COLOMBIA'S PROGRESS REPORT ON IMPLEMENTING THE RISK REDUCTION DECLARATION

Meeting of the Chemicals and Biotechnology Committee

June 8-10 of 2021 – Videoconference

Item 15 of the Agenda

Lead Risk Reduction in Colombia

The present document provides information on the latest actions developed by the Colombian government to implement the Declaration of Lead Risk Reduction. It is presented to the Chemicals and Biotechnology Committee Committee for information..

The Chemicals and Biotechnology Committee is invited to take note of the document.

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Purpose and background

This document is intended to guide discussions for the OECD Chemical and Biotechnology Committee and provides information on the latest actions developed by the Colombian government to implement the Declaration of Lead Risk Reduction.

How this document was developed

This document was developed by integrating information from different Colombian governmental entities, such as the Ministry of Health and Social Protection, the Ministry of Environment and Sustainable Development, the Hydrology, Meteorology and Environmental Research Institute (IDEAM), the National Environmental Licensing Authority (ANLA), the Department of National Planning, the National Centre for Cleaner Production and Environmental Technologies (CNPMLTA) and other non-governmental organizations and academic institutions.

Abbreviations and Acronyms

ANLA	National Environmental Licensing Authority
CARs	Autonomous Regional Corporations
CONASA	National Intersectoral Technical Commission for Environmental Health
DNP	National Department of Planning
IDEAM	Hydrology, Meteorology and Environmental Research Institute
INS	National Health Institute
Minambiente	Ministry of Environment and Sustainable Development
Minciencia	Ministry of Science, Technology and Innovation
Mincomercio	Ministry of Commerce, Industry and Tourism
Minsalud	Ministry of Health and Social Protection
Mintrabajo	Ministry of Labour
Minvivienda	Ministry of Housing, Urban Issues and Territorial Development
NDP	National Development Plan
ILO	International Labour Organization
SIVICAP	Monitoring System on Water Quality for Human Consumption
SIVIGILA	Public Health Monitoring System
UEAs	Urban Environmental Authorities
WHO	World Health Organization
WTO	World Trade Organization

1 Introduction

Colombia has made considerable progress in implementing the Declaration of Lead Risk Reduction by Act 2041 of 2020. It aims to guarantee the physical and intellectual development of people, especially of children in the national territory, in an environment free of lead (Pb), by setting general guidelines that lead to preventing contamination, intoxications and illnesses caused by the exposure to this metal. Said Act considers: the limits, the guidelines made by the OECD, from the WHO and the ILO conventions on occupational health and safety.

This Act established the right of people to develop physically and intellectually in a lead-free environment by setting limits to the content in marketed products in the country, among other matters. It involucrated the different stakeholders that are involved in the activities of import, production, distribution and commercialization of lead-containing products, in concentrations above levels established in the technical standards.

This Act was declared of national interest because it gave the national governmental entities the instruments to counteract factors that can trigger intoxications in highly sensitive populations, such as pregnant women, children, and adolescents.

1.1 Policy framework

In the course of 2019 and 2020, Colombia made progress in the promotion of the Act 2041 of 2020. The issuance process was as follows:

- The process of the draft legislation began in 2018 as a legislative initiative to protect the health of people, especially children, as well as particularly vulnerable populations, by setting forth general guidelines that favor the prevention of contamination, intoxications, and diseases resulting from exposure to lead.
- It is structured in five chapters: Chapter I (General dispositions); Chapter II (Rights of children); Chapter III (Of prohibitions on the use of lead); Chapter IV (Of industrial processes and the life cycle of lead); Chapter V (Non-compliance, infractions and sanctions).
- Procedure: it was first submitted to the Senate of the Republic. Subsequently, in 2019 it passed to the House of Representatives. It had the last debate on June 17, 2020, in which the final text was conciliated and approved. Then, it was subsequently signed by the President of Colombia, having it enacted as Act 2041 of July 27, 2020.
- Throughout the legislative process, but particularly in the last part of it, several entities made substantial contributions to the draft, in such a way as to make provisions in favor of improving the health of the population and the environment, without affecting other aspects, especially regarding the commercialization of products.
- Main points addressed by this Act were the prohibition of the use, manufacture, importation, and commercialization of products with lead concentrations above certain limits. This will allow reducing the risk of damage to people who use such products.

