

# Update on the Global Status of Legal Limits on Lead in Paint December 2020



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# Global Perspective

## NEW in the 2020 Global Update

**NEW LAWS:** Colombia, Lebanon and Viet Nam established new laws to address lead in paint; China updated an existing law; and the status of Ecuador, Pakistan and Qatar in WHO's database was updated to reflect existing laws.

**NEW TOOLS:** WHO published several documents: [Guidance on organizing an advocacy or awareness- raising campaign on lead paint](#); [Brief guide to analytical methods for measuring lead in paint, second edition](#); and both a [Policy](#) and [Technical](#) brief on Global elimination of lead paint: why and how countries should take action, which were developed jointly with UNEP (all documents are available in all UN languages).

**NEW MOMENTUM:** Even in the midst of the COVID-19 global pandemic, many countries are continuing to take steps to eliminate lead paint. Many of these actions have been the result of virtual consultations and meetings at both the country and regional level under the Strategic Approach to International Chemicals Management (SAICM) Global Environment Facility (GEF) project on lead paint. Globally, UNEP sponsored two webinars for [policymakers](#) and [industry](#) and four online discussions of the [Lead in Paint Community of Practice](#).

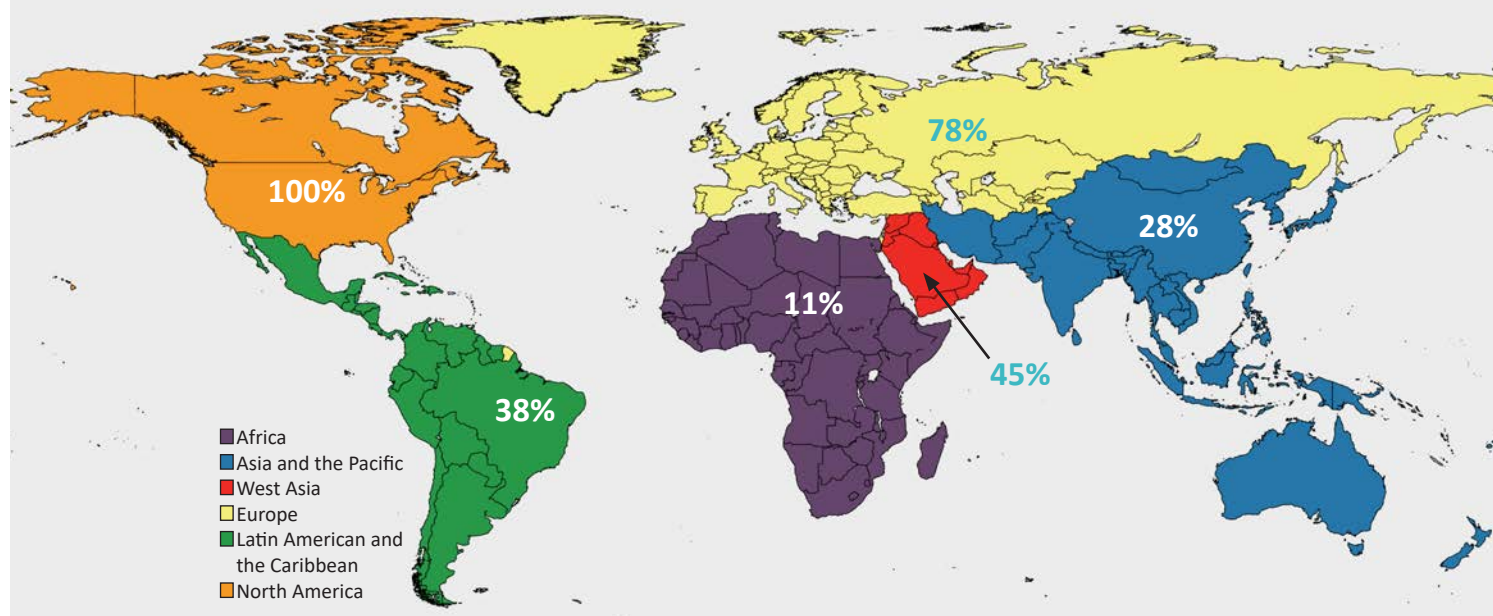
## Global Progress Toward Eliminating Lead Paint

As of 31 December 2020, 79 countries have legally binding controls to limit the production, import and sale of lead paints, which is 41% of all countries. In many countries, using lead paint in homes and schools is not prohibited, creating a significant risk of children's exposure to lead. The most effective means of preventing lead exposure from paints is to establish national laws, including legislation, regulations and/or legally binding standards as appropriate, that ban the use of lead additives in paints. Countries that have not yet done so are urged to enact and enforce effective national legislation, regulations and/or standards to, at a minimum, stop the manufacture, import and sale of household decorative lead paints. Countries are also encouraged to consider limiting lead in all types of paints.

