



# GLOBAL LEAD PAINT ELIMINATION REPORT

October 2020



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## ***Acknowledgements***

We take this opportunity to thank all those who were instrumental in compiling and shaping this report on lead paint elimination and who are working to eliminate lead from paint globally.

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## ***Disclaimer***

The contents of this report are the sole responsibility of IPEN and can in no way be taken to reflect the views of any other organization.



Established in 1998, IPEN is currently comprised of over 600 Participating Organizations in more than 124 countries, primarily developing and transition countries. IPEN brings together leading environmental and public health groups around the world to establish and implement safe chemicals policies and practices that protect human health and the environment. IPEN's mission is a toxics-free future for all. Additional information materials about IPEN's Global Lead Paint Elimination Campaign can be accessed at:

<https://ipen.org/projects/eliminating-lead-paint>

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# PREFACE

Beginning in the 1970s and 1980s, most highly industrial countries started to adopt laws or regulations to control lead paints. These typically focused on banning the manufacture, sale and use of lead decorative paints – the paints used on the interiors and exteriors of homes, schools and commercial buildings. Many countries also imposed controls on other lead paints, especially paints and coatings used in the applications most likely to contribute to lead exposure in children.

In 1999 and 2003, academic researchers reported high levels of lead in major brands of decorative paints being sold on the market in India and some other countries in Asia. Starting in 2008, NGOs in the IPEN network began to research the lead content of paints sold in the developing world. The results were startling. In 11 low- and middle-income countries, most of the solvent-based decorative paints purchased and analyzed by IPEN Participating Organizations contained high levels of lead.

In response to these studies and other activities, the Second Session of the International Conference on Chemicals Management (ICCM2) passed a resolution in 2009 identifying lead in paint as an emerging policy issue, endorsed a global partnership to promote phasing out the use of lead in paints, and invited the UN Environment Program (UNEP) and the World Health Organization (WHO) to serve as the secretariat for this global partnership.<sup>[1]</sup> The partnership was named the Global Alliance to Eliminate Lead Paint (GAELP). GAELP has set a target date of 2020 for all countries having adopted legally binding laws, regulations, standards and/or procedures to control the production, import, sale, export, distribution and use of lead paints.<sup>[2]</sup>

With the formation of GAELP, the effort to ban lead in paint became a worldwide movement involving international agencies, regional governing bodies, national governments, progressive paint industry representatives, and NGOs around the globe. In 2015, global elimination of lead in paint by 2020 was unanimously re-affirmed as a global priority issue by 141 government delegates attending the Fourth Session of the International Conference on Chemicals Management (ICCM4).<sup>[3]</sup>

IPEN launched its Global Lead Paint Elimination Campaign in 2008. The Campaign works at the international level in cooperation with UNEP, WHO, and other partners in GAELP, and at the national level with lead paint elimination campaigns and programs led by non-government organizations (NGOs), which promote regulatory controls on lead paint and raise awareness among business entrepreneurs, government officials, and consumers about the adverse human health impacts of lead paint, particularly on the health of children. Since 2008, IPEN has assisted NGOs in sampling and analyzing paints in almost 60 countries, and in developing national lead paint elimination projects and programs in many of these.

# EXECUTIVE SUMMARY

Lead is a toxic metal that causes adverse effects on both human health and the environment. While lead exposure is also harmful to adults, lead exposure harms children at much lower levels, and the health effects are generally irreversible and can have a lifelong impact.

The younger the child, the more harmful lead can be, and children with nutritional deficiencies absorb ingested lead at an increased rate. The human fetus is the most vulnerable, and a pregnant woman can transfer lead that has accumulated in her body to her developing child. Lead is also transferred through breast milk when lead is present in a nursing mother.

Even small amounts of lead can harm a child's nervous system, making it more likely that the child will have difficulties in school and engage in impulsive and violent behavior. Lead exposure in young children has been linked to increased rates of hyperactivity, inattentiveness, failure to graduate from high school, conduct disorder, juvenile delinquency, drug use, and incarceration. The economic cost of childhood lead exposure in low- and middle-income countries estimated a total cumulative cost burden of \$977 billion international dollars per year.<sup>[4]</sup>

Most highly industrial countries adopted laws or regulations to control the lead content of decorative paints—the paints used on the interiors and exteriors of homes, schools, and other child-occupied facilities—beginning in the 1970s and 1980s. However, more than 100 lead paint studies over the last decade show that lead paints are still widely sold in low- and middle-income countries, many containing very high levels of lead. In addition, many countries are still allowing the manufacture, import and sale of lead industrial paints that often contain the highest levels of lead. There is no internationally agreed definition of what constitute an industrial paint but uses include road markings, cars, marine applications, and outdoor steel structures. Studies conducted by IPEN and others show that these types of paints are sometimes used on playgrounds,<sup>[5]</sup> on metal parts of furniture used in homes and in schools,<sup>[6]</sup> and sold for home use without any warning.

## PROGRESS IN LEAD PAINT ELIMINATION

Success in global lead paint elimination will be achieved when all countries have enforced lead paint regulations and paint companies eliminate lead from

paint. However, impressive gains have been made in eliminating lead in paint over the last several years.

- **Greater awareness of lead paint.** Data on lead in paint is now available in almost 60 countries, with additional studies scheduled for release by IPEN and NGO partners in 2020-2021.
- **New lead paint standards and regulations.** Since the initiation of IPEN's Global Campaign to Eliminate Lead Paint in 2008, binding regulatory controls limiting lead content of paint have been enacted, strengthened, or are in the process of adoption in almost 50 countries. The following countries have adopted regulatory controls that sets protective limits on the use of lead in some or all types of paint:
  - **Africa:** Cameroon, Ethiopia, Kenya, South Africa, Tanzania, and Zambia. Also, an East African Community (EAC) standard requiring implementation additionally in the Republics of Burundi, Rwanda, South Sudan and Uganda;
  - **Asia:** Bangladesh, China, India, Iraq, Israel, Jordan, Nepal, Pakistan, the Philippines, South Korea, Sri Lanka, and Thailand; and
  - **Latin America:** Argentina, Brazil, Colombia, Trinidad and Tobago, and Uruguay.
- **Growing international support.** The Global Alliance to Eliminate Lead Paint (GAELP), hosted by UNEP and WHO, has developed a toolkit<sup>[7]</sup> and other important information materials, and hosted regional workshops to help governments enact lead paint laws and eliminate lead paint. Its International Lead Poisoning Prevention Week of Action (ILPPWA) in 2019 generated 89 activities in 57 countries.<sup>[8]</sup> In 2017, UNEP launched a Model Law and Guidance for Regulating Lead Paint to help countries establish laws to phase out the manufacture, import and sale of lead paint. This recommends strict limits on lead in all types of paint.<sup>[9]</sup>
- **Paint producers eliminating lead paint.** In 2011, Akzo Nobel, the world's third largest paint producer<sup>[10]</sup> announced that it had removed lead from all its paint product lines. In 2016, the world's largest paint producer, PPG, announced it had removed leaded ingredients from all its consumer paint brands and products in all countries and will completely phase out the use of lead in its products by 2020. In addition, major Asian paint producers in a number of countries have begun eliminating lead from their paint products. In addition, national manufacturers in many countries have followed suit and eliminated lead from their paint production or initiated a phase out.

- **The world's first lead paint certification program is now in place.** The Lead Safe Paint® certification program was developed by a multi-stakeholder group in the Philippines, led by the Philippine Association of Paint Manufacturers (PAPM). This program verifies that all paints under the certified brand contain less than 90 ppm (dry weight) lead in total. So far, leading brands in the Philippines, Sri Lanka, and Bangladesh have received certification under the program.<sup>[11]</sup>

## STILL MORE NEEDS TO BE DONE

Though much has been accomplished in the last several years, the majority of the countries in the world still do not have meaningful, binding lead paint regulations and we have failed to reach the 2020 target for all countries to have adopted legally binding laws, regulations, standards and/or procedures to control the production, import, sale and use of lead paints. Efforts need to scale up to reach this goal within the next five years.

- **National, multi-stakeholder action towards adopting regulations to ban use of lead in all paint needs to accelerate.** Over a hundred studies on lead paint in nearly 60 countries provide strong evidence that all countries that lack enforced regulations on lead paint will have lead paint on the market. This provides justification for all countries to ban lead paint irrespective of specific country data is available or not. The adopted regulatory controls need to include all types of paint as recommended by the UNEP Model Law and Guidance for Regulating Lead Paint. Experiences from country efforts during the past decade show that a multi-stakeholder approach is an effective way forward in many countries.
- **Donors should make significant new resources available for global lead paint elimination.** Additional resources are needed for lead paint to be effectively regulated in all countries within the next five years. This includes support for GAELP to continue to assist national governments in developing and implementing lead paint regulations, but also support for strategic activities in countries. In almost 50 countries that have adopted regulations in the past decade or are in the process of doing so, NGOs in the IPEN network were key actors in moving this forward.
- **Voluntary action by paint industry needs to be scaled up to phase out lead in all paint.** More efforts are needed to eliminate lead from all types of paint, including so-called industrial paint, to prevent exposure to children, workers and their families. Studies of lead paint on the market shows that this is within the capability of local producers, as confirmed by statements from national, regional, and international paint industry trade associations.



- **Ongoing monitoring and enforcement of existing lead paint regulation.** Adopting regulatory controls is not sufficient to effectively control the manufacture and sale of lead paint if strategies, mechanisms, and budget for monitoring and enforcing the lead paint regulations are lacking. It is therefore important that new regulations include provisions that clearly spell out mechanisms for enforcing the legal limit and consequences for non-compliance, as well as assign clear responsibilities for the various actions required by the new law or regulation.
- **Trade of lead paint ingredients needs to be controlled.** In order to reach the goal of eliminating lead paint globally, supply chain interventions are needed. One key effort is to start controlling the international, regional, and national trade of lead paint ingredients. These include controls through international and regional Conventions, trade agreements, as well as national controls on import and export.

## RECOMMENDATIONS

### *International Agencies*

- **Continue to provide guidance and information to individual governments seeking assistance in establishing regulatory controls on lead in paint.** The UNEP Model Law and Guidance for Regulating Lead Paint and its associated information materials, webinars and regional workshops provide a venue for sharing of information, experiences, and best practices among governments. These types of activities need to continue.

