

# Project Completion Report

## Prevention of Lead Exposure through Effective Implementation of Lead Paint Standard in Nepal, ILPPWA 2020

**ILPPW 2020 Kick Off and National Level Interaction Program**  
Prevention Lead Exposure and Effective Implementation of Lead Paint Standards in Nepal  
लेड (सिसा)को विषबाट बचावका लागि अन्तर्राष्ट्रिय सचेतना सप्ताह

**BAN LEAD PAINT**  
लेडमुक्त पेट्रोलरस  
प्रतिबन्ध गर्नु

**LEARN the Risks**  
**JOIN the Action**  
**ELIMINATE Lead Paint**

**25-31 October 2020**  
**International Lead Poisoning Prevention Week 2020**  
[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

**22nd October 2020 (2077 Kartik 6), 11 AM to 1:30 PM Kathmandu , Nepal through ZOOM**

**Please Register for this program**  
<https://nren.zoom.us/j/924441522F8M1Q>  
N\_CG16N6fsSd4wV152cF8M1Q

**Zoom id**  
924441522F8M1Q

**Government of Nepal , Ministry of Health and Population NHEICC**  
**World Health Organization**  
**CEPHED**  
Center for Public Health and Environmental Development  
[www.cephed.org.np](http://www.cephed.org.np)

**Organized by CEPHED and Supported by:** National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal

**Awareness Raising & Capacity Building program, Province No. 1 on Prevention Lead Exposure and Effective Implementation of Lead Paint Standards**

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**International Lead Poisoning Prevention Week 2020**  
[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

**29th October 2020 (2077 Kartik 13), Kathmandu , Nepal through ZOOM**

**Registration Link**  
<https://nren.zoom.us/j/924441522F8M1Q>  
N\_CG16N6fsSd4wV152cF8M1Q

**Zoom id**  
924441522F8M1Q

**Government of Nepal , Ministry of Health and Population NHEICC**  
**Province Government, Ministry of Industry, Tourism, Forest and Environment Province No. 1, Biratnagar**  
**World Health Organization**  
**CEPHED**  
Center for Public Health and Environmental Development  
[www.cephed.org.np](http://www.cephed.org.np)

**Organized by CEPHED and Supported by:** National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal in Coordination with Ministry of Industry, Tourism, Forest and Environment (MoITFE) & Health Directorate , Province no. 1, Biratnagar

**Awareness Raising & Capacity Building program, Province No. 2 on Prevention Lead Exposure and Effective Implementation of Lead Paint Standards**

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**31st October 2020 (2077 Kartik 15), Kathmandu , Nepal through ZOOM**

**Registration Link**  
<https://nren.zoom.us/j/924441522F8M1Q>  
N\_CG16N6fsSd4wV152cF8M1Q

**Zoom id**  
924441522F8M1Q

**Government of Nepal , Ministry of Health and Population NHEICC**  
**Province Government, Ministry of Industry, Tourism, Forest and Environment Province No. 2, Janakpur**  
**World Health Organization**  
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**Organized by CEPHED and Supported by:** National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal in Coordination with Ministry of Industry, Tourism, Forest and Environment ; Health Directorate and DYH Dhanusha, Province no. 2, Janakpur

**Awareness Raising & Capacity Building program, Lumbini Province on Prevention Lead Exposure and Effective Implementation of Lead Paint Standards**

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**30th October 2020 (2077 Kartik 14), Kathmandu , Nepal through ZOOM**

**Registration Link**  
<https://nren.zoom.us/j/924441522F8M1Q>  
N\_CG16N6fsSd4wV152cF8M1Q

**Zoom id**  
924441522F8M1Q

**Government of Nepal , Ministry of Health and Population NHEICC**  
**Province Government, Ministry of Industry, Tourism, Forest and Environment Lumbini Province, Butwal**  
**World Health Organization**  
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Center for Public Health and Environmental Development  
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**Organized by CEPHED and Supported by:** National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal in Coordination with Ministry of Industry, Tourism, Forest and Environment & Health Directorate, Lumbini Province , Butwal

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**Email: [info@cephed.org.np](mailto:info@cephed.org.np), Web: [www.cephed.org.np](http://www.cephed.org.np)**  
**November 2020**



**Prevention of Lead Exposure through Effective implementation of Lead Paint Standard in  
Nepal, ILPPWA 2020**

**TABLE OF CONTENT**

|  |           |
|--|-----------|
| <b>1. Background:</b>  | <b>2</b>  |
| <b>2. Objectives:</b>  | <b>3</b>  |
| <b>3. Activities and events completed under ILPPW 2020 in Nepal</b>                              | <b>3</b>  |
| <b>4. Customized GAELP Materials</b>   | <b>9</b>  |
| <b>5. Massive Medial Outreaches</b>  | <b>11</b> |
| <b>6. Video Recording link</b>   | <b>12</b> |
| <b>7. Conclusion</b>   | <b>13</b> |
| <b>8. Outcomes</b>   | <b>14</b> |
| <b>9. Way forward</b>  | <b>15</b> |
| <b>ANNEX 1: Report of ILPPW 2020 Kick Off and National Level Interaction Program</b>             | <b>18</b> |
| <b>ANNEX 2: Report of Awareness Raising and Capacity Building Program, Province 1</b>            | <b>36</b> |
| <b>ANNEX 3: Report of Awareness Raising and Capacity Building Program, Lumbini<br/>Province,</b> | <b>49</b> |
| <b>ANNEX 4: Report of Awareness Raising and Capacity Building Program, Province 2</b>            | <b>62</b> |
| <b>ANNEX 5 Press Release on ILPPW 2020 in Nepal</b>  | <b>78</b> |
| <b>ANNEX 6. Media Coverage:</b>  | <b>82</b> |

# Prevention of Lead Exposure through Effective implementation of Lead Paint Standard in Nepal, ILPPW 2020

## 1. Background:

Global Alliance to Eliminate Lead Paint (GAELP) is a global joint initiative of World Health Organisation (WHO) and United Nation Environment Program (UNEP) with the goal of preventing children's exposure to lead via paints containing lead and to minimize occupational exposures to lead in paint. With the continued efforts of all concerned, Government of Nepal, Ministry of Forest and Environment (MOFE) enacted mandatory standard of 90 ppm on 22 December 2014, effective since 20<sup>th</sup> June 2015. The compliance monitoring of standard by the Government of Nepal, Ministry of Forest and Environment (MOFE) in early 2016 and Center for Public Health and Environmental Development (CEPHED) with the support of WHO Country Office for Nepal in 2018 clearly shows increased compliance over years by almost all large and multinational paints companies but yet to achieve 100 % compliance of standard by small and medium domestic paint industries. Furthermore, studies have shown elevated blood lead level-BLL (>5 µg/dl) among over 64 % of Nepalese children (NHRC 2015) among other four BLL studies so far carried out in Nepal. 54 % of tested children toys contain most toxic heavy metal like Lead, Mercury, Cadmium, Chromium and Bromine etc. (CEPHED 2013), Schools class room dust sample contains lead more than 10 µg/ft<sup>2</sup> (CEPHED 2014). These all indicate the urgent need to have regular compliance monitoring, mass awareness raising, as well as health sector increased engagement with their enhanced capacity.

In order to prevent lead exposure through enhance awareness and effective implementation of lead paint standard, there has been absolute need of massive dissemination of BLL Nepalese studies and other available global studies along with the dissemination of status of lead in paints and status of standard compliance in all seven provinces among all concerned government agencies (Social Development Ministries, Health, Forest & Environment), Medical Institutions, local metropolitan/municipalities, paint industries, paint dealers, professional association like Grill Enterprises, OSH related groups and trade unions and general public towards eliminating leaded paint.

Popularization of lead paint standard as well as customization of 8<sup>th</sup> GAELP Campaign materials for 2020 in Nepali language, its mass distribution, media campaign, organize workshop on **“Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards”** jointly with all the four provinces through ZOOM Webinars and maximum use of electronic mass media (Radio and Social Media etc.) has been proposed and completed in Nepal in line with the celebrating of the **8<sup>th</sup> International Lead Poisoning Prevention Week of Action, October 25 to 31, 2020**, called by GAELP. This is the completion reports of all above said activities successfully completed in Nepal with technical and financial support from WHO.

## 2. Objectives:

Celebration of 8<sup>th</sup> International Lead Poisoning Prevention Week in Nepal through organizing series of mass media, awareness raising and interaction programs were having following objectives.

**Main objective** is to raise awareness and built capacity to prevent lead exposure through elimination of leaded paints in Nepal

The **specific objectives** were as follows:

1. Collection & Customizing the GAELP Campaign Materials 2020 [Posters, Flier, info graphics, materials and distribute to all events (Kick off press meet, stakeholder workshop with Four provinces No. 1, 2, 3 (Bagmati) and 5 (Lumbini) and wide dissemination.
2. Organize an ILPPW 2020 Kick Off and National Level Interaction Program to kick off the International Lead Poisoning Prevention Week of Action (ILPPWA 2020) on 22th October 2020 on October 22 (due to national holiday on 25<sup>th</sup> October) through ZOOM.
3. Organize an awareness raising and capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards" with three provinces: 1, 2, and Lumbini during the ILPPW 2020 through ZOOM.
4. Mass awareness through prepare, production and broadcasting of Radio PSA and social media messaging on BLL & Lead paint standard from national most popular FM Radio Station (Kantipur) etc.

## 3. Activities and events completed under ILPPW 2020 in Nepal

Center for Public Health and Environmental Development (CEPHED) with technical and financial support from WHO celebrated the 8<sup>th</sup> International Lead Poisoning Prevention Week (ILPPW 2020) by successfully organizing various activities for effectively implementation of the lead paint standard legislation and envision for Blood Lead Level (BLL) abatement policy and programs to protect children's health. CEPHED with the support of National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal Federal Government and Provincial Governments of Province No. 1, 2, Bagmati and Lumbini and WHO country Office for Nepal had organized several awareness raising and capacity building , stakeholder workshop and policy advocacy programs along with the customization & dissemination of Global Alliance to Eliminate Lead Paints (GAELP) 2020 materials, production and broadcasting of Radio PSA through one of the most popular radio stations named Kantipur Dairy programs reaching out to over 20,00,000 population of Nepal. CEPHED successfully accomplished all planned programs for celebration of week of action in Nepal as part of globally observed events from October 25 to 31, 2020 and beyond.

In context of ongoing COVID 19 pandemic time, CEPHED had planned and successfully organized various national and provincial level programs events towards joining the global actions/efforts of eliminating lead paints. With the uncertainty of the ongoing COVID pandemic, increased mass awareness through the maximum uses of electronic media Radio, social media and



messaging, News (print and electronic) through press releasing's, social media and webinars etc. with great potential of reaching to greater sectors of peoples as well as increased engagement of local government, provincial government including health, environment, industries, constructions and media professionals.

Based on direct participation in the different events and wide media outreaches organized during the project period more than 25, 00,000 people and concerned government officials, stakeholders were directly benefitted from participations as well as having access to information through mass media popular Radio (Kantipur FM) and massive media outreaches from different national level print and online media about the weeklong programs and beyond. Government and WHO initiatives to eliminate lead paints in Nepal were also included into the program as major highlights of all completed programs.

Wide media coverage has been achieved that helps to maximize the public outreaches with massive message regarding dissemination about lead, lead toxicity and lead paint standard enacted by the Government of Nepal and most importantly the issues of Blood Lead Level among the Nepalese children and other vulnerable groups were also widely shared among health community's at all federal, provincial and local levels.

**Activities completed under the project during the week and beyond were as follows.**

- A. Collection, customization and distribution of GAELP / ILPPW 2020 IEC Materials** like banners, fact sheet, to the participants of all four provincial level program participants.
- B. Production and Broadcasting of Radio Jingle** on Lead Paint Standards and associated Blood Lead Level from October 23 to November 6, 2020. The radio jingle message mainly include about the high BLL among Nepalese children associated with high lead in paints, causing serious health impacts thus suggest all for use lead free paints. Support of NHEICC and WHO has been highly acknowledge in the radio jingle too. Please see the final radio jingle script in box.

V/O : के तपाईंलाई थाहा छ, नेपालका बालबालिकाहरूमा गरीएका अध्ययनहरूले ६५ प्रतिशत भन्दा धेरै बालबालिकाहरूका रगतमा अत्यधिक लेड अर्थात सास देखाएको छन् । बजारमा पाईने कतिपय रंगहरूमा मापदण्डले तोकेभन्दा धेरै लेड पाईन्छ । रंग लगाउदा मापदण्डलाई ख्याल गरीएन भने हाम्रो शरीरमा यसको प्रवेश हुन्छ । यो जनस्वास्थ्यका दृष्टिले अत्यन्तै हानीकारक रासायन हो । त्यसैले नेपाल सरकारले पेन्ट्समा तोकेको ९० ppm को मापदण्ड पालना गरीएको रंगको मात्र प्रयोग गर्नुपर्छ ।

V/O: लेड नभएको पेन्ट्सहरू लगाउनुस र हामीलाई बचाउनुस । (बालिका के आवाजमा)

V/O : राष्ट्रिय स्वास्थ्य शिक्षा सूचना तथा सञ्चार केन्द्र र विश्व स्वास्थ्य संगठनको सहयोगमा सिफेड द्वारा जनहितमा जारी ।

- C. Oct. 22, 2020 (Kartik 6), Thursday: ILPPW Kick Off and Interaction Program at National & Bagmati Province level through ZOOM and Facebook live. Find report in Annex 1**

- D. Oct. 29, 2020 (Kartik 13) Thursday “Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards” with province No. 1 through Zoom and Facebook live. **Find report in Annex 2**
- E. Oct. 30, 2020 (Kartik 14) Friday “Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards” with Lumbini Province through ZOOM and Facebook live. **Find report in Annex 3.**
- F. Oct. 31, 2020 (Kartik 15) Saturday “Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards” with province No. 2 through ZOOM and Facebook live. **Find report in Annex 4**

Center for Public Health and Environmental Development (CEPHED) with the support of National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Provincial government, Ministry of Industry, Tourism, Forest and Environment (MoITFE), Health Directorate of Province No.1, 2, Bagmati and Lumbini and WHO Country Office for Nepal successfully organized a ILPPW 2020 Kick Off & National Level Interaction Program and three Provincial level awareness and capacity building program on “**Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards**” .

The major objective of national and provincial level programs were raising awareness and built the capacity to prevent lead exposure through elimination of leaded paints in Nepal. Further down the province level programs objectives were: sharing and spreading Lead Paint Standard and its compliance status with Provincial Government; awareness raising & capacity building and media outreaches and translating lead paint and other chemical safety issues at provincial and local level.

All programs were organized online through a dedicated zoom webinar supported with a Information Technology expert along with face book live too.

Participants are representatives from concerned government agencies from health and environment sector from all three level of the governments (Federal, Provincial and Local), Health Directorates, District Health Offices, Faculties and Students from medical colleges, nursing colleges, environment science colleges, environmental Occupational Safety and Health (EOSH) college, Universities, OSH experts, Health Expert, Researchers, Federation of Nepalese Cottage and Small Industries (FNCSI), Butwal Chamber, Commerce and Industries (BCCI), Professional Associations, Trade Unions, Consumer Association, Grill and Steel Fabricators Association, Paint Industries and representative NGOs, youth networks, Nepal environment Society (NES), Metropolitan City, Sub Metropolitan City, Municipalities and media etc, were also participated. Representatives from Development Agencies, Nepal Human Right Commission (NHRC) and Medical Doctors, Forest Officers were also present in the programs.