This update is provided annually by the United Nations Environment Programme (UNEP) in support of the Global Alliance to Eliminate Lead Paint (Lead Paint Alliance). UNEP and the World Health Organization (WHO) serve as the joint Secretariat for this international voluntary initiative (see Endnote 1). The key priority of the Lead Paint Alliance is to promote establishing lead paint laws in all countries.

The map below shows the percentage of countries as of December 2020 with lead paint laws within each of the six UNEP regions (see page 13 for a list of countries by UNEP region). Table 1, on the following page, lists the specific countries with lead paint laws by region.

Map 1: Percent of Countries with Lead Paint Laws in Each UNEP Region, as of December 2020



The designations employed and the presentation of material on the maps in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The depiction and use of boundaries, geographic names and related data shown on maps and included in lists and tables in this document are not warranted to be error free nor do they necessarily imply official endorsement or acceptance by the United Nations.

Countries that have only put in place legally binding controls on lead coatings used on children's toys are not counted in this update. Eliminating lead paint on children's toys provides only partial protection, since it does not address household decorative paints from which much wider exposure is possible. Likewise, countries that have only ratified the International Labour Organization (ILO) White Lead (Painting) Convention, 1921 (No. 13), which prohibits the use of lead carbonate and lead sulphate in paints, are also not included in this update. Since these lead compounds are no longer widely used in paints, the ILO Convention alone does not provide sufficient benefit in reducing lead exposure.

Unless otherwise noted, all the data in the maps, tables and figures are from WHO: Regulations and controls on lead paint, 31 December 2020 (database) (see Endnote 2).

**Table 1: Countries with Confirmed Lead Paint Laws in Each UNEP Region**

Africa	Asia and the Pacific	West Asia	Europe			Latin America and the Caribbean	North America
Algeria Cameroon Ethiopia Kenya South Africa United Republic of Tanzania	Australia Bangladesh China** India Nepal New Zealand Pakistan+ Philippines Sri Lanka Thailand Viet Nam*	Iraq Jordan <b>Lebanon*</b> Oman Qatar+	Armenia Austria Belarus Belgium Bulgaria Croatia Cyprus Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Israel	Italy Kazakhstan Kyrgyzstan Latvia Liechtenstein Lithuania Luxembourg Malta Monaco Montenegro Netherlands North Macedonia Norway Poland Portugal Romania Russian Federation	Serbia Slovakia Slovenia Spain Sweden Switzerland United Kingdom	Argentina Brazil Chile <b>Colombia*</b> Costa Rica Cuba Dominica Ecuador+ Guyana Mexico Panama Trinidad and Tobago Uruguay	Canada United States of America

\*New since 1 October 2019

\*\*Existing law revised

+Status updated in the WHO database

## Lead Exposure from Paint

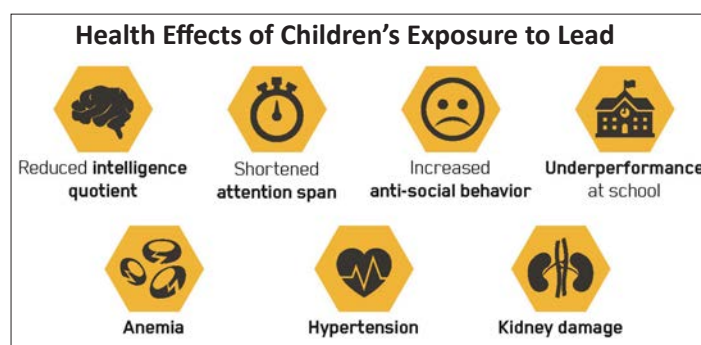
Historically, lead compounds have been added to oil-based decorative and industrial paints and other coatings to enhance colour, reduce corrosion on metal surfaces or shorten drying time. Today, non-lead pigments, driers and anti-corrosive ingredients are widely available for use in most oil-based paints.