### *National Governments*

- **Take steps now to begin developing lead paint regulations.** Governments need to immediately initiate multi-stakeholder consultations towards national regulatory controls guided by the UNEP Model Law and Guidance to Regulate Lead Paint, and the timeline for their entry into force. Governments in countries where regulations include exemptions for certain types of paint or have non-protective limits should initiate procedures to revise these regulations. Governments should also look into efforts that can support controls on trade of lead paint ingredients, such as national import/export bans and nominations to regional and international Conventions.

### *Paint Manufacturers, Paint Industry Trade Associations, and Paint Ingredient Vendors*

- **Take voluntary action immediately to eliminate lead from all paints.** Ethical and socially responsible manufacturers should not wait for govern-

ment controls before they act but start to phase out lead from their paint production. National, regional, and international paint industry trade associations should start or continue to send clear and strong signals to their members that now is the time to end all manufacture and sale of lead paints. Paint ingredient vendors in all regions should communicate to their customers that they can supply cost-effective, high quality substitute ingredients along with the knowledge needed to appropriately use them.

### ***Donors***

- **Make significant new resources available for global lead paint elimination, with a focus on strategic country actions.** Investing in lead paint elimination and preventative approaches is a high pay-off approach compared to the enormous, documented health and economic costs associated with childhood and worker lead exposure. Therefore, additional resources should be provided in a consistent or strategic way, earmarking resources for strategic country actions.

# 1. BACKGROUND

## 1.1 HEALTH IMPACTS OF LEAD EXPOSURE

When lead paint on walls, windows, doors, furniture, playground equipment, or other painted surfaces begin to chip or deteriorate, lead is released into the surrounding dust and soil.

Children playing indoors or outdoors get house dust or soil on their hands, and then ingest it through normal hand-to-mouth behavior. Soil will typically also be transported indoors by wind and/or on shoes and clothes. If the dust or the soil is contaminated with lead, the children ingest the lead. Hand-to-mouth behavior is especially prevalent in children aged six years and under, the age group most harmed by exposure to lead. A typical one- to six-year-old child ingests between 100 and 400 milligrams of house dust and soil each day.<sup>[12]</sup>

In some cases, children pick up paint chips and put them directly into their mouths. This can be especially harmful because the lead content of paint chips is typically much greater than what is found in dust and soils. When toys, household furniture, or other articles are painted with lead paint, children may directly ingest the lead-containing, dried paint when chewing on them. Nonetheless, the most common way that children ingest lead is through lead-contaminated dust and soil.<sup>[13]</sup>

When a surface previously painted with lead paint is sanded or scraped in preparation for repainting very large amounts of dust contaminated with high levels of lead is produced. Ingestion and inhalation of this dust constitute an especially severe health hazard for everyone exposed, but especially to children and pregnant women.<sup>[14]</sup>

The developing brain and organs of children are especially vulnerable and may be harmed even at low levels of lead exposure (below 5 µg/dL) caused by lead in soil or dust.<sup>[15]</sup> Children absorb up to five times as much ingested lead as adults, and children with nutritional deficiencies absorb ingested lead at even increased rates.<sup>[12]</sup>

The younger the child, the more harmful lead can be, and the health effects are generally irreversible and can have a lifelong impact. The human fetus is the most vulnerable, and a pregnant woman can transfer lead that has accumulated

## Lead Paint Terminology

As used in this booklet:

- “Paint” includes varnishes, lacquers, stains, enamels, glazes, primers, or coatings used for any purpose. Paint is typically a mixture of resins, pigments, fillers, solvents, and other additives.
- “Lead paint” is paint to which one or more lead compounds have been added.
- “Lead pigments” are lead compounds used to give a paint product its color.
- “Lead anti-corrosive agents” are lead compounds used to protect a metal surface from rusting or other forms of corrosion.
- “Lead driers” are lead compounds used to make paint dry more quickly and evenly.
- “Decorative paint” refers to paints that are produced for consumer use, e.g. on interior or exterior walls, and surfaces of homes, schools, commercial buildings, and similar structures. Decorative paints are frequently used on doors, gates, and windows, and to repaint household furniture such as cribs, playpens, tables, and chairs.
- “ppm” means parts per million total lead content by weight in a dried paint sample.  
All lead concentrations in the report are total lead levels, unless otherwise specified.



in her body to her developing child.<sup>[16]</sup> Lead is also transferred through breast milk when lead is present in a nursing mother.<sup>[17]</sup>

Once lead enters a child’s blood stream through ingestion, inhalation, or across the placenta, it has the potential to damage a number of biological systems and pathways. The primary target is the central nervous system and the brain, but low levels of lead can also affect the immune, reproductive and cardiovascular systems, the kidneys, and the skeleton.<sup>[12, 18]</sup> Lead is also categorized as an endocrine-disrupting chemical (EDC).<sup>[19]</sup>

It is generally agreed that one key element in lead toxicity is its capacity to replace calcium in neurotransmitter systems, altering their function and structure, and thereby causing neurological impairments and other severe health impacts. Lead is also known to affect and damage cell structure.<sup>[20]</sup>

When a young child is exposed to even small amounts of lead, the harm to her or his nervous system makes it more likely that the child will have difficulties in school and engage in impulsive and violent behavior.<sup>[21]</sup> Lead exposure in young children has been linked to increased rates of hyperactivity, inattentiveness, failure to graduate from high school, conduct disorder, juvenile delinquency, drug use, and incarceration.<sup>[12]</sup> Lead exposure impacts on children continue throughout their life and have long-term impacts on work performance, and—on average—are related to decreased economic success.

The Institute for Health Metrics and Evaluation (IHME) has estimated that in 2017, lead exposure accounted for 1.06 million deaths and 24.4 million years of healthy life lost worldwide due to long-term effects on health, with the highest burden in low- and middle-income countries. Another of their estimates was that in 2016, lead exposure accounted for 63.2% of the global burden of idiopathic developmental intellectual disability, i.e. disability that has no other apparent cause, 10.3% of the global burden of hypertensive heart disease, 5.6% of the global burden of the coronary heart disease (leading to reduced blood supply to the heart) and 6.2% of the global burden of stroke.<sup>[22]</sup>

Evidence of reduced intelligence caused by childhood exposure to lead has led WHO to list “lead-caused mental retardation” as a recognized disease. WHO lists it as one of the top ten diseases whose health burden among children is due to modifiable environmental factors.<sup>[23]</sup>

In recent years, medical researchers have documented significant health impacts in children from lower and lower levels of lead exposure.<sup>[15]</sup> According to WHO’s fact sheet on *Lead Poisoning and Health*: “There is no known level of lead exposure that is considered safe.”<sup>[22]</sup>

## 1.2 ECONOMIC IMPACT OF LEAD EXPOSURE

A study published in *Environmental Health Perspectives* that investigated the economic cost of childhood lead exposure in low- and middle-income countries estimated a total cumulative cost burden of \$977 billion international dollars\* per year.<sup>[4]</sup>

The study predicted the neurodevelopmental effects on lead-exposed children, as measured by reduced IQ points, based on published national data on

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\* An International dollar is a currency unit used by economists and international organizations to compare the values of different currencies. It adjusts the value of the U.S. dollar to reflect currency exchange rates, purchasing power parity (PPP), and average commodity prices within each country. According to the World Bank, “An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States.” The international dollar values in this report were calculated from a World Bank table that lists GDP per capita by country based on purchasing power parity and expressed in international dollars.

blood lead levels. The study identified many different sources of lead exposure in children, with lead paint as one major source. The predicted reductions in children's IQ scores were then used to estimate reduction in lifetime economic productivity, as expressed in lifelong earning power. Broken down by region, the economic burden of childhood lead exposure, calculated in International Dollar, as estimated by this study was:

**Africa:** \$134.7 billion of economic loss, or 4.03 percent of Gross Domestic Product (GDP)

**Latin America and the Caribbean:** \$142.3 billion of economic loss, or 2.04 percent of GDP

**Asia:** \$699.9 billion of economic loss, or 1.88 percent of GDP

### 1.3 THE USE OF LEAD IN PAINT

Lead paint is typically produced when the paint manufacturer intentionally adds one or more leaded compound to the paint for some purpose. However, a paint product may also contain some amount of lead when paint ingredients contaminated with lead are used, or when there is cross-contamination from other product lines in the same factory. Leaded paint ingredients are most commonly used intentionally in solvent-based paint due to their chemical properties, and solvent-based lead paint have been found in many countries.<sup>[24]</sup>

The leaded compounds most commonly added to solvent-based paints are pigments. Pigments are used to give the paint its color, make the paint opaque (so it covers well), and protect the paint and the underlying surface from degradation caused by exposure to sunlight. Lead-based pigments are sometimes used alone, and sometimes used in combination with other pigments.

Leaded compounds may also be added to enamel paints for use as driers (sometimes called drying agents or drying catalysts). Leaded compounds are also sometimes added to paints used on metal surfaces to inhibit rust or corrosion.

Non-leaded pigments, driers, and anti-corrosive agents have been widely available for decades and are used by manufacturers producing the highest quality paints in all regions of the world. When a paint manufacturer does not intentionally add lead compounds in its paints, and takes reasonable care to avoid the use of paint ingredients that are contaminated with lead, the lead content of the paint will be low—less than 90 parts per million (ppm) lead in total of the dry weight of the paint.

## 1.4 REGULATION OF LEAD PAINT

Most highly industrial countries adopted laws or regulations to control the lead content of decorative paints in the 1970s and 1980s. Most also imposed controls on the lead content of paints used on toys and for other applications likely to contribute to lead exposure in children. These regulatory actions were taken based on scientific and medical findings that lead paint is a major source of lead exposure in children, and that lead exposure in children causes serious harm, especially to children aged six years and under.<sup>[12]</sup>

Countries have taken different regulatory approaches that all contribute to the ban on lead paint. The use of lead in production of paint is prohibited in the European Union through provisions for specific leaded paint ingredients, regulations related to workers' health and safety of consumer products. Many countries have established mandatory regulations specifying the maximum total lead content allowed in household and other paints. The most protective regulatory limits on lead in household paints have been set at a maximum of 90 parts per million (ppm) total lead content (dry weight) in countries like Canada, China, Colombia, Ethiopia, Israel, Kenya, the Philippines, and the United States. Several other countries are now also considering the adoption of this legally binding limit, which ensures that a manufacturer can sell its paint anywhere in the world. This is also the recommended limit in the UNEP Model Law and Guidance for Regulating Lead Paint. Countries are also increasingly putting regulations in place on so-called industrial paint that is often used in road marking paint, automotive coatings, marine applications, and outdoor metal structures.