Table below summarises the total participants and beneficiaries in both zoom webinar and face book lives events including guests, experts in all these four programs organized during the ILPPW 2020 in Nepal by CEPHED with the technical and financial support of WHO.

| <b>Table1. Programs and Beneficiary Summary of ILPPW 2020 Celebration in Nepal</b> |                     |  |  |                               |                               |
|--|---------------------|--|--|-------------------------------|-------------------------------|
| Events Name  |                     | ILPPW 2020 Kick Off and National Level Interaction Program | Awaenness and Capacity Building Program on Prevention of Lead Exposure and Effective implementation of Lead Paint Standard |                               |                               |
| Level  |                     | National and Bagmati Province                              | Province No. 1   | Lumbini Province              | Province No. 2                |
| Dates  |                     | 22 <sup>nd</sup> October 2020                              | 29 <sup>th</sup> October 2020  | 30 <sup>th</sup> October 2020 | 31 <sup>st</sup> October 2020 |
| Total Beneficiary from ZOOM Webinars   | Days                | Thursday   | Tuesday  | Friday                        | Saturday                      |
|  | Registrants         | 54   | 60   | 56                            | 103                           |
|  | Participants        | 36   | 59   | 44                            | 58                            |
| Total Beneficiary from Face Book Lives   | Reached out         | 3521   | 1750   | 1850                          | 1765                          |
|  | Shared              | 13   | 12   | 15                            | 5                             |
|  | Engaged and reacted | 314  | 234  | 239                           | 86                            |
| Total Number of Experts  |                     | 4  | 4  | 4                             | 4                             |
| Total Number of Guest speakers   |                     | 8  | 11   | 14                            | 10                            |

All the four programs were carried out in the similar fashion with four sections: Inaugural Session; Technical Session; Question and Answer Session and Closing Sessions.

In all programs, four technical papers on different issues related to lead in paints and associated socio economic impacts, blood lead level (BLL), Government response in eliminating leaded paints and WHO initiatives towards elimination of lead paints had been presented in details with flagging of different related issues and way forward.

First paper entitled” **Status of Lead in Paints and associated Socio-Economic Impacts in Nepal** “were presented jointly by Mr. Sumin Maharjan, Program Officer and Mr. Ram Charitra Sah Executive Director/Environment Scientist, CEPHED;

This paper clearly pointed out the high lead legacy in the paints in Nepal from the series of studies being carried out before and after the lead paint standards being promulgated in Nepal. Very rigorous research based campaign lead by NGOs has been able to bring the lead paint standards in Nepal. The standards getting effectively implemented over the years as revealed from the compliance monitoring. Still 30 percent industries yet to improve their products. Court case issues related to lead paint standards were clearly presented. High level of socio-economic losses as well as high level of blood lead level (BLL) among Nepalese children were also raised. Clear recommendations about the required things to be done by respective government agencies at all level along with the role and responsibility all other concerned stakeholder were presented. .

**Second paper presented by Dr, Keyoor Gautam, Dr. Santosh Pradhan, and Dr, Vivek Panta, Samyak Diagnostic Pvt. Ltd. entitled “Summary of Researches on Blood Lead Levels tested at Samyak Diagnostic”.**

Explained clearly the history of lead, lead toxicity, mechanism of lead intoxication and associated health impacts were briefly presented. The high lead level among Nepalese children and its links with the leaded paints were clearly established in the different researches summarized and presented in all the four programs.

These Doctors groups presented the three researches about the BLL carried out from their centers with clear diagnosis and way forward for the abatement in all four programs.

**Firstly**, Study of BLL among children in Kathmandu and Birgunj Industrial area were presented. In case of Kathmandu among 50 Children, on an average BLL is 7.01 µg/dL. Situation among the Children of Birgunj among school children adjacent to an industrial area were still very alarming. In Birgunj, among 50 Children, on an average BLL was 20.33 µg/dL with 100 % of children in the study have elevated BLL. These findings were more or less coherence with the other previous studies carried out in Nepal as well as the reported from recent UNICEF and PRURE EARTH 2020 report.

**Secondly**, BLL among 50 Rag pickers study findings about evaluate blood lead level in Rag picker working in selected area of Kathmandu including hematological and biochemical parameters were also tested among them were presented.

The average BLL among paper and metals collectors were 7.35 µg/dL; among Plastic, Metal and Paper collectors 8.47 µg/dL; plastic, Metals, paper and Paint Container 8.47 µg/dL and Plastic, Metals, Papers, Paints containers and electronics waste workers were having average BLL 12.89 µg/dL.

The findings of this study suggest that the Rag-pickers working in Kathmandu are at increased risk of lead toxicity and this occupational exposure to lead is attributed to the use of bare hands for handling solid waste. There has been high possibility of transfer their lead exposure to their nearest kin and family members.

**Thirdly**, the lead toxicity due to Ayurvedic Medicine use in a 38 year old people with acute abdomen pain health complication following intake of Ayurvedic medicines for increasing power were presented. He had initial blood level was 82.3 µg/dL. The used Ayurvedic medicine when analyzed for presence of lead revealed very high concentration of lead (102 ppm) against the prescribed limit is only 10 ppm by WHO.

Lists of lead poisoning prevention measures with major highlights as “**Lead Poisoning is 100% Presentable**” were given. Washing hands before eating; washing toys regularly; do not use old or imported toys unless you know they are lead free; clean surface with wet mop weekly, chipping, peeling paints chips; moisture, molds and mildew and calcium and iron supplements can help to prevent the absorption of Lead.

Third Paper entitled “Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal by Mr. Bhupendra Sharma, Environment Inspector, Department of Environment, MOFE, Government of Nepal.

The major highlights of this paper were role and responsibility of all three level governments for lead paint elimination starting from the Constitutional right to live in healthy environment, provision of federal EPA, EPR, Provincial EPA and EPR as well as Gazette Notification of Lead Paint Standard and its content and compliance status. He focussed on the need to do effective IEE,



EIA as well as effectively implement the laws and standard. He provide the suggested for paint industry to produce the paints complying the standards as well as put the uniform label about the lead content on the can as per the standards. He also suggested the role and responsibility of the provincial government in addressing the lead paint and other chemicals safety issues by including these provision in relevant laws, regulation, standards and having increased institutional capacity of hiring relevant environment officers at provincial and local level and to regular market and industry monitoring,

**Fourth Paper entitled” WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020” were presented by Mr. Raja Ram Pote Shrestha, National Professional Officer, WHO Country Office for Nepal.**

The fourth paper covered many sector including health and economic impacts, reason of using lead in paint etc., in much simple and understandable manners.

He then described briefly about the role of WHO, contribution of WHO from global, regional and national level and help to government of Nepal and CEPHEd to bring this issues up to this level. Cited different countries example, He finally highlighted the awareness is the major requirement to help individual, communities, government to cope with this lead poisoning and associated implications. He also provided information regarding various important documentation prepared by WHO with GAELP and SAICM related to lead widely available through the web portal.

So all the four paper were very good, educative and informative as appreciated by all the participants and mainly by all the guest speakers. A lot of information with the clear message to be carried out by us as an individual and organsitiaon level and hence it creates hopes among us to do something to solve this problem. Second point he highlight is the initiative lead by NGO sector results up to the gazette notification of having lead paint standards in place is the clear example of how NGO and Government can work together and all we should encourage this kind of collaboration.

Citing the serious health, environment and associated huge economic losses, all programs summarized by calling for federal and provincial government to address the issues of high lead in paints, high BLL among Nepalese children through including of lead in paint and chemical safety issues in the provincial level acts, regulation, policy, guideline and standards while developing different environment and health related laws. The need of developing infrastructures like laboratory facilities, trained human resources and sufficient budget allocation to test BLL national level through having BLL National Screenign Policy and Programs.

- G. Final Press Release and Review of weeklong program:** Press relase highlight the status of lead paint, BLL, cocio economic impacts and also for the required control measures from different sectors especially from the concerned government agencies. The major review were, despite of the ongoing COVID, the week long proproposed, planned activities to celebrate ILPPW 2020 in Nepal were successfully completed with increased awareness among federal, provincial and local government as well as stakeholder level with the great realisation of needs of inclusion of lead paint issues in provincial level laws, regulation, policy and programs.

#### 4. Customized GAELP Materials



२०७७ कार्तिक ९ देखि १५ सम्म

लेड (सिसा) को  
विषबाट बचावटका  
लागि अन्तर्राष्ट्रिय  
सचेतना सप्ताह  
२०७७

लेडयुक्त पेन्ट  
प्रतिबन्ध गरौं

जोखिम बारे  
जानौं

अभियानमा  
जुडौं

लेडयुक्त पेन्टस  
उन्मूलन गरौं

CEPHED

[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint



२०७७ कार्तिक ९ देखि १५ सम्म  
25-31 October 2020

**International  
Lead  
Poisoning  
Prevention  
Week  
2020**

लेड (सिसा) को विषबाट  
बचावटका लागि अन्तर्राष्ट्रिय  
सचेतना सप्ताह २०७७

लेडयुक्त पेन्ट  
प्रतिबन्ध गरौं

जोखिम बारे  
जानौं

अभियानमा  
जुडौं

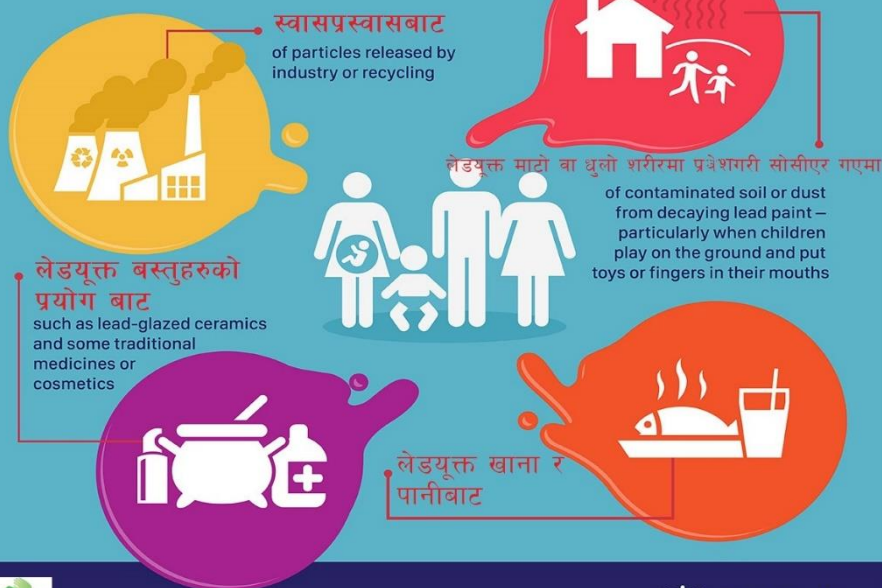
लेडयुक्त पेन्टस  
उन्मूलन गरौं

CEPHED

[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

# लेड(सिसा)को सम्पर्कमा आउन सक्ने माध्यमहरु...

#BanLeadPaint



लेड(सिसा)को सम्पर्कमा आउनुको कुनैपनि सुरक्षित सिमा हुदैन ।



World Health  
Organization

#BanLeadPaint

## तथ्य: लेड(सिसा) खतरनाक धातु हो।

यसले सवैलाई  
हानी गर्दछ र



विगर्दछ : मस्तिष्क मृगौला फोक्सो रगत प्रजनन प्रणाली

### बालबालिकाहरु

are most vulnerable.  
Their nervous systems  
are still developing and  
they absorb 4-5 times  
**more than adults**,  
which can cause:

- intellectual disability
- underperforming at school
- behavioural issues



### वयस्कहरु

lead exposure increases  
the risk of:

- ischaemic heart disease
- stroke



### गर्भवती महिलाहरु

lead exposure damages  
many organs but also affects:

- the developing foetus



लेड(सिसा)को सम्पर्कमा आउनुको कुनैपनि सुरक्षित सिमा हुदैन ।



World Health  
Organization

## 5. Massive Media Outreaches

Dissemination of lead paint standards and its impact through radio, social media (Face Book/ Whatsapp & Viber etc.)

1. The Radio PSA produced and broadcasted from one of most popular Radio Station Kanpur FM in-between the main news program called Kantipur Dairy twice a day have reached over 20,00,000 peoples
2. The Video Message from Dr. Maria Neira, WHO Head Quarter has been shared widely during the program and also through social media. It has got 145 views during the week of action.
3. The Video PSA (previously produced from CEPHED with the help of WHO & IPEN) were also widely shared during the programs and also through the social media have got 81 views during the week of action.



4. There has been news publication from three print media of main national newspaper and other online media have reached over millions of readers



<https://myrepublica.nagariknetwork.com/news/stakeholders-urge-governments-to-effectively-execute-legislations-to-protect-children-s-health/>? Circulation: 1,52,000

<https://risingnepaldaily.com/nation/intl-lead-poisoning-prevention-week-from-oct-26>

<https://english.khabarhub.com/2020/24/137530/>

[https://www.naiummid.com/2020/11/bl-og-post\\_18.html?m](https://www.naiummid.com/2020/11/bl-og-post_18.html?m)



# International Lead Poisoning Prevention Week (ILPPW)

Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards in Nepal

## लेड (सिसा)को विषबाट बचावका लागि अन्तर्राष्ट्रिय सचेतना सप्ताह

25-31 October 2020 (२०७७ कार्तिक ९ देखि १५)

**International Lead Poisoning Prevention Week 2020**

[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

**BAN LEAD PAINT**  
लेडयुक्त पेन्टसहरू  
प्रतिबन्ध गरौं ।

**LEARN the Risks**  
**JOIN the Action**  
**ELIMINATE Lead Paint**

**Government of Nepal ,**  
Ministry of Health and Population  
NHEICC

**Province Government,**  
Ministry of Industry, Tourism, Forest and Environment  
Health Directorates  
Province No. 1, 2, Bagmati and Lumbini

**World Health Organization**

**CEPHED**  
Center for Public Health and  
Environmental Development  
[www.cephed.org.np](http://www.cephed.org.np)

Organized by CEPHED, Kathmandu and Supported by: National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal, Provincial Governments & World Health Organization (WHO) Country Office for Nepal

## 6. Video Recording links

Following are the link of all four "Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards in Nepal"

**National and Bagmati Province:** ILPPW 2020 Kick Off and National Level Interaction Program - Oct 22 <https://youtu.be/yQbNtCGyHUY>

**Province No. 1:** Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards, Oct 29, 2020: <https://youtu.be/1Tk3XXX7uZ8>

**Lumbini Province:** Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards, Oct 30, 2020: <https://youtu.be/0Q2pDHgKyOM>

**Province No. 2:** Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards - Oct 31, 2020

<https://youtu.be/RPDPwgnnf18>

## 7. Conclusion:

International Lead Poisoning Prevention Week (ILPPW) 2020 has been successfully celebrated in Nepal through the effective implementation of the project entitled "Prevention of Lead Exposure through Effective Implementation of Lead Paint Standard in Nepal" with support of :National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal; Provincial Government, Ministry of Industry, Tourism, Forest and Environment (MoITFE); Health Directorates, Ministry of Social Developments (MoSD) of Province No.1, 2, Bagmati and Lumbini and technical and financial support from WHO Country Office for Nepal.

Programs were successfully implemented by carrying out several activities including customization of GAELP Materials (Banners and Fact Sheets), production of radio jingle and broadcasting from one of the widely listen Radio Stations in between the main news programs. Four (One National and three Provincial level) stakeholder programs on awareness raising and capacity building on prevention of lead exposure and effective implementation of lead paint standard were organized with technical and financial support of WHO and in close coordination, collaboration and support of NHEICC, provincial MoITFE and Health Directorates.

Wide participation of different stakeholders and experts from different sectors of government, non government, industry, health, environment, doctors, students, teachers, media personnels etc.

Along with major highlights of the lead paint, lead paint standard and associated economic and health impacts, compliance of lead paint standards, high blood lead level, huge economic losses and mechanism of lead toxicity were raised throughout the programs, numbers of way forwards were suggested by different stakeholders and experts towards eliminating leaded paints from Nepal and thus eliminating its impacts on public health and environment. Few highlights of major success and associated issues raised throughout the week are summarized here.

- Along with lead paint elimination, hazardous level of lead in air, water and other products needs to be eliminated.
- Over the years, consumer are more sensitive and aware in comparison to past and they are increasingly demanding for the lead free paints and willing to purchase ecofriendly paints.
- Paint produced domestically from unauthorized industries definitely have high lead content needs to be regulated urgently.
- Need to build the provincial government capacity, like ISO certified lab establishment to increase the monitoring,
- Provincial government are highly committed to address the lead and other toxic chemicals issues in days to come with enhanced their institutional and regulatory capacity.
- Multi-sector arrangement and engagement are being felt necessary to address this issues by identifying all the important stakeholders.
- Regulatory function should be made robust by ensuring the inclusion of industry voice to find out bottlenecks and address the actual reason of having high lead in paints and some non compliance.
- Continue awareness raising up to community and population level, regulate supply side, demand side of paints.
- Imported and domestic products both should to be equally regulated.



