional centre: request and collect all the activity and financial reports and keep them in the same place. Don't issue funds before receiving the due reports.
- For participating countries with support from UNEP: focus on sustainability and draft a plan with action to put in place before the end of the project.
- Interpret monitoring results in a way that will help managers and decision-makers to prioritise POPs chemicals and take positive action to address them. As far as possible, include relevant information concerning the potential impact of POPs in terms of health and economic measures.
- Develop a communications plan for the project as a whole and support participating countries to deliver communications activities at national level.
- For reference labs: the next interlaboratory assessment should provide customized feedback at least to the participant labs that are also involved in GMP2
- Collect lesson learning and feedback on the impact of the project

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Acronyms and abbreviations

BCCC-SCRC	Basel Convention Coordinating Centre and Stockholm Convention Regional Centre in Uruguay
COP	Conference of the Parties
GAPS	Global Atmospheric Passive Sampling Network
GEF	Global Environment Facility
GMP	Global Monitoring Plan
GRULAC	Group of Latin America and Caribbean Countries
IDEAM	Instituto de Hidrología, Meteorología y Estudios Ambientales (Institute of Hydrology, Meteorology and Environmental Studies)
INS	Instituto Nacional de Salud (National Institute of Health)
INVEMAR	Instituto de Investigaciones Marinas y Costeras (Institute of Marine and Coastal Research)
ISO	International Organization for Standardization
ILAC	International Laboratory Accreditation Cooperation
LAPAN	Latin American Passive Atmospheric Sampling Network
MEA	Multilateral Environmental Agreements
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoE	Ministry of Environment
MoH	Ministry of Environment
MoU	Memorandum of Understanding
NIP	National Implementation Plan (of the Stockholm Convention)
PAN	Pesticide Action Network
PCBs	Polychlorinated biphenyls
PCDD	Polychlorinated dibenzo- <i>para</i> -dioxins
PCDF	Polychlorinated dibenzofurans
PFOS	Perfluorooctanesulfonic acid
PIF	Project Identification Form
PIRs	Project Interim Reports
POPs	Persistent Organic Pollutants
PUFs	Polyurethane foams
SAICM	Strategic approach to International Chemicals Management
SMC	Sound Management of Chemicals
SOPs	Standard operating procedure
ToR	Terms of Reference
UNEP	United Nations Environment Program

1. Introduction

Persistent organic pollutants (POPs) are a group of chemicals including those that had/have been widely used in agricultural and industrial practices and those unintentionally produced and released from many anthropogenic activities around the globe. POPs are characterized by persistence – the ability to resist degradation in various matrices such as air, water, sediments and organisms for months and even decades; bio-accumulation - the ability to accumulate in living tissues at levels higher than those in the surrounding environment; harmfulness – the toxicity to human and/or wildlife to give adverse effects to human health and the environment, and potential for long range transport – the potential to travel long distances from the source of release through various matrices such as air, water and migratory species. Specific health effects of POPs include cancer, allergies and hypersensitivity, damage to the central and peripheral nervous systems, reproductive disorders, and disruption of the immune system. Some POPs are also considered to be endocrine disrupters which can damage reproductive and immune systems of the exposed individuals as well as their offspring by altering the hormonal system.

The ability of these toxic compounds to transport to remote areas of the globe, such as the Arctic, and to bioaccumulate through food webs has raised concerns for the health of humans and the environment, particularly for indigenous people that rely on traditional diets of marine mammals and fish. Because of the international scope of manufacture, use and unintentional releases, and the long distance movement, Stockholm Convention on Persistent Organic Pollutants was established in May 2001 to “protect human health and the environment from persistent organic pollutants by reducing or eliminating releases to the environment”. The substances presently being addressed under the Convention are aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, PCB PCDD/PCDF, toxaphene, chlordecone, hexabromobiphenyl, pentachlorobenzene, lindane (gamma hexachlorocyclohexane), alpha hexachlorocyclohexane, beta hexachlorocyclohexane, tetrabromodiphenyl ether and entabromodiphenyl ether (commercial pentabromodiphenyl ether), hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether), perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride (PFOS), endosulfan and hexabromocyclododecane.

The GMP phase 2 project (hereinafter “GMP2 project”) intends to build on the results of phase 1 (2009-2012) and continue in assisting countries that are Parties to Stockholm Convention to respect their obligations under Article 16. The project is intended to strengthen the countries’ capacity for implementation of the revised POPs Global Monitoring Plan, generate sufficient high quality data on the presence and transport of POP in the region, and create the conditions for sustainability of the networks (see the Objective tree in Annex B). Hence, the staff in participating laboratories will receive further training to consolidate and extend their performance in sampling and analysis of the initial as well as the new POPs and matrices (i.e., water and matrices of core national interest). The project should also allow national laboratories to improve their ability to analyse POPs according to international standards consistent with GMP Guidelines, will develop detailed guidelines, protocols and manuals, and facilitate reporting under the GMP. Finally, the long-term monitoring plan for the region will be developed (through a roadmap). This regional monitoring plan should ensure frequent generation of data and input into the regional and global monitoring plans, which will feed the report to the Stockholm Convention’s Conference of the Parties.

The current project has been designed based on the results from the previous GEF GMP project (2009-2012), which focused on the 12 original POPs. This project includes the new POPs added during COP-4 and COP-5 and also continues the training of staff in participating laboratories and strengthening the performance of sampling and analysis that will enable the national laboratories to improve their ability to analyse POPs according to international standards consistent with GMP Guidelines.

Expected results:

- Improve/perfect the process established in phase 1, including improving political visibility of the project and its value for Sound Management of Chemicals (SMC),
- improve coordination between national/regional levels, develop mechanisms for collaboration and sharing of experience, more training for laboratory personnel;
- Ensure continuity/sustainability of the effort, including continued inter-calibration studies to improve quality of analysis and comparability of data within the region;
- Include more countries and sites where data were missing for the first report;
- Include new POPs and provide adequate training and capacity-building.

The 2nd Phase POPs Global Monitoring Plan in the Latin American and Caribbean Region (GRULAC) Region is implemented from 2015 to 2019. It is coordinated by the Regional Centre Uruguay (BCCC-SCRC) and provides assistance to the 11 implementing countries, namely Antigua and Barbuda, Chile, Mexico, Argentina, Colombia, Peru, Barbados, Ecuador, Uruguay, Brazil, and Jamaica. Argentina, Barbados and Colombia did not participate to GMP1 and were added to the GMP2 project.

This project is implemented with close cooperation with Spanish Council for Scientific Research, CSIC-IDAEA, Barcelona (Spain); UNEP-WHO Reference Laboratory; CVUA, Freiburg (Germany); and EULA Environmental Sciences Centre, University of Concepcion (Chile), and also receives supports from the BRS Secretariat and the World Health Organization.

The Inception Workshop for the GMP2 project in the Latin American and Caribbean Region (GRULAC) and the Training Workshop on the Tools and Methods to Include the Nine New POPs into the Global Monitoring Plan (GMP) for Persistent Organic Pollutants (POPs) were both held 1-4 December 2015, Montevideo, Uruguay. This joint workshop was organised to officially launch the GMP2 in the GRULAC region by defining roles and responsibilities of each partner, discussing technical aspects of the project and by agreeing on the programme and activities to be carried out in the project. The aim of the workshop was to explain and organize the activities included in the project and detail through a work plan and budget the activities and responsibilities of the relevant stakeholders for its implementation.. Participants were also trained in the use of the tools and methods to include the nine new POPs into the GMP2 project.

2. Context and purpose of the evaluation

As stated in the Terms of Reference, the purpose of this evaluation is to assess progress in the implementation from December 2015 to the present. The mid-term evaluation will make recommendations for adjustment for the rest of the project duration. It will cover all key activities undertaken within the framework of the project in the region as described in the project document. Finally, the MTR will identify the priority work areas for an eventual next phase. Overall, the MTR will

assess the relevance, efficiency and effectiveness of the project. It will look at signs of potential impact of project activities on beneficiaries and sustainability of results, including the contribution to capacity development.

This midterm review is intended to:

- (i) assess the relevance of the project design to relevant frameworks and priorities ('usefulness')
- (ii) assess progress made and challenges encountered so far during the project implementation
- (iii) provide the donor, UNEP and project participating countries with practical recommendations to achieve the project objectives

In particular, the key elements of the review are:

- Desk review
- Interviews
- Discussion / fact checking / triangulation
- Report drafting and revising based on feedback

The review is structured around the following lines of inquiry:

- Strategic relevance
- Institutional arrangement and collaborations
- Achievement of project objectives
- Effectiveness
- Sustainability
- Communications (internal and outward facing)
- Efficiency
- Procurement management
- Monitoring and reporting the project

3. Methodology

The main objective of the MTR is to assess progress in implementation and identify those lessons and/or corrections needed to achieve the planned results.

The Evaluation team have used different methods for data collection and analysis to provide evidence for each of the evaluative questions. These include:

3.1 Review of documents.

A thorough identification and assessment of relevant project documents produced/published by the project, UNEP, partners, Ministries in the regions.

3.2 Desk review

A review of key documents pertaining to the GRULAC region as follows:

- Relevant background documentation

- Projects design documents
- Annual Work Plans and Budgets or equivalent
- Revisions to the projects, the logical frameworks and budgets;
- Reports – progress reports, partner reports, meeting reports
- Projects outputs

3.3 Country visits

Field missions to the GRULAC Region to interact with the main beneficiaries among the national counterparts and the regional partner organisations. The missions took place in Colombia and Ecuador. A regional meeting was included in the itinerary by prior agreement.

3.4 Semi-structured interviews.

Interviews were conducted with relevant key stakeholders, including: representatives from the Project management and staff, government officials, partners, and any international and national consultants involved. Semi-structured interview guides, tailor-made to particular target groups, will be developed to guide the interviews, in order to make sure that information will be gathered in a consistent manner, covering all relevant evaluation areas. Semi-structured interviews will be a main source for collecting of qualitative information.

3.5 Questionnaire with key countries

Questions as questionnaires or as email correspondence were sent to key stakeholders in each region.

3.6 Triangulation of data and information

The information gathered from each stakeholder was compared with that gathered from others (or from documents, data or analytical frameworks) for verification purposes. This general process of triangulation is the basis for all the evidence the evaluation provides.

4. Assessment of evidence (Findings)

If we consider the objectives reported in the MoU (see the list below and the whole text of the MoU in annex 7), all the countries in the region are working to implement them, thanks to the coordination effort of the BCCC-SCRC, but nobody's mentioning visibility nor specific political action.

- Objective 1: to strengthen the monitoring capacity at national level

All the countries reported that they received the equipment and guidance and that the air and water monitoring are ongoing. The ethical clearance has delayed the breast milk sampling in all the countries and in July 2018 Brazil had still not secured clearance. The sampling is now finished in Antigua and Barbuda, Barbados, Jamaica and Mexico, ongoing in Argentina, Colombia, Ecuador and Uruguay and starting in Chile and Peru.

- Objective 2: to contribute to the generation of data for the global monitoring plan

The data that the countries are generating relate to air contamination and breast milk. Mirror samples are also sent to the reference laboratories. Water is not analyzed - in the participating countries because they are not trained for that. The samples are sent to the reference laboratory in Sweden.

- Objective 3: to support the establishment of regional analytical capacities

The laboratories of 5 out of 11 participating countries have been trained by the reference laboratory IDÆA-CSIC of Barcelona. The other laboratories will be trained as soon as they have put in place all the needed conditions (materials, standards, working equipment). Some useful videos were produced by the project, completed until 2018. It is a pity they were not ready earlier but they are proving useful now.

- Objective 4: to contribute to the generation of POP data (GMP) thus enabling the countries of Latin America and the Caribbean to contribute to the global report to be presented at the COP

A discussion about sustainability was conducted on the last day of the regional meeting and the participants agreed that monitoring is essential but not sufficient to influence national and regional POPs control and management.

GRULAC

GMP2 project is of strategic relevance for three projects going on in the region:

- Latin American Passive Atmospheric Sampling Network (LAPAN)

<http://wedocs.unep.org/handle/20.500.11822/16308>

LAPAN's focus is on Chlorinated Pesticides, PCBs, PBDEs and Polycyclic Aromatic Hydrocarbons and its main aims to gather new data from air samples, to assess local and global sources of these contaminants, to produce long-term temporal studies and to improve regional capability for sampling and analysis in air. Data collected from LAPAN between 2010 and 2013 were included in the 2nd GRULAC Region Monitoring Report used for the GMP1 global report presented in May 2015 at the Stockholm Convention COP.