After the application of lead paint, weathering, peeling or chipping of the paint releases lead particles into dust and soil in and around homes, schools, playgrounds and other locations. Decorative paint for household use has been identified as the main source of children's lead exposure from paints. Lead-containing dust can also be brought into the home on the clothes of those who work in industries where such dust is generated, including paint factories where lead additives continue to be used.

Lead-contaminated soil and dust are easily ingested, particularly by young children when they play on the floor or outdoors and put their hands or other objects in their mouths. Children also ingest lead if they mouth and chew toys painted with lead paint. Both children and adults can be exposed to lead in paint chips and dust during the removal of old lead paint.

## Negative Health Effects from Lead Exposure

There is no known level of lead exposure that is considered safe. Lead can cause permanent damage to the brain and nervous system, resulting in decreased IQ and increased behavioural problems. It can also cause anemia, increase the risk of kidney damage and hypertension, and impair reproductive function. Young children and pregnant women (whose developing fetus can be exposed) are especially vulnerable to the adverse effects of lead. Even relatively low levels of exposure can cause serious and irreversible neurological damage. The Institute for Health Metrics and Evaluation has estimated that, based on 2019 data, lead exposure accounted for 0.90 million deaths from long term effects and 21.7 million disability adjusted life years (DALYs) lost (0.86% of total DALYs) (see Endnote 3).



## Preventing Health Effects and Related Economic Costs

The negative impacts on children's developing brains resulting from exposure to lead has staggering economic costs that are borne by the affected children, their families and societies at large. These include health care costs, productivity losses and intellectual disability.

The largest economic burden of lead exposure is borne by low- and middle-income countries. Estimated annual costs (in international dollars) of lead exposure by global region, based on loss of IQ, include the following: Africa - \$134.7 billion; Latin America and the Caribbean - \$142.3 billion; and Asia - \$699.9 billion. For annual costs by country, visit the New York University map of Economic Costs of Lead Exposure (see Endnote 4).

The cost of removing existing decorative lead paint from surfaces in homes, schools and other buildings can be substantial. By contrast, the economic cost is low for eliminating the use of lead compounds in new decorative paints. In fact, many manufacturers have already successfully reformulated their paint products to avoid the intentional addition of lead. According to the paint industry, the reformulation of residential and decorative paints to eliminate lead additives is feasible, and the technical and cost impacts are manageable. Increasingly, paint producers are publicly stating that it is possible to eliminate lead additives in all types of paint.



# Timeline of Global Activity

Lead is a cumulative toxicant that poses serious risks to human health and development, with children being especially vulnerable. WHO has identified lead and its compounds as one of the top ten chemicals of major public health concern. Lead-containing paint remains one of the major sources of lead exposure for children globally. The international community, governments, industry and non-governmental organizations are working together to promote the establishment of lead paint laws in all countries.

In 2009, the second International Conference on Chemicals Management under the SAICM policy framework nominated lead in paint as an emerging policy issue. The Lead Paint Alliance was established in 2011 to spearhead activities to promote the global phase-out of lead paint under the joint leadership of UNEP and WHO. It has the goal of phasing out the manufacture, import and sale of paints containing lead through legally binding controls in every country. This timeline provides an overview of the Lead Paint Alliance's accomplishments.

**2011 – Lead Paint Alliance:** Established jointly by UNEP and WHO.

**2012-2015 – SWITCH-Asia Lead Paint Elimination Project:** The European Union (EU) funded work led by the International Pollutants Elimination Network (IPEN) in seven Asian countries to help phase out lead paint. Five of the seven countries have passed lead paint laws.

**2014-2017 – GEF UNEP Paint Elimination Project in Africa:** IPEN worked directly with four countries and reached out to additional countries in that region to promote lead paint phase out. Three countries ended up passing lead paint laws.

**May 2017 - WHO Chemicals Roadmap:** The 70<sup>th</sup> World Health Assembly approved the Roadmap, which included an action item for WHO Member States to establish lead paint laws.

**August 2017 - American Bar Association (ABA) Resolution:** The ABA encouraged their members to support lead paint laws worldwide.

**September 2017 - 2017 Update on the Global Status of Legal Limits on Lead in Paint:** UNEP provided lead paint background information and an update on progress toward establishing laws.