- Civil society organization should strongly act as watch dog to look on policy implementation. Consumer organization should make the responsible consumer's. So making responsible demand side, the supply side itself comes to the right position and make their products safe.
- All three level government federal, provincial and local government should be engaged in development and implementation of the lead related policy and program in the form of cross cutting issues so that we succeed to solve these lead toxicity issues.
- With having three tier of governments, we have relatively comfortable position of collecting data, market monitoring and industry inspection.
- Increase researches on national level BLL, cosmetics, ayurvedic medicine, and other items that might contain lead and other heavy metals.
- Empower all stakeholder especially all concerned government agencies to ensure the right to live in clean environment,
- Arrangement of an environment desk and environment officer in each concerned provincial and local government offices.
- Provincial level programs has found to be an eye openers and great opportunities for the high level provincial government to know about lead paint, lead toxicity issues along with overall chemical safety issues.
- The program were organized very much in the right times where all the provincial governments were preparing their provincial level environment and health related act, regulation and standards and hence all of them has showed their high commitment to include lead paint issues and overall chemical safety issues in their upcoming laws as well as do necessary amendments to incorporate lead paint issues in their respective laws already formulated.
- The need of adopting a National Level BLL Screening Policy along with developing infrastructures like laboratory facilities, trained human resources and sufficient budget allocation to test BLL at each province level is very important and very much needed.

## 8. Outcomes:

Major outcomes like massive IEC materials, raised awareness, built capacity of provincial and local government as well as realization of inclusion of chemicals safety issues including lead in paint into the provincial legislative and recruitments of required relevant human resources were achieved from all the programs carried out in collaboration and coordination with provincial, local governments and other stakeholders.

- Successfully completion of all the proposed program with great success and sectorial commitments.
- Awareness and Capacity building about the Lead, its impact on health, lead in paint issues and their associated risk, economic losses, abatement of lead exposure and prevention of exposure and alternatives throughout the country.
- Status of BLL among Nepalese children and other vulnerable groups, global BLL studies, its contributing factors, compliance of Lead Paint standard were massively dissemination to raise

the awareness about the safer paints that contribute towards effective implementation of the government legal frameworks.

- The IEC materials, video recording and Video PSA, Radio PSA links were made available through sharing on the chat box as well as shared through the email of each individuals.
- 25,00,000 People were increasingly known about health hazards of Lead as well as related government lead paint standard through Radio PSA, News Paper article, Social Media as well as from all four national and province level programs.
- Promotion of Lead free paints standard of the government thus increased their compliances and hence reduces the potential exposure as committed by all the provincial level high officials.
- Meet GAELP Goals of eliminate lead paints, accelerate progress towards the global phase out of lead paint through regulatory and legal measures.
- Sectorial commitment were enhanced the effective prevention of lead exposure and implementation of the lead paint standard.
- Help in translating Lead Paint and other chemical safety issues at Provincial and Local level importantly required for the nation were well accepted and gasped by all collaborating provincial level governments.
- Overall lead toxicity related awareness was realised better for all, public health, children health and environment.

## **9. Way forward:**

Based on the successful completion of four national and provincial level programs including massive dissemination of lead paint issues, status of lead paint & standards compliance, blood lead level among Nepalese children, associated socio-economic and health impacts, initiatives from governments of Nepal, development agencies like WHO's initiatives and global initiatives and more from the stakeholder interaction, there was numerous urgent realization for further required actions to be taken for overall sectoral improvements as way forward to eliminate lead paints and its associated impacts on public health and environment listed below under different categories.

### **A. Regulatory and Institutional Frameworks :**

1. Formulation and Adoption of National Blood Lead Level (BLL) Screening Policy, Program and Infrastructure developments including laboratory facilities in each provinces of Nepal
2. Local government should also opt for having required legislation and institutional framework of regulating lead in paints and other environment and public health issues.
3. Provincial government needs to recruited the required level of human resources as soon as possible and also suitably include the lead paint and other chemical safety issues in required act, regulation and standards and opt for their effective implementation.

4. All three tiers of Government (Federal, Provincial and Local Government) should include mandatory provision of using paints that only fully comply the Government of Nepal's Lead Paint standard during MAP APPROVAL of building and any infrastructures construction within their jurisdiction including building code, green building guideline development and adoption.
5. Required to formulate mandatory standards of chemicals including lead in Toys, Cosmetics, Ayurvedic Medicine, Occupational Lead Exposure limits etc. for all three government levels and implement them effectively.
6. Concerned authorities (Federal, Provincial and Local) should immediately start discussing with Paint and other industries to solve their challenges to meet and enhance the lead paint standards compliances as well as make uniform labeling provision and stop mal advertisement of paints and other products.
7. Develop clear policy, plan, guideline and programs needed in the area of lead poisoning prevention with time bound framework by center and conveyed to the most enthusiasms province and local level to work together to be implemented at province and local government level.
8. Help and support Provincial and Local Government to include chemical safety issues including lead toxicity in their provincial level laws, policy and standards.
9. Formulate a solid work plan of eliminating lead paint from Nepal as well as BLL abatement Action plan through a large stakeholder consultation.

## **B. Research and Monitoring**

1. National Level Blood Lead Level (BLL) study needs to be carried out so as to present national level status/picture..
2. Needs to do larger study of Lead in Blood and its association with prevalence of anemia among Nepalese Population.
3. Need to do larger study of identification of Lead in Ayurvedic Medicine (Imported and Nationally Produced) and among the consuming patients/population along with exclusive awareness among these sector of health professional and consumers.
4. Develop BLL testing program for all children especially from province No. 1, 2, Lumbini and Bagmati.
5. Periodic study of larger compliance monitoring of Lead Paint Standards in Nepal.
6. Promoting the possibility of producing Organic Paints (vegetation based) at commercial level in Nepal.
7. Study of lead and other heavy metals in cosmetics, toys, food items etc of daily usable and/or consumable items.

### **C. Awareness Raising and Capacity Building**

1. Continue stakeholder programs for effective implementation of Lead Paints standard in all provinces, local government and even community level is utmost required and demanded from all over.
2. The widely dissemination of IEC materials, Radio and TV PSA for longer period of time from national and provincial level mass Medias (electronics and print).
3. Exclusive program on Lead Paint and Chemical Safety for Provincial Health Fraternity and Ministry of Industry, Tourism, Forest and Environment (MoITFE) should be developed and implemented in each provinces of Nepal.
4. Massive awareness and capacity building programs at different level especially provincial and local government, students, teachers and health communities.
5. Empower all stakeholder especially all concerned government agencies to ensure the right to live in clean environment as fundamental rights ensured by the Constitution of Nepal.

### **D. Technical and Financial Support**

1. World Health Organization (WHO) should continue its financial and technical support towards long term Research, Awareness Raising, National Capacity Building (BLL testing laboratories and required legislative framework adoption in each provinces) beyond the international lead poisoning prevention week celebration on overall chemical safety including lead.
2. Internalization of the cost of lead testing, control and mitigation measures based on polluters pays principles i.e. from the corporate soiceity doing lead associated business and trade.
3. All three tire government should allocate required budget to address lead paint and lead toxicity issues for develop required legislation, institutional frameworks and established reuired infrastructures.

## ANNEX 1: Report of ILPPW 2020 Kick Off and National Level Interaction Program

### ILPPW 2020 Kick Off and National Level Interaction Program with Bagmati Province through Zoom Webinar and Face Book live (October 22, Thursday)

October 22, 2020, Kathmandu, Nepal: Environmental health, child health advocates, governments, and paint industries are uniting this week (October 25-31, 2020) for celebrating the International Lead Poisoning Prevention Week. Calling for protections for the children, coordinating with the Global Alliance to Eliminate Lead Paint (GAELP- a voluntary partnership hosted by the UN Environment Program (-UNEP and the World Health Organization-WHO), urge governments effectively implement legislation to protect children's health. In Nepal, CEPHED with the support of National Health Education, Information and Communication Center (NHEICC), MOHP, Government of Nepal, and Provincial Government of Province 1,2, Bagmati and Lumbini and WHO country Office for Nepal organized series of national level ILPPW 2020 Kick Off program and Provincial level awareness and capacity building program on “**Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards in Nepal**” program for the sectorial commitment towards enhancing full compliance of lead paint standards through effective implementation of lead paint standard so as to eliminate the potential sources of lead exposure among general public especially children.

The major goal of the Global Lead Week of Action is TIME TO TAKE ACTION ON LEAD PAINT. ILPPW 2020 Kick off and National level interaction program and following three provincial level awareness and capacity building program were successfully organized. Additionally, radio jingle broadcasted for 15 Days during the week and beyond to celebrate ILPPW 2020 in Nepal and requested to join by all.

## ILPPW 2020 Kick Off and National Level Interaction Program

Prevention Lead Exposure and Effective Implementation of Lead Paint Standards in Nepal

लेड (सिसा)को विषबाट बचावका लागि अन्तर्राष्ट्रिय सचेतना सप्ताह



**BAN LEAD PAINT**  
लेडयुक्त पेन्टसहरु  
प्रतिबन्ध गरौं



LEARN  
the Risks



JOIN  
the Action



ELIMINATE  
Lead Paint

25-31 October 2020

### International Lead Poisoning Prevention Week 2020

[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

22<sup>nd</sup> October 2020 (2077 Kartik 6), 11 AM to 1:30 PM Kathmandu , Nepal through ZOOM



Government of Nepal ,  
Ministry of Health and Population  
NHEICC



World Health  
Organization



Zoom id

Please Register for this program

[https://nren.zoom.us/webinar/register/W\\_N\\_QGI6N6fsSdq4W152cFkMiQ](https://nren.zoom.us/webinar/register/W_N_QGI6N6fsSdq4W152cFkMiQ)



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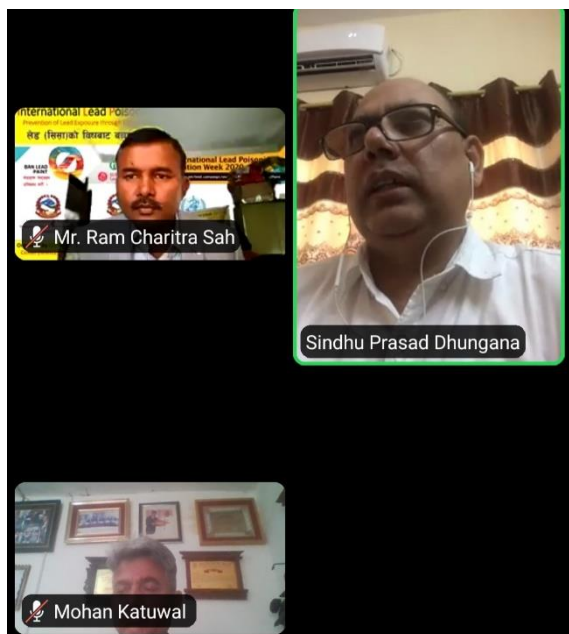
Ram Charitra Sah, 01 5201786, M: 9803047621  
Nirajan Parajuli, 01-4154962, M: 9860849769

Organized by CEPHED and Supported by: National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal

Figure. Banner of International Lead Poisoning Prevention Week Kick Off and National Level Interaction Program with Bagmati Province and Health Directorate

## Inaugural Session:

ILPPW 2020 Kick off and National Level Interaction programed successfully organized by CEPHED under the Chairmanship of Mr. Mohan Katuwal, Vice President of Federation of Nepalese Chamber of Cottage and Small Industry (FNCSI) & President of Federation of Grill and Steel Fabricators Nepal (FGSFN) and inaugurated electronically by **Dr. Sindhu Pd. Dhungana, Secretary, Province Government, Ministry of Industry, Tourism, Forest and Environment (MoITFE), Bagmati Province** through playing a video message issued from the WHO Head Quarter (<https://youtu.be/9WUsZ5hNGcc>) along with his commitment to translate the national lead paint related laws and standard in the province level and regulate the lead paint and other sources.



There was active participation of **over 36** representatives from different federal, provincial and local government along with the representatives from Health Directorates of the Bagmati Province. Guest Mr. Ramesh Adhikari, Health Director, Bagmati Province, Ministry of Social Development and other high level officials including Mr. Raja Ram Pote Shrestha, National Professional Officer (NPO) from WHO Country Office, Mr. Bhupendra Sharma, Sr. Environment Inspectors, Department of Environment, Environmental Engineers from Hetauda Municipality, Jaleswor municipality were also present on this occasion. Participants from concerned government agencies from health and environment sector, Medical colleges, Environment science colleges, Occupational Safety and Health (OSH) college students and faculties. Paint industry,

Nepalese Cottage and Small Industry, Consumer Forums, different districts health offices and NGOs etc. were also participated.

**Ms Rabina Suwal, Program Officer of CEPHED** formally started the Inaugural session by welcoming all the guests, participants and inviting all the distinguished guest and participants from different part of the country and of different sectors to take their respective seat. She calls for Mr. Ram Charitra Sah, Executive Director, CEPHED to give his welcome speech and highlight the objective and today programs.

**Mr. Ram Charitra Sah** welcome Chair of the Inaugural Session Mr, Mohan Katuwal, Chief Guest Dr. Shindhu Dhungana, Bagmati Province, Mr. Ramesh Adhikari, Health Directors, Bagmati Province, Mr. Raja Ram Pote Shreshta, NPO, WHO Country Office for Nepal and Mr. Bphupendra Shrama, Sr. Environment Inspector of Department of Environment and all other participants from different part of the country and sectors including paint industries and local governments representatives.

He highlighted the week long programs along with the objective of the today Kick Off and National Level Interaction Program was to widely disseminate the lead paint standards at all three level of



governments (federal, provincial and local) for enhancing the effective implementation of the Lead paint standards so as to reduce and eliminate the associated public health impacts, especially the children health impacts as well as eliminate the leaded paints, Share the lead paint study results, blood lead level studies reports and solicit the mechanism of control measures citing the cause of lead internationally, regionally and nationally about elevated level of lead in Nepalese children. Over 65 % of the Nepalese children has more than 5 microgram/deciliter of blood lead level; Lead paint, a major source of childhood lead exposure, can cause permanent and irreversible brain damage in children. Lead exposure globally accounted for 1060000 deaths, 24400000 DALYs losses and contribute to Global Burden Disease (GBD) of idiopathic developmental intellectual disability by 63.2% and to hypertensive (High blood pressure) by 10.3% of (IHME 2017). It also globally cause huge annual economic losses of 977 Billion Dollar with heist in Asia of 699.9 Billion Dollar (71.6%). The annual losses in Nepal due to lead exposure induced IQ losses among Nepalese children has been estimated to 1.5 billion dollar (4 % of Annual GDP of Nepal for the year 2014) as per the New York University research paper.

The recent report entitled “The Toxic Truth: Children`s Exposure to Lead Pollution Undermines a Generation of Future Potential” of the United Nations Children Fund (UNICEF) and PURE EARTH 2020 revealed over 800 Million Children worldwide (1 in each 3 children) are at the high risk of lead exposure and having elevated blood lead level (BLL)  $>5\mu\text{g/dL}$  and same report revealed the fact about Nepal that 67,19,235 Nepalese children have also got elevated BLL  $>5\mu\text{g/dL}$  which is similar of Nepalese study`s findings of over 65 % are Nepalese children`s are under high risk of Lead Exposure in Nepal.

Citing the serious health, environment and associated huge economic costs, Mr. ram Charitra Sah summarized his welcome and program highlights by calling for immediate response of BLL Abatement program from Ministry of Health and Population, Government of Nepal as well as urgent needs for the health communities to prepare and response to this problem by developing and adopting National Level Blood Lead Level (BLL) screening program along with arrangement of enough resource, human power and required infrastructure facilities of well-equipped laboratories in each provinces of Nepal strongly demanded

**Chief Guest, Dr. Sindhu Dhungana, Secretary, Ministry of Industry, Toursim, Forest and Environment (MoITFE), Bagmaiti Province formally inaugurated the program by asking IT professional to play the Video Message from Dr. Maria Neira, from WHO Head quarter on the occasion of ILPPW 2020.**

He started his remarks by thanking the organizers for organizing such interaction program on the issues of LEAD that has not been considered as the major health problem but actual the impact of Lead has been very high as explained by Mr. Ram Charitra Sah by giving the study results from global studies. He also wish to have continue and maximize the level of awareness as the starting of the ILPPW 2020. We committed on the behalf of MoITFE to study, IEE, EIA and reduced the impacts of the lead under holistic environmental problems. He highlight the need to right to information about the toxic effects of heavy metals along with the study in Nepal. As there has been ZERO tolerance



against lead and we are definitely work to achieve this in coming days. He formally inaugurate the program by asking for playing Video Message from WHO (<https://youtu.be/9WUsZ5hNGcc>).

