Global Alliance to Eliminate Lead Paint/Lead Paint Alliance (LPA)

Advisory Council Meeting

Wednesday 6 November 2019, 13:30 – 15:30 Geneva Time

Skype Meeting

Item 4.a of the provisional agenda

Global best practices on emerging chemical policy issue of concern under SAICM: Component 1: Promoting regulatory and voluntary action by government and industry to phase out lead in paint. Updates on Output 1.1 Policy support and awareness raising generate support for lead phase out

1. The lead in paint component promotes regulatory and voluntary action by government and industry to phase out lead in paint. The project outcome is for at least 40 countries to legislate and implement legislation on lead paint; and for at least 35 small and medium paint manufacturing enterprises in seven countries to phase out lead from their production processes.

2. Under the guidance of the National Cleaner Production Centre (NCPC) of Serbia, small and medium enterprises (SMEs) are being selected in Peru, Ecuador, Colombia, Jordan, China, Nigeria and Indonesia for industrial pilot tests, using the draft technical guidelines on paint reformulation developed by NCPC Serbia. Launching workshops were organized to engage respective governments and paint industries in the project. NCPC launching workshops took place in:

    - Amman, Jordan; on 31 March -1 April. The launching workshop was organized by NCPC Jordan. The participants included 5 government representatives, 12 industry representatives, 4 academics, 4 NGOs representatives and 2 media envoys.
    - Lima, Peru, on 18-19 June. The launching workshop for the Andean NCOC was hosted by NCPC Peru. The participants included 5 government representatives, 19 industry representatives, 2 academia.
    - Beijing, China, on 17-18 October. The launching workshop was organized by NCPC China. The participants included 4 government representatives, 39 industry representatives, 9 academia

Project executing partner IPEN is tasked to deliver on output 1.1 in Indonesia and Nigeria.

3. Topics covered in the launching workshops are as follows.
    - The health, economic and environmental impacts of lead;
    - Overview of the status of global and national lead paint laws;
    - National lead paint situation;
    - Description of the SAICM GEF project lead in paint component and collaboration between output 1.1 and output 1.2; and
    - Presentation of the draft technical guidelines on paint reformulation.

4. Criteria for selection of SMEs include:
    - Size of the company
    - Production programme
    - Consumption of lead-containing raw materials (pigments, additives, driers)
    - Minimum technical capability for reformulation (basic laboratory equipment for samples preparation and testing)
    - Willingness to cooperate

The following table summarizes the types and numbers of selected SMEs per country.

Partners	**Numbers of SME already selected**	**Type of SMEs**
NCPC Jordan	1	Medium size comp:120 employees
NCPC Peru	3	Small Business: 16 employees Medium size comp company: 59 employees Medium size comp company: 100 employees
NCPC Ecuador	3	Medium size companies
NCPC Colombia	1	Medium size comp: 120 employees
NCPC China	5 (expressed interest)	Medium size comp: 103 employees Medium size comp: 220 employees Medium size comp: 400 employees Medium size comp: 190 employees Medium size comp 100 employees

The selection of SMEs has not started yet in Nigeria and Indonesia.

5. Project milestones achieved to date under this output include:
    - Generic draft technical guidelines on paint reformulation provided to the NCPCs in March 2019, to be tailored to their national situation.
        - Translation of the draft guidelines in Spanish and Chinese completed.
    - Three launching workshops conducted (Peru, Colombia, Ecuador Jordan and China)
    - The training to SMEs provided by a technical expert in-person and online.
    - Questionnaire for selection SMEs designed and distributed
    - Selection of SMEs initiated in Jordan, China, Peru, Colombia and Ecuador.
    - Market analysis template, awareness-raising materials, policy advice, support on paint reformulation) provided to China, Peru, Colombia, Ecuador and Jordan
        - Market analysis of Peru and Ecuador done at the end of summer 2019
    - Contact with alternative suppliers (BASF and Clariant) and connection with the NCPCs.

6. The technical guidelines are developed to help SMEs address both capacity constraints and technical barriers they might face while undertaking paint reformulation to switch from lead compounds added in paints. Lead and lead compounds that are used in paints are extremely hazardous to human health and the environment. Therefore, SMEs should not use any raw materials containing lead and should seek to ensure low levels of lead. Lead-free paint alternatives should result in reduced overall risks to human health and the environment. To

help companies choose less-hazardous alternatives the draft guidelines provide a step-by-step approach toward the substitution process.