**November 2017 - Model Law & Guidance for Regulating Lead Paint:** UNEP provided lead paint background information and a model template for a lead paint law.

**December 2017 - UNEA 3 Resolution on Lead Paint:** Member States passed a resolution calling for the global elimination of lead paint through the establishment of lead paint laws.

**May 2019 - Two-Year Lead Paint Alliance Action Plan:** The Two-Year Lead Paint Alliance Action Plan laid out concrete actions for partners to promote lead paint elimination.

**2019 – 2021 - SAICM GEF Project:** The project implemented by UNEP in collaboration with partners, is assisting governments to establish lead paint laws in over 60 countries and is providing guidance to industry to facilitate the shift to producing non-lead paints.

Global Alliance to Eliminate Lead Paint

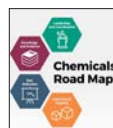
**2011 - Global Alliance to Eliminate Lead Paint** formally launched



**2012-2015 - SWITCH-Asia Lead Paint Elimination Project**



**2014-2017 - GEF Lead Paint Elimination Project in Africa**



**May 2017 - WHO Chemicals Roadmap**



**August 2017 - ABA Resolution on Lead Paint**



**September 2017 - 2017 Global Status Update**



**November 2017 - Model Law & Guidance for Regulating Lead Paint**



**December 2017 - UNEA 3 Resolution on Lead Paint**



**May 2019 - Two-Year Lead Paint Alliance Action Plan**



**2019-2021 - SAICM GEF Project**

# Global Status of Lead Paint Laws

The map below shows data on the status of countries' lead paint laws as provided by governments to UNEP and WHO (see Endnote 2). As of 31 December 2020, 79 countries had confirmed that they have legally binding controls on lead in paint, 82 stated that they do not, and information was unavailable for the remaining 32 countries.

Map 2: Countries with Lead Paint Laws, as of December 2020

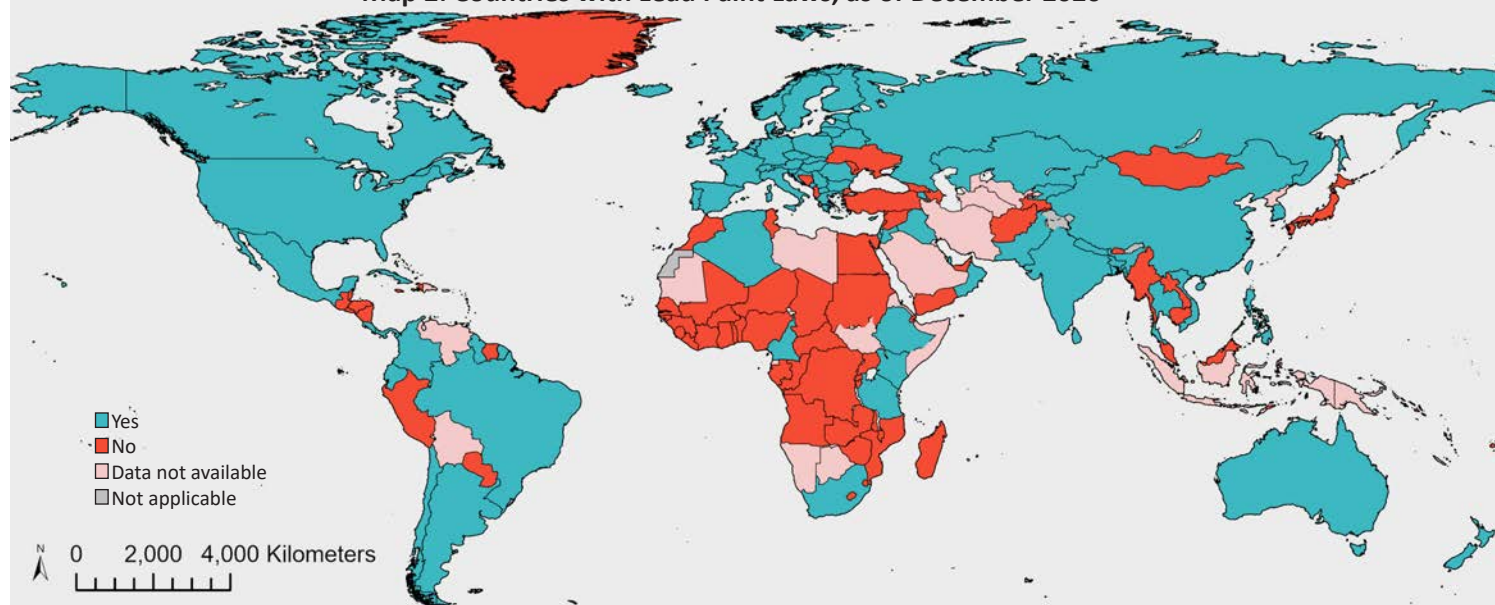
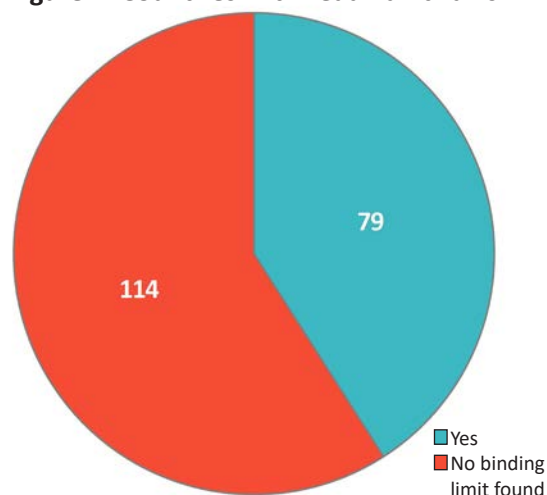