**Remarks from Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal.**



chief guests, guest and all participating in this inaugural session, he highlighted the continuous support of WHO since 2013 and even during the COVID pandemic as lead toxicity is also an environment issue, which is even crucial during the ongoing pandemic including this lead poisoning and lead toxicity. It is even very important in context of COVID as we all know that the people who have some underlying health condition are likely to suffer more from the COVID. Globally large number of people (1.6 million) died of lead

however, we have no such estimates for Nepal. Potential of lead toxicity exists in each and every of our house as we have been using many items with lead with and without knowing its health consequences. Good thing is that we have alternatives of lead as of today. In past lead is used in drinking water supply for pipe joints. Most of them have already been replaced. Leaded gasoline has been eliminated as a result of a good decision of Government of Nepal. The important thing is that we can live and survive without lead as we have enough alternatives at the moment. Earlier before five years ago when Government of Nepal enacted the lead paint standard of 90 ppm, there were hardly any paints that comply the lead paint standard, however, as of now there has been many paints of different color, brands and prices that comply the lead paint standard and abundantly available in many market places of Nepal. However we are still using leaded paints, which needs to be eliminated in some point of time. The experience from US shows that it involves high cost to remove and replace leaded paints. Therefore, it is wise and better option will be to use the lead free paint and/or the paint that fully comply the lead paint standards.

The effective implementation of the lead paint standards is a major focus of this ongoing lead poisoning prevention week 2020. Nepal is in better position in comparison of some other countries including in South Asian neighboring countries as they do not have even the standard yet. Nepal enacted lead paint standards five years ago. However awareness raising and other many more things have to be continued and hence continue support towards celebrating International Lead Poisoning Prevention week in Nepal. Most often the week celebration has been carried out during the week of action more focused and rest of the years we keep silence. Therefore as lead affecting us continuously each second, hours and week, we need to think in similar manner and think about lead, its impacts on public health and opt for eliminating of all potential source of lead by using no added lead paints and other products without lead, will be most crucial way forward and much relevant for the celebration of the week like this.

Finally WHO Country Office for Nepal wish to congratulate and best wishes to all. We all need to opt for effective implementation of lead paint standards towards meeting the global goal of eliminating lead paint by 2020. WHO remains committed to support continuously such initiatives of lead awareness and promoting effective implementation of lead paint standards in Nepal.

**Remarks from Mr. Ramesh Adhikari, Health Director, Bagmati Province:** Saluting all the



participants, organizers, guests and wished happy Vijaya Dashami and also wished for the 8<sup>th</sup> ILPPW 2020. Mr. Adhikari, mainly highlighted the issues of lead impact in Nepal to all age group of people and especially children. Lead is toxic, it severely impacts public health, future generation and causes huge economic losses. The good and easy things is that the lead poisoning is completely preventable. We can absolutely prevent the lead exposure and associated impacts easily through active engagement of all three level of governments. In order to realize the theme and slogan of BAN LEADED PAINTS of 8<sup>th</sup> ILPPW 2020 and therefore reduce its impact. Toward this, all three level governments' federal, provincial and local government should ban the leaded paints. Health Directorate is committed for this. All concerned agencies including health, education, NGOs needs to come together including NHEICC and WHO and raise massive awareness as there has been still lack of awareness. He suggested for more intensive awareness raising work beyond the celebration week. Health Directorate, Bagmati province would remain committed towards banning the Lead Paint and share all these information to all the district health offices, meetings and network. Health Directorate will take initiatives and work with the concerned ministry of the province towards banning the leaded paints in the provinces. We hope continued help from all and once again best wishes for successful completion of the week long programs.

**Mr. Bhupendra Sharma, Sr. Environment Inspector,** Department of Environment. Thanked all. We are here today for celebration International Lead Poisoning Prevention week. In this occasion, I on behalf of Department of Environment, Ministry of Forest and Environment (MOFE), Government of Nepal congratulate organizers for continuously organizing such awareness week each year.

Lead paint standards had been enacted by the Government of Nepal on 22 December 2014 (BS 2071/9/7) of maximum 90 ppm as well as had also included lead parameter (0.1 mg/L) in the Paint Industries effluents standard. If the lead in paint found more than 90 ppm and lead in discharged effluent from paint industries more than 0.1 mg/L, it will be harmful for the public health and environment. Therefore the Department of Environment, Ministry of Forest and Environment has been doing monitoring of the paints as well as effluents from paints industries regularly.

We urge all the paints industries to produced and launched their paints products containing either ZERO lead or at least should comply the lead limit of maximum 90 ppm as per the lead paint standards and effluents should not contain more than 0.1 mg/L to the extent possible.

He conclude his inaugural remarks highlighting the need to use the alternatives already exists and hence use safer alternatives to conserve environment and protect human health so as to achieve Lead Free Environment, Lead Free Home, Lead Free Community.

**Mr. Mohan Katuwal. Chair of the Inaugural Session:** Saluting all the participants including guests and most importantly the supporting organization WHO as well as CEPHED to bring all the issues of chemical safety like PCB, Mercury and Lead. He highlighted the industry's difficulties in the context of COVID. There were many things raised by CEPHED like PCB, Lead and Mercury, we were in a condition of not having access the required information about the toxicity of these products. The time has come for the industry to produce safer products so as to not harm to public health and environment. He stressed the need of dialogue between industry and government to figure out the problem related to non compliance at both ends and tried to solve in the interest of health and environment. The banning the domestic products might be not be good if we didn't able to regulate the imported products. So imported products should be equally regulated. Finally he urged for working together to solve the problem of not only lead but also of mercury, PCB, Asbestos and other chemicals issues too.



Finally, he suggested to use lead free and environment friendly paints citing the example of being used in all his contact less hand sanitizer paddle stand being manufactured from his own industry. He urged with all for active participations and contribution towards making lead free products and be safe and formally closed the inaugural session.

## Technical Session

On this Occasion four technical papers on different issues related to lead, paints and associated socio economic impacts, blood lead level, government response and WHO initiatives towards elimination of lead paints were presented.

**First paper entitled” Status of Lead in Paints and associated Socio-Economic Impacts in Nepal “were presented jointly by Mr. Sumin Maharjan, Program Officer and Mr. Ram Charitra Sah Executive Director/Environment Scientist, CEPHED;**

He first introduced about CEPHED and its activities and networking as well as national and international recognition including GAELP recognition of CEPHED contribution on successful celebration of international lead poisoning prevention week of action 2018. Explained the Lead Paints issues in Nepal and presented the status of series of Lead Paint studies and their findings from the past series of studies before standard became effective in Nepal that about over 70 percent of paints available in Nepal before 2015 contain more than 90 ppm of lead. He revealed the result of school dust samples test that showed elevated level of lead in dust with highest contribution in high blood lead level among children's, Because of children had been exposed to lead at home as well as school. He then presented the rigorous process of Lead paint standard formulation campaign, welcomed the positive steps, response and decision taken by the Government of Nepal employing 5 P principles (People, Painters, Paint Industry, Policy



Makers and Prime Minister /President) and continue follow-up over the four year period. Finally, Ministry of Forest and Environment (MOFE) that enacted the mandatory standard of lead in paints on 22 December 2014 through a gazette notification. The standard took effects on 20 June 2015 after 181 days of notice publication. He clearly highlighted all the three provision of the lead paint standard about (a). Maximum lead content 90 ppm (b) Required to label of lead content on each paint can and (c) Precautionary message to avoid occupational exposures on each paint can etc. He also shared the Supreme Court case that were filed against the standards, against the Government by the paint industries and Nepal Paint Manufacturing Association (NPMA), the umbrella organisation of paint industries in Nepal. Shared the struggle during the court case. Ultimately on 1<sup>st</sup> January 2018, the Supreme Court of Nepal decided up on the case in favour of standards, in favour of public health and environment and dismissed the case filled by paints industries.

He then presented the status of compliance monitoring of lead paint standards in Nepal with clear comparison of before and after the standards being gazetted and between the studies, appreciated the industry efforts to reached up to 60 per cent of compliance over the years but more efforts still expected from them to be reached 100 percent compliance. Though the paint industries had achieved increased compliance with reference to lead content, the other two provision of the standards about lead labeling and precautionary messaging were not found to be complied yet. Some paint still found to be contained very high content of lead (CEPHED 2018) about 75049 ppm, 833 times more than the standards thus called for urgent and regular market monitoring of lead in paints. He also shed light about Lead Free or No Added Lead marked paints are found to be comply with the lead content provision of the standards and recommended as the best options for the consumers to have access to relatively safer paints over more than 75% of the Nepalese markets.

He also shared the comparison of price and lead content in the paints and clearly illustrated with Indian and Nepalese examples that the price actually were not the reason of not produced and marketed the lead free or least lead containing paints.

Finally he glagged the issues of BLL in over 65% Nepalese children having elevated lead level more than 5µg/dL connected with leaded paints among others sources of lead exposure. These findings from Nepalese BLL studies are coherence with the recent report entitled “THE TOXIC TRUTH: Children’s Exposure to Lead Pollution Undermines a Generation of Future Potential” recently release in the first quarter of 2020 by UNICEF & PURE EARTH 2020. According to this report over 800 Million Children worldwide (1 in each 3 children) were at the high risk of lead exposure and having elevated blood lead level (BLL) >5µg/dL and same report revealed the fact about Nepal that 67,19,235 Nepalese children had also got elevated BLL >5µg/dL

This elevated level of lead cause severe health impacts including damage to brain, kidney, and liver, blood and reproductive system. It has severe impact on young children, adult and pregnant women. Thus, strongly recommended following actions need to be taken by respective concerned stakeholders.

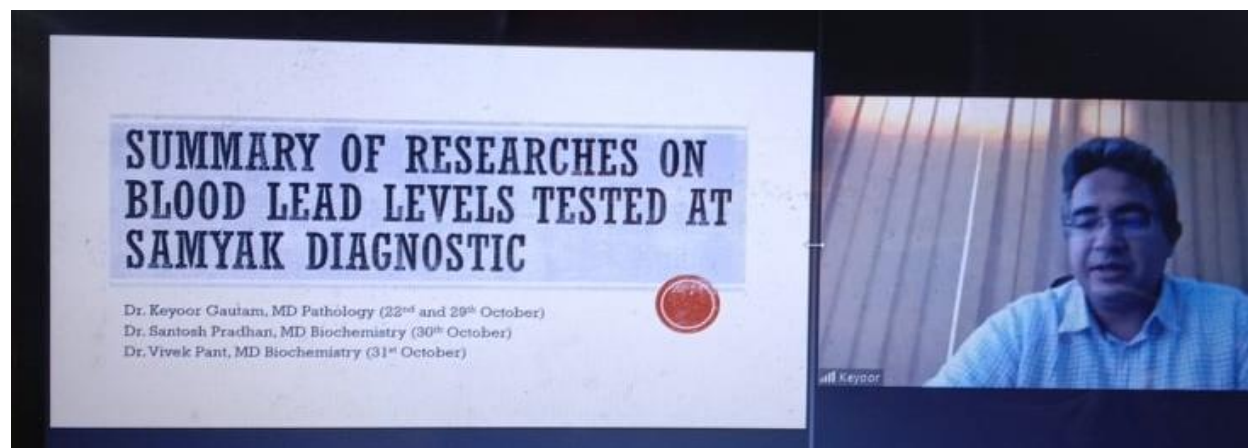


Mr. Sah also shared other source of lead exposure among Nepalese population including but not limited to children toys, cosmetics, artificial jewelry, noodles, eye care products, glazed potteries and even Ayurvedic medicine etc.

*Finally he reconended several call for action from specific sectors of stakeholders and strongly demanded from all.*

**Second paper on Summary of Researches on Blood Lead Levels tested at Samyak Diagnostic were presented by Dr. Keyoor Gautam, Samyak Diagnostic Pvt. Ltd.** He started introduction with no testing center available in Nepal and therefore data was not available on blood lead level of people in Nepal, So far what has been done is based on the personal expenses and interested.

| CALL FOR ACTIONs FROM ALL CONCENRED       |  |
|---|--|
| AGENCIES                                  | IMMEDIATE ACTION NEEDED  |
| GON , OPMCM                               | Ask all agencies to paint their facilities with paint that FULLY COMPLY the GON Lead paint standard and opt for GPPP.  |
| THE SUPREME COURT                         | Ensure effective implementation of its Judgment by letters and spirit.   |
| MOFE/DOE                                  | Ensure effective implementation of Standard , Regular Monitoring & Awareness raising   |
| MOICS/NBSM/DOCSCP                         | Regulate paints industries for full compliance and inclusion of Lead standard criteria in NS Marks, Market monitoring & result dissemination, awareness raising and uniform labeling |
| MOF /Dept. of CUSTOM                      | Effectively regulate & monitor the paint import , allow import that fully comply the standard  |
| MOH/NHRC/TU/KU/PU /NMA/NMC/NGOs/NGOs      | <b>BLI National Screening, Study health impacts, Treatment , rehabilitation &amp; Awareness raising</b>  |
| MOUD/DUBC                                 | Improve Building Code, Material Code and Green Building Guidelines   |
| PROVINCIAL /LOCAL Government              | Adoption & Implementation of environment and health related Central level Act/Regulation and Standards into Provincial and Local government & Awareness raising                      |
| PAINT INDUSTRIES /PAINT DEALERS/RETAILERS | Improve their Product & Responsible production, promotion, importation, sale , distribution & Awareness raising etc.   |
| CELEBRITIES & MEDIA HOUSE:                | Make the responsible, health and environment friendly advertisement and promotion of products  |
| JOURNALISTS ,NGO, CONSUMER FORUMS         | Increased public awareness, public education through accessing research based data and maximizing public outreaches with increased media reporting and market monitoring.            |
| CONSUMERS                                 | Go for safer paints with LEAD FREE and/or NO ADDED LEAD .....logo  |



He introduce the topics LEAD from its history of lead being used since 4000 BC, global perspective lead poisoning has been found in around 70s and in US lead free paints and lead free gasoline were produced and used long back. In US, required testing of lead before children were admitted to school. He also explained sources of lead exposure, mechanism of lead toxicity through mimicking nature of lead with Iron and Calcium. Meaning when body required Iron or Calcium, lead grabs that places and start impacting. Sign and symptoms of lead poisoning were clearly depicted through a picture showing all most all body parts get impacted from the lead. Central Nervous System (CNS) were found to be severely impacted and most importantly it causes Intelligence Quotient (IQ) retardation among children. Lead also might caused anemia and damaged heart, reproductive systems, kidney, and liver etc.



Lead poisoning in Nepal was presented as one of the major area of concern. As Nepalese population at the border range of average IQ and hence we were much worried about this issues. Because as BLL increases it reduces the IQ. As a result Nepal being the birthplace of Boodhu, should not to be called as place of Boodhu (Silly).

There were three studies carried out by our center with three international publications. He summarized the results of all those three researches.

In case of Kathmandu among 50 Children, on an average BLL was 7.01  $\mu\text{g/dL}$  with 62% of children in the study have elevated BLL and 12 % of them have BLL > 10  $\mu\text{g/dL}$ . Situation among the Children of Birgunj among school children adjoin to an industrial area were still very alarming. In Birgunj, among 50 Children, on an average BLL is 20.33  $\mu\text{g/dL}$  with 100 % of children in the study have elevated BLL and 84 % of them have BLL > 10  $\mu\text{g/dL}$ . As we know there is no safe level of lead and average BLL 20 has already reduced their IQ by 4 to 5 points which was very alarming situation. It is so also because Center for Disease Prevention and Control (CDC) recommendation, an area is considered as a high risk if 12% or greater of children tested are found with blood lead level more than or equal to 10  $\mu\text{g/dL}$ .