2 Lead Declaration

In this report, the sections of the declaration are presented below and for each of them the progress made will be shown as pursuant to Act 2041 of 2020 and other previous regulations.

2.1. Develop national and cooperative efforts to reduce risks of exposure to lead

1. DEVELOP, CONTINUE OR STRENGTHEN, AS APPROPRIATE, NATIONAL AND COOPERATIVE EFFORTS CONSIDERED NECESSARY TO REDUCE RISKS OF EXPOSURE TO LEAD THROUGH ACTIONS THAT TAKE INTO ACCOUNT NATIONAL PRIORITIES, POLICIES, PROGRAMMEMES AND ACHIEVEMENTS -- RECOGNISING THAT IMPLEMENTATION MAY TAKE THE FORM OF VOLUNTARY, ECONOMIC, AND/OR REGULATORY ACTIONS.

In 2020 Colombia promoted a draft legislation setting forth general guidelines for preventing contamination, intoxications, and lead exposure-related diseases. This was possible due to articulated efforts amongst national entities with jurisdiction over such matters, assuring risks to lead exposure be as minimum as possible.

Section 5 of this Act establishes measures focused on preventing exposure to lead and the reestablishment of health conditions in the population that is already exposed. The Act specifically provides that it will be through the National Intersectoral Technical Commission for Environmental Health[1] where guidelines and policies can be formulated for the development of strategies, actions, education activities, training, and awareness campaigns aimed at the reduction and elimination of lead. It is also established that the implementation of these guidelines and policies shall be in charge of the departmental, district or municipal governments.

In addition, it was estipulated that guidelines and policy implementation will be under the responsibility of the departmental, district or municipal governments. Then, it assigns duties to different actors, not only at a national level but also at a territorial one through the Territorial Environmental Health Committees (COTSA).

Regarding the promotion of scientific and social research, Section 6 of said Act provides that the Ministry of Science, Technology and Innovation and the Ministry of Health and Social Protection, in coordination with higher education institutions, professional associations of different disciplines of health, scientific and social sciences, will develop research associated with promoting, developing and applying clean technologies for the reduction, substitution and elimination of lead, as well as about the impact on health and prevention mechanisms to avoid the presence of lead in the human body.

Also, it provides that environmental authorities shall enhance monitoring and control activities in all industrial establishments that process, recover or recycle lead, according to the current regulations. The health and occupational authorities should also control the exposure to lead of target populations, such as children, adolescents, pregnant women, and exposed workers.

Furthermore, Section 12 of the Law-Decree (as it is known in Spanish) provides that all industries including lead and its compounds in their processes shall be subject to monitoring and control by the corresponding national, departmental or municipal environmental authorities under such Act. The authorities will articulate the existing information with the registers under the framework of the National Environmental System.

To ensure limits to lead exposure, Section 8 of said Act stipulates the blood lead concentration thresholds for children and adults in the national territory.

[1] The National Intersectoral Technical Commission for Environmental Health (CONASA by its acronym in Spanish) is an instance where 13 entities at the national level participate in the planning implementation and evaluation of the Comprehensive Environmental Health Policy (PISA)

2.2. Addressing the risk of exposure to lead from food and beverages, water, air, occupational exposure and other potential pathways.

> 2. GIVE THE HIGHEST PRIORITY TO ACTIONS THAT ADDRESS THE RISK OF EXPOSURE FROM FOOD AND BEVERAGES, WATER, AIR, OCCUPATIONAL EXPOSURE AND OTHER POTENTIAL PATHWAYS IN ACCORDANCE WITH ANNEX

According to the research promotion mentioned in Section 6 of the Act, research shall be focused on protecting the physical and intellectual development and, in general, the health of people, especially children and pregnant women residing in the national territory.

Act 2041 of 2020 contains provisions prohibiting the use of lead and waste management. Section 9, in turn, provides: The use, manufacture, import or marketing of the following products is prohibited when they contain Lead in any of its compounds at higher levels than those established by technical regulations in the national territory.