# 2. STATUS OF GLOBAL LEAD PAINT ELIMINATION

## 2.1 PROGRESS TOWARDS GLOBAL LEAD PAINT ELIMINATION

Success in global lead paint elimination will be achieved when all countries have enforced lead paint regulations and paint companies eliminate lead from paint. However, impressive gains have been made over the last several years.

### ***Awareness that lead in paint is widely available and a severe health hazard is growing***

Data on lead in paint in almost 60 countries is now available<sup>[25]</sup>, with additional paint studies scheduled for release by IPEN and NGO partners in 2020-2021. More data on lead paint has increased awareness and led to widespread global action. One of the most notable activities is the International Lead Poisoning Prevention Week of Action (ILPPWA), organized by GAELP and hosted by UNEP and WHO, which brings together governments, industry, and civil society in support of global, regional, and country-level initiatives to eliminate lead paint. The week was first organized in 2013, and in 2019, ILPPWA events were held in 57 countries.<sup>[8]</sup>

### ***A number of countries have made progress in developing and implementing lead paint standards and regulations***

Active lead paint elimination campaigns conducted by IPEN and its partner NGOs since 2008 at both national and international levels have resulted in binding regulatory controls enacted, strengthened, or are in the process of adoption in almost 50 countries. For example, six out of seven Asian countries where NGOs actively campaigned for lead paint elimination from 2012 to 2015 now have enacted regulations, namely, Bangladesh, India, Nepal, Sri Lanka, the Philippines, and Thailand. Legally binding standards on lead in paint adopted in Cameroon, Ethiopia, Kenya, and Tanzania were outcomes of NGO-led campaigns in Africa from 2014-2017. NGO studies on lead in paint released in 2016 and 2017 have contributed to China strengthening its national standards by setting new total lead limits of 90 ppm for architectural wall coatings and woodware coatings and a 1,000 ppm total lead limit for vehicle and industrial



coatings. Both standards will take effect on December 1, 2020. Similarly, a 2016 NGO study on lead in paint has resulted in Colombia drafting and recently passing a law that sets a 90 ppm total lead limit for architectural decorative paint. In addition, NGO-led activities in Kenya and Tanzania helped the East African Community (EAC) to adopt mandatory 90 ppm limits on lead in paint that its six member states—Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda—are required to implement in their national regulatory systems.

### ***International support for lead paint elimination has grown exponentially***

Global efforts to eliminate lead paint have increased steadily in intensity and commitment since the first resolution on lead in paint was introduced at the World Health Summit in 2002. Resolutions issued at consecutive sessions of the International Conference on Chemicals Management (ICCM) and the United Nations Environment Assembly (UNEA) have encouraged governments and other stakeholders to contribute to the goal of phasing out lead in paint globally. The target of GAELP that all countries have “...adopted legally binding laws, regulations, standards and/or procedures to control the production, import, sale and use of lead paints...” by the year 2020 was affirmed by a resolution supported by more than a hundred governments at ICCM4 in 2015.<sup>[4]</sup>

A series of different materials have been developed by UNEP and GAELP to support governments in their efforts to eliminate lead paint. A key tool is the Model Law and Guidance for Regulating Lead in Paint,<sup>[9]</sup> which provides details on important considerations for governments when developing regulations and recommends a 90 ppm limit for all types of paint. GAELP has also developed a Toolkit for Establishing Laws to Eliminate Lead Paint.<sup>[7]</sup> This toolkit provides comprehensive information and references designed for use by government officials and others who have an interest in establishing legal limits on lead in paints in their countries. In addition, the GEF-funded SAICM project has provided means to conduct regional workshops, webinars, and other trainings.<sup>[26]</sup>

### ***Paint producers are eliminating lead from all their paint products***

The short-term goal at the formation of GAELP was to prioritize the elimination of lead from decorative paints and paints for other applications most likely to contribute to childhood lead exposure, with a longer-term goal of elimination of lead from all paint and coating products until the year 2020. Momentum is now beginning to build toward eliminating lead from all paint, as shown by initiatives from international manufacturers to eliminate lead from other categories of paint and coating products such as automotive paints (OEM and refinish), structural primers, marine paints, and all other industrial and spe-

cialty paint and coating products. Some newly enacted regulations, for example, restrict the use of lead in all paints, but provide a longer time period before the restriction comes into force in order to give manufacturers enough time to reformulate all their lead paint products.

In 2011, Akzo Nobel, the world's third largest paint producer<sup>[10]</sup> and a member of the Advisory Group of GAELP, announced that it had removed lead from all its paint product lines. In 2016, the world's largest paint producer, PPG, announced it had removed leaded ingredients from all its consumer paint brands and products in all countries. PPG additionally pledged that by 2020, it will remove lead from all paint and coatings products it manufactures.<sup>[27]</sup>

In November 2017, 17 paint manufacturers from the Malaysian Paint Manufacturers' Association (MPMA) pledged to eliminate lead in all paints by 2020.<sup>[28]</sup> In 2020, the Philippine Association of Paint Manufacturers (PAPM) announced that local paint manufacturers have stopped importing lead-based raw materials in compliance with existing Philippine regulations which no longer allows the importation of lead compounds intended for paint production.<sup>[29]</sup> Both MPMA and PAPM are partners of GAELP.

In addition, major Asian paint producers in a number of countries have begun eliminating lead from their paint products, often in response to on-the-ground campaigning by NGOs together with the work of other GAELP stakeholders. (For more details, see regional and country reports in Section 2.2.)

Also, Small- and Medium-Sized paint manufacturers (SMEs) have begun to phase out lead from their paint production in many countries.

### ***The world's first lead paint certification program is now in place***

The Lead Safe Paint® certification program was developed by a multi-stakeholder group in the Philippines, led by the PAPM. This program verifies that all paints under the certified brand contain less than 90 ppm (dry weight) lead in total.<sup>[11]</sup>

In 2016, two leading paint companies in the Philippines, Pacific Paint (Boysen) Philippines, Inc. and Davies Paints Philippines, Inc., became the first to receive Lead Safe Paint® certification from the world's first, independent, third-party, lead paint certification program. In the same year, Multilac, one of the leading paint manufacturers in Sri Lanka, has also received certification. In 2017, Elite Paint, one of the biggest local paint manufacturers in Bangladesh, received its certification. In 2019, Sycwin Coating & Wires obtained certification for 10 of its architectural and industrial paint brands. Boysen, Davies, and Multilac renewed their certificates in 2020 while Elite Paint is in the process of renew-

ing their certificate. Furthermore, other paint manufacturers in Cameroon, Colombia, Kenya, Mexico, Philippines, Sri Lanka, and Tanzania have expressed interest in the program.

## 2.2 REGIONAL AND COUNTRY PROGRESS TOWARDS ELIMINATING LEAD PAINT

When IPEN launched its Global Lead Paint Elimination Campaign in 2008, studies by IPEN suggested that lead paint for home and school use was being sold in nearly all low- and middle-income countries. In some countries where there is no national data on lead paint, it is highly likely that lead paint can be found for sale on the market as there is no impetus for governments to adopt and enforce lead paint standards and regulations. Since that time, real progress in eliminating lead paint has occurred and lead paint elimination activities are now underway in every region in the world.

### ***North America, Western Europe, and Others***

The sale of lead paints has been prohibited in highly industrialized countries for 40 years and more. In most cases, however, these regulations have applied only to paints sold for so-called consumer use, i.e., for use in and around homes and schools. Less attention has been given to hazards associated with legacy lead paints already present on walls and surfaces and lead in most categories of paint marketed for non-consumer use. Although the present global effort is focused on taking action in low- and middle-income countries, the phase-out of lead in all categories of paints now appears to be gaining momentum in the highly industrialized countries of Western Europe, North America, and other countries. This includes recent decisions by the European Union to put strict controls in place for the use of lead chromates and lead chromate molybdate also in paint for non-consumer use.<sup>[30]</sup>

In February 2019, Israel published a new mandatory standard on paint and varnishes restricting lead content to 90 ppm in all paints. The new lead paint standard will be fully in force starting January 2021.

# LATIN AMERICA AND THE CARIBBEAN

Since 2008, Argentina, Brazil, Chile, Trinidad and Tobago, and Uruguay have adopted binding regulatory controls that limit lead in paint to 600 ppm.<sup>[31]</sup> Argentina, Brazil, and Mexico are also working on updating existing laws and standards to reduce the limit on lead in paint from 600 ppm to 90 ppm and include all types of paint.

In 2018, Paraguay set a voluntary limit of 90 ppm lead content for local and imported paints, varnishes, and lacquers. This is awaiting legislation to make it a compulsory standard.

In June 2019, fifteen governments, along with civil society and industry representatives, attended the Latin America and the Caribbean Regional Workshop under the GEF SAICM Project, at which participants agreed to work towards drafting lead paint laws. This has resulted to new regulations in advanced stage of development in Ecuador and Peru.

In 2020, Colombia passed a new law which guarantees the right of the people to develop physically and intellectually in a lead-free environment, including setting a 90 ppm limit for lead paint. A detailed, specific lead paint technical regulation is now being developed.

## ARGENTINA

NGO partner: **Taller Ecologista**

Number of available paint studies: 2

Results from most recent study<sup>(1)</sup> (2017):

- 40 solvent-based paints for decorative purposes from 14 brands analyzed
  - ✳ 15% of paints had a lead content greater than 90 ppm
  - ✳ 10% of paints had a lead content greater than 10,000 ppm

- 2 anticorrosive paints used for decorative purposes from 2 brands
  - ✳ 0% of paints had a lead content greater than 90 ppm
  - ✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Law No 18.609 (1970), Ministerial Resolutions N° 7/2009, N° 436/2009, N° 523/2009, N° 453/2010 and N° 39/2011 prohibits the manufacture and import of paints, lacquers and varnishes containing more than 600 ppm lead. Argentina is currently revising its law to reduce the limit on lead in paint from 600 ppm to 90 ppm.