This called for a larger studies and due to limitation of resources Samyak Diagnostic Pvt. Limited had limit its studies up to 50 children in each Kathmandu and Birgunj.

Our findings were more or less coherence with the other previous studies carried out by Mehta et.al (2014). in, Dharan and Biratnagar industrial corridors and Dhimal et.al. (2015) in Kathmandu.

In addition to prime children concerned. The center also carried out BLL among rag pickers. Study were done to evaluate blood lead level in rag picker working in selected area of Kathmandu including hematological and biochemical parameters were also tested among 50 waste workers. .

The average BLL among paper and metals collectors is 7.35  $\mu\text{g/dL}$ ; among Plastic, Metal and Paper collectors 8.47  $\mu\text{g/dL}$ ; plastic, Metals, paper and Paint Container 8.47  $\mu\text{g/dL}$  and Plastic, Metals, Papers, Paints containers and electronics waste workers have average BLL 12.89  $\mu\text{g/dL}$ .

The findings of this study were suggested that rag-pickers working in Kathmandu were at increased risk of lead toxicity and this occupational exposure to lead were attributed to the use of bare hands for processing solid waste and were high chances to transfer this high BLL to their nearest kin, children and family members as they ming go home without changing their contaminated clothes and come in close contact with their kids and family memebrs.

The lead toxicity due to Ayurvedic Medicine consumed by a 38 years old man resulted with acute abdomen pain, following intake of Ayurvedic medicines for increasing his power were presented. Initial blood level was 82.3  $\mu\text{g/dL}$ . The used Ayurvedic medicine when analyzed for presence of lead, test revealed very high concentration of lead (102 ppm) against the prescribed limit of 10 ppm only. Thus he recommended awareness program regarding the potential health risks posed by Aurvedic remedies, especially in countries like Nepal where use of Ayurvedic medications is prevalent.

Finally, Dr. Keyoor provided the lists of lead poisoning prevention with major highlights as “**Lead Poisoning is 100% Preventable**”. He further suggested wash hands before eating; was toys regularly; do not use old or imported toys unless you know they are lead free; clean surface with wet mop weekly, chipping , penning paints chips; moisture, molds and mildew and calcium and iron supplements can help to prevent the absorption of Lead.



Dr. Keyoor concluded his presentation by quoting a statement by Nelson Mandela “Children are our greatest treasures. They are our Future”

**Third paper on “Role, Responsibility and Programs of Lead Paint Elimination of Federal, Provincial and Local Government of Nepal” were presented by Mr. Bhupendra Sharma, Senior Environment Inspector, Department of Environment, MOFE.**

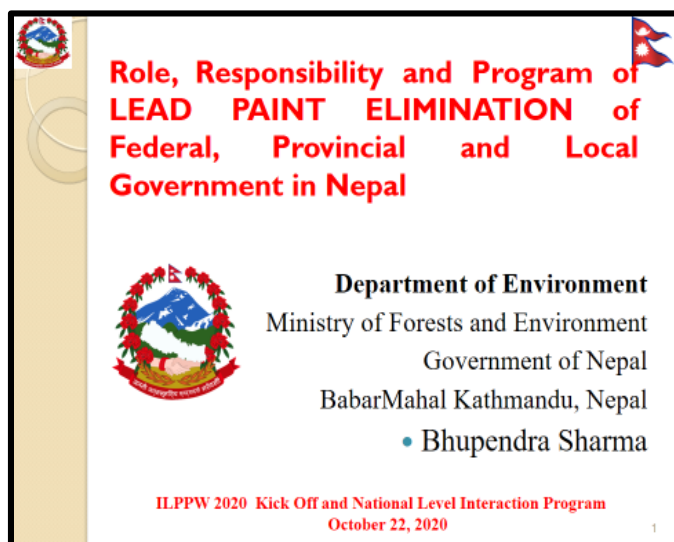


Figure. Mr. Bhupendra Sharma, Environment Inspector, DOEnvnt.

Mr. Sharma started his presentation about the role and responsibility. Mr. Bhupendra Sharma highlighted the roles of all three level government agencies as very essential for the effective implementation of lead paint standard towards elimination of leaded paints in Nepal.

He first and foremost emphasized about the fundamental rights of Nepalese people ensured by the Constitution of Nepal, Article 30, that emphasized on the right to clean environment assurance has been definitely the duty of all three level of government. He also highlighted the provision of Environment Protection Act (EPA 1919). The Act has provision of

Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) approval by concerned agencies and MOFE. According to EPA 1919 nobody shall create pollution, provision of prohibiting the carryout the act that causes significant adverse impact on the environment. Similarly the new Environment Protection Regulation 2020 has also made different provision of environment conservation including **right to gazette standard by a notification**.

However the paint standard formulation of ministry that has been enacted based on rule 15 of EPR 1997 Nepal government published notice in Rajpatra (Section 64, No. 30, Division 5) on 22 December 2014 (2071/09/07 B.S.). Paints produced within Nepal and imported from abroad to Nepal must not have lead more than 90 ppm (Parts Per Million) or 90 mg/L. Paints container must have labeling about exact lead content and precautionary message about the occupational exposure to lead. The Supreme Court has also reinstate the Lead paint standards as lead is really harmful for human health and environment.

The lead paint standards clearly indicates the standard of products enacted by MOFE. However, the major role of regulating product base standards lies on Ministry of Industries and related departments.

He then presented the results of the compliance monitoring of lead paint standard for lead in paints that had been carried out by Quest Forum Pvt. Ltd on April 2016 for GON MOFE, in which 10 samples of paints was collected from Kathmandu, Bhaktapur, Lalitpur, Chitwan, Makwanpur, Bara and Parsa districts. The AAS (Atomic Absorption Spectroscopy) method was used. 10 paint manufactures was analyzed and were found only 30 % compliance in the year 2016. The paints that did not comply the standards and have high level of lead. According to the MOFE compliance monitoring results, Nepal paints, Yeti Paints, Kansai, Nerolac Paints, Mahalaxmi Pulverizing and all Indian Paints, Pashupati Paints were found to be non compliance whereas Asian Paints, Berger Paints and Baba Paints were found below the standards i.e. complying the standard limit.

MOFE, Department of Environment (DoEnvt) is more concerned with environmental pollution and therefore also enacted the effluents standards of paints industry on 2067/4/27 BS. According to this effluent standards, paint industries or any other industries should not discharge their effluents contain lead more than 0.1 mg/L. Department is continuously monitoring of such effluent by bringing samples and testing kits for lead content.

He then explained some additional activities of the DoEnvt. He also revealed that the department of Environment has made several visits to paint industry, MOFE had enacted effluent standard for paint industry along with the plan of the compliance monitoring by the DoEnvt.

All the three level government (federal, state and local) have increased role, responsibility and even accountability towards environment conservation, industrial pollution control.

He concluded his presentation

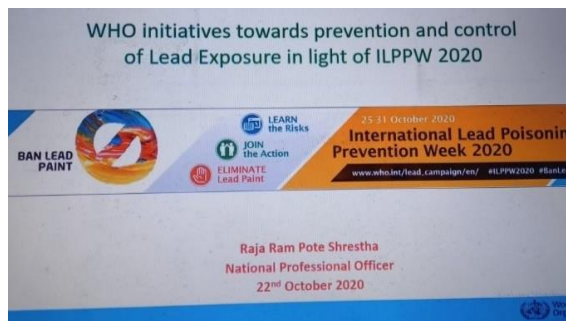
1. Full compliance of Standard with respect to:
  - a) Allowable Lead content (Max 90 ppm)
  - b) Required to label of lead content on each paint can
  - c) Precautionary message to avoid occupational exposures on each paint can.
2. Responsible Advertisement by :
  - a) Industries
  - b) Celebrities/Model/Actors/Actress/Comedians
  - c) Media Houses (Print, Electronics, Social Media, Online News Portals etc.)
3. Needs Uniform Labeling and Messaging about Lead Safe Paints
4. Needs NS Mark Harmonization with Lead Paint Standards



He concluded his presentation with the commitments and request all stakeholder to act responsibly to maintain happiness and laugh among all Nepalese children.

**Fourth paper on “WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020 presented by Mr. Raja Ram Pote Shrestha, National Professional Officer (NPO), WHO Country Office for Nepal.**

He initiated his presentation with the key messages of ILPPW 2020 and issues of lead from preventive and environmental health perspectives.



**Figure. Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal.**

He highlighted about Global Burden of Diseases and about 23 % of the death were caused due to environmental factors and estimated about 12.6 million deaths in a year with majority in our developing area. Globally environmental related top most two cause of death are Stroke and Heart Diseases are also related to lead. He then highlighted 10 major chemicals of global public health concern which includes Air pollution, Arsenic, Asbestos, Benzene, Cadmium, Dioxin, Fluoride, and Lead. Mercury and hazardous

pesticide.

Some of us did not actually well known about lead. Lead is heavy and toxic metal, used widely in different products including paints because of its specific characterless like color, rapid drying and corrosion resistance etc. Good things is that we can prevent lead exposure through using unleaded paints and products that are widely available in market. We have that option with us as of today. **“Lead exposure is preventable”.**

Lead is a multi-organ toxic metals and mostly harm each of the important organs of our body. Most importantly it reduced the IQ among children among other impacts including reduce attention, change behavior, attitude, renal diseases, cardio vascular diseases etc. Mainly affects children and pregnant mother. **There is no safe level of lead.** Even at less than 5 microgram /dL BLL have several health implications. Childhood lead exposure has serious level of health impact in later stage of life.

Mainly it affects IQ in the children and leads to the stork, heart disease at the latter stage when children grown to adults. There were multiple pathways of exposure to lead from paints were presented start from paint manufacturing, paint application, old decaying of paints and painted toys, furniture’s etc. contribute to lead in air, dust and soil and get into our body through inhalation, injection and attribute mainly to BLL and to several health implications including IQ losses and anemia etc.

He presented very shocking figure of economic losses due to lead induced reduction of IQ related economic estimated about 1.2% of global GDP, very high level economic losses with annual cost of lead exposure by global region based on loss of IQ were about 977 billion dollars with maximum

in Asia 699.9 billion (1.88 % of regional GDP) including Nepal. The losses in Nepal was very high.

He then presented number of **regulatory approaches** for prevention of lead exposure.

- Ban or restrict uses –substitution of safer chemicals. E.g. in paints (90ppm) and gasoline
- Set and enforce limit values (for air, water, soil, food, toys, medicine etc.)
- Occupational exposure limits (for spraying, manufacturing etc.)

As all these regularity frameworks has not been uniformly available in each countries therefore celebration of ILPPW and advocacy is still relevant and thus we are celebrating continuously.

He then highlighted the roles and responsibility of WHO in the abatement of lead exposure and its toxicity.

As a result also in Nepal, compliance has increased over time, level of lead has substantially reduced but still more needs to be done continuously.

As far as WHO response is concerned, WHO with various global level network and organization has been continuously doing policy level work through GAELP like “Plan of Implementation”. Through SAICM also opting for the phasing out of lead paints.

Additionally, WHO`s thirteenth General Program of Work, 2019-2023, three strategic priorities:

- Achieving universal health coverage
- Addressing health emergencies including in context of COVID
- Promoting healthier population like reduction of lead exposure and safe people health

WHA 72 (2019): Global strategy on health, environment and climate change. SEARO/RC 72 (2019): Regional Plan of Action for the WHO Global Strategy on environment and change and under this Ministry of Health (MOH) of different countries has been implementing several activities.

As of now if we see globally, only 76 countries have lead paint standards. In American continents, most of the countries have lead paint standards, whereas in Asia, only 10 countries have the standards. In Nepal we have standards and hence need to work on its effective implementation whereas the other countries where standards does not exist, needs to work first for the standards. So WHO has been increasingly engaging with different countries at different level,

WHO through the initiation of GAELP to raise awareness about lead and take action on lead paints has been continuously celebrating ILPPW since 2013, this year we are celebrating 8<sup>th</sup> ILPPW 2020 from October 25 to 31 and today is the starting in Nepal.

Each year GAELP and WHO produce many types of information and material e.g. guidance on organizing advocacy, communication materials, technical information, guide to analysis of lead in paints and WHO Fact sheet etc. available from WHO and GAELP websites. WHO Country office



also try to prepare and produce such materials and maximize outreach and continuously supporting CEPHED. We are pleased to see many participants from different relevant sectors today in this program organized by CEPHED with the support of WHO and will continue support.



### Question and Answer Session:

After four presentations, the forum were opened for the question and answer. The question were asked from Mr. Ramesh Adhikari, Health Director, Bagmati Province. He appreceiate many things already happened in Nepal right from studies of lead in paints, blood lead level along with the enactment of Lead Paint Standards. However the compliance has not achieved up to the desired level of the standard. So what will be the role and responsibility of which agencies to achieve the full compliance as we know that lead exposure is preventable?

What are the role of different agencies about the awareness raising about the lead and its toxicity?

Mr. Bhupendra Sharma replied regarding compliance of lead paint standards. There has been also monitoring and hence even provincial ministry, local government as well as Ministry of Industry, its department of industries should also take proper action and role to improve the condition. Organization like CEPHED should also increase the participation of industrial sectors to have regular monitoring and enhance public awarness.

Answering the role and responsibility of awareness raising, Mr. Ram Charitra Sah shared the new radio jingle specially made for ILPPW 2020 and cite some previous IEC materials as well and committed to share them with all for making these information available and request for reproduce and re broadcast. So all of we are responsible for awareness raising from our respective place.

The IEC materials, video recording and Video PSA, Radio PSA links were made available through sharing on the chat box as well as shared through the email of each individuals. Additionally program was also live from Facebook of NREN (Nepal Research and Education Network –NREN, IT Support Office Facebook and also shared from the CEPHED Officials Facebook.

## Closing Session:

After the question and answer session, closing ceremony of ILPPW 2020 Kickoff and National Level Interaction Program were organized by calling for the closing remarks from different distinguished guest and representatives from different stakeholder.

The first closing remarks were called from **Mr. Subrata Kumar Pal, Manager ,Berger Paints, Hetauda** representative from one of the largest paints manufacturing multinational company in Nepal.

Mr. Subrata started his closing remarks by thanking RC Sah and CEPHED for giving this chance to share something regarding Berger Paints, under our Corporate Social Responsibility (CSR) we have been doing a lot of public awareness. Berger paints have been doing our best to comply the government of Nepal's Lead paint standard. We are continuously sending our sample for lead testing in every two months and found complying all the times.

Most important thing, we have seen over the years, now the consumer are more sensitive and awared in comparison to previous years and they are increasingly asking and demanding for the lead free paints. The consumer are willing to purchase ecofriendly paints.

Berger is not only testing for the Lead but also mercury, chromium as well as VOC for every two months and having our results records with us. Our prime focus is our consumer and customers and delivering the ecofriendly paints to our customers and also maintaining our environment.

**Prof.Dr. Sadhana Pradhan**, Central Department of Environment, Tribhuwan Unversity (TU). Saluting all participants, today program and presentation were very useful and comprehensive. As we know that some lead were present in some of the paints. Brighter colour paints have very high lead. The cost and lead concentration relationship is vice versa. The lead concentration has been still found to be high. We have realized the need to work in group. She suggest to the environment department to test lead not only in paints but also in water and sediments as lead may be found in sediments. Lead has been also seen in vegetables and food items coming from different source mainly from the lead contaminated water used for the irrigation.

### **Prof. Dr. Sunil Kumar Joshi, KMC, Kathmandu University**

He appreciate the CEPHED and its team efforts for continuously and providing this opportunities and many experts participating today from different sectors. Full implementation of lead paint standards will definitely take some times, but directly related to many health and economic losses and needs to be urgently addressed.



All the presentation were made today were much comprehensive and already brought many highlights, finding, done very comprehensive situational analysis with many important recommendations to be followed in future.

As a public health medical expert. Lead poisoning is one of most important issues as it affects our children in their IQ

development. As we have seen anemia prevalence among children under five years and most often we linked it with the mal nutrition, iron deficiency, worm infestation etc. That may not be the case. As Dr. Keyoor has rightly pointed out in his presentation that the anemia among the children might have associated with the high blood lead level intoxication among the Nepalese children need to be studied. Lead not only reduce IQ but also cause anemia among the children. Children with impacted with lead with reduced IQ will not achieve full potential of its life in the latter stage and might reduce their full productivity and full economic potential. Reduce mental work.