- Toys and all solid products designed for children manipulation, which surface area can be accessed by them.
- Architectural paintings (also called decorative or home-use paints).
- Pipes, accessories and welds utilized in the installation or repair of any water distribution system for human, animal or irrigation use.
- All imported or nationally produced agricultural inputs used in farming or livestock production system, especially fertilizers, crop protection products, food or supplements for animals and mineralized salts. Any product containing lead can be identified through the diagnostic study to be carried out by the entities involved.

Moreover, while the National Government issues the corresponding technical regulations, said Act prohibits using, manufacturing, importing, or otherwise commercializing products should these have lead concentrations above thresholds expressed below:

- Toys and all products designed for children manipulation, whose surface area can be accessible to them, that exceed 90 ppm.
- Architectural paints, also called decorative or home and work use, that exceed 90 ppm (0.009%) of lead.
- Pipes, accessories and welds used in the installation or repair of any water distribution system for human, animal or irrigation use, which migrate to the water concentrations of Lead greater than 0.0005 mg per liter of water.
- All imported or nationally produced agricultural inputs used in the agricultural or livestock production system, especially fertilizers, crop protection products, food or supplements for animals and mineralized salts with contents greater than 20 ppm.

2.2.1. Exposure to lead from lead in gasoline

> ANNEX I a) Progressively phase-down use of lead in gasoline except where needed fo essential or specialized uses for which there are no practical, viable alternatives.

Decree 1076 of 2015 (TITLE 5- AIR, CHAPTER 1. AIR QUALITY PROTECTION AND CONTROL REGULATION, SECTION 4- MOBILE SOURCE AIR POLLUTION), forbids in Section 2.2.5.1.4.5 the use of lead in gasoline in quantities higher than those specified internationally, except for fuel for piston-engine aircraft.

2.2.2. Exposure of children to lead

> ANNEX I b) Eliminate exposure of children to lead resulting from products intended for use by children (e.g., toys, cribs, crayons);

Act 2041 focused on limiting lead exposure of vulnerable population and specifically children. Thus, Section 9, prohibits the exposure of children to toys and all solid products designed for use by children, the surface area of which may be accessible to children, that exceed 90 ppm of lead.

Additionally, regarding exposure of children to lead, Colombia has focused its activities on limiting the amount of lead in protective coatings on furniture and other products intended for children: toys, didactic materials, accessories.

The Ministry of Health and Social Protection issued **Resolution 686 of 2018**, which establishes the technical regulation that has to be met by toys and accessories that are produced, imported and commercialized in the country. Specifically, Section 6. (Requirements) sets up migration limits of lead in toys and accessories, according to three categories:

- Category I: Dry, cracked, similar to dust or flexibles materials: 13,5 mg/kg.
- Category II: Liquid or sticky materials: 3,4 mg/kg.
- Category III: Scraped materials: 160 mg/kg.

2.2.3. Exposure from food and beverages

2.2.3.1. Exposure to lead from food packaging

> ANNEX I. c) Eliminate exposure to lead from food packaging (e.g., for cans, by phasing down the use of lead solder in existing canning lines, not using lead solder in new canning lines, or where these are not practical, using functional barriers to prevent lead migration; for wine-bottle capsules, substituting other materials);

The Ministry of Health and Social Protection has developed a legal framework related to this topic. Details of the regulations can be found below:

Resolution 683 of 2012 establishes the technical requirements that shall be known relating materials, objects, packaging and equipment intended to come into contact with food and beverages for human consumption in the national territory, in order to protect human health and to prevent consumers from being misled.

Section 13. Requirements for the manufacture of materials, objects, packaging, equipment intended to come into contact with food and beverages.

- Raw materials shall meet the following requirements:

  All substances to be used in the manufacture of materials, objects, containers, packaging, or equipment intended to come into contact with food and beverages, must have been included in the positive list from the FDA (Food and Drug Administration) of the United States of America, the European Union (EU), their member countries, or Mercosur.