## BRAZIL

NGO partners: **APROMAC Environment Protection Association; TOXISPHERA Environmental Health Association**

Number of available paint studies: 2

Results from most recent study<sup>[2]</sup> (2014):

- 20 solvent-based paints from 8 brands analyzed
  - ✳ 30% of paints had a lead content greater than 600 ppm

✳ 10% of paints had a lead content greater than 10,000 ppm

**Regulation:** Law 11.762/2008 prohibits paint with lead content greater than 600 ppm, with exceptions for use in industry and agriculture equipments, traffic paint and other industrial applications. A draft law is under review to reduce the permitted lead content to 90 ppm.

## CHILE

NGO partner: **Observatorio Latinoamericano de Conflictos Ambientales (OLCA)**

Number of available paint studies: 1

Results from most recent study<sup>[3]</sup> (2013):

- 23 solvent-based paints from 6 brands analyzed
  - ✳ 4% of paints had a lead content greater than 90 ppm

✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Chile's Health Ministry promulgated Decree No. 374 (1997) establishing a maximum lead content in paints, varnishes and similar coating materials of 600 ppm. Exceptions include products intended for agricultural and industrial equipment, bridges, road markings, artists' materials and other applications.

## COLOMBIA

NGO partner: **COLNODO**

Number of available paint studies: 1

Results from most recent study<sup>[4]</sup> (2016):

- 38 solvent-based paints for decorative purposes from 11 brands analyzed
  - ✳ 66% of paints had a lead content greater than 600 ppm
  - ✳ 61% of paints had a lead content greater than 10,000 ppm

- 1 anticorrosive paint used for decorative purposes from 1 brand

✳ 0% of paints had a lead content greater than 90 ppm

✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** A bill (Law 2041) was passed by Congress in 2020 that guarantees the right of the people to develop physically and intellectually in a lead-free environment, including a 90 ppm total lead limit for architectural or decorative paints. A detailed lead paint technical regulation is now being developed.

# LEAD PAINT DATA FOR COUNTRIES IN LATIN AMERICA AND THE CARIBBEAN – CONTINUED

## ECUADOR

Number of available paint studies: 1

Results from most recent study<sup>[5]</sup> (2009):

- 10 solvent-based paints from 2 paint companies analyzed
  - ✧ 70% of paints had a lead content greater than 90 ppm
  - ✧ Percentage of paints with lead content greater than 10,000 ppm is not available

**Regulation:** A technical standard on lead in paint is currently being developed.

## JAMAICA

NGO partner: **Caribbean Poison Information Network (CARPIN)**

Number of available paint studies: 1

Results from most recent study<sup>[6]</sup> (2018):

- 31 solvent-based paints for decorative purposes from 11 brands analyzed
  - ✧ 0% of paints had a lead content greater than 90 ppm
  - ✧ 0% of paints had a lead content greater than 10,000 ppm
- 4 anticorrosive paints for decorative purposes from 3 brands
  - ✧ 0% of paints had a lead content greater than 90 ppm
  - ✧ 0% of paints had a lead content greater than 10,000 ppm

- 1 solvent-based automotive paint for industrial purposes from 1 brand

- ✧ 100% of paints had a lead content greater than 90 ppm
- ✧ 100% of paints had a lead content greater than 10,000 ppm

**Regulation:** Currently, the National Bureau of Standards has started the process of drafting a mandatory technical standard on lead paint after the Ministry of Economic Growth and Job Creation officially requested them to develop a standard.

## MEXICO

NGO partners: Casa Cem; Red de Acción en Plaguicidas y sus Alternativas en México (RAPAM)/Centro de Analisis y Acción en Tóxicos y sus Alternativas (CAATA)

Number of available paint studies: 2

Results from most recent study<sup>[7]</sup> (2018):

- 114 solvent-based paints for decorative purposes from 39 brands analyzed
  - ✧ 44% of paints had a lead content greater than 90 ppm
  - ✧ 28% of paints had a lead content greater than 10,000 ppm
- 4 anticorrosive paints for decorative purposes from 4 brands
  - ✧ 75% of paints had a lead content greater than 90 ppm
  - ✧ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Current standard NOM-003-SSA1-2006 sets a threshold of 600 ppm (0.06%) lead content for paint to be considered leaded paint, with an accompanying text on the label of the paint can as follows: "It is forbidden to use this product in the production, finishing or printing of toys, objects that can be put in the mouth, articles for domestic and/or school use by children, as well as house interiors, restaurants, playground areas, schools, and nurseries." There is currently no set mandatory limit for lead content in paint. There is a new draft to the standard NOM-003-SSA1-2018 which sets a 90 ppm lead limit (dry weight) developed by industry and federal authorities. Industry and federal authorities are also in the process of drafting an update to standard NOM-004-SSA1-2014 to set lead limits on road-marking/traffic paint. In accordance to the national Standards Program, both standards are set to be reviewed during the year 2021.

## PARAGUAY

NGO partner: AlterVida

- Number of available paint studies: 1
- Results from most recent study<sup>[8]</sup> (2015):
  - ✧ 15 solvent-based paints from 5 brands analyzed
  - ✧ 27% of paints had a lead content greater than 90 ppm
  - ✧ 20% of paints had a lead content greater than 10,000 ppm

**Regulation:** NP 47 001 17 sets a voluntary limit of 90 ppm lead content for local and imported paints, varnishes, and lacquers. This is awaiting legislation to make it a compulsory standard.

# LEAD PAINT DATA FOR COUNTRIES IN LATIN AMERICA AND THE CARIBBEAN – CONTINUED

## PERU

- Number of available paint studies: 1
- Results from most recent study<sup>[5]</sup> (2009):
  - ✧ 10 solvent-based paints from 2 paint companies analyzed
  - ✧ 90% of paints had a lead content greater than 90 ppm
  - ✧ 40% of paints had a lead content greater than 10,000 ppm

**Regulation:** A draft lead paint law which sets a 90 ppm lead limit is currently being legislated in Congress.

## URUGUAY

NGO partner: Pesticide Action Network Uruguay

- Number of available paint studies: 1
- Results from most recent study<sup>[3]</sup> (2013):
  - ✧ 30 solvent-based paints from 10 brands analyzed
  - ✧ 0% of paints had a lead content greater than 90 ppm

✧ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Uruguay's Ministry of Housing, Spatial Planning and the Environment and its Ministry of Industry Energy and Mining promulgated a law (Decree 069) in 2011 establishing a maximum total lead content limit in paints, varnishes and similar coating materials of 600 ppm. Exemptions include paint for agricultural and industrial equipment, bridges, road markings, restoration of works of art, antiques, etc.



# ASIA & THE PACIFIC

As a result of work under the EU-funded SWITCH-Asia Lead Paint Elimination Project (2012-2015), regulatory controls were adopted in Bangladesh, India, Nepal, the Philippines, Sri Lanka, and Thailand.<sup>[31]</sup> Additional standards and regulations were adopted in Pakistan, Iraq, Jordan, and South Korea after NGOs in the IPEN network initiated lead paint elimination activities in these countries.

In 2020, China strengthened its national standards by setting total lead limits for woodenware and architectural paints to 90 ppm and 1000 ppm for vehicle and industrial protective coatings. The new standards will take effect on December 1, 2020. The new regulation updated an older lead paint standard introduced in the 1980s, which measured “soluble lead” in products rather than “total lead”, which was shown in a study<sup>[32]</sup> from 2017 to not be protective. China is Asia’s largest paint producer and one of the largest and fastest growing paint producing countries in the world accounting to nearly one-third of the global paint market.<sup>[33]</sup> As such, the new regulation will have important beneficial health impacts not only in China, but throughout Asia and the rest of the world.

An important exception is Japan, which has never adopted any legally binding regulatory controls on lead in paint. No public data on the lead content of paints for consumer use in Japan is available. However, government officials have given assurance that there is no problem and in December 2015, the Japan Paint Manufacturers Association released a *Revised Resolution of Japan Manufacturers Association (JPMA) for Elimination of Leaded Paints*, which called on all Japanese paint manufacturers to voluntarily eliminate by March 2019 the use of lead in paints for “general usages such as interior/exterior decorative paints.”<sup>[34]</sup>

# LEAD PAINT DATA FOR COUNTRIES IN ASIA AND THE PACIFIC – CONTINUED

## BANGLADESH

NGO partner: **Environment and Social Development Organization (ESDO)**

Number of available paint studies: 4

Results from most recent study<sup>[9]</sup> (2015):

- 56 solvent-based paints from 24 brands analyzed
  - ✧ 77% of paints had a lead content greater than 90 ppm

✧ 34% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Bangladesh Standards and Testing Institution (BSTI) has gazetted in July 2018 the Statutory Regulatory Order 220 establishing 90 ppm total lead limit for enamel paints, emulsion paints, and distempers. These standards came into force on September 2018.

## CHINA

NGO partners: **Shenzhen Zero Waste Environmental Public Interest Development Center; Insight Explorer; Nature University**

Number of available paint studies: 3

Results from most recent study<sup>[10]</sup> (2016):

- 141 solvent-based paints from 47 brands analyzed
  - ✧ 70% of paints had a lead content greater than 90 ppm

✧ 34% of paints had a lead content greater than 10,000 ppm

**Regulation:** China has adopted new standards based on a 90 ppm total lead limit for architectural wall coatings and woodware coatings and a 1,000 ppm total lead limit for vehicle and industrial coatings that will take effect on December 1, 2020.

## INDIA

NGO partner: **Toxics Link**

Number of available paint studies: 9

Results from most recent study<sup>[11]</sup> (2020):

- 32 solvent-based paints from 26 brands analyzed
  - ✧ 91% of paints had a lead content greater than 90 ppm
  - ✧ 59% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Ministry of Environment, Forest and Climate Change issued a notification in November 2016 regarding the Regulation on Lead Contents in Household and Decorative Paints Rules that limits the total lead content of household and decorative paints to 90 ppm. The regulation came into force in November 2017.