- Global Atmospheric Passive Sampling (GAPS) Network <https://www.canada.ca/en/environment-climate-change/services/air-pollution/monitoring-networks-data/global-atmospheric-passive-sampling.html>

The network was established in 2005 to target POPs listed under the Stockholm Convention and it is run by a central laboratory at Environment and Climate Change Canada (ECCC). A special initiative was implemented in 2012 by the GAPS network, with support from UNEP, to address the lack of information on emerging contaminants, candidate and new POPs in the GRULAC region.

- ARCAL (Regional Cooperation Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean - www.arcal-lac.org) project RLA/5/069

This project aims to contribute to broaden and harmonize the analytical capacities of the laboratories of the participating institutions in order to establish the different levels of exposure to POPs in the population in GRULAC region. The broad objective is to improve environmental quality and reduce human exposure to persistent organic pollutants (POPs) by establishing management policies based on information provided by this project.

COLOMBIA

One of the objectives of the new Colombian NIP

(<http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx>) is to strengthen national capacity in sampling and analysis of POPs. The national stakeholders interviewed in the current review reported that they consider the GMP2 project is addressing this priority effectively. In Colombia the NIP was updated in 2017 and it included several actions to reduce and manage the presence of POPs. The NIP lists the factors that the Ministry of Environment consider limit Colombia's capacity to carry out surveillance, monitoring and control of POPs as follows: availability of current economic resources (18%), current regulations (17%), staff capacity (16%), access to training (16%). Colombia did not participate in GMP1, but is taking part in GMP2 which addresses some of the critical factors mentioned above.

There are no plans to use the GMP2 project and results to lead a political action, the main objective is to improve technical capacity to monitor POPs and strengthen laboratories. The project is contributing to these national priorities. However, there are currently insufficient funds allocated by the country to continue monitoring after GMP2 and the project does not engage with the policy / higher level decision-making processes that might address this. The laboratory staff say they are hoping that there will be a GMP3 to help them to learn how to sample and analyse the new POPs.

ECUADOR

In Ecuador the objective is to strengthen national capacity in sampling and analysis, but also to give continuity to the sampling. The former NIP covered the period from 2009 to 2015 (<http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx>) and was not updated because of government change and lack of resources. Work is under way to update the NIP, which is expected to include a strategy that allows for better monitoring to get information over time so that it could be continuous and not dependent on specific projects. There is an inter-institutional committee for the integrated management of chemical substances, including POPs, but the National Coordinator and the Focal point for the Stockholm Convention report that there is a lack of knowledge of POPs and their effects at this level. Also, they state that a better communication and information is needed from the academic/ research sector to address a lack of awareness about the impact of POPs in terms of human health and environment. One of the objectives the national coordinator and the SC focal point would like to see included in the next NIP would be an agreement to give continuity to the GMP2 project, at least for air monitoring.

4.1 Institutional Arrangements and collaborations

The GMP2 project is coordinated by the Basel Convention Coordinating Centre and Stockholm Convention Regional Centre in Uruguay (BCCC-SCRC Uruguay). The centre manages the project's funds for the GRULAC region, distributes the resources, assists and supports the participating countries. 50% of the funds are given after the signature of the MoU in order to equip the laboratories with all the materials, solvents, standards, consumables and make the project start. The 30% or 35% is given after the first year and the first 3 activities reports, and the 20% or 15% is given at the end of the projects, after presentation of the final report. The regional centre follows the countries' work plan and sends reminders when a deadline approaches. The centre manages the

funds for Ecuador, Peru and Chile and has also signed a MoU with the Jamaican laboratory performing the sampling and analysis because it hasn't been possible to sign a MoU with the government. The countries don't have a direct contact with UNEP in Geneva because everything is managed regionally. In the tables below the list of national coordinators and when the MoU has been signed:

COUNTRY	NATIONAL COORDINATOR	MoU signature	First funds received (after MoU signature)
Antigua and Barbuda	<u>Linroy Christian</u> Ministry of Agriculture		28/10/2016
Argentina	<u>Leila Devia</u> DIRECTOR of BCRC		28/10/2016
Barbados	<u>Anthony Headley</u> Director - Environmental Protection Department		28/10/2016
Brazil	<u>Alberto Rocha</u> Ministry of Environment		16/12/2016
Chile	<u>Alejandra Salas</u> Ministry of Environment		June 2018?
Colombia	<u>Rodolfo Alarcón Mora</u> Ministry of Environment		15/12/2016
Ecuador	<u>Estephany Johana Valencia Martínez</u> Ministry of Environment		01/09/2017
Jamaica	<u>Tara Dasgupta</u> Department of Chemistry University of the West Indies		30/11/2016
Mexico	<u>María del Carmen Martínez Valenzuela</u> UNIVERSIDAD DE OCCIDENTE		26/12/2016
Peru	<u>Elena Gil</u> General Directorate Of Environmental Health And Food Safety, Digesa		June 2018?
Uruguay	<u>Gabriela Medina</u> Director - Basel Convention Coordinating Centre - Regional Center for the Stockholm Convention for GRULAC region (BCCC)		28/06/2017

COLOMBIA

The project is coordinated by Mr Rodolfo Alarcón of the Ministry of the Environment, and it involves several institutions linked to the Ministry of environment, to the Ministry of Health and independent entities as the University. The national coordinator collaborates with the focal point for the Stockholm convention, Jose Alvaro Rodriguez, who is also in charge of the POPs projects for the Colombian Ministry of health. These institutions are considered appropriate even if the laboratory GDCON reported that they would have liked to see other universities involved. The Ministry of environment can coordinate the project but is not allowed to receive and manage money from donors. Therefore all the funds have been received by the University of Antioquia and managed by the Laboratory GDCON with the help of the finance service of the university. An agreement has been signed. They manage the money but need approval from the Ministry, where the decision making is done. According to the MoU, if there is some money left at the end of the project, the laboratory can spend it to continue the monitoring as long as they specify how the money will be spent.

- **Laboratory GDCON** – University of Antioquia - Prof. Gustavo Peñuela Mesa – Andres Ramirez Restrepo.

Mr Restrepo, closely working with Prof Peñuela, is the project operational manager, in charge of the distribution of funds to the different activities, responsible for Project procedures, coordinating the activities and is in charge of management and analysis of the air samples. The

laboratory contracted Professor Boris Avila of the National University of Colombia, in Bogotá, to perform the tests on human milk. The GDCON lab was invited by the Ministry of Environment of Colombia to participate because it has already collaborated with the Ministry, for example working on the national mercury inventory, and also because of the experience and capacity to analyse various pollutants in water, soil, food and air under Colombian regulations, under a Quality Management System.

<http://portal.udea.edu.co/wps/portal/udea/web/inicio/investigacion/grupos-investigacion/ingenieria-tecnologia/diagnostico-control-contaminacion>

The laboratory participated to the third round of interlaboratory assessment.

There is a close collaboration with two other research institutes linked to the Ministry of environment:

- **IDEAM** - Instituto de Hidrología, Meteorología y Estudios Ambientales – The institute works on environmental contamination including POPs and PCBs. They are involved in meetings and discussions. <http://www.ideam.gov.co/web/contaminacion-y-calidad-ambiental/>
 - **INVEMAR** - Instituto de Investigaciones Marinas y Costeras. The institute is involved in meetings and discussions and will start to collect and analyse samples of national interest like sediments, fishes and bivalves. At the regional meeting the institute was represented by César Bernal, head of the Unity of Laboratories of Marine Environment quality. <http://www.invemar.org.co/inicio>
- The laboratory participated to the third round of interlaboratory assessment.

The two institutes develop projects and conduct scientific research on POPs that serve to orient and guide policy decisions. These linkages could be used to raise awareness of the results of GMP2 among decision makers, once they become available.

The **Ministry of Health** represented by Mrs Andrea Soler Galindo is one of the stakeholders involved, and its research institute INS (Instituto Nacional de Salud) has signed an agreement in October 2017 to help to manage the human milk monitoring by involving the Milk Banks (Bancos de Leche materna) to support the collection of samples. The samples will then be sent to and analysed by Prof Boris Avila.

ECUADOR

The national coordinator of the project is Mrs Estephany Valencia of the Ministry of Environment (Sub secretariat for Environment Quality). The funds haven't been received by the ministry of environment because the logistics and administration of funds has been managed by the Laboratory of Uruguay (LATU). This is because in 2017 the government has changed and by consequence it has been difficult to quickly establish a good relationship with the new ministries. There is a good collaboration with the focal point of the Stockholm convention, Mrs Jenny Arias who's based in the same sub secretariat of the Ministry of Environment, which is good for cooperation and communication. The MoU including activities and workplan has been signed by the highest authority of the Ministry of Environment of Ecuador and the BCCC-SCRC. Thanks to the MoU the shipment of materials, equipment and samples from and to the reference laboratories of Sweden and Spain, has been coordinated. The money is managed by the BRCC – LATU, so when something is needed the quotes are evaluated in Ecuador and the invoice is paid directly by the Regional centre. There is a close collaboration with three public labs: two of them are research institutes linked to other ministries and the third is a University:

- **Laboratory of Conventional Chemical Analysis** of the Undersecretariat of Control and Nuclear Applications of the Ministry of Electricity and Renewable Energy, director Dr César Ramiro Castro: the laboratory is in charge of the analysis of the PUFs. The lab has participated to the Interlab assessment 1 and 3 and will take part to the next one. The samples are managed and collected by the National Coordinator, Mrs Valencia.
- **Laboratory Agrocalidad** of the Ministry of Agriculture, Aquaculture and Fisheries, director Dr Olga Pazmiño Morales: the laboratory is in charge of the analysis of the human milk, but doesn't collect samples. The samples are collected in the milk bank thanks to an agreement with the Ministry of health. The laboratory participated to the Interlab assessment 1, 2 and 3 and will take part to the next one.
- **Laboratory of Chemical and Environmental Sciences** of the Polytechnic School of the Litoral-ESPOL (Sample water matrix). The lab expressed the will to analyse samples of national interest and they propose to collect samples in different provinces - 3 of the coast and 1 in the mountains. They propose to analyse molluscs - seafood - fish - pork in Guayas - mango - eggs. The laboratory participated to the first Interlab assessment.

The three labs have been chosen to participate to the GMP2 project because they were public laboratories, they were already experienced, they had in the past training from the reference laboratories during GMP1 and because they participated to the Interlab assessment.

An inter-ministerial meeting has been organised in February 2018 to discuss the coordination and preparation of roadmap - sampling of breast milk. The ministry of health started a new project about life-long nutrition and the banks of milk are part of the project. This has helped to find an agreement with the bank of milk that are now collecting the samples. Unfortunately there have been delays because it has been difficult to organize meetings where all the stakeholder could participate, but now everything is in place and the collection of samples will be done on time.

In the opinion of the national coordinator and of the focal point of the Stockholm convention the stakeholders involved are the good ones.