Section 17. The activities related to inspection, monitoring and control are carried out by the National Institute of Food and Drug Monitoring (INVIMA by its acronym in Spanish) along with Territorial Health Departments.

Resolution 4142 of 2012 establishes the technical regulation for the sanitary requirements, that have to meet metallic materials, objects, packaging and equipment, intended to come into contact with food and beverages for human consumption in the national territory.

- Section 21. Prohibitions. Metallic materials in contact with food and beverages and their raw materials are subject to the following prohibitions.

  5.Presence of Impurities:

  5.1.The sum of the concentrations of antimony, arsenic, cadmium, copper, mercury, and lead shall not be higher than 1% (10000 mg/kg).

  5.2.The maximum allowable level of arsenic, mercury, and lead individually is 0,01% (100 mg/kg).

Resolution 834 of 2013, issues the technical regulation for the sanitary requirements of cellulosic materials, objects, packaging equipment and its additives intended to come into contact with food and beverages for human consumption.

- Specifically, Section 9 establishes the maximum allowed limits levels of heavy metals (including lead) in these objects. The sum of Lead (Pb), Cadmium (Cd), Mercury (Hg) and Chromium (Cr VI), shall not be higher than 100 mg/kg

- Section 14. Prohibitions. It prohibits to use of elements and substances in cellulosic materials in concentrations higher than those shown in the corresponding table. Regarding the lead concentration, it should be lower than 0.003 mg/dm^2, according to the superficial area of the cellulosic material.

2.2.3.2. Exposure to lead from the leaching from ceramic and crystal ware.

ANNEX I d) Restrict exposure to lead from the leaching of lead from ceramic ware and crystal ware used for food and beverages (e.g., by effective production and process controls);

Regarding the leaching of lead from ceramic ware and crystal ware intended to come into contact with food and beverages for human consumption, the Ministry of Health and Social Protection has issued the following Resolution:

Resolution 835 of 2013 establishes the technical regulation for the sanitary requirements that have to meet glass or ceramic materials, objects, packaging and equipment, intended to come into contact with food and beverages for human consumption in the national territory.

- Specifically, Section 5 establishes the total and specific leaching limits of lead, for packaging and equipment made out of ceramic, glass, enameled or vitrified, concerning the material that enters into contact with food and drink, and Section 6 provides the specific leaching limits of lead for glass objects and equipment.
- It is important to mention that the National Institute of Food and Drug Monitoring (INVIMA by its acronym in Spanish) along with territorial health departments are responsible for verifying compliance with the leaching limits after three (3) years from the entry into force of each of the above-mentioned resolutions for each of the regulated materials.

2.2.4. Exposure from water

> Annex 1. g) Reduce lead levels in drinking water through appropriate measures (e.g. treatment of the water, use of materials in the distribution system which do not release lead into the water)

The Ministry of Environment and Sustainable Development has issued an integral legal framework related to this topic. Details of the regulations can be found below:

Decree 1076 of 2015 (Chapter 3, Water management and wastewater discharges). Provisions related to reducing lead levels in water resources are included in the following Sections:

- 2.2.3.3.4.1 (Substances of priority concern),
- 2.2.3.3.9.3-8 (Water quality criteria for each use - Households, agricultural, and livestock use)
- 2.2.3.3.9.10 (Water quality criteria for protection and preservation of fauna and flora)
- 2.2.3.3.9.16-17 (Concentrations of the substances of priority concern used for the load control in the discharges) (except for any limits imposed in Resolution 631 of 2015—see below).

Resolution 631 of 2015 includes physical-chemical parameters and maximum limit allowed of lead for discharges into surface waters and the public sewerage systems.

- Section 8 (parameters for non-households wastewater discharges (industrial or commercial).
- Section 9 (agroindustry and livestock activities).
- Section 10 (mining activities).

- Section 11 (hydrocarbon-related activities).
- Section 12 (food and beverage production).
- Section 13 (production and manufacture of goods - including chemical substances, pesticides, batteries, electrical accumulators, etc.).
- Section 14 (provision regarding services, including power generation, waste treatment and disposal, health-related services, etc.).
- The lead limits for non-domestic wastewater discharges into public sewerage systems are the same as those applicable to each sector for discharges into surface waters.