## INDONESIA

NGO partner: **Nexus3 Foundation (formerly BaliFokus Foundation)**

Number of available paint studies: 3

Results from most recent study<sup>[12]</sup> (2015):

- 121 solvent-based paints from 63 brands analyzed
  - ✳ 83% of paints had a lead content greater than 90 ppm

✳ 41% of paints had a lead content greater than 10,000 ppm

**Regulation:** In 2014, the National Standardization Agency of Indonesia has issued a voluntary standard (8011:2014) that limits the total lead content of various paints to 600 ppm. Work is currently being done to update this standard and pass a mandatory total lead limit of 90 ppm.

## IRAQ

NGO partner: **Together for Human & Environment Association**

Number of available paint studies: 1

Results from most recent study<sup>[13]</sup> (2018):

- 35 solvent based paints for decorative purposes from 12 brands analyzed
  - ✳ 37% of paints had a lead content greater than 90 ppm
  - ✳ 6% of paints had a lead content greater than 10,000 ppm

- 3 anticorrosive paints for decorative purposes from 3 brands

✳ 100% of paints had a lead content greater than 90 ppm

✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** In 2018, the Iraqi Central Agency for Standardization and Quality Control has updated Standard No. 1709 (2011) to reduce the permitted amount of lead in paint from 600 ppm to 90 ppm.

## JORDAN

NGO partner: **Land and Human to Advocate Progress (LHAP)**

Number of available paint studies: 1

Results from most recent study<sup>[14]</sup> (2012):

- 17 solvent-based paints from 16 companies analyzed
  - ✳ 18% of paints had a lead content greater than 90 ppm

✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** In March 2018, the Ministry of Health has gazetted Decree No. 5503 which reduces the maximum allowable limit of lead in household decorative paints from 600 ppm to 90 ppm. This decree came into force on publication. Lead chromate compounds may still be used in industrial paints, car paints and road marking paints (except curb stone paint) until the end of 2022.

# LEAD PAINT DATA FOR COUNTRIES IN ASIA AND THE PACIFIC – CONTINUED

## LEBANON

NGO partner: **Indy Act**

Number of available paint studies: 1

Results from most recent study<sup>[8]</sup> (2015):

- 15 solvent-based paints from 6 brands analyzed
  - ✧ 80% of paints had a lead content greater than 90 ppm
  - ✧ 53% of paints had a lead content greater than 10,000 ppm

**Regulation:** Lebanon does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## MALAYSIA

NGO partner: **Consumers' Association of Penang (CAP)**

Number of available paint studies: 3

Results from most recent study<sup>[15]</sup> (2016):

- 39 solvent-based paints from 18 brands analyzed
  - ✧ 41% of paints had a lead content greater than 600 ppm

- ✧ 31% of paints had a lead content greater than 10,000 ppm

**Regulation:** Malaysia does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## MONGOLIA

NGO partner: **Zorig Foundation**

Number of available paint studies: 2

Results from most recent study<sup>[16]</sup> (2017):

- 53 solvent-based paints from 22 brands analyzed
  - ✧ 74% of paints had a lead content greater than 90 ppm
  - ✧ 21% of paints had a lead content greater than 10,000 ppm

- 3 anticorrosive paints for decorative purposes from 3 brands
  - ✧ 0% of paints had a lead content greater than 90 ppm
  - ✧ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Mongolia does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## NEPAL

NGO partner: **Center for Public Health and Environmental Development (CEPHED)**

- Number of available paint studies: 5
- Results from most recent study<sup>[17]</sup> (2015):
  - ✳ 87 solvent-based paints from 35 brands analyzed
  - ✳ 89% of paints had a lead content greater than 90 ppm

- ✳ 44% of paints had a lead content greater than 10,000 ppm

**Regulation:** Nepal enacted a mandatory limit of 90 ppm total lead content for any paint imported, produced, sold or used in Nepal in December 2014 and which took effect on June 20, 2015. Paint can labels are required to show lead content and provide a precautionary message to avoid occupational exposures.

## PAKISTAN

NGO partner: **Sustainable Development Policy Institute (SDPI)**

Number of available paint studies: 1

Results from most recent study<sup>[18]</sup> (2017):

- 56 solvent-based paints for decorative purposes from 19 brands analyzed
  - ✳ 62% of paints had a lead content greater than 90 ppm
  - ✳ 25% of paints had a lead content greater than 10,000 ppm

- 2 anticorrosive paints for decorative purposes from 2 brands
  - ✳ 0% of paints had a lead content greater than 90 ppm
  - ✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Pakistan Standards and Quality Control Authority (PSQCA) approved new quality standards for paints in 2017, including permissible maximum lead limit of 100 ppm for enamels.

## PHILIPPINES

NGO partner: **EcoWaste Coalition**

Number of available paint studies: 6

Results from most recent study<sup>[19]</sup> (2020):

- 87 aerosol or spray paints from 37 brands analyzed
  - ✳ 43% of paints had a lead content greater than 90 ppm

- ✳ 33% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Philippines' Chemical Control Order for Lead and Lead Compounds, promulgated in December 2013 establishes a 90 ppm total lead limit in all paints and stipulates a three-year phase-out for lead-containing architectural, decorative and household paints (2013-2016) and six years for lead-containing paints for industrial applications (2013-2019).

# LEAD PAINT DATA FOR COUNTRIES IN ASIA AND THE PACIFIC – CONTINUED

## SINGAPORE

Number of available paint studies: 1

Results from most recent study<sup>[51]</sup> (2009):

- 41 solvent-based paints from 7 paint companies analyzed
  - ❖ 44% of paints had a lead content greater than 90 ppm
  - ❖ 7% of paints had a lead content greater than 10,000 ppm

**Regulation:** Singapore has included paint with a total lead content above 600 ppm on their list of controlled hazardous substances, which means that any person who wishes to import, sell, or export any hazardous substance controlled under the Environmental Protection and Management Act must obtain a Hazardous Substances License.

## SOUTH KOREA

NGO partner: **Wonjin Institute for Occupational and Environmental Health (WIOEH)**

Number of available paint studies: 1

Results from most recent study<sup>[20]</sup> (2019):

- 20 solvent based paints for decorative purposes from 8 brands analyzed
  - ❖ 5% of paints had a lead content greater than 90 ppm
  - ❖ 5% of paints had a lead content greater than 10,000 ppm

- 3 anticorrosive paints for decorative purposes from 3 brands
  - ❖ 100% of paints had a lead content greater than 90 ppm
  - ❖ 33% of paints had a lead content greater than 10,000 ppm

**Regulation:** In December 2019, the Korean Agency for Technology and Standards (KATS), an attached agency under the Ministry of Trade, Industry and Energy (MOTIE), set a 600 ppm standard on lead in anticorrosive paints. Efforts to obtain a national regulation limiting the lead content in all paints to 90 ppm is ongoing.

## SRI LANKA

NGO partner: **Centre for Environmental Justice (CEJ)**

Number of available paint studies: 3

Results from most recent study<sup>[21]</sup> (2015):

- 56 solvent-based paints from 37 brands analyzed
  - ❖ 46% of paints had a lead content greater than 600 ppm

- ❖ 21% of paints had a lead content greater than 10,000 ppm

**Regulation:** Sri Lanka's Gazette Extra Ordinary No. 1725/30 issued on September 30, 2011, establishes a mandatory 600 ppm total standard for lead for enamel and floor paints, and 90 ppm for emulsion paints for exterior and interior use. The regulation came into effect on January 1, 2013.

## TAIWAN

NGO partner: **Taiwan Watch Institute**

Number of available paint studies: 2

Results from most recent study<sup>[22]</sup> (2016):

- 43 solvent-based paints from 8 brands analyzed
  - ❖ 63% of paints had a lead content greater than 600 ppm
  - ❖ 44% of paints had a lead content greater than 10,000 ppm

- 4 anticorrosive paints for decorative purposes from 4 brands

- ❖ 100% of paints had a lead content greater than 90 ppm

- ❖ 75% of paints had a lead content greater than 10,000 ppm

**Regulation:** In 2017, Taiwan's Bureau of Standards, Metrology and Inspection (BSMI) published voluntary standards for regulating lead and other heavy metals in paints (CNS 15931), which sets a 90 ppm soluble lead limit for interior paints and 600 ppm total lead limits for exterior paints.

## THAILAND

NGO partner: **Ecological Alert and Recovery–Thailand (EARTH)**

Number of available paint studies: 3

Results from most recent study<sup>[23]</sup> (2015):

- 100 solvent-based paints from 56 brands analyzed
  - ❖ 62% of paints had a lead content greater than 100 ppm
  - ❖ 40% of paints had a lead content greater than 10,000 ppm

**Regulation:** Thailand's Thai Industrial Standard for Alkyd Enamel Paints (TIS 2625-2557), issued on January 29, 2016, requires that all enamel paints manufactured or sold in Thailand and used for construction and decorative purposes must contain no more than 0.01% (100 ppm) lead, mercury and cadmium (dry weight) and must not exceed 0.1% (1,000 ppm) hexavalent chromium (dry weight). The regulation took effect on January 2017.

## VIETNAM

NGO partner: **Research Centre for Gender, Family and Environment in Development (CGFED)**

Number of available paint studies: 1

Results from most recent study<sup>[24]</sup> (2016):

- 26 solvent-based paints from 11 brands analyzed
  - ❖ 54% of paints had a lead content greater than 600 ppm

- ❖ 19% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Ministry of Industry and Trade is currently in the process of developing a National Technical Standard on the limit of lead in paint.

From 2017 to 2018, Cameroon, Ethiopia, Kenya, and Tanzania adopted lead paint regulations based on 90 ppm total lead limits. This is an outcome of the GEF-funded Africa Lead Paint Elimination Project from 2014 to 2017.<sup>[31]</sup> Another outcome as a result of this project is the East African Community (EAC) standards, which specifies a 90 ppm lead limit for various paints, varnishes, and related products. The development of the lead provisions of these standards started in 2016 and was finally adopted in 2019. This is legally-binding in all EAC member states—Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda—and needs to be implemented in relevant national regulations.

South Africa is in the process of reviewing its existing regulation on lead in paint to change the lead limit from 600 ppm to 90 ppm. Draft lead paint regulations are also in various stages of development in Benin, Cote d'Ivoire, Ghana, Morocco, Nigeria, Rwanda, Togo, Tunisia, Uganda, and Zambia.