Knowing lead issues so important, even after seven years we have reached to a stage of rewards and punishment for effective implementation of recommendation by all and even in the context of ongoing COVID pandemic, we might think about our reduced immunity might be linked with the lead exposure and we did not know till when this issues last. Therefore in order to boost the immunity of our children, the hazardous level of lead in air, and other products needs to be eliminated.

So in order to come to conclusion, a final steps with **developed work plan** under the leadership of Mr. Ram Charitra Sah, CEPHED and bring all together stakeholders to **achieve the goal of lead paint elimination**.

Finally Prof. Dr. Sunil Kumar Joshi concluded the interaction program by highlighting the needs of bringing all related stakeholder together to envision solid program of action towards Blood Lead Abatement National Screening Policy and increased compliance monitoring of the lead paint standard by adopting the carrot and stick principles.

Finally closed the program by thanking all the participants, supporting agencies and organizing team. At the end of the program, PRESS RELEASE both in English and Nepali language has been released well covered by the national newspaper recognizing the name of supporting agencies.



Figure. Mr. Ram Charitra Sah, Executive Director, CEPHED holding the ILPPW 2020 Banner



### Program Schedule ILPPW 2020 Kick Off, National Level and Bagmati Province

|                           |  |
|---------------------------|--|
| Program Title             | ILPPW Kick Off and Interaction Program at National Level   |
| Program Aim               | Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards   |
| Program Date              | October 22, 2020 (Kartik 6, 2077 BS) Thursday 11 AM to 1:30 PM   |
| Collaboration and Support | Organized by CEPHED in Collaboration with Government of Nepal, Nepal Health Education, Information and Communication (NHEICC), MOHP, GON with the support of WHO Country Office for Nepal  |
| Expected Participants     | 45-50 Representing Health, Industry, Environment & Education sectors senior government officials from Ministries and Departments at Federal, Provincial and Local level, Health Care Professionals, Doctors, Nurses, Medical Officer, Faculties, Medical Students, OSH Inspectors, Environment Engineer/Inspectors, Chemists, Lawyers, Environment/Science Profession/Teachers Health & Environment Journalists etc.   |
| 10:30 to 11:00            | <b>ZOOM WEBINAR MEETING ROOM OPEN AND CHECKING VOICE &amp; CONNECTIVITY</b><br><a href="https://nren.zoom.us/webinar/register/WN_QGI6N6fsSdq4W152cFkMiQ">https://nren.zoom.us/webinar/register/WN_QGI6N6fsSdq4W152cFkMiQ</a>   |
| 11:00 to 11:40            | <b>INAUGURAL SESSION</b>   |
| 10 Min                    | <p>Invitation of Guest by MC of the Program: Mr. Sumin Maharjan / Ms. Rabina Suwal, Prog. Off. CEPHED</p> <p>Chair: Mr. Mohan Katuwal, Vice President, CNCSI (Objective)/Advisor of CEPHED<br/>           Chief Guests: Dr. Sindhu Dhungana, Secretary, Provincial Ministry MoITFE, Hetauda<br/>           Mr. Ramesh Adhikari, Health Director, Bagmati Province.<br/>           Guest : Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal<br/>           Mr. Bhupendra Sharma, Sr. Environment Inspector, Department of Env't, MOFE</p> <p>Welcome Speech and Program Highlights- Mr. Ram Charitra Sah, Executive Director, CEPHED</p> |
| 5 Min                     | Inauguration of Program by Chief Guest by SWITCH ON Video Screening on Lead in Paints: Message from WHO Head Quarter <a href="https://www.who.int/campaigns/international-lead-poisoning-prevention-week/2020/#">https://www.who.int/campaigns/international-lead-poisoning-prevention-week/2020/#</a>   |
| 5 Min                     | Key Remarks: Guests: WHO Country Office for Nepal  |
| 20                        | Remarks Chief / Guests and Sectorial Commitments for abatement of BLL among Nepalese children  |
|                           | <b>GROUP PICTURES</b>  |
| 11:40 to 12:40            | <b>Technical Session and Q &amp; A</b>   |
| 15 Min                    | Status of Lead in Paints and associated Socio-Economic Losses in Nepal by Mr. Ram Charitra Sah Executive Director/Environment Scientist, / Mr. Sumin Maharjan, Program Officer, CEPHED.  |
| 15 Min                    | Summary of Blood Lead Level (BLL) Studies at Samyak Diagnostic in Nepal, Dr. Keyoor Gautam, Director, Samyak Diagnostic Pvt. Ltd., Kathmandu, Nepal  |
| 15 Min                    | Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal: Department of Environment, MOFE, GON  |
| 15 Min                    | WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020. Mr. Raja Ram Pote Shrestha, National Professional Officer, WHO Country Office for Nepal.   |
| 12:40 to 1:00             | <b>Q /A</b>  |
| 1:00 to 1:30              | <p><b>CLOSING SESSION</b></p> <p>Remarks and Commitments from Provincial Government and other stakeholders.</p> <p>Mr. Subrata Kumar Pal, Manager, Beger Paint Industry Pvt. Limited, Hetauda, Nepal.<br/>           Prof. Dr. Sadhana Pradhananga, Central Department of Environment Science, TU<br/>           Prof. Dr. Sunil Kumar Joshi, HOD, Community Health Department, KMC, KU</p> <p>PRESS RELEASE: English and Nepali</p>   |



## ANNEX 2: Report of Awareness Raising and Capacity Building Program, Province 1, Nepal

**Awareness Raising and Capacity Building Program, Province 1 on Prevention Lead Exposure and Effective Implementation of Lead Paints Standards through Zoom Webinar and Face Book live (October 29, Thursday).**

On October 29, 2020, Center for Public Health and Environmental Development (CEPHED) with the support of National Health Education, Information and Communication Center (NHEICC), MOHP, Provincial government, Ministry of Industry, Tourism, Forest and Environment (MoITFE), Health Directorate of province 1 and WHO country Office for Nepal were organized Provincial level awareness and capacity building program on “ **Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards**” program for the sectorial commitment towards enhancing full compliance of lead paint standards through effective implementation of lead paint standard so as to eliminate the potential sources of Lead exposure among general public especially children.

**Awareness Raising & Capacity Building program, Province No. 1 on Prevention Lead Exposure and Effective Implementation of Lead Paint Standards**

लेड (सिसा)को विषबाट बचावका लागि अन्तर्राष्ट्रिय सचेतना सप्ताह  
25-31 October 2020

**International Lead Poisoning Prevention Week 2020**  
[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

**29<sup>th</sup> October 2020 (2077 Kartik 13), Kathmandu , Nepal through ZOOM**

**BAN LEAD PAINT**  
लेडमुक्त पेन्टसहरु प्रविचख गर्दै

**LEARN the Risks**  
**JOIN the Action**  
**ELIMINATE Lead Paint**

**Government of Nepal , Ministry of Health and Population NHEICC**  
**Province Government, Ministry of Industry, Tourism, Forest and Environment Province No. 1, Biratnagar**  
**World Health Organization**  
**CEPHED**  
Center for Public Health and Environmental Development  
[www.cephed.org.np](http://www.cephed.org.np)

**Registration Link**  
[https://nren.zoom.us/join/register/WN\\_1Eh8mwqQQA-q7T-D-f5CoQ](https://nren.zoom.us/join/register/WN_1Eh8mwqQQA-q7T-D-f5CoQ)

**Zoom id**

**Organized by CEPHED and Supported by: National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal in Coordination with Ministry of Industry, Tourism, Forest and Environment (MoITFE) & Health Directorate , Province no. 1. Biratnagar**

Figure. Banner of Pro Level Interaction Program with Province no. 1.

### Inaugural Session:

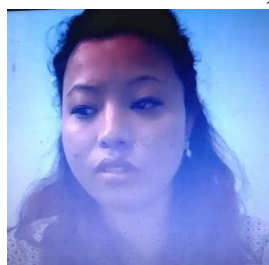
Provincial level workshop on Awareness Raising and Capacity building program, Province No. 1, on “Prevention of Lead Exposure and Effective Implementation of the Lead Paint Standards” were organized under the Chairmanship of **Mr. Mohan Katuwal**, Vice President of Federation of Nepalese Chamber of Cottage and Small Industry (FNCSI) & President of Federation of Grill and Steel Fabricators Nepal (FGSFN) and **Chief Guest Mr. Chandradev Mehta**, Health Director Province No. 1.

Special guest Mr. Anirudha Kumar Sah, Under Secretary of MoITFE and Mr. Suresh Mehta, Chief of Social Development Division of MoITFE, Mr. Hari Krishna Bhattarai, District Public Health

Officer of Province No. 1 and other high level officials including Mr. Raja Ram Pote Shrestha, National Professional Officer from WHO Country Office, Mr. Bhupendra Sharma, Sr. Environment Inspectors, Department of Environment, representatives of from different Municipalities, medical students, representatives from different health, environment and human rights related federal level organizations were also present on this occasion.

There were active participation of over **59** representatives from different provincial and local government along with the representatives from Health Directorates of the Province No.1. Representatives from concerned government agencies from health and environment sector, representative from consumer forums and NGOs, students and faculties of medical colleges, nursing colleges, environment science colleges, Occupational Safety and Health (OSH) experts, trade unions, paint industry, Human Right Officer, and etc. were participated.

**Ms. Rabina Suwal, Program Officer of CEPHED** formally started the inaugural session by welcoming all the guests, participants and inviting all the distinguished guest and participants from different concerned government agencies of the province No-1, federal government representatives and of different sectors to take their respective seat and be connected online.



**Mr. Ram Charitra Sah** welcome Chair of the inaugural session Mr. Mohan Katuwal, Chief Guest Mr. Chandradev Mehta, Health Director Province No 1, Mr. Suresth Mehta and Mr. Anirudha Kumar Sah, Mr. Devendra Bhandari, Forest Officer from MoITFE of province no. 1 as special guests, Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal and Mr. Bphupendra Sharma, Sr. Environment Inspector of Department of Environment and all other participants from different organizations of province no.1 including paint industries, NGOs, trade unions and local governments representatives etc.

He highlighted objective of the today province level program was to widely disseminate the lead paint standards for enhancing the effective implementation of the Lead paint standards so as to reduce and eliminate the associated public health impacts, also especially the children health impacts as well as eliminate the leaded paints, advocate with the provincial level government to address the lead in paints and other chemical safety issues, share the lead paint study results, blood lead level studies results and solicit the mechanism of control measures citing the cause of lead at province level about elevated level of lead among Nepalese Children.

In his welcome speech, he illustrated some of the national scenario of lead paints studies, enactment of lead paint standards, increased compliance over the years, elevated blood lead level (BLL) as over 65 % of the Nepalese children has  $>5\mu\text{g/dL}$ ; Lead paint, a major source of childhood lead exposure, can cause permanent and irreversible brain damage in children. Today program is aims at envision of reduction and control measures of the public health and environmental impact from the leaded paints and massive public awareness on this issues in this province No.1.

Talking about Lead, it is one of the 10<sup>th</sup> highly toxic chemicals with respect to public health as per the WHO. Lead exposure globally accounted for 10, 60,000 deaths, 24400000 DALYs losses and contribute to Global Burden Disease (GBD) of idiopathic developmental intellectual disability by 63.2% and to hypertensive (High blood pressure) by 10.3% of (IHME 2017). It also globally cause huge annual economic losses of 977 Billion Dollar with heist in Asia of 699.9 Billion Dollar

(71.6%). The annual losses in Nepal due to lead exposure induced IQ losses among Nepalese children has been estimated to 1.5 billion dollar (4 % of Annual GDP of Nepal for the year 2014) New York University research paper.

He also highlight the recent report entitled “The Toxic Truth: Children’s Exposure to Lead Pollution Undermines a Generation of Future Potential” of UNICEF and PURE EARTH 2020 revealed over 800 Million Children worldwide (1 in each 3 children) are at the high risk of lead exposure and having elevated blood lead level (BLL)  $>5\mu\text{g/dL}$  and same report revealed the fact about Nepal that 67,19,235 Nepalese children have also got elevated BLL  $>5\mu\text{g/dL}$  which is similar of Nepalese study’s findings of over 65 % are Nepalese children’s are under high risk of Lead Exposure in Nepal.

Citing the serious health, environment and associated huge economic losses, Mr. Ram Charitra Sah summarized his welcome and program highlights by calling for provincial government to address the issues of high lead in paints, high BLL among Nepalese children through including of lead in paint and chemical safety issues in the provincial level acts, regulation, policy, guideline and standards while developing different environment and health related laws. The need of developing infrastructures like laboratory facilities, trained human resources and sufficient budget allocation to test BLL at province level is very important and dire needed.

**Chief Guest, Mr. Chandradev Mehta, Health Director of Province No.1 formally inaugurated the program by asking IT professional to play the Video Message issues from WHO Head quarter on the occasion of ILPPW 2020.**



He started his remarks by thanking the organizers for organizing such awareness and capacity building programs on the issues of Lead in this province No. 1 and am grateful to be the chief guest of today program. As clearly explained by the organizer in his welcome speech lead has been used in many products that we consumer use unknowingly or knowingly and getting affected on daily basis. So today program focusing on the awareness about health and environmental impact of lead and widely disseminating the lead paint standards enacted by the Government of Nepal and promotion of the use of paint that complying the lead paint standards would be very crucial. He finally inaugurated the program by asking playing the video from WHO Head Quarter. WHO video was played (<https://youtu.be/9WUsZ5hNGcc>) as well as Radio PSA were aired.



**Remarks from Mr. Anirudha Kumar Shah, Under Secretary, MoITFE, Province No. 1: Mr.**



Anirudha Sah started his inaugural remarks in the provincial level program on “Prevention Lead Exposure and Effective implementation of Lead Paint Standard” by saluting all guests and participants on behalf of provincial government, MoITFE and congratulate CEPHED for organizing this awareness program.

As the part of celebrating ILPPW 2020 from October 25-31, we are here in an events organized by CEPHED to address the issues of preventing exposure to lead heavy metals. He named some leaded products like paints and paints related products, battery and battery related products as the sources of lead exposure, increase environmental pollution that affected people. Moreover, children playing with toys, people like us consuming canned food were also getting affected by lead, Paints workers and environment also getting affected different sources of lead etc. Lead exposure causing death of millions of children and people around the globe and reduces the intellectual development of the children as per WHO.

He also remembered the leaded gasoline before 2002, and now it has been phased out and gasoline is lead free, similarly we also wish to have lead free paints. Government of Nepal has enacted mandatory standard of lead in paint of 90 ppm. However, in presence of mandatory standards in Nepal, studies being carried out time and again including the Nepal Standard (NS) marked paints has been failed in complying the enacted mandatory standard. Even the paint produced from informal sectors from unorganized paint industries produces paints with very high lead up to 1300 times more lead than prescribed standard.

He shared the best alternative solution of promoting organic paints that has been produced and exported outside of Nepal from using different vegetation and plants extracts. However we are using synthetic chemicals based paints. Therefore, it should be a matter of discussion among us and especially the industry sector representatives whether lead free vegetation based paints can produced or not? In this physical years, our ministry have different level of awareness program and we will definitely include the lead awareness programs in our awareness program. Similarly, people bought the substandard children toys and most often children put the toys into their mouth and getting increasingly affected. We also use several idol (Murti) colored with different brighter colors in our many festivals and dispose them into the nearby water bodies after the fest over also contaminate our water bodies and hence public awareness about lead was called to be very important. Most importantly the paint produced domestically from unauthorized industries definitely have high lead contend needs to be regulated urgently. Need to build the provincial government capacity, like International Organisation for Standardization (ISO) certified lab establishment to increase the monitoring, provincial government is working towards this. Ministry will try our best to address these issues as soon as possible.