2.2.5. Exposure from air

ANNEX I e) Limit air emissions from major point sources

Resolution 909 of 2008, issued by the Ministry of Environment, Housing and Territorial Development (now the Ministry of Environment and Sustainable Development), establishes norms and standards regarding allowable emissions rates of pollutants into the atmosphere from stationary sources and regulates other matters.

- Sections 4 establishes Emission Standards for industrial activities at Standard Ambient Temperature and Pressure SATP (25ºC and 760 mm Hg), O_2 (11%). For lead (Pb) the given limit value is 1 mg/m3.
- Section 6 establishes the industrial activities and pollutants to be monitored: The industrial activities, related to lead, that have to be monitored are Lead smelting and Lead production from lead sulfide. The pollutants that shall be measured and monitored in the first case are: PM, Pb, Cd, and Cu and PM, SO_2, Pb, Cd, and Cu in the second case.
- Section 50 establishes the Emissions standards for heavy metals in hazardous waste incinerators and Cement co-processing furnaces.
- Section 57 establishes the Emissions standards for heavy metals in non-hazardous waste incinerators, and
- Section 93 establishes the Emissions standards for lead, which have to fulfill the installations that use waste mineral oil as fuel.

Resolution 610 of 2010, issued by the Ministry of Environment, Housing and Sustainable Development (now the Ministry of Environment and Sustainable Development), which modifies Resolution 601 of 2006, regarding the air quality standard or maximum allowable emissions levels of major air pollutants, in the national territory, at reference conditions. Specifically, Section 3 of Resolution 610 of 2010 establishes the maximum allowable pollutant levels, for non-conventional pollutants related to carcinogenic effects, including lead.

2.3. Review lead levels in the environment and the exposure to lead in sensitive populations and high-risk populations

3. CONTINUE TO REVIEW LEAD LEVELS IN THE ENVIRONMENT AND EXPOSURE TO LEAD OF SENSITIVE POPULATIONS (SUCH AS CHILDREN AND PREGNANT WOMEN) AND OF HIGH-RISK POPULATIONS (SUCH AS CERTAIN GROUPS OF WORKERS) USING THE RESULTS TO EVALUATE THE EFFECTIVENESS OF NATIONAL PROGRAMMES IN REDUCING RISKS OF EXPOSURE TO LEAD AND TO IDENTIFY PRIORITIES AND OPPORTUNITIES FOR FUTURE ACTIONS

Regarding this, *Chapter 2. Children, Section 8. Lead Concentration* stipulates: The state promotes that children and pregnant women residing in the national territory have a lead concentration below 5µg (micrograms) per dl (deciliter) of blood (µg/dl).

- Paragraph 1. Notwithstanding the foregoing, in a progressive manner and in accordance with budgetary capacities. The Colombian State shall ensure that no Colombian adult has a lead concentration higher than 10µg per dl of blood.

- Paragraph 2. In any case, the maximum levels of lead in blood may be updated by regulation of the national government according to the advances of science.

Additionally, in order to monitor the products that may contain lead in the Colombian market, Section 6 of Act 2041 establishes that the Ministry of Health and Social Protection and the Ministry of Commerce, Industry and Tourism, with the support of their affiliated or related entities, will have in their databases, information on the products present in the Colombian market that contain lead (industrial products, fertilizers, pesticides, paints, varnishes, cosmetics, jewelry, children's toys, etc.) and their consumption in the national market. This information will be an input for the development of specific lead regulation strategies, which in turn will take into account differentiated criteria of territoriality and epidemiology, productive sectors and economic dynamics, risks by age and risks by exposure.

2.3.1. Review lead levels in the environment

The National Health Institute (INS by its acronym in Spanish) is in charge of controlling and monitoring water quality through the Monitoring System on Water Quality for Human Consumption (SIVICAP by its acronym in Spanish). This system includes the measurement of lead in drinking water, in compliance with Section 5 of Resolution 2115 of 2007 (maximum allowable levels of certain substances in drinking water, including lead). These results will be included in risk maps, in order to identify risk factors, as well as physical, chemical and microbiological characteristics of the water sources close to the aqueducts´ reservoirs. All of these instruments are intended to protect human health.