In August 2020, the Economic Community of West African States (ECOWAS) Commission organized a regional information meeting under the ongoing SAICM GEF Project where 10 SAICM country focal points and five Technical Management Committee members agreed on drafting a regional standard of 90 ppm total lead for all types of paint.<sup>[35]</sup> Once adopted, the regional standard is legally-binding in all 15 member states—Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. The regional standard is expected to harmonize with regulations already adopted in ECOWAS countries.



# LEAD PAINT DATA FOR COUNTRIES IN AFRICA

## BENIN

NGO partner: **Groupe d'Action pour la Promotion et la Protection de la Flore et la Faune (GAPROFFA)**

Number of available paint studies: 1

Results from most recent study<sup>[25]</sup> (2017):

- 28 solvent-based paints from 10 brands analyzed

❖ 79% of paints had a lead content greater than 90 ppm

❖ 36% of paints had a lead content greater than 10,000 ppm

**Regulation:** Benin is currently in the process of developing a lead paint regulation.

## CAMEROON

NGO partner: **Centre de Recherche et d'Education pour le Développement (CREPD)**

Number of available paint studies: 4

Results from most recent study<sup>[26]</sup> (2017):

- 46 solvent-based paints for decorative purposes from 12 brands analyzed
  - ❖ 41% of paints had a lead content greater than 90 ppm
  - ❖ 17% of paints had a lead content greater than 10,000 ppm

- 19 anticorrosive paints used for decorative purposes from 13 brands

❖ 47% of paints had a lead content greater than 90 ppm

❖ 11% of paints had a lead content greater than 10,000 ppm

**Regulation:** In September 2017, the Ministry of Environment issued Decree No. 004/MINEPDED/CAB which prohibits the manufacture, sale and import of paints containing more than 90 ppm of lead.

## COTE D'IVOIRE

NGO partner: **Jeunes Volontaires pour l'Environnement (JVE)**

Number of available paint studies: 3

Results from most recent study<sup>[27]</sup> (2017):

- 43 solvent-based paints for decorative purposes from 18 brands analyzed
  - ❖ 63% of paints had a lead content greater than 90 ppm
  - ❖ 30% of paints had a lead content greater than 10,000 ppm

- 8 anticorrosive paints used for decorative purposes from 5 brands

❖ 63% of paints had a lead content greater than 90 ppm

❖ 12% of paints had a lead content greater than 10,000 ppm

**Regulation:** Côte d'Ivoire's Ministry of Health is currently reviewing submitted comments on the draft lead paint regulation.

# LEAD PAINT DATA FOR COUNTRIES IN AFRICA

- CONTINUED

## EGYPT

NGO partner: **Kenana NGO**

Number of available paint studies: 2

Results from most recent study<sup>[25]</sup> (2017):

- 54 solvent-based paints for decorative purposes from 15 brands analyzed

- ❖ 59% of paints had a lead content greater than 90 ppm

- ❖ 4% of paints had a lead content greater than 10,000 ppm

- 4 anticorrosive paints for decorative purposes from 4 brands

- ❖ 100% of paints had a lead content greater than 90 ppm

- ❖ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Egypt does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## ETHIOPIA

NGO partner: **Pesticide Action Nexus Association (PAN Ethiopia)**

Number of available paint studies: 3

Results from most recent study<sup>[28]</sup> (2017):

- 36 solvent-based paints from 11 brands analyzed

- ❖ 75% of paints had a lead content greater than 90 ppm

- ❖ 42% of paints had a lead content greater than 10,000 ppm

**Regulation:** In November 2018, Ethiopia gazetted Regulation No. 429/2018 issued by the Council of Ministers setting a 90 ppm total lead content limit in all paints.

## THE GAMBIA

NGO partner: **Young Volunteers for the Environment (YVE-The Gambia)**

- Number of available paint studies: 1

• Results from most recent study<sup>[29]</sup> (2018):

- ❖ 39 solvent-based paints from 11 brands analyzed

- ❖ 62% of paints had a lead content greater than 90 ppm

- ❖ 41 % of paints had a lead content greater than 10,000 ppm

**Regulation:** The Gambia does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## GHANA

NGO partner: **Ecological Restorations**

- Number of available paint studies: 1
- Results from most recent study<sup>[3]</sup> (2013):
  - ❖ 18 solvent-based paints from 8 brands analyzed
  - ❖ 33% of paints had a lead content greater than 90 ppm

❖ 17% of paints had a lead content greater than 10,000 ppm

**Regulation:** Currently, Ghana is developing a “Chemical Weapons and Industrial Chemicals Law” which includes provision on regulating lead paint.

## GUINEA

NGO partner: **Carbone-Guinée**

Number of available paint studies: 1

Results from most recent study<sup>[25]</sup> (2017):

- 18 solvent-based paints from 4 brands analyzed
  - ❖ 28% of paints had a lead content greater than 90 ppm

❖ None of the paints had a lead content greater than 10,000 ppm

**Regulation:** Guinea does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## KENYA

NGO partner: **Centre for Environment Justice and Development (CEJAD)**

Number of available paint studies: 2

Results from most recent study<sup>[30]</sup> (2017):

- 51 solvent-based paints from 21 brands analyzed
  - ❖ 69% of paints had a lead content greater than 90 ppm

❖ 33% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Kenya Bureau of Standards in 2018 gazetted KS 2661-1:2017 and KS 2661-2:2017 on the determination of total lead content in paints, varnishes and related products under Gazette Notice Number 675, limiting lead in said products to 90 ppm. This implements the East Africa Community Standards into national regulation.

# LEAD PAINT DATA FOR COUNTRIES IN AFRICA

– CONTINUED

## MOROCCO

NGO partners: **Association Marocaine Santé, Environnement et Toxicovigilance (AMSETox); Société Marocaine de Toxicologie Clinique et Analytique (SMTCA)**

Number of available paint studies: 1

Results from most recent study<sup>[31]</sup> (2017):

- 28 solvent-based paints for decorative purposes from 11 brands analyzed
  - ✧ 46% of paints had a lead content greater than 90 ppm
  - ✧ 21% of paints had a lead content greater than 10,000 ppm

- 5 anticorrosive paints for decorative purposes from 5 brands
  - ✧ 0% of paints had a lead content greater than 90 ppm
  - ✧ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Moroccan Institute for Standardization (IMANOR) has published NM 03.3.318 which sets a 90 ppm total lead limit for paints and varnishes. The Ministry of Health and the Ministry of Trade and Industry are discussing next steps to make the standard mandatory.

## MOZAMBIQUE

NGO partner: **Justica Ambiental**

Number of available paint studies: 1

Results from most recent study<sup>[25]</sup> (2017):

- 32 solvent-based paints from 8 brands analyzed
  - ✧ 25% of paints had a lead content greater than 90 ppm

- ✧ 12% of paints had a lead content greater than 10,000 ppm

**Regulation:** Mozambique does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## NIGERIA

NGO partner: **Sustainable Research and Action for Environmental Development (SRADev Nigeria)**

Number of available paint studies: 2

Results from most recent study<sup>[32]</sup> (2017):

- 54 solvent-based paints from 18 brands analyzed
  - ✧ 74% of paints had a lead content greater than 90 ppm

- ✧ 54% of paints had a lead content greater than 10,000 ppm

**Regulation:** Nigeria has adopted a voluntary 90 ppm standard on lead in paint. Currently, the government is drafting a hazardous chemicals regulation under the National Environmental Standards and Regulations Enforcement Agency (NESREA) law which includes a section on lead in paint that sets a mandatory 90 ppm total lead limit in all paints.

## SENEGAL

NGO partner: **Pesticide Action Network**

Number of available paint studies: 1

Results from most recent study<sup>[33]</sup> (2009):

- 21 solvent-based paints from 6 brands analyzed
  - ❖ 86% of paints had a lead content greater than 90 ppm
  - ❖ 19% of paints had a lead content greater than 10,000 ppm

**Regulation:** Senegal does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## SEYCHELLES

Number of available paint studies: 1

Results from most recent study<sup>[51]</sup> (2009):

- 28 solvent-based paints from 2 paint companies analyzed
  - ❖ 68% of paints had a lead content greater than 90 ppm
  - ❖ 43% of paints had a lead content greater than 10,000 ppm

**Regulation:** Seychelles does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## SOUTH AFRICA

NGO partner: **GroundWork-Friends of the Earth**

Number of available paint studies: 1

Results from most recent study<sup>[33]</sup> (2009):

- 29 solvent-based paints from 5 brands analyzed
  - ❖ 38% of paints had a lead content greater than 90 ppm
  - ❖ 31% of paints had a lead content greater than 10,000 ppm

**Regulation:** In 2009, South Africa adopted a total lead limit of 600 ppm for decorative paints. Excluded were industrial paints, paint for road markings, graphic art coatings and others. Currently, the Ministry of Environment is reviewing its lead paint regulation to change the lead limit from 600 ppm to 90 ppm.

# LEAD PAINT DATA FOR COUNTRIES IN AFRICA

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## SUDAN

NGO partner: **Sudanese Environment Conservation Society (SECS)**

Number of available paint studies: 1

Results from most recent study<sup>[25]</sup> (2017):

- 25 solvent-based paints from 9 brands analyzed
  - ✳ 64% of paints had a lead content greater than 90 ppm
  - ✳ 28% of paints had a lead content greater than 10,000 ppm

**Regulation:** Sudan does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## TANZANIA

NGO partner: **AGENDA for Environment and Responsible Development (AGENDA)**

Number of available paint studies: 3

Results from most recent study<sup>[34]</sup> (2017):

- 46 solvent-based paints from 12 brands analyzed
  - ✳ 46% of paints had a lead content greater than 90 ppm

- ✳ 22% of paints had a lead content greater than 10,000 ppm

**Regulation:** The Tanzania Bureau of Standards in 2017 gazetted standards establishing a 90 ppm total lead content limit for various paints (i.e., primers, bituminous paint) and varnishes for interior use. This implements the East Africa Community Standards into national regulation.