4.2 Achievements of project objectives

GRULAC

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
1. Securing conditions for successful project implementation.	Relevant stakeholders for project implementation in the Latin American and Caribbean region are committed to carry out the agreed responsibilities.	Technical and administrative support provided for the implementation of the project and organization of process established in the Latin American and Caribbean	<ul style="list-style-type: none"> - key stakeholders sign legal documents to carry out POPs monitoring activities for the 23 POPs in the region - organize a regional start-up workshop to start the project and detail the activities and responsibilities with a work plan and budget - update the POPs laboratory data bank with information on new laboratories, new POPs and new matrices 	<p>5 9 out of 11 countries has signed the MoU. Peru started monitoring even without MoU signature</p> <p>6 All the participating countries took part to the initial workshop where a planned timetable has been shared</p> <p>0 The list of POPs labs is not updated http://chm.pops.int/Implementation/GlobalMonitoringPlan/AdditionalResources/tabid/1607/Default.aspx</p>
2. Capacity building and data generation on analysis of core abiotic matrices (air and water).	Regional network and national capacity to carry out air and water sampling is enhanced in the Latin American and Caribbean region, and high quality data is generated on the presence of initial and new POPs in the region.	Training reports and sectoral reports on POPs analysis undertaken on two abiotic core matrices (i.e., air and water) in the Latin American and Caribbean Region	<ul style="list-style-type: none"> - Identify sampling sites for air monitoring in the region, and provide sampling equipment and materials to make them operational - Identify strategic sampling sites for water monitoring in the region, and provide sampling equipment and materials to make them operational - provide equipment, training and guidelines to operationalize national laboratories that perform analysis of abiotic matrices in the region - analyze national air and water samples and report high quality data for the region - summarize the results of the analysis of the region in two distinctive sectoral reports, one for air and one for water 	<p>5 Done in 10 out of 11 countries</p> <p>6 Done – sampling equipment and materials delivered – sampling ongoing</p> <p>4 guidelines ready – trainings ongoing – equipment delivery follows trainings plan</p> <p>4 sampling ongoing – data not yet ready</p> <p>The summary will be don when the samples will be analysed</p>

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
3. Capacity building and data generation on analysis of core biotic matrices (human milk).	Regional network and national capacity to carry out human milk sampling is enhanced in the Latin American and Caribbean region, and high quality data is generated on the presence of initial and new POPs in the region.	Training reports and sectoral report on POPs analysis undertaken on one biotic core matrix (6th round of human milk survey) in the Latin American and Caribbean Region	<ul style="list-style-type: none"> - provide equipment, training and guidelines to countries in the region to carry out a sampling of human milk for the sixth round of the UNEP / WHO survey - provide materials, training and guidance to national laboratories in the region for analysis of human milk - Successfully implement the 6th round of surveys on human milk in the GRULAC region, with high quality data reported by the UNEP / WHO reference laboratory - compare the results of the sixth round of the human milk survey with the data from the previous rounds and inform the global monitoring plan 	<p>4 equipment and guidelines ready – problems with the ethical clearance which has delayed all the countries</p> <p>5 materials and guidelines ready – a video has been prepared for milk sampling https://www.youtube.com/watch?v=7LwJ0x2_PXQ&feature=youtu.be</p> <p>6 equipment and materials sent 4 the sampling is ongoing. It has been difficult in all the countries to obtain the ethical clearance. The data hasn't been analysed yet.</p> <p>0</p>
4. Assessment of existing analytical capacities and reinforcement of national POPs monitoring.	Accuracy of POPs assessment in the Latin American and Caribbean region is consolidated by performance evaluation of national laboratories, as well as by analysis of additional matrices of major national interest.	Assessment report of existing analytical capacities prepared and report on POPs analysis undertaken in samples of national priority (other than core matrices) in the Latin American and Caribbean Region	<ul style="list-style-type: none"> - organize two rounds of the "Bi-annual global interlaboratory assessment for POP laboratories" implementing the third and fourth round and prepare a report summarizing the results of the test - At national level, each country identifies, collects and analyses samples of greatest interest for national chemicals management (such as fish or other foods, but also sediments and soils) with high quality data informing the GMP2 	<p>6 All the participating countries took part to the 3rd interlaboratory assessment</p> <p>3 Analysis of samples of national interest not done yet, but the INVEMAR institute (linked to the Ministry of Environment) is organising the collection of sediment, fish and bivalves</p>

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
5. Securing conditions for sustainable POPs monitoring.	Contribution to regional report for the GMP is performed, and a roadmap for sustainable POPs monitoring for the Latin American and Caribbean region in global context is developed.	Assessment reports contributing to regional report for the GMP undertaken, and a roadmap for sustainable POPs monitoring developed for the Latin American and Caribbean region	<ul style="list-style-type: none"> - develop conclusions, lessons learned and recommendations about GMP2 for the future monitoring plan - prepare a state-of-the-art report to visualize the current situation of POPs in the GRULAC region, in the environment and human beings 	<p>0</p> <p>0</p>

COLOMBIA

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
1. Securing conditions for successful project implementation.	Relevant stakeholders for project implementation in the Latin American and Caribbean region are committed to carry out the agreed responsibilities.	Technical and administrative support provided for the implementation of the project and organization of process established in the Latin American and Caribbean	<ul style="list-style-type: none"> - key stakeholders sign legal documents to carry out POPs monitoring activities for the 23 POPs in the region - organize a regional start-up workshop to start the project and detail the activities and responsibilities with a work plan and budget - update the POPs laboratory data bank with information on new laboratories, new POPs and new matrices 	<p>4 The signature has been a bit delayed, but done in time to start with the monitoring.</p> <p>6 All the stakeholders took part to the initial workshop</p> <p>0</p>
2. Capacity building and data generation on analysis of core abiotic matrices (air and water).	Regional network and national capacity to carry out air and water sampling is enhanced in the Latin American and Caribbean region, and high quality data is	Training reports and sectoral reports on POPs analysis undertaken on two abiotic core matrices (i.e., air and water) in the Latin	<ul style="list-style-type: none"> - Identify sampling sites for air monitoring in the region, and provide sampling equipment and materials to make them operational - Identify strategic sampling sites for water monitoring in the region, and provide sampling equipment and materials to make them operational 	<p>6 The site is on the deck of the GDCON laboratory and all the equipment in place and operational</p> <p>- No water monitoring planned for Colombia.</p>

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.

Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
	generated on the presence of initial and new POPs in the region.	American and Caribbean Region	<ul style="list-style-type: none"> - provide equipment, training and guidelines to operationalize national laboratories that perform analysis of abiotic matrices in the region - analyze national air and water samples and report high quality data for the region - summarize the results of the analysis of the region in two distinctive sectoral reports, one for air and one for water 	<p>- 6 The equipment has been received and operational</p> <p>0 the samples will be analysed later on. The expedition of the PUFFS to the reference laboratory has been delayed because of problems with the centre that manages the funds</p> <p>0 The summary will be done when the samples will be analysed</p>
3. Capacity building and data generation on analysis of core biotic matrices (human milk).	Regional network and national capacity to carry out human milk sampling is enhanced in the Latin American and Caribbean region, and high quality data is generated on the presence of initial and new POPs in the region.	Training reports and sectoral report on POPs analysis undertaken on one biotic core matrix (6th round of human milk survey) in the Latin American and Caribbean Region	<ul style="list-style-type: none"> - provide equipment, training and guidelines to countries in the region to carry out a sampling of human milk for the sixth round of the UNEP / WHO survey - provide materials, training and guidance to national laboratories in the region for analysis of human milk - Successfully implement the 6th round of surveys on human milk in the GRULAC region, with high quality data reported by the UNEP / WHO reference laboratory - compare the results of the sixth round of the human milk survey with the data from the previous rounds and inform the global monitoring plan 	<p>4 the training has been done after the sampling started, but the expert in Colombia already knew how to do it</p> <p>6 the equipment and materials arrived on time</p> <p>4 the sampling is ongoing. It has been difficult at the beginning have the ethical committee approval, but the INS helped inviting the milk banks to collaborate. The data hasn't been analysed yet.</p> <p>0</p>
4. Assessment of existing analytical capacities and reinforcement of national POPs monitoring.	Accuracy of POPs assessment in the Latin American and Caribbean region is consolidated by performance evaluation of national laboratories, as well as	Assessment report of existing analytical capacities prepared and report on POPs analysis undertaken in samples of national priority (other than core matrices) in the Latin	<ul style="list-style-type: none"> - organize two rounds of the "Bi-annual global interlaboratory assessment for POP laboratories" implementing the third and fourth round and prepare a report summarizing the results of the test - At national level, each country identifies, collects and analyses samples of greatest interest for national chemicals management (such as fish or other foods, but also sediments and soils) with high quality data informing the GMP2 	<p>6 The GDCON lab participated with good results to the 3rd interlab assess and it's already enrolled for the 4th</p> <p>3 Analysis of samples of national interest not done yet, but the INVEMAR institute (linked to the Ministry of Environment) is</p>

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
	by analysis of additional matrices of major national interest.	American and Caribbean Region		organising the collection of sediment, fish and bivalves
5. Securing conditions for sustainable POPs monitoring.	Contribution to regional report for the GMP is performed, and a roadmap for sustainable POPs monitoring for the Latin American and Caribbean region in global context is developed.	Assessment reports contributing to regional report for the GMP undertaken, and a roadmap for sustainable POPs monitoring developed for the Latin American and Caribbean region	- develop conclusions, lessons learned and recommendations about GMP2 for the future monitoring plan - prepare a state-of-the-art report to visualize the current situation of POPs in the GRULAC region, in the environment and human beings	0 0

ECUADOR

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
1. Securing conditions for successful project implementation.	Relevant stakeholders for project implementation in the Latin American and Caribbean region are committed to carry out the agreed responsibilities.	Technical and administrative support provided for the implementation of the project and organization of process established in the Latin American and Caribbean	- key stakeholders sign legal documents to carry out POPs monitoring activities for the 23 POPs in the region	4 The signature has been a bit delayed (August 2017) because of change of the government, but the monitoring had already started. There is an agreement with the Regional centre for logistic and financial management.

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
			<ul style="list-style-type: none"> - organize a regional start-up workshop to start the project and detail the activities and responsibilities with a work plan and budget - update the POPs laboratory data bank with information on new laboratories, new POPs and new matrices 	<p>6 All the stakeholders took part to the workshop to discuss the workplan and organize the milk sampling</p> <p>0</p>
2. Capacity building and data generation on analysis of core abiotic matrices (air and water).	Regional network and national capacity to carry out air and water sampling is enhanced in the Latin American and Caribbean region, and high quality data is generated on the presence of initial and new POPs in the region.	Training reports and sectoral reports on POPs analysis undertaken on two abiotic core matrices (i.e., air and water) in the Latin American and Caribbean Region	<ul style="list-style-type: none"> - Identify sampling sites for air monitoring in the region, and provide sampling equipment and materials to make them operational - Identify strategic sampling sites for water monitoring in the region, and provide sampling equipment and materials to make them operational - provide equipment, training and guidelines to operationalize national laboratories that perform analysis of abiotic matrices in the region - analyze national air and water samples and report high quality data for the region - summarize the results of the analysis of the region in two distinctive sectoral reports, one for air and one for water 	<p>6 The GMP1 site needed to be changed but a new place has been quickly found. Now the equipment is in place and operational</p> <p>6 the water sampling is proceeding and the samples sent to the reference lab.</p> <p>6 The equipment has been received and operational</p> <p>0 the air samples will be analysed later on. The expedition of the PUFFS to the reference laboratory has been delayed because of custom problems, which has been solved.</p> <p>0 The summary will be don when the samples will be analysed</p>
3. Capacity building and data generation on analysis of core biotic matrices (human milk).	Regional network and national capacity to carry out human milk sampling is enhanced in the Latin American and Caribbean region, and high quality data is generated on the	Training reports and sectoral report on POPs analysis undertaken on one biotic core matrix (6th round of human milk survey) in the Latin	<ul style="list-style-type: none"> - provide equipment, training and guidelines to countries in the region to carry out a sampling of human milk for the sixth round of the UNEP / WHO survey - provide materials, training and guidance to national laboratories in the region for analysis of human milk 	<p>3 the training will take place end of October/November.</p> <p>6 the equipment and materials arrived on time</p> <p>4 the sampling is ongoing. It has been long to get all the stakeholders</p>

Project Objective: To strengthen the capacity for implementation of the updated POPs Global Monitoring Plan (GMP) and to create the conditions for sustainable monitoring of POPs in the Latin American and Caribbean Region.				
Project Components/ Programs	Project Outcomes	Project Outputs	Planned activities	Evaluation
	presence of initial and new POPs in the region.	American and Caribbean Region	<p>- Successfully implement the 6th round of surveys on human milk in the GRULAC region, with high quality data reported by the UNEP / WHO reference laboratory</p> <p>- compare the results of the sixth round of the human milk survey with the data from the previous rounds and inform the global monitoring plan</p>	<p>to an inter-ministerial meeting, but it has been done in April and the sample collection will be done on time</p> <p>0</p>
4. Assessment of existing analytical capacities and reinforcement of national POPs monitoring.	Accuracy of POPs assessment in the Latin American and Caribbean region is consolidated by performance evaluation of national laboratories, as well as by analysis of additional matrices of major national interest.	Assessment report of existing analytical capacities prepared and report on POPs analysis undertaken in samples of national priority (other than core matrices) in the Latin American and Caribbean Region	<p>- organize two rounds of the "Bi-annual global interlaboratory assessment for POP laboratories" implementing the third and fourth round and prepare a report summarizing the results of the test</p> <p>- At national level, each country identifies, collects and analyses samples of greatest interest for national chemicals management (such as fish or other foods, but also sediments and soils) with high quality data informing the GMP2</p>	<p>6 The labs have already participated to former Interlab –Assessment and will take part to the next round</p> <p>3 not done yet, but the ESPOL lab propose to analyse molluscs - seafood - fish - pork in Guayas - mango – eggs in 4 different provinces.</p>
5. Securing conditions for sustainable POPs monitoring.	Contribution to regional report for the GMP is performed, and a roadmap for sustainable POPs monitoring for the Latin American and Caribbean region in global context is developed.	Assessment reports contributing to regional report for the GMP undertaken, and a roadmap for sustainable POPs monitoring developed for the Latin American and Caribbean region	<p>- develop conclusions, lessons learned and recommendations about GMP2 for the future monitoring plan</p> <p>- prepare a state-of-the-art report to visualize the current situation of POPs in the GRULAC region, in the environment and human beings</p>	<p>0</p> <p>0</p>

4.3 Effectiveness

GRULAC

Feedback from stakeholders indicates that the most effective aspect of the project is building capacity in sampling and analysis of POPs. All the participating countries report that the regional centre plays a fundamental role in supporting and guiding this aspect of the work. The project has engaged the relevant stakeholders even if the communication among them hasn't always been optimal.