The draft technical guidelines start with a short description of the hazardous properties of lead and lead compounds that are used in paint manufacturing.

Then, the chapters related to lead pigments and driers to be substituted contain a general part about lead compounds and specific technical requirements regarding production process, as well as the sections on alternative assessments and paint reformulation.

Properties of alternative pigments for topcoats formulations are also presented. The anticorrosion properties of alternative anticorrosive pigments are compared to lead oxide.

Brief information on colour theory is introduced. To provide orientation on shade functionality, transparency and pigment chroma, a colour comparison of alternatives with PY 34 and PR 104 is featured. Durability, dispersibility, heat stability, gloss retention, availability, economic feasibility and environmental, health and safety properties are compared as well.

The dispersion process and additives for dispersion are also briefly presented, as the colour and properties of the paint depend on it.

The draft technical guidelines provide information on the role and type of driers, as well as alternatives to lead driers.

The document is available here.

7. The progress in output 1.1. could be described as moderate. The draft technical guidelines on paint reformulation was completed in March 2019 (as planned). The document was reviewed by the project executing partners and industry representatives with comments, included in the present draft. Andean NCPCs have translated the draft guidelines to Spanish, NCPC China to Chinese and NCPC Jordan is in in process to translate it in Arabic. (This work is expected to be done by the end of the year).

To assist with the collection of national baseline information and with the paint market survey, NCPC Serbia provided a questionnaire template to the NCPCs to assess paint SMEs. This document also provided criteria for company selection. The template is provided in appendix II. The NCPCs are currently consolidating the answers and are trying to involve more companies to join the pilot project.

In addition, NCPC Serbia shared with the NCPCs a template report for SMEs undertaking lead paint reformulation, that should be filled in during the project. This will guide the NCPCs on how to approach companies to reformulate lead in paint. A filled-in example is provided in Annex III. The NCPC launching workshop provided an opportunity to engage directly with the industry. Discussions about the project were carried on with the SMEs, resulting in more companies interested to join.

At the moment, the response rate from SMEs could be described as low. An administrative delay in signing the agreements resulted in a late start of activities: so far only a few paint SMEs are committed to joining the project. In addition, the NCPCs tend to approach this project as a cleaner production exercise and spent time gathering information about the companies that were not essential. Finally, there is a reluctance from the SMEs to share information about their products and their uses of lead compounds. It is believed that the paint companies did not understand properly the main goals of the paint reformulation and fear to be under additional scrutiny from relevant ministries. To overcome this issue, NCPC Jordan decided to keep Anonyme the name of the companies joining the project.

8. As of October 2019, both SRADev in Nigeria and Balifokus in Indonesia have started reaching out to SMEs to engage them in the project and have received positive feedback and interest from several manufacturers to engage further. In Indonesia, the SMEs have their own Paint Association and Balifokus is in dialogue with them about a collaboration. In Nigeria, it is primarily the larger manufacturers that are part of the Paint Association and SRADev is in dialogue with them about how to reach also smaller manufacturers and facilitate the advice they need to reformulate their paint.

   The next steps include:

   - IPEN´s NGO partners are currently gathering baseline information and we expect SMEs to participate in the project to be selected before end of November
   - Workshops are planned in both Nigeria and Indonesia in February to launch the technical guidelines as well as bring key stakeholder together to move forward on lead paint regulations.

9. Challenges encountered by the NCPCs
   - Delayed signing of agreements
   - Lack of technical expertise in paint industry
   - Low response rate from industry
   - Industry is reluctant to share information about use of lead compounds

10. Next steps towards the achievement of output 1.1 include:
    - Increased efforts in contacting companies to join the pilot test
    - Consolidation of the responses from SMEs and commitment letters signed to confirm their participation in the project.
    - Selection of at least one lead-containing paint per company to be reformulated.
    - Information-sharing with key technical expert about paints to be reformulated.
    - Organization of skype calls/webinars with SMEs with the key technical expert to support discussion and facilitate reformulation process.
    - Drafting of technical reports on paint reformulation.
    - Sharing feedback, best practices and lessons learned about the pilot testing of the draft technical guidelines on paint reformulation with NCPC Serbia during the global face-to-face meeting of the NCPCs
    - Finalization of the draft technical guidelines to be presented at the fifth Meeting of the International Conference on Chemicals Management (ICCM 5) in October 2020.