Figure 1: Countries with Lead Paint Laws



Currently **79** countries have lead paint laws and more countries are passing new laws every year.

## Lead is Still Present in Paint in High Levels in Many Countries

Since 2009, more than 100 studies have shown that lead paints are still widely sold in low- and middle-income countries. Most of the paints tested for lead were found to exceed the 90 parts per million (ppm) or 600 ppm legal limit that has been set by many countries as an achievable limit. In addition, many of these paints contained very high levels of lead: above 10,000 ppm of the dry weight of the paint. To see paint testing results by country, go to the link for the IPEN map entitled “Lead Levels in Paint Around the World” (see Endnote 5). IPEN is a Lead Paint Alliance partner and is an international public interest, non-profit organization comprised of hundreds of participating environmental and public health organizations in over 100 countries, primarily in developing and transition countries.

## The Importance of Lead Paint Laws

The elimination of lead exposure at its source is the single most effective action to protect people from the harmful effects of lead. Most industrialized countries adopted laws or regulations to control the lead content of residential and decorative paints in the 1970s and 1980s, based on clear findings that lead-containing household paint is a major source of lead exposure in children. However, the continued use of lead in paint in many parts of the world remains an important source of exposure. To protect human health, laws, regulations or enforceable standards are needed in every country to stop the manufacture, sale and import of lead-containing paints.

# Global Approaches to Lead Paint Laws

Countries that have enacted laws to limit the lead content in paint have generally used one of two approaches: (1) establish a single regulatory limit on the total concentration of lead in paint from all sources (currently used in 40 countries) or (2) establish a set of chemical-specific regulatory limits based on the management of risks of individual lead compounds that are used as additives in paint (currently used in the EU's Registration, Evaluation, Authorisation and Restriction of Chemical (REACH) regulation). Both approaches have been effective in limiting the lead content in paint.

**90 ppm** total lead is the concentration limit recommended by the "Model Law and Guidance for Regulating Lead Paint". It is the lowest, most protective regulatory limit for lead paints that has been set in countries.

## Legal Approach 1: Regulatory Limits on Total Lead Concentration

Of the 79 countries with lead paint laws, 40 countries have established a single regulatory limit on the total or soluble lead concentration in paint (in parts per million). These existing lead limits range from 90 ppm to 1,000 ppm or higher. Thirty-four countries have a limit of 90, 100 or 600 ppm, which are all relatively low levels and indicate that lead compounds have probably not been added to the paint.