There have already been three rounds of the Interlaboratory assessments, and the fourth one is starting now, with results due in 2019. The results of the third round of the Interlaboratory assessment in GRULAC region (2016/2017) were not fully satisfactory because less than half of the analysis performed were satisfactory (see table and picture below). It's not possible to understand from the report of the third round of the Interlaboratory assessment if the GRULAC region present an improvement. In the report is mentioned that "This exercise was characterized by a strong increase in participation of laboratories. As such, this is encouraging" but it's also reported that "for the comparison with previous exercises, this is a handicap." In addition the report states that "Two components of this study were encouraging. The overall performance of the participants for the air extracts was clearly better than for the fish and sediment. [...] The other encouraging achievement is that for the first time some data on toxaphene were generated."

	Submitted	Satisfactory	Questionable	Unsatisfactory	Consistent *	Inconsistent *
N samples	1338	625	107	484	15	107
%	100%	47%	8%	36%	1%	8%

Data presented by Dr Fiedler and elaborate by PAN-UK

* Since it is not possible to calculate a z-score for values below the limit of detection (LOD), the so called 'left censored values' (LCVs) are used. The quality criterion used for LCVs is:

$LCV/2 < (\text{concentration corresponding to } |z|=3)$: LCV consistent with assigned value (AV)

$LCV/2 > (\text{concentration corresponding to } |z|=3)$: LCV inconsistent with AV, *i.e.*, LCV reported by laboratory much higher than numerical values reported by other laboratories.

Performance of POPs laboratories in GRULAC and expert labs

25 labs from GRULAC

5 expert labs:

- CZE: Recetox, Masaryk University
- DEU: CVUA
- ESP: CSIC Barcelona
- NED: E&H VU Amsterdam
- SWE: MTM, Örebro University

HFiedler_GRULAC - GMP2 Interlab

Region	Lab#	S All	Q All	U All	C All	I All	B All	n All	n Run All submitted
Expert Lab5	L126	229	24	36	0	2	301	592	291
Expert Lab4	L124	225	12	11	5	0	339	592	253
GRULAC	L072	210	19	43	2	5	313	592	279
Expert Lab2	L101	185	7	11	2	1	386	592	206
Expert Lab3	L105	141	19	64	10	21	337	592	255
Expert Lab1	L037	129	13	2	0	1	447	592	145
GRULAC	L094	58	0	1	0	0	533	592	59
GRULAC	L179	47	4	7	0	2	532	592	60
GRULAC	L065	40	4	36	1	5	506	592	86
GRULAC	L255	37	12	35	0	0	508	592	84
GRULAC	L103	35	3	8	1	5	540	592	52
GRULAC	L102	32	10	48	3	27	472	592	120
GRULAC	L152	28	1	5	0	0	558	592	34
GRULAC	L194	21	6	73	2	2	488	592	104
GRULAC	L060	19	20	49	1	2	501	592	91
GRULAC	L229	19	1	16	2	21	533	592	59
GRULAC	L043	17	5	6	0	0	564	592	28
GRULAC	L176	17	0	1	0	0	574	592	18
GRULAC	L080	14	13	8	3	14	540	592	52
GRULAC	L182	14	1	0	0	0	577	592	15
GRULAC	L189	7	2	11	0	3	569	592	23
GRULAC	L164	3	2	37	0	1	549	592	43
GRULAC	L049	2	1	11	0	0	578	592	14
GRULAC	L092	2	0	31	0	9	550	592	42
GRULAC	L238	2	3	4	0	4	579	592	13
GRULAC	L188	1	0	30	0	7	554	592	38
GRULAC	L061	0	0	16	0	0	576	592	16
GRULAC	L161	0	0	2	0	0	590	592	2
GRULAC	L211	0	0	3	0	0	589	592	3
GRULAC	L213	0	0	3	0	0	589	592	3

http://www.ccbasilea-crestocolmo.org.uy/wp-content/uploads/2018/06/HFiedler_34-interlab-assessment_en.pdf

The laboratory staff reported that the training opportunities and networking aspects of the Interlaboratory assessments have helped to improve the laboratory capacity. The accreditation gained by laboratories is also seen to be of value. The interviewed laboratory directors indeed reported that they appreciate the opportunity to test their equipment and capacity and that the Beijing meeting (<http://www.unenvironment.org/explore-topics/chemicals-waste/what-we-do/persistent-organic-pollutants/pops-interlaboratory-2>) has been useful for the exchanges of experiences they did with other participating labs. However, laboratories did not receive detailed feedback for their own test results from the reference laboratories, so that it was difficult for them to determine how they need to improve practice. At the moment there are no clear plans about how to use and communicate the results of the assessments, apart from publishing the technical report

The assessment reports are rather detailed but they do not offer the information in a very accessible way. The fact that laboratories are anonymised and different laboratories enter the process each time make it difficult to understand whether there is an improvement in laboratory assessment results over time. This would be particularly interesting in relation to the laboratories that are receiving training and technical support.

COLOMBIA

In the opinion of both the project coordinator and the project operational manager the project has been highly effective in Colombia regarding capacity building. Previously, there were few resources available (sampling equipment, trained personnel) for POPs monitoring and now these resources are available and the necessary support is available to ensure that they are used effectively. Both of

them consider that this will have an impact on the country because they now have the capacity to conduct monitoring independently if there were funds available.

The Stockholm Convention focal point, Mr Jose Alvaro, mentioned that thanks to the POPs projects in Colombia, including the Interlaboratory assessment, the number of accredited labs with the capacity to perform POPs sampling and analysis has increased from 3 to 17. Colombia has invested in training and equipment and 13 new gas chromatographs have been bought in the last few years. He also reported that there have been several projects on monitoring and analysis of POPs and there are plans for the good managing of POPs. These plans are reported in the NIP and take in account POPs pesticides, PCBs, non-intentional POPs and industrial POPs. These actions and plans are mainly independent from the GMP2 project as they have started long time ago, but being involved in GMP2 strengthened the commitment of the country to manage POPs.

The GDCON lab participated in the final workshop of the third round of the interlaboratory assessment, held in April 2017 Beijing. They found the interlaboratory exercise well organised and the workshop useful because of the exchange of experiences with other participants. They did not receive detailed feedback on the results of the assessment or advice about how to improve.

ECUADOR

The national coordinator and the focal point for the Stockholm convention consider that the project has been effective thanks to the collaboration and help of the regional centre. Both the laboratory directors interviewed expressed appreciation for Interlaboratory Assessments. They haven't had detailed feedback about the results they submitted, but found the training very useful and the exchange of experience during the Beijing workshop. They appreciated the trainings received during GMP1 and look forward to participating to the next training that will be held at the end of October 2018 because they want to be trained on analysis of new POPs. Considering that the Project will end next year, and that there was not continuity with GMP1 (milk monitoring not finished during GMP1, no water monitoring in GMP1), it is not possible to determine factors in which the GMP2 project has contributed to the management or control of POPs directly. However, the stakeholders expect that the results of phase II will be included in the next NIP and that the results could create awareness and influence the decisions about the management and control of POPs in the future.

4.4 Sustainability

GRULAC

On the last day of the mid-term meeting in June 2018 there was a presentation (<http://www.cbasilea-crestocolmo.org.uy/wp-content/uploads/2018/06/KS-GMP2-project-sustainability-intro-F.pdf>) and a discussion about sustainability. The participants were asked to divide in two groups, to brainstorm and to answer some questions. Their points are summarized in the table below:

QUESTION	KEY POINTS RAISED BY STAKEHOLDERS
What is the further use of data we are getting from POPs monitoring?	Raise awareness informing the government, students and general public.

What are key pillars of sustainability in POPs monitoring? Is it technical ability and capacity, political support and funding?	<ul style="list-style-type: none"> - Political and support and funding - Explain the relevance of POPs monitoring to get political support - Demonstrate how much money the non-implementation of the Stockholm Convention will cost to the government
What do you think are possible elements that could help preparing for the future in the sustainable monitoring of POPs?	<ul style="list-style-type: none"> - Political support - International pressure - Monitoring of industrial pollution - Improve internal organisation and monitoring management to make it easier
How to do better in support evidence-based decision making for the Stockholm Convention?	<ul style="list-style-type: none"> - Among the 3 groups of POPs the easiest to prohibit/eliminate are pesticides. Starting prohibiting them could show the effectiveness of the politic. POPs should be eliminated step by step until achieving enough results to be shared
Do we have information gaps in POPs monitoring at regional/national level? Where?	<ul style="list-style-type: none"> - Even if some parts of the region are not covered in general the information about POPs are good
How to tackle identified challenges at technical, scientific and political level?	<ul style="list-style-type: none"> - Technical level: continuing with this kind of projects - Scientific level: involve experts - Political level: show what is the cost or managing POPs compared to the cost of preventing contamination - International cooperation between governments, technical institutions, universities - Network of links with customs to solve the problem of sending/receiving samples

This discussion seems to represent a good starting point for addressing sustainability. As yet, it seems, no actions have been agreed.

COLOMBIA

Because Colombia is part of the networks GAPS and LAPAN (see above, under assessment of evidence) the air monitoring will continue beyond GMP2. The Ministry of Environment wants to strengthen its participation in these initiatives and expand number of locations for air monitoring. It is possible that the health authorities could sustain the monitoring of breast milk, too. However, although the Ministry of Environment has expressed a high level of interest, there is currently no funding allocated to continuing monitoring after the end of the project. The coordinator stated that national funds for monitoring human milk and national interest samples should be sought because currently the samples collection and analysis of these matrices is supported by UN funds and not by national resources. The project operational manager pointed out that there is no commercial demand for POPs monitoring, so it is something that needs to come from national or international resources.

The national authorities seem to be aware of problems caused by POPs and they are especially focused on PCBs. Systems are in place to measure, control, manage and eliminate them. Regarding pesticides, some POPs pesticides are already prohibited but there is pesticide smuggling so it's sometimes hard to control. The problem reported is that even if the attention on POPs is pretty high in Colombia, the GMP2 project has remained at the laboratory level and not really engaged in broader discussions on POPs prioritisation and management.

ECUADOR

The national coordinator and the focal point of the Stockholm convention expressed the will to continue the monitoring and analysis in the country, but the country is in a period of austerity and they don't know if there will be resources to go ahead after the end of GMP2. The former NIP (2009-2015), which includes in line 1 a program for strengthening evaluation and control capacity, has taken into consideration the global monitoring plan for POPs, but as a project financed with external resources, not as an activity to which specific resources are assigned by Ecuador. The update of the new NIP is ongoing and the new plan is expected to include a strategy that allows for better monitoring so that information can be obtained over time and not in a discontinuous manner when international funds are available. During GMP1 a cross sectoral committee for the integrated management of chemical substances was created with the involvement of the private sector. According to the interviewed stakeholders it would be good to achieve an engagement of this committee to give more continuity to the project and to manage POPs and other chemicals. Ecuador is not involved in the GAPS network but participates in the LAPAN network, so air monitoring might be included in the forthcoming NIP. It is not certain whether milk monitoring will be included in the NIP because the health ministry doesn't seem to consider it as a priority.