Regarding the risk of exposure to lead from air and water, as mentioned before, maximum permissible levels have been established in Resolution 610 of 2010, Resolution 909 of 2008 (for air) and Decree 1076 of 2015 (chapter on water use and wastewater discharges) and Resolution 631 of 2015 (for water).

2.3.2. Exposure to lead in sensitive populations

Regarding exposure to lead of sensitive populations, like children and pregnant women and high-risk populations, Colombia has focused its activities in limit the amount of lead in protective coatings on furniture and other Sections intended for children use, and in toys, didactic materials, accessories and other products used by children.

As mentioned before, the Ministry of Health and Social Protection (Minsalud) issued Resolution 686 of 2018, which establishes the technical regulation governing toys and accessories that are produced, imported and commercialized in the country.

Through national support for the formation of PhDs in science, the development of projects that aim to establish the levels of exposure to lead in the child population has been encouraged.

- Toxicological effects in children exposed to lead: A cross-sectional study at the Colombian Caribbean coast (Alvarez-Ortega et al. 2019).

2.3.3. Occupational exposure

As mentioned above, Section 7 of said Act emphasizes the reinforcement of control and monitoring activities in industries that process, recover or recycle lead. Also, Section 13 of the Act establishes that employers will be obliged to evaluate the maximum permissible limits of lead concentrations in working environments, in those workplaces where there is a risk of exposure to lead, as follows:

- Sampling should necessarily be of personal type, with the sampling devices being placed on the worker, and should be carried out in such a way as to permit the evaluation of the maximum probable exposure of the worker(s), taking into account the work carried out, the working conditions and the duration of exposure. The duration of the sampling should cover at least 80% of the daily working day.

- If there are groups of workers performing identical tasks involving a similar degree of exposure, the personal samples may be reduced to a sufficient number of workplaces representative of these groups, with at least one personal sample for every ten workers and work shift.

2.4. Promote and maximize the use of environmentally sound and economically viable recollection and recycling programmes for lead and lead-containing products.

PROMOTE AND MAXIMIZE THE USE OF ENVIRONMENTALLY SOUND AND ECONOMICALLY VIABLE COLLECTION AND RECYCLING PROGRAMMEMES FOR LEAD AND LEAD-CONTAINING PRODUCTS IN ORDER TO REDUCE THE RELEASE OF LEAD TO THE ENVIRONMENT FROM WASTE STREAMS.

In the frame of this Act, the requirements for lead waste management are established. In Section 11 it is established that lead waste has to be managed as hazardous waste, according to the environmental legislation in force: Act 1252 of 2008 and Decree 1076 of 2015, or other regulations that modify, replace or complement it.

It is also added, that the construction and operation of facilities to store, treat, recover or final disposal of lead hazardous waste, shall have their respective environmental license and include in their Environmental Management Plan the measures aimed at preventing, mitigate, correct or compensate the present environmental impacts, as well as the monitoring and follow-up programme and the integrated Contingency Plan.

By **Decree 1076 of 2015** (Chapter 6 – Hazardous waste) issued by the Ministry of Environment and Sustainable Development (Minambiente), duties and responsibilities from producers, generators, transporters and waste managers were set forth. This decree also served as basis for creating the national regulation of Selective Collection and Management Systems of hazardous waste, like lead-acid batteries.

Specifically, Section 2.2.6.1.4.1 describes the hazardous wastes streams that are required to have Extended Producer Liability (EPL) Schemes of management. In those schemes, the actors across the lead-batteries value chain (producers, importers, and retailers) have to assume a significant degree of liability for the environmental impact of their products throughout their entire lifecycle.

Resolution 372 of 2010 establishes the requirements for formulation and implementation of Selective Collection and Management Systems, which are based on the Extended Producer Liability (EPL) principle. Those Systems shall be submitted for its approval to the National Environmental Licensing Authority (ANLA by its acronym in Spanish) (Section 8, Resolution 372).