## TOGO

NGO partner: **Les Amis de la Terre-Togo (ADT-Togo)**

Number of available paint studies: 1

Results from most recent study<sup>[25]</sup> (2017):

- 27 solvent-based paints from 9 brands analyzed
  - ✳ 30% of paints had a lead content greater than 90 ppm
  - ✳ 7% of paints had a lead content greater than 10,000 ppm

**Regulation:** Togo does not have any regulation limiting the manufacture, sale, import or use of lead paint.

## TUNISIA

NGO partner: **Association d'Éducation Environnementale pour la Future Génération (AEEFG)**

Number of available paint studies: 1

Results from most recent study<sup>[31]</sup> (2013):

- 30 solvent-based paints from 16 brands analyzed

✧ 70% of paints had a lead content greater than 90 ppm

✧ 27% of paints had a lead content greater than 10,000 ppm

**Regulation:** Tunisia does not have any regulation limiting the manufacture, sale, import or use of lead paint. The Ministry of Environment is currently finalizing a decree which will set a 90 ppm total lead limit in paint.

## UGANDA

NGO partners: **National Association of Professional Environmentalists (NAPE) ; Uganda Network on Toxic Free Malaria Control (UNETMAC)**

Number of available paint studies: 2

Results from most recent study<sup>[35]</sup> (2017):

- 30 solvent-based paints from 14 brands analyzed

✧ 67% of paints had a lead content greater than 90 ppm

✧ 37% of paints had a lead content greater than 10,000 ppm

**Regulation:** Uganda is a member of the East Africa Community (EAC), which has approved revised regional standards for paints limiting the lead content to 90 ppm. The Uganda National Bureau of Standards has harmonized the national paint standards with those of EAC. These are awaiting gazetting to become legally enforceable. Also, the revised National Environment Act came into force on 30 April 2019. The revised law has specific provisions for the management of products containing lead among other chemicals.

## ZAMBIA

NGO partner: **Children's Environmental Health Foundation (CEHF)**

Number of available paint studies: 1

Results from most recent study<sup>[36]</sup> (2017):

- 39 solvent-based paints from 13 brands analyzed

✧ 36% of paints had a lead content greater than 90 ppm

✧ 18% of paints had a lead content greater than 10,000 ppm

**Regulation:** In March 2020, the Zambia Bureau of Standards has gazetted Standard ZS 1185 which sets a 90 ppm total lead limit (based on dry weight) on paints, varnishes, and related products. A multi-stakeholder committee is currently drafting a law that will make the standard enforceable.

# EASTERN AND CENTRAL EUROPE, CAUCASUS, AND CENTRAL ASIA

In March 2019, twelve governments, along with civil society and industry representatives, attended the Central and Eastern Europe and Central Asia Regional Workshop, under the GEF SAICM Project, at which participants agreed to work towards drafting lead paint laws.<sup>[31]</sup> Currently, draft laws are in advanced stages of development in Bosnia and Herzegovina, Georgia, Moldova, Tajikistan, and Ukraine. Other countries like Uzbekistan have also expressed interest in drafting a lead paint regulation.

The Eurasian Economic Union (EAEU) has also drafted an updated Technical Regulations for controlling the lead content in paints and varnishes. Once adopted, the regulation will be legally-binding in all five member states—Armenia, Belarus, Kazakhstan, Kyrgyz Republic, and Russia.

## ARMENIA

NGO partner: **Armenian Women for Health and Healthy Environment NGO**

Number of available paint studies: 2

Results from most recent study<sup>[37]</sup> (2016):

- 47 solvent-based paints from 19 brands analyzed
  - ❖ 62% of paints had a lead content greater than 90 ppm
  - ❖ 19% of paints had a lead content greater than 10,000 ppm
- 2 anticorrosive paints for decorative purposes from 2 brands

❖ 0% of paints had a lead content greater than 90 ppm

❖ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** All paints are subject to compulsory state registration and testing. According to the uniform sanitary requirements, paints used for buildings lived in or used by people must not contain driers containing metals or other chemicals belonging to hazard class 1 in quantities greater than 0.5% (5,000 ppm) dry residue. Paints must not contain lead-containing pigments of chemical hazard class 1 in quantities greater than 15% (150,000 ppm) dry residue.

## AZERBAIJAN

NGO partner: **Ruzgar Ecological Society**

Number of available paint studies: 1

Results from most recent study<sup>[31]</sup> (2013):

- 30 solvent-based paints from 16 brands analyzed

❖ 77% of paints had a lead content greater than 90 ppm

❖ 7% of paints had a lead content greater than 10,000 ppm

**Regulation:** Azerbaijan does not have any regulation limiting the manufacture, import or use of lead paint.



# LEAD PAINT DATA FOR COUNTRIES IN EASTERN AND CENTRAL EUROPE, CAUCASUS, AND CENTRAL ASIA

## BELARUS

NGO partner: **Center for Environmental Solutions (CES)**

Number of available paint studies: 2

Results from most recent study<sup>[38]</sup> (2016):

- 44 solvent-based paints for decorative purposes from 15 brands analyzed
  - ✳ 75% of paints had a lead content greater than 90 ppm
  - ✳ 20% of paints had a lead content greater than 10,000 ppm
- 4 anticorrosive paints for decorative purposes from 4 brands
  - ✳ 75% of paints had a lead content greater than 90 ppm

✳ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** All paints are subject to compulsory state registration and testing. According to the uniform sanitary requirements, paints used for buildings lived in or used by people must not contain driers containing metals or other chemicals belonging to hazard class 1 in quantities greater than 0.5% (5,000 ppm) dry residue. Paints must not contain lead-containing pigments of chemical hazard class 1 in quantities greater than 15% (150,000 ppm) dry residue. The Eurasian Economic Union technical regulation on the “safety of paint and varnish materials” is currently undergoing revision. This will specify new limits for the lead content in paint.

## GEORGIA

NGO partner: **Gamarjoba**

Number of available paint studies: 1

Results from most recent study<sup>[39]</sup> (2016):

- 37 solvent-based paints from 15 brands analyzed
  - ✳ 32% of paints had a lead content greater than 600 ppm
  - ✳ 11% of paints had a lead content greater than 10,000 ppm

**Regulation:** Georgia does not have any regulation limiting the manufacture, import or use of lead paint. However, the National Environment and Health Action Plan for 2018-2022 (NEHAP2), approved by the Government of Georgia on the 29 December 2018, includes Strategic Objective 4: Prevention of morbidity caused by exposure to chemical substances, which includes lead. In April 2019, the Government published an Order for “Early detection and management measures for toxic effects of lead in children” which requires the development of a national action plan to prevent lead exposure, including banning lead paint.

# LEAD PAINT DATA FOR COUNTRIES IN EASTERN AND CENTRAL EUROPE, CAUCASUS, AND CENTRAL ASIA

– CONTINUED

## KAZAKHSTAN

NGO partners: **Greenwomen; Human Health Institute**

Number of available paint studies: 2

Results from most recent study<sup>[40]</sup> (2016):

- 38 solvent-based paints for decorative purposes from 18 brands analyzed
  - ❖ 66% of paints had a lead content greater than 600 ppm
  - ❖ 11% of paints had a lead content greater than 10,000 ppm
- 7 anticorrosive paints for decorative purposes from 3 brands
  - ❖ 0% of paints had a lead content greater than 600 ppm

❖ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** All paints are subject to compulsory state registration and testing. According to the uniform sanitary requirements, paints used for buildings lived in or used by people must not contain driers containing metals or other chemicals belonging to hazard class 1 in quantities greater than 0.5% (5,000 ppm) dry residue. Paints must not contain lead-containing pigments of chemical hazard class 1 in quantities greater than 15% (150,000 ppm) dry residue. The Eurasian Economic Union technical regulation on the “safety of paint and varnish materials” is currently undergoing revision. This will specify new limits for the lead content in paint.

## THE KYRGYZ REPUBLIC

NGO partner: **NGO Independent Ecological Expertise**

Number of available paint studies: 2

Results from most recent study<sup>[41]</sup> (2016):

- 50 solvent-based paints from 22 brands analyzed
  - ❖ 56% of paints had a lead content greater than 600 ppm
  - ❖ 8% of paints had a lead content greater than 10,000 ppm
- 1 anticorrosive paint for decorative purposes from 1 brand
  - ❖ 0% of paints had a lead content greater than 600 ppm

❖ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** All paints are subject to compulsory state registration and testing. According to the uniform sanitary requirements, paints used for buildings lived in or used by people must not contain driers containing metals or other chemicals belonging to hazard class 1 in quantities greater than 0.5% (5,000 ppm) dry residue. Paints must not contain lead-containing pigments of chemical hazard class 1 in quantities greater than 15% (150,000 ppm) dry residue. The Eurasian Economic Union technical regulation on the “safety of paint and varnish materials” is currently undergoing revision. This will specify new limits for the lead content in paint.

## MOLDOVA

NGO partner: **EcoContact**

Number of available paint studies: 1

Results from most recent study<sup>[42]</sup> (2016):

- 27 solvent-based paints from 12 brands analyzed
  - ❖ 57% of paints had a lead content greater than 90 ppm
  - ❖ 19% of paints had a lead content greater than 10,000 ppm

- 1 anticorrosive paint for decorative purposes from 1 brand
  - ❖ 100% of paints had a lead content greater than 90 ppm
  - ❖ 0% of paints had a lead content greater than 10,000 ppm

**Regulation:** Currently, a Sanitary Regulation on lead in paint is being developed.

## RUSSIA

NGO partner: **Eco-Accord**

Number of available paint studies: 2

Results from most recent study<sup>[43]</sup> (2016):

- ❖ 72 solvent-based paints from 24 brands analyzed
- ❖ 49% of paints had a lead content greater than 600 ppm
- ❖ 6% of paints had a lead content greater than 10,000 ppm

**Regulation:** All paints are subject to compulsory state registration and testing. According to the

uniform sanitary requirements, paints used for buildings lived in or used by people must not contain driers containing metals or other chemicals belonging to hazard class 1 in quantities greater than 0.5% (5,000 ppm) dry residue. Paints must not contain lead-containing pigments of chemical hazard class 1 in quantities greater than 15% (150,000 ppm) dry residue. The Eurasian Economic Union technical regulation on the “safety of paint and varnish materials” is currently undergoing revision. This will specify new limits for the lead content in paint.