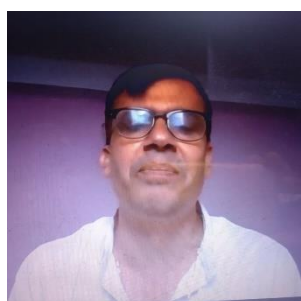
**Mr. Bhupendra Sharma, Sr. Environment Inspector, Department of Environment.** Thank you for inviting me in this inauguration program, we are here today for celebrating International Lead Poisoning Prevention week including the provincial level program. In this occasion, I on behalf of Department of Environment, Ministry of Forest and Environment (MOFE), Government of Nepal congratulate CEPHED continuously organize such awareness week each years and inviting Department of Environment to be the part of this celebration.





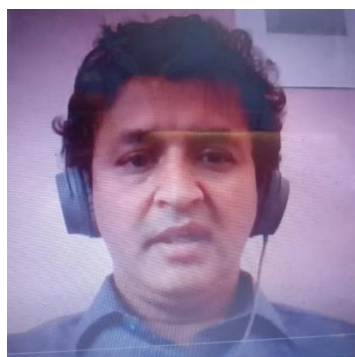
He highlighted the fundamental right to live in healthy environment enshrined in the Nepalese Constitution as well as the Environment Protection Act of Province No. 1. No any industry will be allowed to pollute the environment in contradiction to the prescribed standards. Specifically while producing, using and even disposing lead and lead containing products. No one allowed to pollute the environment with lead and harm public health. So mainly the **paint producing industries, painters should only promote to purchase and use of paints that fully comply the lead paint standard** so as to enhance the compliance of standard as well as protect the environment and human health. Finally he also request the provincial government to address the lead and other toxic chemicals issues in days to come with increased and enhanced their institutional and regulatory capacity.

**Remarks from Mr. Suresh Mehta, Chief, Social Development Division, MoITFE, Province No. 1**



He started inaugural remarks by saluting all the distinguished guests, participants and congratulate the organizer and supporting agency of such most essential programs. Today program and issues very new to me and based on the listening speeches from the inauguration, I strongly felt the urgent need to work on this sector and address this important issues of public health and environment immediately. Multi-sector arrangement and engagement is required to address this issues by identifying all the important stakeholders as only health and environment sector may not be enough. Provincial and federal government might identify all the required stakeholder and engage them to solve the issues. Regulatory function should be made robust by ensuring the industry voice to be heard to find out and address the actual reason of having high lead in paints. Continue awareness raising, regulate supply side, long term impact need to be looked at comprehensive approach.

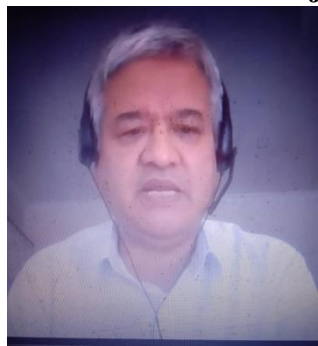
**Mr. Hari Chandra Bhatarai, District Public Health Officer (DPHO), Province No. 1.**



He started inaugural remarks by saluting all the guests, participants and organizers and all attendees. We have already heard about many fact, figures and data about the status of lead in paint and associated health, environment and economic impacts. Now time has come to envision the mechanism of how strongly we can address this issues? He suggested few very important mechanism and wayforwards for the effective redressal mechanism. Firstly, civil society organsitiaon should strongly act as watch dog to look on policy implementation. Secondly, Consumer organization should make the responsible consumers. So making responsible demand side, the supply side itself comes to the right position and make their products safe. Awareness among population level. More discussion needed to bring more public awareness including more other lead sources. Demand level need to be connected with the awareness package as it has been seen massive health and economic damage globally. Towards this all three level government federal, provincial and local government should be engaged in development and implementation of the lead related policy and program in the form of cross cutting issues so that we succeed to solve these lead toxicity issues.



**Remarks from Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal.**



chief guests, guest and all participants in this inaugural session. He highlighted continued support of WHO since 2013 at the national level. Organization of awareness program like this at all federal, provincial, local and even population level needed. This year even during the COVID pandemic we had planned to organize this program with province no. 1, 2, and Lumbini. Lead toxicity is also environment health issues is even crucial during the ongoing pandemic. It is even very important in context of COVID as we all know that people who have some underlying health condition are likely to suffer more from the COVID, People were also found to use to paints their houses and

building during the Dashain and Tihar festival in case of Nepal.

While talking about the demand and supply side of the paints, in urban area and/or in Kathmandu, where people have started asking questions about the paints they intended to use whether it contain lead or not? Whereas at the provincial and local level awareness about this issues still remain low and hence very important to organize events like this at the province and local level. So if we start asking question about lead in paints, and other products, the importance and relevancy of program like this will increased not only in eastern region or province no.1 but throughout the country so as to know whether the paint industries are producing paint without lead, complying the standards or not? .

Leaded gasoline has been eliminated as a result of a single good decision of Government of Nepal. Lead in drinking water supply pipe joints have almost been replaced by now. Earlier before five years ago when Government of Nepal enacted the lead paints standard of 90 ppm, there were hardly any paints that comply the lead paint standard, however, as of now there has been many paints of different colors, brands and prices found to be comply the lead paint standard and widely available and increasingly sold in many market places of Nepal. This clearly showed that we can live and survive without lead and save ourselves and our children.

We have standard of lead in paint now. There has been significant improvement with respect to lead content but still not sufficient. Therefore today we are organizing this event with province no. 1 and additional initiatives need to be taken up. We are continuously supporting this events since last 8 years, WHO support will continue in years to come.

**Mr. Mohan Katuwal. Chair of the Inaugural Session:** Saluting all the participants including chief guest, special guest, guest and most importantly the supporting organization WHO to bring all these issues of chemical safety and Lead.

The people are still not fully aware about lead toxicity as there has been a message not to drink and smoke but still people drink and smoke. So the massive public awareness needed throughout the country all around the years.

Government policy should be clear and transparent and we all need to focus its effective implementation. There has been needs of discuss the problems and challenges with paint industries to findout their issues and bottlenecks of not being able to produce paints fully complying the standards and help them to solve the problem by the concerned government agencies. Additionally

we need to do massive market monitoring as we have facing the problem from the imported products.

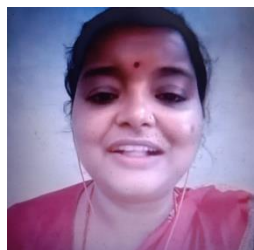
Painting the house comes at the end of construction with almost finished the budget. So there has been a tendency to go for any paints without paying much attention on the paint quality or the lead content related issues. Therefore it has been utmost important to stop producing substandard product or leaded products and promote the production of lead free quality products so that we can reduce the related impacts, on children, workers like painters.

Earlier there has been difficulties due to having a single government, but we have now three tier of governments and hence we have relatively comfortable position of collecting data, market monitoring and industry inspection and hence there is a need to focus towards this by each of us and specifically provincial and local government.

On behalf of industry, we as an industry owner are also the consumer and hence all of us need to become more responsible towards production of paints that complying the standards. Therefore, I urge all the private sector and industries to think and opt for production, promotion, sale and distribution of quality products and we are committed toward this.

He finally once again reiterated the needs of clear and transparent policy with enhanced effective implementation, monitoring and inspection. The needs of public mass awareness should not limited to the week but should continue throughout the years with the support of all concerned.

He ended his inaugural session chair remarks by thanking once again to one and all for continuing support to CEPHED to lead toxicity and other issues and urge for continue support.



**Vote of Thank were delivered by coordinator of province No. 1 Ms. Punam Mandal.** She thanks one and all Chair, Chief Guest, Special Guest, representatives from different originations and most importantly all the attendees of today programs for their participation and contribution. She also thanked to all because of taking time out of their busy schedule for active participation despite of the first day of office opening after our national festival Dashain. She welcome and urge all the participants for their active participation in the technical session as well as active contribution in the discussion session.

### **Technical Session**

On this Occasion four technical papers on different issues related to lead, paints and associated socio economic impacts, blood lead level, government response and WHO initiatives towards elimination of lead paints were presented.

**First paper entitled**” Status of Lead in Paints and associated Socio-Economic Impacts in Nepal “were presented jointly by Mr. Sumin Maharjan, Program Officer and Mr.Ram Charitra Sah Executive Director/Environment Scientist, CEPHED;

**Second Paper entitled** “Summary of Blood Lead Level (BLL) Studies in Nepal” were presented by Dr. Keyoor Gautam, Director, Samyak Diagnostic Pvt. Ltd. Kathmandu, Nepal;

**Third Paper entitled “Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal by Mr. Bhupendra Sharma, Environment Inspector, Department of Environment, MOFE, GON and**

**Fourth Paper entitled” WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020” were presented by Mr. Raja Ram Pote Shrestha, National Professional Officer, WHO Country Office for Nepal.**

**Details of all the technical presentation can be seen from Annex 1 (Page 23 to 31).**

### **Questions and Answer Session**

Q1. Where we can test the BLL in Nepal?

- A. The Samyak Diagnostic Pvt. Ltd, Jawlakhel. Lalitpur is the only center in Nepal with facility of BLL testing.

Q2. What is the mechanism of working with Department of Environment with Local Government?

- A. Monitoring of Lead paints is the major area of working with local government unit with respect to Lead Paint issues so as to enhance the effective implementing of the standards. Whereas there are many other area like solid waste handling, green park establishment, public awareness through sports and celebrities etc.
- B. There may be chances of local government work with Department Environment . The department has laboratory facilities with testing capacity of lead in paints. So Local government can collect sample from their area and sent to the Department Laboratory for testing and get back the results to know the status of the lead in paints marketed in your local municipality and market.
- C. In Dhankuta, there has been a community colored their houses orange and explained it as the community identity. So color might be the community identity but one has to ensure this or any particular color should be lead free and/or complying the government of Nepal lead paint standard.

### **Closing Session**

**Closing session was carried out under the chairmanship of Mr. Anirudha Kumar Sah.**

**Closing Remarks Gita Kumari Dahal, Chief, Human Right Officer, Nepal Human Right Commission, Province No. 1**



Saluting all the participants, guests, chief guest and extended the best wishes of the Dashain festival. She appreciate the program as one of the most useful program. She shared the information about the environmental pollution reports after three years long studies by the National Human Right Commission (NHRC). That have mainly cover the air pollution and to some extent lead as well. Today topic the Lead is one of the hot topic of these day as we all have been getting exposed to

this toxic lead invisibly and hence very much thankful for the organizers to organizing such an important topics with respect to Human Right perspective.

All the presentation have found to be very relevant, informative and educative and hence we need to further promote such programs. As we all are opt for take, purchase and even eat the things that looks or appears good. But we never bothered how harmful was that goods which appeared to be good for our health and environment. If we know about such things, once can take precaution measures. As per one of the research report presented today about high level of lead among Biratnagar and Dharan industrial corridor area`s children. So we should increase this kind of researches on Blood Lead Level, items that might contain leads, increase the awareness related programs and empower all stakeholder especially all concerned government agencies to ensure the right to live in clean environment, a fundamental rights ensured by our Constitution through having an environment desk and environment officer in each concerned provincial and local government offices.

Today issues purely the issues of environment, if we have clean environment, we can live safe or cope with other many diseases easily. It is even most important in context of COVID, it teaches us to live in clean environment, maintain sanitation and hygiene, regular wash our hands, avoid unnecessary outdoor foods, and making us alert. With all these perspectives, today`s program found to be much important and program like this should be continued widely. NHRC will fully support and will be ready for doing any investigation and monitoring with respect to human right perspectives. She finally offered any required help through their office and request for information and we will be ready to move along with you all as per our constitutional right and duty. We are very happy from getting opportunity to participate as representatives from NHRC Province No, 1. We will follow up the issues of toxic children toys you have raised during your presentation.

**Mr. Hari Krishna Bhattarai:** Most useful presentation prepared and presented through great efforts by all the presenters. Today content of presentation and message matches with the level of today participants. However question is how we communicate today message with the larger audience and passed to publics in much understandable way? There is a need to prepare these message in more simple and understandable way and massively disseminated. I as the representative from WHO and supporting provincial government and local government are keen to do new things and hence there is a need to develop clear guideline in the area of lead poisoning prevention with time bounded to be implemented at province and local government level. We will be there to support required technically and act as the bridging pool between federal, provincial and local government level.

Secondly, supply side need to be encouraged to make responsible business plan as well as aware the demand side. Clear guideline to work at policy and program level needs to be developed and made available is way forward to easy working.

Industrial waste and contamination level surveillance as well as blood lead level surveillance among the vulnerable population needs to made and thus evidence based awareness program needs to be developed and implemented. There should be clear indication of leading and supporting institution to carry out these surveillance continuously.

Let's set timeline, bench mark and prepare activities to achieved this toward addressing this lead toxicity issues despite of having another numerous health issues already in context of our country. As Prevention is the best, is even prevailed for the lead issues. So timely clear policy, plan, guideline and program needs to be developed by center and conveyed to the most enthusiasms province and local level to work together and with this I hope this issues of lead toxicity can be definitely addressed and solved.

**Remarks from Mr. Sunil Nepal, KARD Nepal:** We are very pleased to be participated today. Earlier we were thinking the issues of lead has been much more exaggerated in case of Nepal.

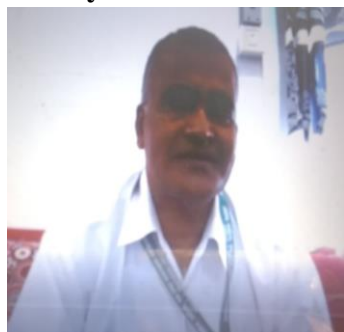


However, after listening all the four presentation, and even listening the study finding of high BLL among the Dharan–Biratnagar Corridor area by the PBKHS Dharan medical groups was even shocking for me and came to believe that the lead toxicity issues has already became serious in case of Nepal too.

I remember the suffocation in the repainted house now, it might have been linked with the lead impacts. We are also wish to work with WHO and CEPHEd as there is need to work with the grass root level at province level. There should be a robust strategies that provincial government need to adopt to phase out of lead poisoning.

Not only lead poisoning, other many heavy metals issues provincial government has not been prepared to tackled as of now and hence WHO need to work with the province and local government in piloting fashion with the resource centers to tackled these issues and also able to address the demand and supply side of the lead paints. Otherwise it will be completely failure.

**Finally Chair of the closing program Mr. Anirudha Kumar Shah made the closing remarks.**



We have received a lot of clarity including myself on many lead paint and lead toxicity issues from all these four technical presentations. We hope that all the participants were much more aware and capacitated about the today issues and programs and will play active role to address those issues from their respective places.

Talking about recent EPA and EPR of the provincial government, local government can approve the IEE. In most cases there is no environment inspectors in local government. Similar to a “Hospital without Doctors” .There should be at least one Environment Officer in each local government unit. Currently all the local government are recruiting the staffs and hence it has been suggested to recruit an Environment Officer too to look after all the environment issued including lead in paints so as to develop and implement some environment related program.

The condition of the provincial government, MoITFE is same, we have absolutely lacking of human resources. Environment related work has been looked after by the Forest Services officials. We are working closely with the federal Department of Environment.