Regarding results of these collection and management schemes, more than 211,264 t of waste was collected, and there are 835 collection points of used batteries, which are located in 124 municipalities.

2.5. Extend cooperative efforts to share information about exposures, risk reduction options and technologies to reduce risks to exposure to lead.

EXTEND CO-OPERATIVE EFFORTS TO SHARE, INCLUDING WITH NON-OECD COUNTRIES, INFORMATION ABOUT EXPOSURES OF CONCERN, RISK REDUCTION OPTIONS AND ENVIRONMENTALLY SOUND AND ECONOMICALLY VIABLE TECHNOLOGIES IN ORDER TO REDUCE RISKS OF EXPOSURE TO LEAD.

Colombia is taking part in the Global Environmental Facility (GEF) project named “Lead Elimination in Paints in the Andean Free Trade Region”. This project aims to promote the design and elaboration of a legal instrument to limit Lead level in paints, to structure the corresponding action plan for its implementation and to promote the substitution of obsolete technologies that are still using lead-contaminated raw materials.

The specific objective of this initiative is to promote than 40 Countries around the world develop and implement regulation to phase down the utilization of lead-containing paints and encourage that 50 small and medium-size paint enterprises, in 8 countries, eliminate progressively the lead used in their production processes.

Additionally, the project pretends to achieve regional and national awareness on the implications of having lead in paint and to promote the use of alternative paints.

The participant countries in Latin America are Peru, Ecuador and Colombia and the implementing agencies of the project are the National Centers for Cleaner Production and Environmental Technologies (CNPMLTA) of each Country.

The project is planned for a duration of 48 months. It is expected that in the year 2021 measurable results are obtained and in the year 2022, the elaboration of the final reports and the socialization of results are carried out.

The partners and supporters of this project are:

- United Nations Environment Programmeme, Subdivision of Chemical Products and Health (Main coordinator of the paint component)
- World Health Organization (WHO)
- International POPs Elimination Network (IPEN)
- The American Bar Association's Rule of Act Initiative (ABA ROLI)
- National Centers for Cleaner Production and Environmental Technologies (CNPMLTA)
- The Economic Community of West African States (ECOWAS)
- The United States Environmental Protection Agency (US EPA)
- International Paint and Printing Ink Council (IPPIC)

Throughout 2020, several institutions of the Government of Colombia, as well as private sector associations, participated in the orientation of the project activities, through a National Coordinating Committee. At the meetings of this committee, the implementing agency presented the progress made in each of the stages and activities, receiving feedback from the entities.

As of April 2021, the project has advanced in the following results:

1. Development of a baseline market analysis study of the different types of paints that are manufactured and marketed in Colombia, with some information regarding the presence of lead in them. This market analysis complements the study that was developed by the Ministry of Environment in 2017, the results of which were presented in the previous progress report. The baseline market analysis study report (in Spanish) can be consulted at the following link: http://www.saicm.org/Portals/12/Documents/GEF-Project/Lead-Paint/Baseline-Colombia-SP.pdf
2. Progress in a pilot test through which three SMES paint manufacturers are being supported to replace raw materials with lead, with substitutes without this metal, as well as to carry out adaptations to their production process and to be able to manufacture and market lead-free paints. The pilot tests are now in the final phase, with positive results, that will be published shortly on the global project web portal: http://www.saicm.org/Implementation/GEFProject/LeadinPaintComponent/Output11/tabid/7974/language/en-US/Default.aspx.
3. The pilot test also involves approaches with distributors of raw materials and supplies for the manufacture of paints in Colombia, in order to learn about the supply of lead-free alternatives in the national market. At the end of the project, it is expected to have a list or reference catalog of these alternative raw materials, available to paint manufacturers, due to facilitate for the latter, the change in their production processes to lead-free paints.
4. The executing agency (Colombia NCPC), together with the international coordinators of the global project, has provided information and developed awareness workshops, both for regulatory entities, as well as the private sector and other stakeholders, for facilitating the development of a regulation that limits the lead content in paints, in Colombia.

