PCB Regional Webinar Series

Webinar #1: Making visible the legacy of polychlorinated biphenyls (PCBs): A regional webinar – GRULAC

Webinar Report

8 July 2025

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Polychlorinated Biphenyls (PCBs) are a class of synthetic chlorinated organic chemicals that are toxic to wildlife and humans, persistent, and can bioaccumulate and travel long distances in the environment. Furthermore, they are classified as carcinogens, and can suppress the immune system, which can increase the risk of developing a wide variety of diseases. There is scientific evidence that humans are exposed to PCBs through ingestion of animal fats, inhalation, and absorption through the skin. Workers in the electrical sector can be particularly exposed to PCBs as these chemicals may be present in older electrical equipment such as transformers, capacitors and fluorescent lighting ballasts.

PCBs have been listed under the **Stockholm Convention** as Persistent Organic Pollutants (POPs). Parties that ratified the Stockholm Convention aim to eliminate the use of PCBs by 2025 and to provide their environmentally sound waste management by 2028.

The Basel, Rotterdam, and Stockholm (BRS) Secretariat and the United Nations Institute for Training and Research (UNITAR) are jointly hosting **regional webinars** that will offer valuable updates, technical insights, and an opportunity for a regional dialogue as Parties prepare for the 2026 reporting round and assess progress toward the 2025 and 2028 goals for the elimination of PCBs under the Stockholm Convention. These webinars have the following objectives:

- To inform countries about the outcomes of the recent 2025 Conferences of the Parties, including the revised guidance documents developed by the PCB Small Intersessional Working Group (SIWG), and new mandates adopted.
- To present the revised reporting format, timeline, and logistical arrangements for the 2026 reporting cycle under the Stockholm Convention.
- To provide an overview of the progress assessment process, including the 2027 global progress report coordinated by the BRS Secretariat with technical support from the PCB SIWG.
- To update on the status of the region in terms of PCBs management, share lessons learned, and discuss how these inputs can shape future actions.
- To provide information on the PCB Global Elimination Programme, the Global Environment Facility (GEF), and other innovative financing approaches for achieving the 2025 and 2028 goals for the elimination of PCBs.

Webinar #1: “Making visible the legacy of polychlorinated biphenyls (PCBs): A regional webinar – GRULAC” is designed to support countries in Latin America and the Caribbean in advancing toward the 2025 and 2028 goals for PCBs elimination under the Stockholm Convention.

Agenda

Time	Agenda Item	Speakers
11:00 AM (GMT-3)	Opening of the meeting	**Augustín Harte** Programme Management Officer, Secretariat of the Basel, Rotterdam & Stockholm (BRS) Conventions **Delena Indar** Training Assistant, UNITAR
11:05 – 11:20 AM	PCB goals under the scope of the Stockholm Convention and the BRS programme of work	**Augustín Harte** Programme Management Officer, Secretariat of the Basel, Rotterdam & Stockholm (BRS) Conventions
11:20 – 11:40 AM	Global and regional experiences and best practices for the Environmental Sound Management (ESM) of PCBs	**Mario Mendoza** Senior PCBs Expert, UNITAR
11:40 – 11:55 AM	Questions and Answer	**All Participants**
11:55 – 12:15 AM	Developing Effective National PCB Strategies: Practical Insights	**Edwin Camelo Martínez** PCBs Expert
12:15 – 12:30 AM	Interactive Activity	
12:30 – 12.45 AM	Exploring innovative financing pathways for PCB elimination	**Marijana Todorovic** Secretariat of the Basel, Rotterdam & Stockholm (BRS) Conventions
12:45 – 1:00 PM	Questions and answers	All Participants
1:00 PM	Closing remarks	**Delena Indar** Training Assistant, UNITAR,