4.5 Communications (internal and outward facing)

GRULAC

The national stakeholders are in contact with the BCCC-SCRC and report that the information flows easily because the regional centre is very responsive and helpful. The stakeholders receive appropriate and timely information and responses to messages. It has also been suggested that, whilst the technical support was very helpful, the resources were incomplete at the beginning of the process. It would have been far easier and more efficient for the national stakeholders to have all the necessary information, work plans and protocols together early in the project.

From its side, the regional centre describes a good level of communication with UNEP in Geneva by mail, skype and meetings. The frequency of communication depends on the need. For example, when a workshop is being organized, the frequency is daily.

Regarding the sharing of experience, the Interlaboratory assessment process (and meeting in Beijing) has been a good opportunity, and so have been the inception meetings and the mid-term meeting that recently took place in Colombia.

The regional centre also produced a brochure http://www.ccbasilea-crestocolmo.org.uy/wp-content/uploads/2010/12/GMP_Diptico.pdf a website of graphic information about GMP in the region (not really user friendly) <http://centrobasileax.wix.com/sig-gmp/> and videos to illustrate the SOP (PFAS <https://www.youtube.com/watch?v=Rcjgq8HTMxs>), milk sampling

https://www.youtube.com/watch?v=7LwJ0x2_PXQ&feature=youtu.be , passive air sampling – need to add the link).

The website of the BCCC-SCRC is a very good source of information for the GRULAC region because it reports comprehensive technical and narrative information, and the documents are in Spanish so easily accessible to the participating countries.

COLOMBIA

At national level there is a formal body called the national chemical safety board (Mesa de seguridad química) and the relevant national entities are involved, including the private sector. It is used to disseminate and share project results among the institutions and to coordinate projects related to chemical substances. Because of results are not available so far, we have not seen evidence of the current project engaging with this forum as yet. When the NIP was updated, the board was used to raise awareness of the project and request collaboration.

The board runs a website to disseminate information on chemicals (<http://www.minambiente.gov.co/index.php/asuntos-ambientales-sectorial-y-urbana/sustancias-quimicas-y-residuos-peligrosos>). The government also has an environmental information system (<http://www.minambiente.gov.co/index.php/asuntos-ambientales-sectorial-y-urbana>). Currently there is a web portal where statistical and numerical information related to environmental data is published (<http://www.minambiente.gov.co/index.php/component/content/article/83-atencion-y-participacion-al-ciudadano/2123-plantilla-areas-planeacion-y-seguimiento-37#>), and plans are in development to create a specific page on the management of chemical and dangerous substances.

There is an important interaction with Mexico and Honduras because they are developing similar projects, so there is a regular information exchange between these countries.

The communication between national and regional level is pretty good and so is the communication among institutions. The project operational manager reported some difficulties organising meetings with all the GMP2 stakeholders, mentioning that those there is room to improve communications between those who manage resources (University of Antioquia) and those who make the decisions (Ministry of Environment). 3 meetings have been held with stakeholders, organised by the Instituto nacional de Salud (INS). The operational manager also stated that regional centre is responding well, quickly and appropriately, but sometimes emails are not enough and it would be better to have telephone or skype discussion to express doubts or ask questions that need a complex answer.

Apparently there are no planned communication activities for the GMP2 project because at this stage there is not much to communicate in terms of results of sampling and analysis.

ECUADOR

The interviewed stakeholders report that the internal communication works quite well because it has been possible to involve the relevant stakeholders and to collaborate with them. Nonetheless, the National Coordinator points out that sometimes the communication could be more dynamic and better coordinated.

There is no communication plan in place. The focal point of the Stockholm Convention considers that a national workshop is needed to present the results to the relevant stakeholders, including the Ministries of Health and Environment, laboratories and national authorities. She considers it essential to share information with all the institutional stakeholders because they are not aware of the problem. Such events have already been held concerning lead and mercury. Stakeholders considered that industry should also be engaged. The National Coordinator stated that they are still a long way from communicating information to civil society and from managing their reaction. The Director of Agrocalidad lab was concerned that communicating the results of the project to the public could create alarm if it's not managed well. She thought it would be better to create informative materials about POPs at international level as has been done about plastics.

4.6 Efficiency

GRULAC

There have been some delays (see table below) in signing the agreements, but thanks to the coordination of the regional centre most of the countries are now on track with the sampling. Chile and Peru have not signed the MoU yet because of internal political problems and government changes, but Chile is collecting samples and Peru recently started the air monitoring even without the signature of the MoU. It has not been possible to sign a MoU with the government of Jamaica, but it has been signed between the BCCC-RCSC and the laboratory performing analysis so that sampling started on time. Ecuador signed a MoU, with the financial management carried out by the Regional centre. The water and air sampling is ongoing in all the countries. The milk sampling has been done in Antigua and Barbuda, Barbados, Jamaica and Mexico. It is starting in Chile and Peru and ongoing in the other countries.

All the stakeholders present at the mid-term meeting stated that they will manage to collect all the samples on time and analyse or send them to the reference labs. The training for laboratories has been done in Colombia, Jamaica, Brazil, Uruguay and Barbados while the other participating countries will be trained in the forthcoming months. In almost all the region the objectives of capacity building, strengthen national/regional capacity of sampling and analysis seem likely to be achieved. No additional resources have been needed to carry out the project.

Country	MoU signature
Antigua and Barbuda	October 2016
Argentina	October 2016
Barbados	October 2016
Jamaica	November 2016
Colombia	December 2016
Brazil	December 2016
Mexico	December 2016
Uruguay	June 2017
Ecuador	September 2017
Chile	MoU not signed
Peru	MoU not signed

COLOMBIA

The project operational manager reported that the signature of agreements has been delayed because of the difficulty of organising meetings with all the stakeholders. In particular it has been difficult to obtain an agreement for the human milk samples collection, which has been signed in October 2017 when a collaboration between the Ministry of environment and the national institute of health linked to the ministry of health (INS) has been put in place. After the signature the project has started and now all the activities are on time. In the opinion of the operational manager the sampling and analysis will respect the deadlines. 50% of the funds were delivered at the beginning of the project, 30% after the first year and the remaining 20% will be received after the submission of the final report. There has been no need for additional resources. The operational manager also pointed out that not all the technical documents were ready at the beginning of the project (some annexes for operational actions were missing) and the work plan, roles and responsibilities of participants weren't really clear.

ECUADOR

The collaboration with the regional centre BCCC-SCRC is described by the National Coordinator as very fruitful. She reported that the logistics support and administration of funds by the Laboratory of Uruguay (LATU) helped to meet the samples collection deadlines, especially water samples. This is due to the openness and willingness of that agency to collaborate and answer to any question of concern presented. According to the national stakeholders all the activities will be achieved on time, despite some delays at the beginning. The reason given is that the Government Institutions are not flexible and the coordination and development of new activities can take longer than planned. Another aspect that stakeholders said reduced efficiency is that it is a cross sectoral issue and it has been difficult to define which institutions should collaborate with it. The lack of coordination has slowed down the process and has duplicated efforts. These problems have now been addressed.

4.7 Procurement management

GRULAC/COLOMBIA/ECUADOR

The experience reported by all the present stakeholders is that there have been only minor problems receiving materials, but it has sometimes been difficult to send samples to Europe. The problem with PUFs was that foam can be described as "espuma" or "esponja", but if the term "esponja" was used the samples were rejected. The samples, especially those of national interest, weren't accepted by the Spanish customs because they claimed a veterinary certificate for biotic samples and a phytosanitary certificate for vegetal samples. The problem has been solved with the collaboration of the Orebro institute because the samples from GRULAC were accepted in Sweden and then accepted by Spain from Sweden.

4.8 Monitoring and reporting

According to the experience reported by the stakeholders the project seems to have had a good baseline assessment of the key institutions, priorities and participating labs.

The participating countries were supposed to send a report every six months, but only Brazil did it regularly. The Regional Centre has solicited the reports from the participating countries several times, but they haven't been very responsive. Below a table reporting which reports are available:

COUNTRY	Six months report 1	Six months report 2	Six months report 3	Six months report 4
Antigua and Barbuda				
Argentina		June 2017		
Barbados		June 2017	December 2017	
Brasil	December 2016	June 2017	December 2017	
Chile				
Colombia			December 2017	
Ecuador		June 2017		
Jamaica				
México		Expenses report, but not activity report		
Perú				
Uruguay				

The delivery of the six months reports is the only system in place to monitor the performance of the participating countries while the Interlab assessment monitors the capacity of the labs to perform POPs analysis.

The performance of the laboratory trainings is not monitored and feedback is not collected and reviewed by the project. Dr Esteban Abad, who delivers the training in the region, regularly collects the comments of participants but the information is not required by the project manager and it is not collated or reviewed and it is in hard copy only.

5. Conclusions

Overall, there is a good level of commitment to POPs monitoring at the laboratory level.

- **Strategic relevance**

Thus far, the political visibility of the project is largely absent and, therefore, the project has little influence on policy decisions or prioritisation of POPs.

The project is of strategic relevance to the regional objective of monitoring air, which is carried on by the GAPS and LAPAN networks and also for the regional ARPAL project that aims to improve environmental quality and reduce human exposure to persistent organic pollutants. Awareness / commitment to addressing POPs is well articulated in Colombia's NIP, for example, and there are channels for communicating between technical institutions and relevant ministries.

Recent political upheavals mean that Ecuador is a bit behind on these issues. Communications channels are not currently in place to explain the significance of POPs monitoring to higher level

decision-makers and it is not possible at this stage to secure financial commitment to continue monitoring POPs.

- **Institutional arrangement and collaborations**

The GMP2 project in the GRULAC region is coordinated by the BCCC-SCRC which provides guidance and help to overcome logistic and financial problems. This collaboration is much appreciated from all the participating countries. The linkages between institutions is working and the communication generally good. Appropriate institutions are involved in project delivery and there are good linkages between several research institutions. The institutional arrangements in some countries are somewhat cumbersome but good relations between individuals helps to minimise some of the potential delays.

Written communication is working well but sometimes a quick call would resolve the question more efficiently. The project involves committed stakeholders and it has been possible to sign a MoU in almost all the countries. Because of political problems it hasn't been signed yet in Chile and Peru while for Jamaica a MoU has been signed between the University of West Indies and the regional center. In general the region has worked well on this point.

- **Achievement of project objectives**

Even if there have been delays in starting the project, all the participating countries stated that they will manage to respect the deadlines for sampling and analysis. All the sampling should be finished by the end of 2018 in order to allow enough time for the analysis. There has been a strong focus on this aspect of the project, but it is not clear how the objectives relating to political visibility, sustainability and overall reduction and control of POPs will be achieved.

- **Effectiveness**

The regional centre has been fundamental in achieving effective coordination and technical support.

Feedback from national laboratories is that the technical support, SOPS and training aspects of the project have been effective in building capacity.

The sampling and analysis is proceeding effectively.

Doubts remain about the real effectiveness of the Interlaboratory assessment, which is conducted on a large scale. The opportunity to be assessed (which helps towards accreditation) as well as the networking aspects of the assessment process and the technical support are appreciated by participating laboratories. However, the results are difficult for outsiders to interpret and the assessments are not well integrated into the project as a whole. For example, the performance of laboratories has no bearing on the type of training or assistance they receive. Poorly performing laboratories don't have the information that would enable them to learn from their mistakes. There is a question as to whether private laboratories should be drawing on project resources to be assessed.

- **Sustainability**

The participating countries don't have a plan for sustainability yet. An interesting discussion about sustainability occurred at the regional meeting in Colombia (June 2018) and the stakeholders agreed that POPs monitoring is essential but not sufficient to achieve an impact on the management of POPs. Communication of the results is important. They pointed out that it would be useful to explain the economic impact of non-implementation of the Stockholm

Convention to push decision-makers to action. The sustainability discussion and the points raised will be included in the final GMP2 report, but no actions have yet been agreed.

There is the will among laboratory staff and national coordinators to use the GMP2 project to inform political decisions.

The GMP2 project in Colombia is largely confined to the laboratories and the involved persons at the Ministry of environment, with very little engagement with decision makers. For the moment the government hasn't planned a follow up of the project although the monitoring and management of POPs have been included in the recently published NIP. In Ecuador, following the government change, there's a period of austerity, so continued financial sustainability is in doubt.