# LEAD PAINT DATA FOR COUNTRIES IN EASTERN AND CENTRAL EUROPE, CAUCASUS, AND CENTRAL ASIA

– CONTINUED

## TAJIKISTAN

NGO partner: **Foundation for Support of Civil Initiatives (FSCI-Dastgiri Center)**

Number of available paint studies: 1

Results from most recent study<sup>[44]</sup> (2016):

- 50 solvent-based paints from 28 brands analyzed
  - ❖ 94% of paints had a lead content greater than 90 ppm
  - ❖ 18% of paints had a lead content greater than 10,000 ppm

- 1 anticorrosive paint for decorative purposes from 1 brand

❖ 100% of paints had a lead content greater than 90 ppm

❖ 100% of paints had a lead content greater than 10,000 ppm

**Regulation:** A draft Technical Regulation on the “safety of paints and varnishes” is currently being developed.

## UKRAINE

NGO partners: **Chemical Safety Agency (CSA); MAMA-86**

Number of available paint studies: 1

Results from most recent study<sup>[45]</sup> (2016):

- 53 solvent-based paints from 19 brands analyzed
  - ❖ 30% of paints had a lead content greater than 90 ppm
  - ❖ 15% of paints had a lead content greater than 10,000 ppm

**Regulation:** In 2018, the Ministry of Economic Development and Trade has drafted a new technical regulation that will limit the lead content of all paints to 90 ppm by weight of the total non-volatile content of the paint or the weight of the dried paint film. The Committee on Hygienic Regulation of the Ministry of Health is drafting a “modern scientific rationale” or an experts’ position paper that will substantiate the need for a 90 ppm limit on lead in paints. The technical regulation is expected to be adopted soon.

# 3. CONCLUSIONS: DESPITE PROGRESS, MUCH MORE STILL NEEDS TO BE DONE

Though much has been accomplished in the last several years, the majority of the countries in the world still do not have meaningful, binding lead paint regulations and we have failed to reach the 2020 target for all countries to have adopted legally binding laws, regulations, standards and/or procedures to control the production, import, sale and use of lead paints. Efforts need to scale up to reach this goal within the next five years.

## 3.1 NATIONAL, MULTI-STAKEHOLDER ACTION TOWARDS ADOPTING REGULATIONS TO BAN USE OF LEAD IN ALL PAINT NEEDS TO ACCELERATE.

Over a hundred studies on lead paint in nearly 60 countries provide strong evidence that all countries that lack enforced regulations on lead paint will have lead paint on the market. This provides justification for all countries to act irrespective of specific country data is available or not. Also, even countries that may not have lead paint today need regulations to prevent future import, production, and sale of lead paint. While national data are a helpful tool and studies should be conducted where possible, there is enough evidence for countries to act even without local data.

Moreover, regulatory controls need to include all types of paint as recommended by the UNEP *Model Law and Guidance for Regulating Lead Paint*. It has been noted that when national regulations exempt industrial paints from lead control regulations, these paints often enter the consumer market for home-related uses. Therefore, many of the countries that adopted or strengthened regulations during the past decade made these apply to all paints. In some countries, potential obstacles for industry have been taken into account by allowing extra time to eliminate lead from paints for non-consumer use.

Experiences from country efforts during the past decade also show that a multi-stakeholder approach is an effective way forward in many countries. This approach is also mirrored in GAELP. Engagement from policy makers, civil

society, and progressive industry stakeholders can provide momentum to the regulatory effort and encourage paint manufacturers to voluntarily start reformulating their paints.

### **3.2 DONORS SHOULD MAKE SIGNIFICANT NEW RESOURCES AVAILABLE FOR GLOBAL LEAD PAINT ELIMINATION.**

Additional resources are needed for lead paint to be effectively regulated in all countries within the next five years. This includes support for GAELP to continue to assist national governments in developing and implementing lead paint regulations, but also support for strategic activities in countries.

In almost 50 countries that have adopted regulations in the past decade or are in the process of doing so, local NGOs in the IPEN network were key actors in moving this forward. NGOs can often interact informally with local paint industry, policy makers, and media, which means that they can very successfully play a key role in bringing all stakeholders on board to support lead paint regulations. NGOs in the IPEN network have also very effectively raised awareness in many countries by analyzing paint on the market for lead content and used that to elevate the issue nationally.

### **3.3 VOLUNTARY ACTION BY PAINT INDUSTRY NEEDS TO BE SCALED UP TO PHASE OUT LEAD IN ALL PAINT.**

More efforts are needed to eliminate lead from all types of paint. Data collected around the world conclusively shows that in every country where paint studies have been conducted, some paint companies are producing paint containing less than 90 ppm lead. This demonstrates that eliminating lead in all paints is within the capability of local producers.

The studies conducted by IPEN together with its partner NGOs have shown that many so-called industrial lead paints, especially anticorrosive paints, are sold for use in home and school environments without any warning about lead content. In addition, many paints intended for non-consumer use contribute to lead exposure in workers and their families. Examples include residues and dust from paint production attaching to clothes and hair and being carried home by workers and painters in auto refinish shops operating in neighborhoods; lead paint chipping and weathering off metal components in playgrounds, bridges, and structures in places where children play; lead paint coatings on exempted products; etc.

National, regional, and international paint industry trade associations are increasingly sending clear and strong signals to their members that now is the

time to end all manufacture and sale of lead paints. Ethical and socially responsible manufacturers need not wait for government controls before they act to phase out lead from all their paint production.

### **3.4 ONGOING MONITORING AND ENFORCEMENT OF EXISTING LEAD PAINT REGULATION.**

Adopting regulatory controls is not sufficient to effectively control the manufacture and sale of lead paint. Paint studies conducted by IPEN and NGOs in several countries where regulatory controls have been adopted and have entered into force demonstrate that, in some cases, many paints with prohibited lead content continue to be manufactured and/or sold.<sup>[25]</sup> This is typically a sign that strategies, mechanisms, and budget for monitoring and enforcing the lead paint regulations are lacking. Also, it is important that new regulations include provisions that clearly spell out mechanisms for enforcing the legal limit and consequences for non-compliance, as well as assign clear responsibilities for the various actions required by the new law or regulation.

### **3.5 TRADE OF LEAD PAINT INGREDIENTS NEEDS TO BE CONTROLLED.**

The country-by-country approach has been vital for increasing momentum around the world towards global lead paint elimination. However, in order to reach this goal additional action is needed. One key effort is to start controlling the international, regional, and national trade of lead paint ingredients. These include controls through international and regional Conventions, trade agreements, as well as national controls on import and export.

# 4. RECOMMENDATIONS

## 4.1 INTERNATIONAL AGENCIES

**Continue to provide guidance and information to individual governments seeking assistance in establishing regulatory controls on lead in paint.**

The UNEP *Model Law and Guidance for Regulating Lead Paint* and its associated information materials and webinars have been excellent in helping governments that want to adopt regulations on lead paint. The GEF-funded SAICM project has contributed with additional resources to provide direct assistance to individual governments to ensure that the standards and regulations enacted are protective of human health. This included a series of regional workshops that provided a venue for sharing of information, experiences, and best practices among governments. These types of activities need to continue.

## 4.2 NATIONAL GOVERNMENTS

**Take steps now to begin developing lead paint regulations.**

There is an urgent need for decisive action to eliminate lead paint, which is even more pronounced now that it is clear that the 2020 goal will not be reached. Therefore, governments need to immediately initiate multi-stakeholder consultations towards national regulatory controls and the timeline for their entry into force. Governments in countries where regulations include exemptions for certain types of paint or have non-protective limits should initiate procedures to revise these regulations. To ensure that the new or strengthened regulations are as effective as possible, they should be guided by the UNEP *Model Law and Guidance to Regulate Lead Paint*. While new country data on lead paint is useful in this process, enough evidence is already available to justify these actions.

These consultations should include representatives of the relevant national ministries and the country's standards bureau. The consultations should also include representatives of the national paint industry and/or its trade association(s); representatives of the national health sector; and representatives of relevant national NGOs and/or other civil society organizations. Consultations of this type establish the kinds of common understandings and agreements that are needed to develop practical and enforceable regulatory controls that can be supported by all sectors of society.



Governments should also look into efforts that can support controls on trade of lead paint ingredients, such as national import/export bans and nominations to regional and international Conventions.

#### 4.3 PAINT MANUFACTURERS, PAINT INDUSTRY TRADE ASSOCIATIONS, AND PAINT INGREDIENT VENDORS

##### **Take voluntary action immediately to eliminate lead from all paints.**

Ethical and socially responsible manufacturers should not wait for government controls before they act but start to phase out lead from their paint production. National, regional, and international paint industry trade associations should start or continue to send clear and strong signals to their members that now is the time to end all manufacture and sale of lead paints. Paint ingredient vendors in all regions should communicate to their customers that they can supply cost-effective, high quality substitute ingredients along with the knowledge needed to appropriately use them.

While it may have once been the case that safe, substitute paint ingredients were too costly or unavailable, this is no longer true. There are now paint ingredient vendors active in all regions that can provide paint manufacturers with excellent, well-proven, non-lead pigments and drying catalysts at reasonable costs. In some cases, the per-kilo cost of the substitute pigments may be higher, but less pigment will be needed. Moreover, if the choice of substitute ingredients is done correctly, the total cost of production for the alternate paint formulation will either be the same or only marginally higher. Paint companies that have removed lead from their paints have virtually never increased the price of their reformulated paint products sold in the retail marketplace.

Some smaller paint manufacturers, however, may lack the expertise needed to develop substitute formulations that can cost-effectively satisfy all their relevant quality requirements. In such cases, assistance can usually be obtained from paint ingredient vendors; from national industry trade associations; and/or through the informal channels that generally emerge in a country after larger paint companies have completed research and development on how to best remove lead from their paint formulations.

#### 4.4 DONORS

##### **Make significant new resources available for global lead paint elimination, with a focus on strategic country actions.**

The total financial and other resources made available so far to global lead paint elimination efforts have been modest to say the least, and not provided in a consistent or strategic way. This should be corrected given the high pay-off that can be achieved by investing in lead paint elimination especially when compared to the enormous, documented health and economic costs associated with childhood and worker lead exposure.

Civil society organizations have proven themselves to be key actors in country efforts to eliminate lead paint and central in ensuring vital support from all stakeholders for lead paint regulations. Therefore, donors and funding agencies should consider earmarking resources for strategic country actions.

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