**Table 2: Countries with Limits on Total Lead Concentration**

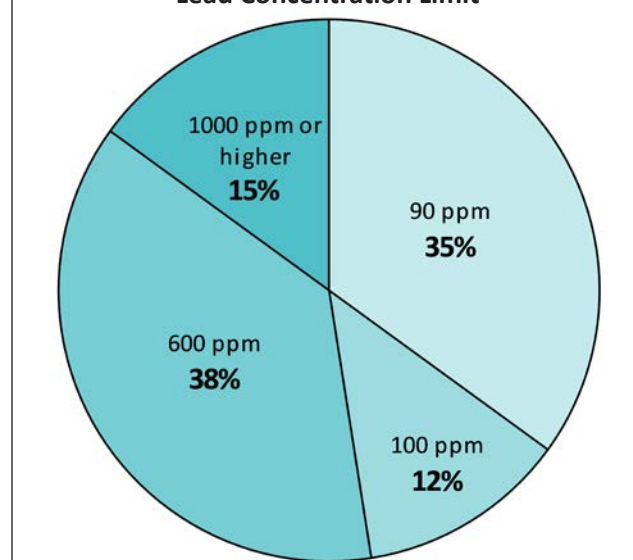
90 ppm	100 ppm	600 ppm	1000 ppm or higher
Bangladesh Canada Cameroon China** <b>Colombia*</b> Ethiopia India Iraq Israel Jordan Kenya Nepal Philippines United States of America	Ecuador+ Pakistan+ Switzerland Thailand United Republic of Tanzania	Argentina Brazil Chile Costa Rica Dominica Guyana Mexico Oman Panama Qatar+ South Africa Sri Lanka Trinidad and Tobago Uruguay <b>Viet Nam*</b>	Algeria Armenia Australia Belarus Cuba New Zealand

\*New since 1 October 2019

\*\*Existing law revised

+Status updated in the WHO database

**Figure 2: Percentage of Countries by Lead Concentration Limit**



## Legal Approach 2: Chemical-Specific Regulatory Limits

Chemical-specific regulatory limits are used by 39 countries, of which 31 have adopted the EU REACH regulation on lead compounds in paints. EU REACH restricts the addition of certain specific lead compounds to paints intended for supply to the general public, based on risk management assessments. Some specific lead compounds for use in paints are subject to an authorization procedure for manufacturers and importers that requires analyses of health and environmental risks and the availability of non-lead alternatives.

**Table 3: Countries with Chemical-Specific Regulatory Limits**

Austria^	Czech Republic^	Germany^	Italy^	Liechtenstein^	Montenegro	Poland^	Slovakia^
Belgium^	Denmark^	Greece^	Kazakhstan	Lithuania^	Netherlands^	Portugal^	Slovenia^
Bulgaria^	Estonia^	Hungary^	Kyrgyzstan	Luxembourg^	North Macedonia	Romania^	Spain^
Croatia^	Finland^	Iceland^	Latvia^	Malta^	Russian Federation	Sweden^	
Cyprus^	France^	Ireland^	<b>Lebanon*</b>	Monaco	Norway^	Serbia	United Kingdom^

\*New since 1 October 2019

^Countries that have adopted the EU REACH regulation

## Recent Activities

- **May 2020:** UNEP launched an updated version of its "[Lead paint law status interactive map](#)" which shows data on the status of national lead paint laws as provided by governments to UNEP and WHO. Brief information on an individual country's lead paint law and the year it was passed can be found by scrolling over each country.
- **October 2020:** The Lead Paint Alliance global webinar for policymakers had 44 attendees from governments (50% of attendees), NGOs (18%), industry (18%), academia (2%), media (2%), and intergovernmental organizations (7%), including 9 representatives from Africa, 2 from Asia and the Pacific, 2 from West Asia, 5 from Europe, 9 from Latin America and the Caribbean, 14 from the North America regions and 3 from intergovernmental organizations.
- **November 2020:** The Lead Paint Alliance global webinar for industry had 66 attendees from governments (21% of attendees), NGOs (14%), industry (62%), academia (2%), including 5 representatives from Africa, 30 from Asia and the Pacific, 2 from West Asia, 5 from Europe, 11 from Latin America and the Caribbean and 13 from the North America regions.