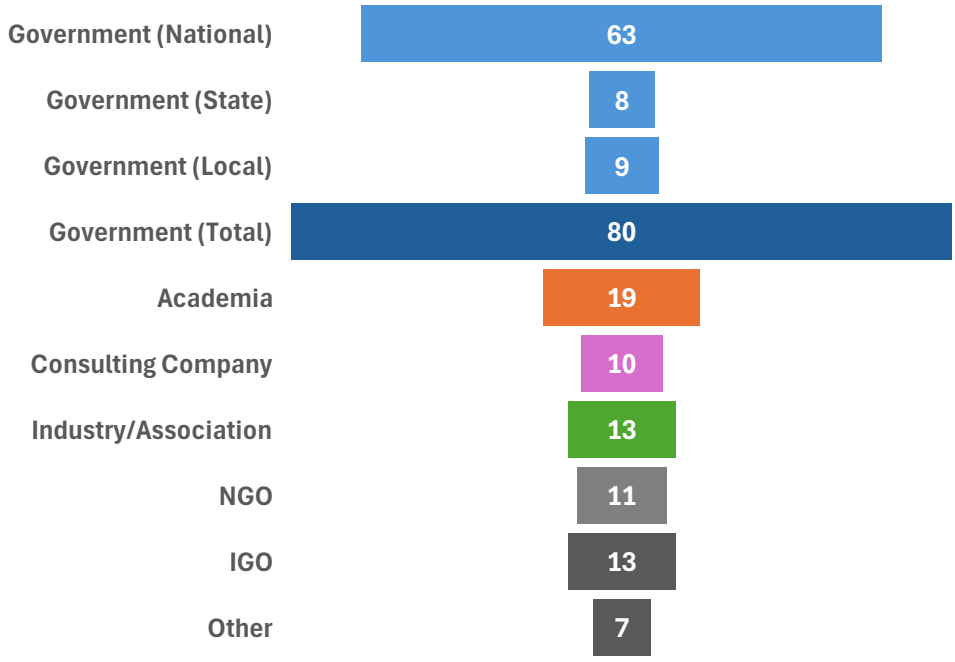
Resources

The resources for this webinar (flyer, presentations, satisfaction survey, recording) are available in the **Shared Folder** and on the **PCB e-Learning Platform**.

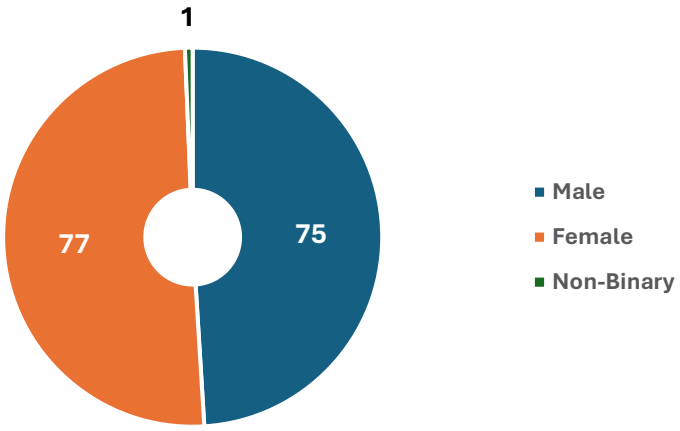
Attendance breakdown and representation

Total attendance: 153 participants

Sector distribution of participants



Gender distribution of participants



Country distribution of participants

GRULAC REGION (21 COUNTRIES)	
Country	**#**
Peru	23
Brazil	19
Colombia	8
Argentina	7
Trinidad and Tobago	7
Costa Rica	5
Chile	4
Ecuador	4
Mexico	4
Antigua and Barbuda	2
Dominican Republic	2
El Salvador	2
Honduras	2
Panama	2
Suriname	2
Venezuela	2
Bolivia	1
Guyana	1
Haiti	1
Saint Lucia	1
Uruguay	1
TOTAL PARTICIPANTS	**100**