- **Communications (internal and outward facing)**

The internal communication between UNEP in Geneva and the regional centre has been frequent and smooth. The participating countries have been in contact with the regional centre but not with UNEP and described the communication as very easy, efficient and helpful. It has been pointed out that not all the materials and guidance were ready at the beginning of the project. The issue has been resolved quite quickly. Laboratory staff reported that the SOPs are very good for experienced people, but should provide more technical guidance for less experienced individuals. There have been some problems in communications between institutions in the countries, now largely resolved.

Communications plans are limited at this stage. Colombia reported that they could use their national board about chemical safety to share the results of the project, while Ecuador wishes to find a way to communicate but nothing is planned at the moment. There is an intention by UNEP (Geneva) to summarize the results of the project to inform stakeholders in an accessible way using visual communication tools (infographics, videos). The contents and intended audience have not been articulated as yet.

- **Efficiency**

There have been some delays in signing the agreements due to difficulties in coordinating the national stakeholders' engagements, but after the signature of the MoU and internal agreements all the countries started the sampling which is now on track. The main problem seems to have been the ethical clearance that has taken a lot of time in all the countries. The first instalment of funds have been paid before the beginning of the activities in order to allow the countries to start the project. The second instalment should have been paid after receiving the first three reports, but in reality it has been paid to few countries even if only one report had been sent. The money has been paid on the basis of not officially documented information about activities done. At the moment the regional centre has spent about half the money allocated to support the participating countries and there hasn't been the need for the countries to use additional resources. Only 5 trainings have been done because of the national lack of capacity to set up all the equipment and materials to host the training laboratory experts. Despite of this, the countries managed to organise the sampling and stated that they will be able to finish the analysis on time.

- **Procurement management**

There have been few or no problems in receiving the equipment and materials sent from Europe while it has been difficult to send samples to the reference laboratories. Spain's customs did not accept biotic samples because they requested veterinary or phytosanitary certificates. Thanks to the Orebro reference laboratory the problem has been solved sending samples to Sweden and

from Sweden to Spain. A UNEP letter for customs was available, but it hasn't been enough to solve the problem. The organisation of samples shipment has proven to be difficult and to request time and negotiation with the custom offices.

- **Monitoring and reporting the project**

The system in place to monitor the progress of the project doesn't seem to work very well. The participating countries were supposed to prepare and send a financial and activity report every six months, but only few activity report (8 out of 33 due) have been collected by the regional centre. Some countries have never sent a report. The easy communication between the centre and the countries allows to be updated unofficially about the activities done, so the instalment can be paid but the system is lacking and it could become hard to justify the expenses. Also, it would be very useful to have a feedback from the people who participated to the trainings but no template is available for this purpose. Dr Esteban Abad, in charge of trainings in the GRULAC region, always collect impressions and suggestions but as is not expected from the project he never shares them because often the feedback is hand written.

6. Recommendations

Before the end of GMP2

- For the regional centre: request and collect all the activity and financial reports and keep them in the same place. Don't issue funds before receiving the due reports.
- For participating countries with support from UNEP: focus on sustainability and draft a plan with action to put in place before the end of the project.
- Interpret monitoring results in a way that will help managers and decision-makers to prioritise POPs chemicals and take positive action to address them. As far as possible, include relevant information concerning the potential impact of POPs in terms of health and economic measures.
- Develop a communications plan for the project as a whole and support participating countries to deliver communications activities at national level. Simple and effective communication resources with clear messages, infographics, key statistics could be more effective than long and scientific reports for a non-technical audience.
- For participating countries: the stakeholders should contact customs and agree/negotiate the possibility to send the samples to the reference labs.
- For reference labs: the next interlaboratory assessment should provide customized feedback at least to the participant labs that are also involved in GMP2
- Collect lesson learning and feedback on the impact of the project
- In Colombia there is a formal body called the national chemical safety board (Mesa de seguridad quimica) used to disseminate and share project results among the institutions and to coordinate projects related to chemical substances. There are also websites reporting data and information about chemical substances in the country. The board and the websites could be a useful forum to communicate the project results.

For a possible GMP3 in the future:

- Establish clear roles and responsibilities with all implementing partners and institutions
- Provide comprehensive guidance with clearer tools, plans, deadlines and key dates

- Improve the efficiency of shipping samples by contacting customs and setting up agreements (with input from UNEP) before starting the sampling
- An interesting comment about the Interlab assessment reports that it is ambitious to assume that each laboratory in each country with its specific conditions will obtain the same results as those obtained in the rest of the world. It was possible to appreciate a great variety of methods and techniques used for the analysis of proficiency tests, but it would be important to reach a consensus first about the way in which such measurement is performed.
- The stakeholders were asked “Are there some indispensable preconditions that are needed before a laboratory can successfully undertake POPs surveillance regularly?” Both Colombia and Ecuador answered that laboratories must have the infrastructure and equipment to do the analysis including reagents, supplies and standards, and to have received training. In the current project 5 laboratories were trained in the first 2 years and the 6 remaining will be trained more than 2 years after the beginning of the project, which is rather late.
- For interlaboratory assessments: perhaps a smaller number of well-selected laboratories could be selected to participate on the basis that they will receive follow and technical support to improve their sampling methods.
- Private laboratories pay to participate in the assessment process rather than drawing on project resources.

Annex 1. List of places visited and key persons met

Regional meeting in Medellin, Colombia 11-13 June 2018.

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During the meeting it has been possible to listen to the opinions of stakeholders from all the countries participating to the project. In particular, an afternoon session has been held and the participants have listed the good and bad aspects of the project.

COLOMBIA

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Annex 2. Questionnaire

Revisión intermedia: Continuando con el apoyo regional para el Plan de Vigilancia Mundial de los COP bajo el Convenio de Estocolmo

Cuestionario para la evaluación

Descripción del Proyecto

El artículo 16 del Convenio de Estocolmo indica que la eficacia del Convenio tendría que ser evaluada periódicamente. La evaluación de efectividad incluye un plan de vigilancia mundial (GMP, por sus siglas en inglés), que monitorea la presencia de los COP (Contaminantes Orgánicos Persistentes) en el medio ambiente y en los seres humanos. Esa vigilancia y la evaluación subsecuente deberían realizarse a nivel regional. Uno de los objetivos del GMP es evaluar el transporte regional y mundial de productos químicos COP. El GMP se enfoca inicialmente en las matrices de base de la leche materna / sangre para examinar la exposición humana y el aire ambiente para examinar el transporte a larga distancia.

El proyecto actual se ha diseñado en base a los resultados del proyecto GEF GMP (2009-2012), que se centró en los 12 COP originales. Este proyecto incluye los nuevos COP agregados durante la COP-4 y COP-5 y también continúa la capacitación del personal en los laboratorios participantes y el fortalecimiento del muestreo y de los análisis que permitirán a los laboratorios nacionales de mejorar su capacidad de analizar los COP según los estándares internacionales conformes a las Guías de GMP.

Resultados previstos:

- Mejorar / perfeccionar el proceso establecido en la fase 1, incluido mejorar la visibilidad política del proyecto y su valor para el Manejo Adecuado de las Sustancias Químicas (SMC).
- mejorar la coordinación entre los niveles nacional / regional, desarrollar mecanismos para la colaboración y el intercambio de experiencias, más capacitación para el personal de laboratorio;
- Asegurar la continuidad / sostenibilidad del esfuerzo, incluidos los estudios continuos de intercalibración para mejorar la calidad del análisis y la comparabilidad de los datos dentro de la región;
- Incluir más países y sitios donde faltaban datos para el primer informe;
- Incluir nuevos COP y proporcionar capacitación adecuada y desarrollo de capacidades.

Propósito de la revisión de medio término

- (i) evaluar el progreso realizado y las dificultades encontradas hasta ahora durante la ejecución del proyecto,

- (ii) proporcionar al PNUMA y a los países participantes del proyecto recomendaciones prácticas, medidas y acciones para alcanzar los objetivos del proyecto según lo planificado en el documento del proyecto, y
- (iii) asesorar sobre prioridades y ajustes para acciones futuras.

Cuestionario

El propósito del presente cuestionario es recopilar la información necesaria para la revisión intermedia del proyecto. Siéntase libre de utilizar páginas adicionales, si es necesario, y de hacer cualquier comentario adicional que usted considere relevante para la evaluación.

País :	Fecha :
Nombre y apellido :	Posición: Organización:
Email :	Tel: Skype :

General / introducción - para todos

1. Describa su contacto con el proyecto y / o su función en él. [Haga clic aquí para introducir texto.](#)
2. ¿Cuáles cree que serían las medidas de éxito más importantes para este proyecto? Por favor explique. [Haga clic aquí para introducir texto.](#)
3. Por favor díganos qué aspectos del proyecto cree que están funcionando bien, con ejemplos [Haga clic aquí para introducir texto.](#)
4. Por favor díganos qué aspectos del proyecto cree que NO están funcionando bien, con ejemplos. [Haga clic aquí para introducir texto.](#)
5. ¿Puede sugerir formas de abordar los problemas identificados? [Haga clic aquí para introducir texto.](#)
6. ¿Puede sugerir otras mejoras por el proyecto? [Haga clic aquí para introducir texto.](#)
7. ¿Como resultado de este proyecto su comprensión de la vigilancia de los COP ha cambiado? Por favor explique [Haga clic aquí para introducir texto.](#)

A. DISEÑO DEL PROYECTO Disposiciones institucionales / diseño del proyecto / colaboración / impacto global

1. ¿Cree que a nivel nacional y regional, las organizaciones / instituciones más relevantes han sido involucradas en el proyecto? [Haga clic aquí para introducir texto.](#)
2. ¿Con qué frecuencia interactúa con el PNUMA en Ginebra en relación con GMP2? ¿Responden rápidamente y de manera apropiada? [Haga clic aquí para introducir texto.](#)
3. ¿Está usted familiarizado con el PNI (Plan Nacional de Implementación) en su país? Si No
En caso afirmativo, ¿el PNI refleja adecuadamente la necesidad de monitorear los COP? [Haga clic aquí para introducir texto.](#)
4. ¿Tiene contacto directo con el punto focal del Convenio de Estocolmo en su país? En caso afirmativo, describa por favor cómo colabora [Haga clic aquí para introducir texto.](#)
5. ¿Tiene contacto directo con el Convenio de Estocolmo en Ginebra? Si No En caso afirmativo, describa por favor cómo colabora [Haga clic aquí para introducir texto.](#)
6. ¿Cómo se coordinan las actividades GMP2 en su región? [Haga clic aquí para introducir texto.](#)
7. ¿Cree que esta coordinación podría mejorarse? ¿Cómo? [Haga clic aquí para introducir texto.](#)

8. ¿Qué motivó a su organización a participar en el GMP2? [Haga clic aquí para introducir texto.](#)
9. ¿En qué medida ha habido un intercambio de experiencias y lecciones entre las partes interesadas del proyecto a nivel nacional, regional e internacional? Por favor, den ejemplos. [Haga clic aquí para introducir texto.](#)
10. ¿Cómo deben comunicarse los resultados del proyecto y a quién? [Haga clic aquí para introducir texto.](#)
11. ¿El proyecto ha contribuido a cambiar la forma en que se han monitoreado los COP a nivel regional y / o nacional? Por favor explique y proporcione ejemplos [Haga clic aquí para introducir texto.](#)
12. ¿Están todos los COP controlados adecuadamente en su región? [Haga clic aquí para introducir texto.](#)
13. ¿El proyecto ha contribuido a cambiar la forma en que se han gestionado/controlado los COP a nivel regional y / o nacional? Por favor explique y proporcione ejemplos [Haga clic aquí para introducir texto.](#)