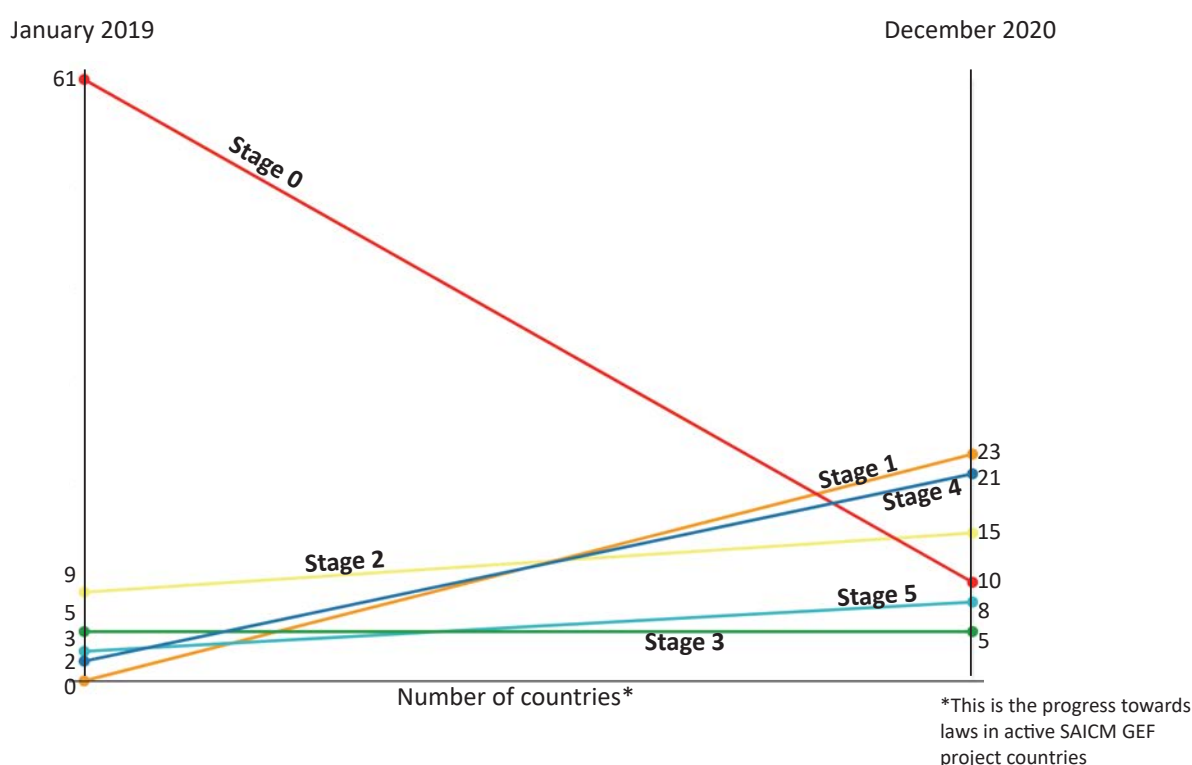
## Recent Progress Towards Lead Paint Laws

The Lead Paint Alliance is making progress towards its goal of eliminating lead paint through the establishment of lead paint laws in all countries. As previously stated, 41% of UNEP countries currently have adopted lead paint laws and the Lead Paint Alliance is aware of another 13% (26 countries) who are in the early and final stages of drafting laws (as shown in the Figure 3).

Since January 2019 and the implementation of the SAICM GEF project on lead paint, the Lead Paint Alliance has been actively working with over 60 countries to assist them in taking steps towards developing lead paint laws. Building on existing progress, the project has led to an increase in the number of countries working on and advancing through the stages towards finalizing a lead paint law as outlined here:

- **Stage 0: Steps towards laws not yet taken** – Countries where no progress have been recorded since the beginning of the project.
- **Stage 1: Government initial interest** - Countries contacting partners, designating a focal point, submitting a country approach document or which participated in the 2019 "Promoting Regulatory Action by Governments to Phase out Lead in Paint" regional workshops.
- **Stage 2: First steps taken** - Countries with plans to draft a law or have held a stakeholder meeting.
- **Stage 3: Early stages of drafting** - Countries which have organized a drafting meeting, and have produced a draft law.
- **Stage 4: Final stages of drafting** - Countries which have produced a final draft law and are awaiting political validation and endorsement.
- **Stage 5: Final lead paint law** - Countries which have adopted a lead paint law.