OTHER REGIONS (38 COUNTRIES)			
Country	**#**	**Country**	**#**
Pakistan	4	Spain	1
Senegal	3	Tanzania	1
United States	3	Thailand	1
Canada	2	Tunisia	1
Egypt	2	Uganda	1
Indonesia	2	Zimbabwe	1
Kenya	2		
Kuwait	2		
Madagascar	2		
Philippines	2		
Switzerland	2		
Albania	1		
Benin	1		
Burundi	1		
Cambodia	1		
Cameroon	1		
Germany	1		
India	1		
Iraq	1		
Italy	1		
Ivory Coast	1		
Lebanon	1		
Liberia	1		
Libya	1		
Moldova	1		
Mozambique	1		
Myanmar	1		
Nepal	1		
Nigeria	1		
Russia	1		
Serbia	1		
Slovakia	1		
TOTAL PARTICIPANTS		**53**	

Questions received (Q) and answered (A)

DISCLAIMER: PCB experts suggest the following answers based on their academic training and professional experiences. Please refer to official materials for legal provisions related to the Stockholm and Basel conventions.

Q: How important is it to train personnel to obtain a reliable sample? Is it necessary to have laboratory personnel, or is it sufficient to have technical personnel from the electrical companies?

A: First of all, it is very important for company managers to bear in mind that PCBs can be safely managed and controlled by using adequate protective measures and following the sound management practices described by the Stockholm and Basel Conventions.

All workers can be actively involved in the sampling and PCB screening, but they first need a training session. The active participation of workers in multiple teams enables parallel work, reducing the time required for PCB identification. Having well-trained staff is not only helpful in making informed future decisions, but it also supports workers in safely managing transformers. Technical personnel from the electrical utilities, and from other companies such as maintenance or waste management could be trained to perform sampling"

During a sampling activity, responsibilities and tasks of the team should be clearly defined and responsible participants should be trained in their tasks. Sampling activities involve electric companies' personnel since they will need to provide access to the equipment and, if in service, they will need to disconnect them to ensure the safety of the personnel. Hence, training of the personnel is essential to obtain representative and reliable samples.

Q: Is there a limit on the maximum PCB concentration in the dechlorination process?

A: From a technical perspective, the dechlorination process can accommodate any concentration of PCBs. However, there are financial/economic constraints as the higher the PCB concentration, the higher the cost of dechlorination. As such, in practice, the break-even point in many cases is considered to be 5000 ppm.

Each case may be treated differently, however, in general when PCB concentrations are above 5000 ppm, it is no longer economically viable to do dechlorination and it is better to consider other options, such as exporting.

This will also depend on the applied technology and will need to consider local regulations regarding PCBs management and hazardous waste disposal.

Q: Are there statistics on the number of false positives in samples for colorimetric screening, and is there also a risk of false negatives?

A: In practice, the likelihood of a false negative is minimal, with an estimated probability of less than 1%.

Conversely, according to experience, on average, approximately 10% of samples can give false positives usually due to the presence of other sources of chlorine. For examples, sources such

as chlorinated paints or equipment exposure to marine environments cause environmental chlorine to be detected and will therefore give false positives.

Notably, colorimetric screening is quite sensitive to the presence of chlorine. For context, a concentration of 50 ppm is about 10 tablespoons of sugar in an Olympic-sized pool.

Q: Assuming PCB-free equipment can become contaminated during maintenance: do you focus only on equipment containing PCBs or all equipment in general including PCB-free equipment?

A: It is necessary to evaluate 100% of all equipment. The process can be reviewed in the **Stockholm Convention Inventory Guide**[1].

On numerous occasions equipment initially PCB-free had been identified to have become contaminated during maintenance or after repairs or oil refills due to cross-contamination. Upon analysis, PCB concentrations exceeded 50 ppm indicating that they were not originally made and filled up with PCB oils.

In different national inventories cross-contamination has been observed on 3% to 7% on the total number of equipment; especially in countries and facilities that do not have adequate quality control during maintenance.

A quality control system has to be put in place to fulfil obligations of the national legislation of the Stockholm convention, a thorough assessment of whole lots of equipment has to be done so cross-contamination is identified and managed. Quality checks for example when equipment is manipulated for maintenance will help identify any remaining equipment with above 50 ppm in PCB concentrations.