B. Laboratorios

1. ¿Ha recibido asistencia técnica del PNUMA en este proyecto? Si No En caso afirmativo, ¿qué tipo de apoyo? [Haga clic aquí para introducir texto.](#)
2. ¿Cómo evalúa la utilidad que proporcionan los Procedimientos Operativos Estándar (SOP)? [Elija una opción.](#) Por favor explique [Haga clic aquí para introducir texto.](#)
3. ¿Su laboratorio recolectó muestras bióticas para el análisis de los COP? En caso afirmativo, explique qué tipo de muestras recopiló y cuántas veces las recolectó [Haga clic aquí para introducir texto.](#)
4. ¿Su laboratorio recolectó muestras abióticas para el análisis de los COP? En caso afirmativo, explique qué tipo de muestras recopiló y cuántas veces las recolectó [Haga clic aquí para introducir texto.](#)
5. ¿Las muestras han sido analizadas? ¿En qué laboratorios? [Haga clic aquí para introducir texto.](#)
6. ¿Ha recibido comentarios sobre los resultados del análisis de muestras realizado en otro laboratorio? [Haga clic aquí para introducir texto.](#)
7. ¿Experimentó alguna dificultad para recolectar, almacenar o enviar las muestras? Si No En caso afirmativo, por favor explique [Haga clic aquí para introducir texto.](#)
8. ¿Hay algunas condiciones previas indispensables que se necesitan antes de que un laboratorio pueda emprender con éxito la vigilancia de los COP regularmente? Si No En caso afirmativo, ¿cuáles? [Haga clic aquí para introducir texto.](#)
9. ¿Su laboratorio ha participado en la evaluación Interlaboratorio? Si No En caso afirmativo, por favor conteste a las preguntas siguientes:
 - ¿Su laboratorio tiene dificultades con algún aspecto particular del proceso de evaluación? Por favor describa. [Haga clic aquí para introducir texto.](#)
 - ¿Usted cree que el proceso de evaluación podría mejorarse? ¿Cómo? [Haga clic aquí para introducir texto.](#)
 - ¿Cómo podemos aprender de la experiencia de evaluaciones anteriores para ayudar a los laboratorios a mejorar los estándares? [Haga clic aquí para introducir texto.](#)
 - ¿Cómo deberían comunicarse los resultados de la evaluación? ¿A quien? [Haga clic aquí para introducir texto.](#)
10. ¿Podría proporcionar un informe y establecer a qué nivel de instrumentación (I L-X ver el documento **UNEP/COP/COP.7/INF/39 página 6**) se coloca su laboratorio? [Haga clic aquí para introducir texto.](#)

C. Capacitación y apoyo técnico, laboratorios – participantes

1. Por favor, describa cada evento de capacitación en que su laboratorio ha participado bajo el proyecto GMP2 [Haga clic aquí para introducir texto.](#)
2. ¿Cuántas personas del laboratorio participaron? [Haga clic aquí para introducir texto.](#)
3. ¿Cuántas de ellas todavía están activas en su laboratorio? [Haga clic aquí para introducir texto.](#)

4. ¿Hay suficientes personas capacitadas en el laboratorio para asegurar la buena calidad de la recolección, almacenamiento y / o análisis de muestras? [Haga clic aquí para introducir texto.](#)
5. ¿Cuáles fueron los aspectos más útiles de la capacitación recibida? [Haga clic aquí para introducir texto.](#)
6. ¿Cómo se podría mejorar la capacitación? [Haga clic aquí para introducir texto.](#)
7. ¿Faltan capacitaciones significativas y relevantes en relación con la vigilancia de los COP que le gustaría ver abordadas en el futuro? [Haga clic aquí para introducir texto.](#)
8. ¿El apoyo técnico o la capacitación proporcionada por GMP2 ha afectado su forma de trabajar? ¿Cómo? [Haga clic aquí para introducir texto.](#)

D. Para los expertos técnicos / miembros del PSC (Project Steering Committee) que han desarrollado la guía (Guía para el plan de vigilancia mundial de contaminantes orgánicos persistentes- UNEP/COP/COP.7/INF/39 - 26 de febrero de 2015)

1. ¿Quiénes son los principales beneficiarios de la guía? [Haga clic aquí para introducir texto.](#)
2. ¿Cómo se ha utilizado la guía? [Haga clic aquí para introducir texto.](#)
3. ¿Qué lecciones aprendió al desarrollar la guía? [Haga clic aquí para introducir texto.](#)
4. ¿Hay refinamientos que le gustaría hacer a la guía? Por favor describa [Haga clic aquí para introducir texto.](#)
5. ¿Ha recibido comentarios sobre la guía? [Haga clic aquí para introducir texto.](#)

E. ASUNTOS TRANSVERSALES - para todos Comunicaciones, Sostenibilidad, Equidad

1. Por favor, describa los aspectos de GMP2 que cree que continuarán más allá del proyecto [Haga clic aquí para introducir texto.](#)
2. ¿Cree que los laboratorios nacionales involucrados en el proyecto continuaran monitoreando los COP sin apoyo externo? Por favor explique [Haga clic aquí para introducir texto.](#)
3. ¿Cree que el proyecto debería ser más selectivo sobre los laboratorios que apoya para llevar a cabo la vigilancia de los COP? Si No No sé
4. En caso afirmativo, ¿qué criterios de selección debería usar? [Haga clic aquí para introducir texto.](#)
5. ¿Cómo se comunica el proyecto a personas clave fuera del proyecto? (por ejemplo, tomadores de decisiones y personal técnico) [Haga clic aquí para introducir texto.](#)
6. ¿Cree que podría ser más efectivo en comunicar la importancia de la vigilancia de los COP? Si No En caso afirmativo, ¿Cómo? [Haga clic aquí para introducir texto.](#)
7. ¿Qué tan exitoso cree que haya sido el proyecto en obtener apoyo político para GMP2? Por favor explique [Haga clic aquí para introducir texto.](#)
8. ¿Qué se podría hacer para mejorar el apoyo a la vigilancia de los COP en las políticas y decisiones nacionales? [Haga clic aquí para introducir texto.](#)
9. Hay algo más que el proyecto podría hacer para asegurar que tenga un impacto positivo y duradero en la vigilancia de los COP? [Haga clic aquí para introducir texto.](#)

F. Preguntas adicionales para el equipo de implementación del proyecto del PNUMA

1. ¿Cuántas personas y cuánto tiempo (%) están comprometidos con los cuatro proyectos GMP2? ¿Es adecuado? [Haga clic aquí para introducir texto.](#)
2. ¿Qué causó las demoras en la financiación del proyecto? [Haga clic aquí para introducir texto.](#)
3. ¿Mide el progreso con respecto a los indicadores? ¿Cómo? [Haga clic aquí para introducir texto.](#)
4. Por favor explique las demoras en la firma de contratos. ¿Qué se puede hacer para superar ese problema? [Haga clic aquí para introducir texto.](#)

5. ¿Cree que el proyecto haya sido eficiente en la entrega del proyecto? ¿Podría mejorarse la eficiencia? Por favor explique [Haga clic aquí para introducir texto.](#)
6. ¿Ha sacado nuevos recursos financieros para entregar el proyecto? [Haga clic aquí para introducir texto.](#)
7. ¿Los recursos actuales son adecuados para completar las actividades planificadas en los últimos meses? [Haga clic aquí para introducir texto.](#)
8. ¿Qué tan relevante cree que sea el marco del proyecto en esta etapa? [Haga clic aquí para introducir texto.](#)
9. ¿Cómo se monitorea el progreso del proyecto (actividades)? [Haga clic aquí para introducir texto.](#)
10. ¿Cómo evalúa la calidad de la capacitación proporcionada por los copartícipes? [Haga clic aquí para introducir texto.](#)
11. ¿Cómo se mide el impacto del proyecto? [Haga clic aquí para introducir texto.](#)
12. ¿Espera entregar todos los indicadores-objetivos para los proyectos? Por favor, explique [Haga clic aquí para introducir texto.](#)
13. ¿Cuáles son las prioridades para los últimos meses de los proyectos? [Haga clic aquí para introducir texto.](#)

G. Lecciones aprendidas y recomendaciones: **para todos**

1. ¿Cuáles son las principales lecciones aprendidas (positivas y / o negativas) de este proyecto? [Haga clic aquí para introducir texto.](#)
2. ¿Qué tan efectivo cree que haya sido el proyecto en la creación de capacidad para monitorear los COP en su región? [Haga clic aquí para introducir texto.](#)
3. ¿En qué medida se continuará la vigilancia de los COP sin apoyo externo? [Haga clic aquí para introducir texto.](#)
4. ¿Cuáles son las brechas más importantes en el programa de vigilancia existente en la región? [Haga clic aquí para introducir texto.](#)
5. ¿Cuáles serían sus prioridades para proyectos futuros relacionados con la vigilancia de los COP? [Haga clic aquí para introducir texto.](#)
6. Dado que los recursos son limitados, ¿qué dejaría de hacer si hubiera un proyecto de seguimiento? [Haga clic aquí para introducir texto.](#)

Gracias por su tiempo y su paciencia. ¿Le gustaría añadir algún comentario sobre un aspecto importante del proyecto que tal vez no haya considerado? [Haga clic aquí para introducir texto.](#)

Annex 3. List of documents and other reference materials consulted

- PIF GRULAC
- POPs GMP2 GRULAC CEO Endorsement Request_16.12.2014
- POPs GMP2 GRULAC Appendices
- POPs GMP1 Terminal evaluation_MSPs_Global Monitoring POPs, 2013
- Final-GMP1_in_grulac
- Second Regional Monitoring Report GRULAC Region
- Second GMP report-UNEP-POPS-COP.8-INF-38
- Guidance 2015-UNEP-POPS-COP.7-INF-39
- UNEP GEF PIR Fiscal Year 17
- Progress Report from 01/07/2017 to 31/12/2017
- Quarterly expenditure statement from last quarter 2016 to first quarter 2018 (6 reports)
- Bi-ennial Global Interlaboratory Assessment Report – First Round 2010/2011
- Bi-ennial Global Interlaboratory Assessment Report – Second Round 2012/2013
- Bi-ennial Global Interlaboratory Assessment Report – Third Round 2016/2017
- Protocol 1: The Analysis of PFOS in Water and FOSA in Mothers’ Milk, Human Serum and Air, and the Analysis of Some FOSAS and FOSES in Air
- Protocol 2: Protocol for the Analysis of PCB and Organochlorine Pesticides (OCP) in Human Milk, Air and Human Serum
- Protocol 3: Protocol for the Analysis of PBDE in Human Milk, Air and Human Serum
- SOP milk – SOP air – SOP water – SOP national samples
- The six months report listed in the table as well as the MoU that have been sent by the regional centre
- Rauer et al, 2018 Atmospheric Concentrations of New Persistent Organic Pollutants and Emerging Chemicals of Concern in the Group of Latin America and Caribbean (GRULAC) Region. Environ Sci Technol. 3;52(13):7240-7249. doi: 10.1021/acs.est.8b00995. Epub 2018 Jun 15.

Table of reports

COUNTRY	Six months report 1	Six months report 2	Six months report 3	Six months report 4	MoU signed
Antigua & Barbuda					
Argentina		June 2017			✓
Barbados		June 2017	Dec 2017		✓
Brasil	Dec 2016	June 2017	Dec 2017		✓
Chile					
Colombia			Dec 2017		✓
Ecuador		June 2017			
Jamaica					

México		Expenses report, but not activity report			✓
Perú					
Uruguay					

Annex 4. Work plan 2015

During the kick-off meeting in Uruguay in December 2015 the following draft work plan was presented

All relevant information is be available at: <http://www.unitar.org/cwm/global-monitoring-plan-pops-latin-american-and-caribbean-region>

	Activity	Country / Actors	Dates / deadlines	Objective / Remarks
1	Set-up the management structure for the project	UNEP BCCC/ SCRC		Agreement has been made
2	Organization of an inception workshop Prepare a detailed workplan for project implementation	BCCC/ SCRC	2-4 December 2015	Launch the GEF-funded project to continue regional support for the GMP in the GRULAC region and detail the activities and responsibilities of relevant stakeholders for project implementation with a workplan and budget
3	Agreements with countries	BCCC / SCRC, all countries	<p><i>-By 8 December 2015:</i> BCCC/SCRC to send reminder of information request and needs and a generic SSFA (modelo tipico-genérico)</p> <p><i>-By 15 January 2016:</i> Countries to provide information to enable start with basic SSFA</p> <p><i>- By 15 February 2016:</i> BCCC/SCRC to send draft SSFA</p> <p><i>-By 30 April 2016</i> (SSFA signed)</p>	<p>BCCC/SCRC to approach each country to determine terms of reference.</p> <p>Approach:</p> <ol style="list-style-type: none"> 1. First SSFA with basic information/commitments (around USD 80,000 /country) 2. To amend as necessary
4	Assignment of responsible staff for air monitoring, mothers' milk monitoring, and POPs analysis	Countries	<p>Refer to specific document</p> <p><i>By 15 January 2015</i> (see point ii above)</p>	