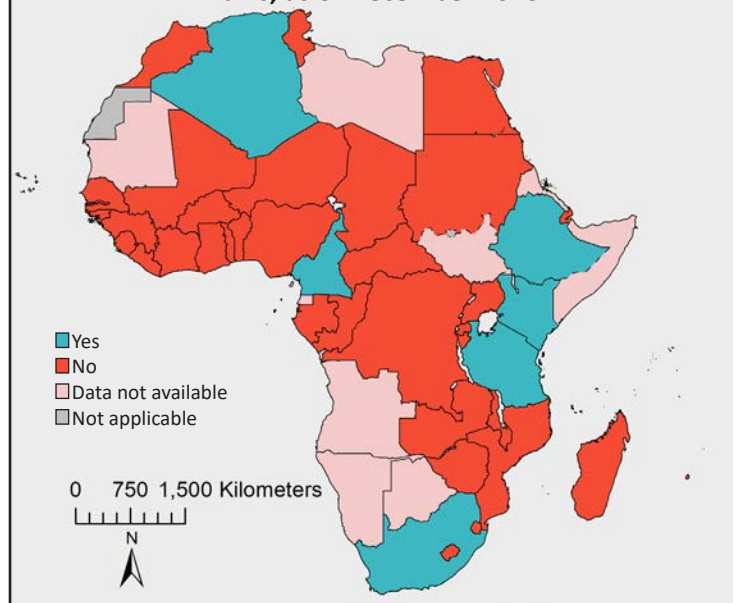
**Figure 3: Countries Making Progress Towards Laws, January 2019 to December 2020**





# Africa

**Map 3: Countries in the Africa Region with Lead Paint Laws, as of December 2020**



## Current Status

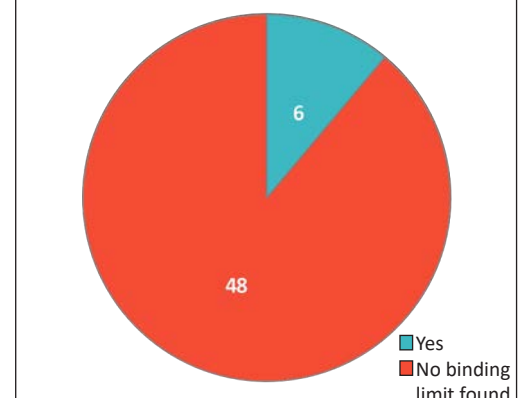
Six countries (11%) in the Africa Region have lead paint laws. Benin, Sierra Leone, and Tunisia are drafting lead paint laws. Rwanda is in the final stages of approving a regulation to implement an East African Community (EAC) regional standard and Zambia has finalized a voluntary standard limiting lead content to 90 ppm to be incorporated later into a lead paint law. Morocco and Nigeria are in the final stages of approval of a lead paint law. South Africa is in the final stages of revising an existing law to reduce the lead limit to 90 ppm. In September 2019, the EAC finalized the regional lead paint standard setting the limit of lead in paint at 90 ppm. In December 2020, Economic Community of West African States (ECOWAS) member states agreed to develop a regional lead paint standard.

Paint testing has been conducted in 21 countries in the African Region. Depending on the country study and the target level, levels of lead exceeding target levels of 90 or 600 ppm ranged from 6% to 86% of samples (see Endnote 5). The annual economic cost of childhood lead exposure in the Africa region is estimated to be \$134.7 billion, or 4.03% of regional GDP (see Endnote 4).

## Regional Activities

- The SAICM GEF project is actively working with 20 countries in the Africa region to provide advice and facilitate in-person and online meetings to discuss development of lead paint laws.
- The Lead Paint Alliance provided comments on draft laws in Benin, Ghana, Nigeria, and Sierra Leone.
- 21 events were held in 13 countries in the region during the 2020 International Lead Poisoning Prevention Week (ILPPW).
- November 2020: IPEN member NGO in Nigeria (SRADev) held a launch workshop initiating small- and medium- sized enterprise (SME) demonstration activities and to conduct ongoing discussions with the government and industry about a lead paint law in Nigeria.
- September 2020: WHO and UNEP sent a joint letter to countries in the region to encourage action on lead paint laws and resulted in follow up in several countries.
- December 2020: The ECOWAS Technical Management Committee approved the establishment of a regional standard and regulation on lead paint.

**Figure 4: Number of Countries in the Africa Region with Lead Paint Laws**



**Table 4: 2020 Summary of Country-Specific Lead Paint Laws in the Africa Region**

Country	Lead Paint Laws
Algeria	5000 ppm lead limit for manufacture, import and sale of paint

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