Q: What controls your authorities to have in place to prevent contaminated transformers from being exported as scrap?

A: The Basel Convention establishes the procedure for controlling transboundary movements of hazardous wastes and other wastes. Customs authorities are crucial in this process, as they serve as the first line of defence against illicit trafficking. Several global and regional initiatives exist to enhance these controls and strengthen customs officers, who are responsible for implementing them. These include the Green Customs Initiative, which is particularly active in the GRULAC countries, the collaboration between the Basel Convention and the World Customs Organization, the Enforce initiative, and the IMPEL initiative, to name a few. More information on tools and partners for combating illicit traffic can be found on the **Basel Convention's website**[2].

National authorities may establish different strategies for the process of exports of waste transformers and its related metal scrap, including random checks and testing for PCBs, to avoid this situation.

[1] https://www.pops.int/Implementation/IndustrialPOPs/PCB/Guidance/tabid/665/Default.aspx
[2] https://www.basel.int/Implementation/LegalMatters/IllegalTraffic/Overview/tabid/3421/Default.aspx

Q: Is it advisable to perform PCB analysis directly with chromatography?

A: There are many factors that determine the best tool to use for PCB analysis. For example, this depends on the availability of laboratories with PCB analysis capabilities. In some countries, due to the import prices of the kits, the price may be comparable. Moreover, the type of sampling and urgency must also be taken into account. For example, a rapid test can provide information for decision making in the event of an incident in just a few minutes.

Q: Can you share an example on how countries, without strong private sector reporting or enforcement mechanisms, can still mobilise financial resources?

A: A good starting point is to strengthen the national PCB data base that is available as robust data is essential for justifying funding requests and demonstrating eligibility for GEF support. . Countries can be begin by engaging public utilities which manage significant equipment.

Additionally, it is important to engage with different relevant stakeholders within the country. More entry points can be identified by reaching out to the energy sector or any governmental body responsible for energy infrastructure, for instance. Working with the latter can be beneficial for attracting private sector interest and engagement, as providing funding for national energy modernisation projects creates the opportunity to replace old transformers and to upgrade the national electricity grid.

Q: What are the main bottlenecks in PCB disposal in the region?

A: An example of a bottleneck in PCB management includes the extraction of samples. In some cases, sample extraction and its associated processes may range from 5 to 10 samples per day and can be dependent on the sampling area, be it rural or residential.

Q: What are the main barriers countries face when trying to submit expressions of interest or project proposals and how can the BRS Conventions Secretariat or partners support overcoming them?

A: Access to Global Environmental Facility (GEF) funds, as the financial mechanism of the Stockholm Convention is available for Parties to support actions to fulfil the obligations under the Convention. As an important aspect, Parties will need to develop and update periodically their National Implementation Plans (NIPs) as a key tool to identify priorities and the necessary actions to undertake at the national level to implement the Convention. Moreover, Parties will need to consider the timing for submission of proposals to the GEF and liaise through a relevant Implementing Agency who will support the submission and application to the fund.

Q: What are the major highlights of the Health Sector roles in the elimination of PCBs?

A: Health Sector and other authorities with occupational health jurisdiction are involved across several PCB management activities. They participate in the **regulation, oversight, and control of monitoring for PCBs and other POPs** (persistent organic pollutants) in individuals who may be exposed to PCBs due to environmental or occupational reasons. This also entails **improving**

the analytical capacity of laboratories capable of performing monitoring in biological matrices and interpreting the results.

Q: To whom should I send the letter of interest in the Global PCB Program

A: Letters of interest should be sent to Mr. Agustin Harte (agustin.harte@un.org), Ms. Marijana Todorovic (marijana.todorovic@un.org) and Mr. Frank Michael Moser (frank-michael.moser@un.org).

Regional PCB Webinar Series

Stay informed on all regional PCB webinars held during August and September of 2025 via the **PCB e-Learning Platform**.

Comments? Questions?
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