	(including identification of national POPs lab)			
5	Training needs Laboratory infrastructure / situation	UNITAR /Expert laboratories	- <i>By 1st January 2016</i> : BCCC/SCRC to send questionnaire with support of UNITAR & expert laboratories - <i>By 15 February 2016</i> : Countries to send questionnaire completed	Send questionnaire to update the database For planning purposes on training
6	Training of responsible personnel to establish and run the network for air samples and mothers' milk sampling	CSIC	<i>From June – December 2016 (2017?)</i> A&B: late 2016 or early 2017 Argentina: 2016 Brazil: 2017 both Barbados: 2016 Colombia: 2017 Chile: 2016 Ecuador: late 2016 or early 2017 Jamaica: June-July 2016 Mexico: August 2016 Peru: early 2017	At national level, no centrally organized training necessary; national experts aware of objectives of studies and procedures. The laboratory should be prepared/operational

			Uruguay: 2016	
7	<p>Identification of sampling sites; type of sampler, existing number of PAS air samplers, number of samplers needed, number of resins needed</p> <p>(passive and active)</p>	<p>Countries</p> <p>UNITAR</p> <p>Expert laboratories</p> <p>BCCC/SCRC</p>	<p><u>-By 1 February 2016</u> : BCCC/SCRC to send check list of things to consider / conditions (e.g GIS, street, etc), including requirements for active sampler so that the selection of the site to place it can be defined.</p> <p><u>-By 1 March 2016</u>: Countries to provide information</p> <p><u>-From 1 May 2016</u> Samplers and PUF to be sent by CSIC</p> <p>- Sampling starts <u>1 July 2016</u></p>	
8	<p>Identification of potential donors of mothers' milk in the 6 countries</p>		<p><u>-By 1 February 2016</u></p> <p>Expert laboratory & BCCC/SCRC to send check list of things to consider / conditions , ethical clearance / conditions, etc</p> <p>Countries to initiate process to get ethical clearance as soon as possible to enable start of sampling by 1 January 2017</p>	

			Cut off day for sample reception will be defined with the expert laboratory and notified accordingly	
9	Participation in international intercalibration study	IVM/MTM	<p><u>PERIOD: 2016-2018</u></p> <p><u>-By 29 February 2016 /2018:</u> Invitation/confirmation to labs to participate</p> <p><u>-By 1 April 2016 / 2018:</u> registration open</p> <p><u>-By 15 May 2016 / 2018:</u> Samples to be sent to participating labs</p> <p><u>-By 31 July 2016 / 2018:</u> Results reported by participating labs</p>	<p>Invitation/confirmation to labs participating at intercalibration study : 29 February 2016 / 2018</p> <p>Registration until: 1 April 2016/ 2018</p> <p>Samples to be sent by: 15 May 2016 / 2018</p> <p>Results reported by labs until: 31 July 2016 / 2018</p>
10	Collection of national air samples and preparation of pools where applicable		<u>From October 2016</u> and thereafter every 3 months (to be confirmed)	
	Collection mothers' milk samples and preparation of pools where applicable			Send to WHO Reference lab/Freiburg until Analysis
11	Exchange of national samples for POPs analysis in developing		2017 or after	

	country laboratory and mirror analysis in back-up laboratory			
12	Evaluation of analytical data and interpretation of results	MTM, IVM, CSIC		Expert labs will contact developing country labs and exchange results

Annex 5. National work plans and budgets

In every MoU there is a generic implementation plan and a budget. Both shown below

Implementation plan

Deliverables	Delivery date
<i>Coordination</i>	
Communication of national workplan and timetable, overall project coordination structure in place; smooth functioning of the national activities throughout the project duration	Upon signature
<i>Activity i: Air sampling</i>	
One site for passive air sampling is identified and coordinates communicated to UNEP	Upon signature
Passive air sampling site is equipped with 7 passive air samplers (PAS) (5 PAS for expert labs and 2 PAS for national lab) and the first set of polyurethane foam disks (PUFs) provided by Recetox is placed into the PAS	01 October 2016
PUFs are removed and new PUFs are placed every three months (2 sets of 7 per year; 2 years of sampling; total of 56 PUFs)	01 January 2017 until 30 September 2018
PUFs are sent to IVM-VU (8 PUFs per PAS over 2 years), MTM-Oerebro (8 PUFs per PAS over 2 years) and the National laboratory (8 PUFs per PAS over 2 years) for POPs analysis (total of 24 PUFs for IVM-VU, total of 16 PUFs for MTM-Oerebro and total of 16 PUFs for the National lab)	April 2017 until October 2018
<i>Activity ii: Human milk survey</i>	
Glassware received from CVUA (51 glass bottles) and ethical clearance for human milk sampling obtained	31 December 2016
Milk from donor mothers is collected and national pool sent to CVUA for POPs analysis (1 bottle of 2000 ml)	31 October 2017
<i>Activity iii: Matrices of major national interest</i>	
At least four samples of matrices of major national interest are identified, collected and sent to IVM-VU or MTM-Oerebro for POPs analysis	31 December 2017
<i>Activity iv: National analysis of PUFs, human milk or biota and matrices of major national interest</i>	
The following is analysed by the national laboratory for basic POPs: 16 PUFs over the two-year exposure period; the biota and abiotic matrices of major national interest	March 2017 until December 2018
<i>Activity v: National report</i>	
A national report summarizing the project implementation and presenting the results is drafted	31 January 2019
Conclusions and recommendations to contribute to the development of a sustainable regional monitoring plan, including a plan outlining continuation of monitoring activities in Barbados, are drafted and included in the national report	31 March 2019

This is the budget allocated to every participating country to cover the sampling and analysis of air, milk and national interest samples. For countries sampling water as well (Argentina, Brazil, Ecuador, Jamaica, Mexico) the budget includes 15,000 additional USD.

Allocated budget in United States dollars

ITEMIZATION		GEF Funds USD
2201	Overall project coordination for the entire project duration (4 years), including nomination of project staff and development of a national workplan and timetable, coordination of air and water sampling, human milk survey and national samples; miscellaneous costs	12300
2202a	Undertake air sampling (includes servicing of the site, consultation with stakeholders, documentation, shipment of samples to the international labs, etc.)	14000
2202b	Implement the 6th round of the human milk survey (includes preparation of national protocol, clearance, collection etc.)	7000
2202c	Undertake sampling of matrices of major national interest (includes identification, shipment and analysis in national laboratory)	2000
2203	Analyze PUFs, human milk pool or biota, and matrices of major national interest in national laboratory (covers analysis for basic POPs)	13000
2204	Plan for sustainable monitoring plan for GRULAC developed	4264
3300	National workshops and travel for sampling	20000
5202	National reports presenting implementation and results of GMP2	9800
GRAN TOTAL		82364

Annex 6. Latest expenditure statement



QUARTERLY EXPENDITURE STATEMENT (US\$)											
Project title:		Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Latin American and Caribbean Region.									
Project number:		4881									
Project executing partner:		Basel Convention Coordinating Centre-Stockholm Convention Regional Centre in Uruguay									
Project implementation period:		From: 07/08/2015				To: 31/03/2018					
Reporting period:		From: 1/01/2018				To: 31/03/2018					
UNEP Budget Line		GEF-approved budget			Actual expenditures incurred*					Cumulative unspent balance to-date	
		Total project budget	Current year budget	Cumulative expenditure from previous period	Jan-Mar Qtr 1	Apr-Jun Qtr 2	Jul-Sep Qtr 3	Oct-Dec Qtr 4	Current year total		Cumulative expenditures to-date
		A	B	C	D	E	F	G	H=D+E+F+G	I=C+H	J=A-I
1100	Project personnel	120.000	30.000	44.372	8.400				8.400	52.772	67.228
1200	Consultants w/m	0	0	0					0	0	0
1300	Administrative support	36.000	9.000	9.000					9.000	107	27.000
1600	Travel on official business	24.000	6.000	107					107	107	23.893
2100	Sub-contracts (UN entities)	0	0	0					0	0	0
2200	Sub-contracts (supporting organizations)	1.033.020		355.617					355.617	355.617	677.403
3200	Group training	233.090	0	0					0	233.090	0
3301	Meeting/Conference	232.200	0	87.278					87.278	87.278	144.922
3302	Meetings of Steering Committee	10.000	2.500	0					0	0	10.000
4101	Supplies of samplers, containers for air, water, human milk	9600							0	0	9600
4102	Set-up of site for active sampling of air in one country	13500	13500	8169					8169	8169	5304
4200	Non-expendable equipment	0	0	0					0	0	0
5200	Reporting	220.000	58.000	143					143	143	219.857
5300	Sundry	10.000	0	49					49	49	9.951
5500	Monitoring and evaluation	70.000	3.000	2.612					2.612	2.612	67.388
GRAND TOTAL		2.011.410	108.500	507.374	8.400	0	0	0	8.400	515.774	1.495.636

In the progress report of the second semester 2017 the planned activities budget is reported.

5. ACTIVITIES PLANNED FOR THE NEXT 6 MONTHS

Activities	Budget USD
To sign the Agreement between the BCCC-SCRC and Chile, first fund transfer to Chile.	42.000
To sign the Agreement between the BCCC-SCRC and Peru, first fund transfer to Peru.	42.000
Funds transfer to the 5 countries in charge of water sampling.	75.000
To sign the Agreement between the BCCC-SCRC and Fiocruz, milk monitoring in Brazil.	15.000
Funds transfer to Brazil for the installation and put into operation the active air sampler.	5.500
To support countries activities (sampling, training, etc.). Interlaboratory assay implementation.	30.000
To organize the midterm meeting of the Project.	70.000
Annual financial audit.	2.000
Total	281.500

Annex 7. Memorandum of Understanding

In all the MoU the purpose is the following:

PURPOSE

- 1) This Memorandum sets forth the terms and conditions of the cooperation between the Parties for carrying out the activities of the project ***“Supporting the Implementation of the Global Monitoring Plan of POPs in Latin America and Caribbean States”*** (hereinafter, the “project”).
- 2) The objectives of the project are to strengthen the monitoring capacity at a national level, to contribute to the generation of data for the global monitoring plan, and to support the building of regional analytical capacities, as well as the generation of POPs data in the relevant matrices for the Global Monitoring Plan (GMP) for POPs; thus enabling Latin America and Caribbean countries to contribute to the global report to be submitted to the Conference of the Parties to the Stockholm Convention.

The expected results are reported below:

MAIN EXPECTED RESULTS AND PRODUCTS:

- 9) The main components and expected results of the project are described in detail in Appendix 1 and are summarized below:

- Component 1:

Setting up an administrative and technical structure to support the activities.

Results:

- Inception workshop wherein the responsibilities, workplan and budget are determined.
- Enter into agreements with the main stakeholders.
- Update to the database of laboratories.

- Component 2:

Establishing the regional network and national capacity for monitoring POPs in the air and water.

Results:

- Identify the national air sampling sites, and provide adequate equipment and materials for sampling.

- Identify the regional water sampling sites, and provide adequate equipment and materials for sampling.
- Provide equipment, training and guidelines to national laboratories for carrying out POPs analysis in abiotic samples.
- Analysis of the air and water samples and report of results.
- Two reports with a summary of analysis results, one for air and the other one for water.

- Component 3:

Establishing the regional network and national capacity for monitoring POPs in mothers' milk.

Results:

- Provide materials and guidelines for sampling mothers' milk on a national basis in order to participate in the sixth round of the UNEP/WHO milk survey.
- Provide equipment, training and guidelines to national laboratories for carrying out POPs analysis in mothers' milk samples.
- Successful implementation of the sixth round of the UNEP/WHO milk survey with the report of the UNEP/WHO reference laboratory.
- Report comparing the results of the sixth round of the UNEP/WHO milk survey with other rounds.

- Component 4:

Study of analytical capacities and report of the tests carried out in other matrices.

Results:

- Organization of two rounds, every two years, of global interlaboratory assessments for POPs laboratories, implement them and prepare the report of results.
- At national level, countries have to collect and analyse samples that are of national interest for chemicals management.

- Component 5:

Contributing to the regional GMP report.

Results:

- Develop conclusions, lessons learned and recommendations for future monitoring efforts.
- Report of the situation of POPs in the GRULAC region's environment and human beings.
- Prepare a roadmap for making POPs monitoring in the GRULAC region sustainable.