Appendix I: Questionnaire for SMEs

<table>
<tr><th>QUESTION</th><th colspan="2">ANSWER</th></tr>
<tr><td>Size of the company – Number of employees</td><td colspan="2"></td></tr>
<tr><td>Production programme – type of paints (i.e. alkyd topcoat/basecoat, epoxy, PVA, …)</td><td colspan="2"></td></tr>
<tr><td>Total company production capacities (t/year)</td><td colspan="2"></td></tr>
<tr><td rowspan="5">Which raw materials that could contain lead are in use in your company. Please specify trade names and attach MSDS, if possible</td><td>Possible Lead compound</td><td>Quantity per year</td></tr>
<tr><td>Driers:</td><td></td></tr>
<tr><td>Orange pigments:</td><td></td></tr>
<tr><td>Yellow pigments:</td><td></td></tr>
<tr><td>Green pigments:</td><td></td></tr>
<tr><th colspan="3">Please, specify</th></tr>
<tr><td>Production equipment</td><td colspan="2"></td></tr>
<tr><td>Laboratory equipment for paint production</td><td colspan="2"></td></tr>
<tr><td>Laboratory equipment for application</td><td colspan="2"></td></tr>
<tr><td>Laboratory equipment for paint testing</td><td colspan="2"></td></tr>
</table>

Appendix III: Template for Company Report on Lead Paint Reformulation

REPORT

Reformulation of lead paint (product)

Project: Global Environment Facility (GEF) 9771: Global best practices on emerging chemicals policy issues of concern under the Strategic Approach to International Chemicals Management (SAICM)

Component 1 of the project is concerned with the phasing out of lead paint. The project will work with governments to promote lead paint laws and with Small- and Medium-Size Enterprises (SMEs), working to promote the reformulation of lead paint.

Company decided to take part in this project because of

☐ Law enforcement, ☐ competition, ☐ export, ☐ **environmental** issues, ☐ social responsibility, ☐ other (please specify)

1. COMPANY DATA	
Company, address, website	
Contact person(s), function	
Number of employees	
2. PRODUCTION DATA	
Installed capacities (t/year)	
Production in 2018 (t)	
Type of paints currently produced	
Type of paints that contain lead	
Production of paints that contain lead in 2018 (t)	
Consumption of raw materials that contain lead in 2018 (t)	
3. SELECTION OF PRODUCT(S) FOR REFORMULATION	
Product trade name	
Product type (base, use)	
Production of this paint in 2018 (t)	
% (weight) of this product production related to lead paint production in 2018	
Product technical specification	
Reasons for this product selection	
4. PRODUCT REFORMULATION	
4.1 RAW MATERIAL(s)	
Lead compound to be substituted	

Content of lead compounds in the formulation of selected product (weight % calculated on total formulation)	
Total consumption of this lead compound 2018 (t)	
Lead compound technical specification/SDS	
4.2 ALTERNATIVE(s) ASSESSMENT[1]	
Possible alternatives that were assessed	
Selected alternative(s)	
Selected alternative(s) technical specifications/SDS	
Main reason(s) for selection of this (these) alternative(s)	
Potential for implementation of this (these) alternative(s) in other products (number of products and/or tons, if possible)[2]	

Raw material 1:

Request	Raw material to be substituted	Alternative[3]
Function		
Production process		
Environmental and human health hazard		
Economic feasibility (assess difference in costs in %, if possible)		
Availability		

Raw material 2:

Request	Raw material to be substituted	Alternative
Function		

[1] PY 34 and PR 104 have to be substituted by more than one pigment. In that case assessment of each pigment should be presented

[2] For example, if driers are substituted, there is large number of products in which lead free alternative may be implemented without limitation. When PY 34 or PR 104 are substituted choice of alternative depends on requests as it is not possible to use the same alternatives for all paint purposes

[3] If company agrees trade name may be used

Production process			
Environmental and human health hazard			
Economic feasibility (assess difference in costs in %, if possible)			
Availability			

4.3 RESULTS OF PARALEL LAB TESTINGS		
Request (according to technical specifications)	**Lead paint**	**Paint free of lead**
This depends on product. If it is about pigment substitution, comparison of shade should be also presented		
Test method and a value		

4.4 RESULTS OF SCALE-UP		
Request	**Lead paint**	**Paint free of lead**

NOTE:

5. **CONCLUSION AND NEXT STEPS**