   Among the activities and workshops developed we can mention an overview of Lead Paint Laws in the GRULAC region and the presentation of the Model Law and Guidance for Regulating Lead Paint, jointly developed by UN Environment, WHO and US EPA. The information provided has been very

useful in the process of formulating the technical regulation, which on the subject, is being developed, to this date, by the Ministry of Health and the Ministry of Trade, Industry and Tourism.

2.6. Encourage the lead producing and using industries to make the best use of their expertise on lead management risk and encourage them to make this expertise available to OECD and non-OECD countries.

ENCOURAGE THE LEAD PRODUCING AND USING INDUSTRIES TO MAKE THE BEST USE OF THEIR EXPERTISE ON THE MANAGEMENT OF RISKS FROM LEAD AND ENCOURAGE THEM TO MAKE THIS EXPERTISE AVAILABLE TO OECD AND NON-OECD COUNTRIES.

As mentioned above, the GEF project results will contribute to the continuous information exchange between the industrial sector of non-OECD Countries, like Peru, Ecuador with Colombia. In order to promote the substitution of obsolete technologies and the use of raw materials with lower lead levels. These countries have shown their interest to implement voluntary measures to reduce lead exposure risks by implementing a legal framework to phase down the use of lead in paints and through strategies to be adopted by the industrial sector.

2.7. Work with the lead producer industry to develop its voluntary action programme to reduce exposure to lead.

WORK WITH THE LEAD PRODUCER INDUSTRY TO DEVELOP ITS VOLUNTARY PROGRAMMEME OF ACTION TO REDUCE EXPOSURE TO LEAD, WHICH WILL BE IMPLEMENTED IN CO-OPERATION WITH NATIONAL AUTHORITIES IN OECD AND INTERESTED NON-OECD COUNTRIES AND ENCOURAGE USER INDUSTRIES TO DEVELOP SIMILAR PROGRAMMEMES.

Regarding the activities made by the Colombian Government to reduce and eliminate the risk of exposure for lead in the paint sector, during 2018, the efforts were focused on the development of two Guiding documents:

- Guiding document for governmental entities, where it is established a proposal to work together to reduce and minimize the risks associated to lead in paints. This guiding document is being concerted with the Ministry of Health and Social Protection, the Ministry of Commerce, Industry and Tourism, the Ministry of Labour and the Ministry of Environment and Sustainable Development.

  Through the Guiding document, the governmental actors will count on technical bases that allow them to formulate and implement actions aimed to phase down lead levels in paints that are used by households, in order to reduce the risks to health and the environment, associated with contamination with this metal.

  - The first chapter is focused on giving a general perspective of the decorative paint sector in Colombia. (Productive processes, raw materials, producer and importer enterprises, etc.)
  - The second chapter shows lead and other heavy metals´ sources in decorative paints.

- The third chapter presents the environmental and health impacts generated by lead and other heavy metals used.
- The fourth chapter presents the international legal framework related to phase-down lead in decorative paints and voluntary measures implemented. And finally,
- The fifth chapter proposes an interinstitutional working structure to develop actions focused on the reduction and elimination of lead in decorative paints used by households in Colombia.

- The second Guiding document is aimed at the industrial sector, focused on medium- and small-size enterprises, where the identification and description of alternatives, to reduce and eliminate the lead used in paint, are made. This Guiding document is currently in the publication process by the Ministry of Environment and Sustainable Development.

This document presents a general perspective of lead and other heavy metals impacts on health and environment, the description of international and national legal framework related to the reduction and elimination of lead in domestic paints´ and it provides recommendations to communicate the associated lead exposure risks to the population through the paints´ labels. Finally, the Guiding document presents a methodology that can be used by producers and importers to substitute lead-content raw materials for less-pollutant raw materials.

As mentioned before, voluntary strategies have been implemented regarding the lead producer industry. It is also important to highlight the actions that have been developed by the 78th National Technical Committee – "Paints and related products" of the Colombian Institute of Technical Standards (ICONTEC). In this sense, ICONTEC has translated voluntary measures to reduce lead levels, in coordination with the industrial sector, into Technical Standards.

3. References

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