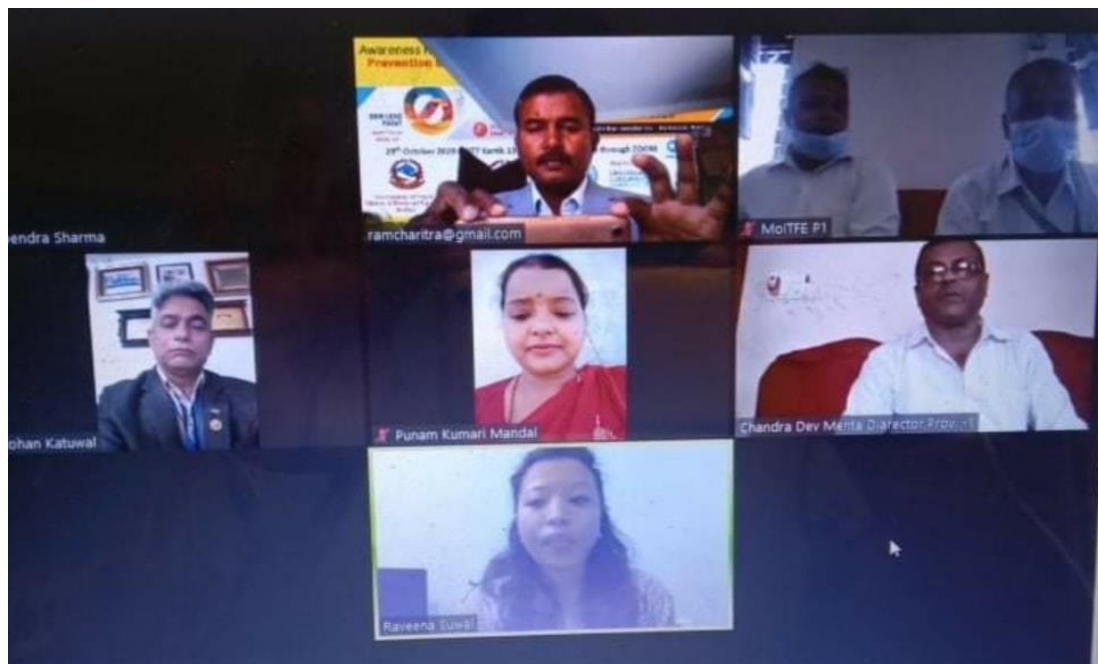
The market of the developing countries is price sensitive. Especially locally produced and unorganized sectors produced paints have high lead. They are mostly working in the local area and



hence role of local government is crucial. There is also the possibility of producing organic paint commercially that has been already produced in the country but not locally used but exported.

We have only 70 percent of the human resources with increased rate of retirement. So because of huge human resource gap in the provincial office, we are not able to work effectively despite of having available budget. We have already EPA and EPR of Province No, 1 and accordingly we are clearing the IEE and EIA of developmental project. As far as environment standards compliance is concerned , IEE and EIA has been getting clear with the clear condition of complying all the necessary laws, regulation and standards and need to adhere by all concerned industry and corporate society so that their products will be health and environment friendly.

Finally he closed the program by thanking CEPHED for providing coordination role for this provincial level program and thank you all participants for their active participation and contribution.



## Program Schedule for Province Level (1) Program

|                           |   |
|---------------------------|---|
| Program Title             | Provincial Level Stakeholders Workshop on<br>" Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards "   |
| Aim of Workshop           | 1. Sharing and Spreading Lead Paint Standard and its compliance status with Provincial Government<br>2. Awareness raising & Capacity Building and Media Outreaches<br>3. translating Lead Paint and other chemical safety issues at Provincial and Local level  |
| Collaboration and Support | Organized by CEPHED in Collaboration with Provincial , MOITFE, Health Directorate ,Government of Nepal, Province No. 1 and supported by NHEICC, MOHP WHO Country Office for Nepal   |
| Expected Participants     | 50 + from Provincial and Local Government (Health, Industry, Environment, Education, Customs etc.) , Metropolitan city, Municipality, Science Teachers/professors, NGO, Youth groups, Medical Doctors, Public Health and Nurses, Paint Industries, Paint Dealers, Retailers, Painters, Professional Groups (Grill Fabricators), Consumer Association, Car reconditioning, Health & Environment Journalists etc.   |
| 10:30 to 11:00            | ZOOM MEEING ROOM OPEN AND CHECKING VOICE & CONNECTIVITY<br>Please Register: <a href="https://nren.zoom.us/webinar/register/WN_1Eh8mwqQQa-q7T-D-f5CoQ">https://nren.zoom.us/webinar/register/WN_1Eh8mwqQQa-q7T-D-f5CoQ</a>   |
| 11:00 to 11:45            | INAUGURAL SESSION   |
| 10 Min                    | Invitation of Guest in Podium by MC of the Program : Provincial Level Coordinator / Or Mr. Sumin Maharjan and Rabina Suwal , Program Officer , CEPHED<br>Chair: Mr. Mohan Katuwal , Vice President of FNCSI and Advisor of CEPHED<br>Chief Guest: Mr. Chandradev Mehta, Health Director, Province No. 1 , Ministry of Social Development (MOSD)<br><br>Special Guest: Mr. Anirudha Kumar Sah, Under Secretary ,Province Government, Ministry of Industry, Tourism Forest and Environment (MoITFE)<br>Special Guest: Dr. Suresh Mehta, Head, Social Welfare Division, Province No. 1, MOSD<br>Guests : Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal<br>Mr. Hari Chandra Bhatarai, District Public Health Officer (DPHO), Province No. 1<br>Welcome Speech and Program Highlights- Mr. Ram Charitra Sah, Executive Director, CEPHED. |
| 5 Min                     | <b>Inauguration of Program by Chief Guest</b> by SWITCH ON Video Screening on Lead in Paints: Message from Dr. Maria Neira, Director of Public Health and the Environment, WHO: <a href="https://youtu.be/9WUsZ5hNGcc">https://youtu.be/9WUsZ5hNGcc</a> / <a href="#">RADIO PSA Broadcasting</a>  |
| 5 Min                     | Radio PSA broadcasting and Distribution (sharing through chat)  |
| 5 Min                     | Remarks: Guests: WHO Country Office for Nepal   |
| 20 Min                    | Remarks Chief/ Guests and Sectorial Commitments for effective implementation of lead paint standard   |
|                           | GROUP PICTURES  |
| 11:45 to 12:45            | Technical Session and Q & A   |
| 15 Min                    | Status of Lead in Paints and associated Socio-Economic Impacts in Nepal by Mr. Ram Charitra Sah Executive Director/Environment Scientist / Mr. Sumin Maharjan, Program Officer, CEPHED.   |
| 15 Min                    | Summary of Blood Lead Level (BLL) Studies in Nepal by <u>Dr. Keyoor Gautam</u> , Director, Dr. Santosh Shrestha, Dr. Vivek Pant, Samyak Diagnostic Pvt. Ltd. Kathmandu, Nepal   |
| 15 Min                    | Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal: Mr. Bhupendra Sharma, Environment Inspector, Department of Environment, MOFE, GON  |
| 15 Min                    | WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020. Mr. Raja Ram Pote Shrestha, National Professional Officer (NPO), WHO Country Office for Nepal.  |
| 12:45 to 1:00             | Q and A,  |
| 1:00 to 1:30              | CLOSING REMARKS from Guest and PRESS RELEASE: English and Nepali<br>MR. Sunil Nepal , KARD Nepal<br>MRs Gita Dahal , Human Right Officer, NHRC, Province No. 1<br>Mr. Hari Chandra Bhatarai, District Public Health Officer (DPHO), Province No. 1<br>Mr. Anirudh Kumar Shah, MOITFE, Province No. 1  |

## ANNEX 3: Report of Awareness Raising and Capacity Building Program, Lumbini Province, Nepal

**Awareness Raising and Capacity Building Program, Lumbini Province on Prevention Lead Exposure and Effective Implementation of Lead Paints Standards through Zoom Webinar and Face Book live (October 30, 2020 Friday)**

October 30, 2020, Center for Public Health and Environmental Development (CEPHED) with the support of National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Provincial government, Ministry of Industry, Tourism, Forest and Environment (MoITFE), Health Directorate of Lumbini province and World Health Organization (WHO) country office for Nepal organized provincial level awareness and capacity building program on “**Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards**” for enhancing full compliance of lead paint standards through effective implementation of lead paint standard so as to eliminate the potential sources of lead exposure among general public especially children.

**Awareness Raising & Capacity Building program, Lumbini Province on Prevention Lead Exposure and Effective Implementation of Lead Paint Standards**

लेड (सिसा)को विषबाट बचावका लागि अन्तर्राष्ट्रिय सचेतना सप्ताह  
25-31 October 2020

**International Lead Poisoning Prevention Week 2020**  
[www.who.int/lead\\_campaign/en/](http://www.who.int/lead_campaign/en/) #ILPPW2020 #BanLeadPaint

**30<sup>th</sup> October 2020 (2077 Kartik 14), Kathmandu , Nepal through ZOOM**

**BAN LEAD PAINT**  
लेडमुक्त नेपाल  
प्रतिबद्ध गरौं

**LEARN the Risks**

**JOIN the Action**

**ELIMINATE Lead Paint**

**Government of Nepal ,**  
Ministry of Health and Population  
NHEICC

**Province Government,**  
Ministry of Industry, Tourism, Forest and Environment  
Lumbini Province, Butwal

**World Health Organization**

**CEPHED**  
Center for Public Health and Environmental Development  
[www.cephed.org.np](http://www.cephed.org.np)

**Registration Link**  
[https://nren.zoom.us/join/register/WN\\_4e7fTZKjRP-SO5xkFiukBw](https://nren.zoom.us/join/register/WN_4e7fTZKjRP-SO5xkFiukBw)

**Zoom id**

**Organized by CEPHED and Supported by: National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population (MOHP), Government of Nepal & WHO Country Office for Nepal in Coordination with Ministry of Industry, Tourism, Forest and Environment & Health Directorate, Lumbini Province , Butwal**

**Figure. Banner of Pro Level Interaction Program with Lumbini Province**

### Inaugural Session

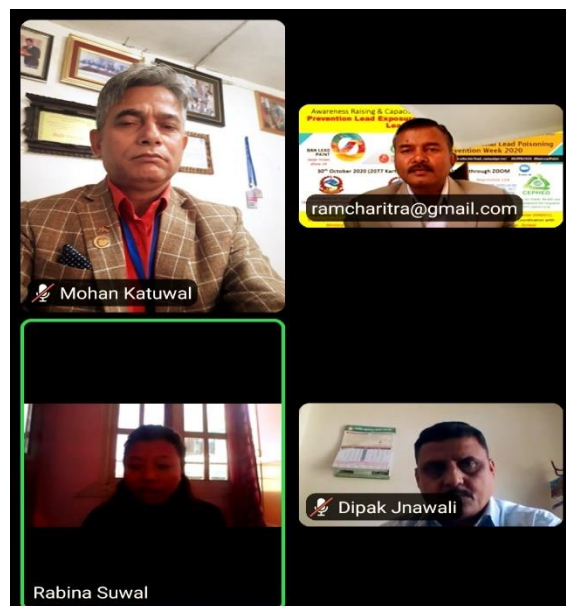
The program were organized under the chairmanship of Mr. Mohan Katuwal, Vice President of Federation of Nepalese Chamber of Cottage and Small Industry (FNCSI) & President of Federation of Grill and Steel Fabricators Nepal (FGSFN) and Chief Guest Mr. Dipak Janawali, Under Secretary, Ministry of Industry, Tourism, Forest and Environment (MoITFE) of Lumbini Province, Other special guests were Mr. Uma Shankar Chaudhary, Chief of the Health Division , Ministry of Social Development (MOSD), Lumbini province, Mr, Yam Bahadur Kunwar, Director, Industry Directorate, Mr. Madan Kumar Karki, Executive Director, Butwal Chamber of

Commerce, Mr. Yogesh Chapagain, Environment Inspector Butwal Sub Metropolitan City, Mr. Jham Thapa, Coordinator Environment Society, Lumbini Province, Dr. Sudhir Kumar Shah, Assistant Professor, Universal Medical College, Mr. Hari Bhushal, District Public Health Officer (DPHO) of Lumbini Province and other high level officials including Mr. Raja Ram Pote Shrestha, National Professional Officer from WHO Country Office, Mr. Bhupendra Sharma, Sr. Environment Inspectors, Department of Environment. Representatives of from different Municipalities, medical students, representatives from different health, environment Lumbini province level organizations were also present on this occasion.

There were active participation of over **44** representatives from different provincial and local government along with the representatives from Health Directorate of the Lumbini Province. Participants from concerned government agencies from health and environment sector, students and faculties of medical colleges, nursing colleges, environment science colleges, Occupational Safety and Health (OSH) experts, Butwal Chamber of Commerce and Industry (BCCI), trade unions, paint industry and representative NGOs etc. were also participated.

**Ms. Rabina Suwal, Program Officer of CEPHED** formally started the inaugural session by welcoming all the guests, participants and inviting all the distinguished guest and participants from different concerned government agencies of the Lumbini province, federal government representatives and of different sectors to take their respective seat and be connected online.

**Mr. Ram Charitra Sah** welcome chair of the inaugural session Mr. Mohan Katuwal, chief guest Mr. Dipak Janawali, Under Secretary, from MoITFE, Lumbini Province, Mr. Uma Shankar Chaudhary, Chief of the Health Division, Ministry of Social Development (MoSD), Lumbini province as special guests, Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal and Mr. Bphupendra Sharma, Sr. Environment Inspector of Department of Environment, Mr. Yogesh Chapagain, Butwal Sub Metropolitan City, Mr. Madan Kumar Karki, Executive Director, Butwal Chamber of Commerce and Industry, Mr. Hari Bhushal, DPHO and all other participants from different organizations of Lumbini province including paint industries, NGOs, trade unions, environment graduate society representatives and local governments as well as different district health office representatives etc.



He highlighted the objective of today province level program was to widely disseminate the lead paint standards for enhancing the effective implementation of the Lead paint standards so as to reduce and eliminate the associated public health impacts, especially the children health impacts as well as eliminate the leaded paints, advocate with the provincial level government to address the lead in paints and other chemical safety issues by enacting related laws and standards. He shared the lead paint studies results, blood lead level studies results and solicit the mechanism of control measures citing the cause of lead at province level about elevated level of lead in Nepalese children.



He illustrated some of the national scenario of lead paints studies, enactment of lead paint standards, increased compliance over the years, elevated blood lead level (BLL) in over 65 % of the Nepalese children  $>5\mu\text{g/dL}$ . Lead paint, a major source of childhood lead exposure, can cause permanent and irreversible brain damage in children. Today program were aimed at envision of reduction and control measures of the public health and environmental impact from the leaded paints and massive public awareness on this issues in this Lumbini province.

Lead, it is one of the 10<sup>th</sup> highly toxic chemicals with respect to public health as per the WHO. Lead exposure globally accounted for 10, 60,000 deaths, 24400000 DALYs losses and contribute to Global Burden Disease (GBD) of idiopathic developmental intellectual disability by 63.2% and to hypertensive (High blood pressure) by 10.3% of (IHME 2017). It also globally cause huge annual economic losses of 977 Billion Dollar with heist in Asia of 699.9 Billion Dollar (71.6%). The annual losses in Nepal due to lead exposure induced IQ losses among Nepalese children has been estimated to 1.5 billion dollar (4 % of Annual GDP of Nepal for the year 2014) New York University research paper 2014.

He also highlighted the recent report entitled “The Toxic Truth: Children’s Exposure to Lead Pollution Undermines a Generation of Future Potential” of UNICEF and PURE EARTH 2020 revealed over 800 Million Children worldwide (1 in each 3 children) were at the high risk of lead exposure and having elevated blood lead level (BLL)  $>5\mu\text{g/dL}$  and same report revealed the fact about Nepal that 67,19,235 Nepalese children have also got elevated BLL  $>5\mu\text{g/dL}$  which were similar of Nepalese studies findings .

Citing the serious health, environment and associated huge economic losses, Mr. Ram Charitra Sah summarized his welcome speech and program highlights by calling for provincial government to address the issues of high lead in paints, high BLL among Nepalese children through including of lead in paint and chemical safety issues in the provincial level acts, regulation, policy, guideline and standards while developing different environment and health related laws. The need of developing infrastructures like laboratory facilities, trained human resources and sufficient budget allocation to test BLL at province level is very important and very much needed.

**Chief Guest, Dr. Dipak Janawali, Under Secretary, MoITFE, Lumbini Province formally inaugurated the program by asking IT professional to play the Video Message issued from WHO Head quarter on the occasion of ILPPW 2020.**

He started inaugural remarks by saluting all the distinguished guests and thanking the organizers for organizing such awareness and capacity building program at province level for the first time on the issues of Lead in this Lumbini province and have taken this as an opportunity to learn many things out of this program. We all feel lead pollution as small and normal and not as a visible environmental pollution. However listening the dangerous alarming facts and figures from welcome speech of Mr. Sah, it is really a serious issues with respect to public health especially with the children health.



Lumbini Province has already enacted the Environment Protection Act and Regulation is also approved from central and is going to be tabulated and gazetted today. One things I want to assured

you all that all the guidelines and standards enacted by the Federal Government including of lead in paints is going to be adopted fully in our Environment Protection Regulation without diminishing its aims and spirit.

He also ensured that any needful improvement and amendment needs to be done in our provincial level laws to control the lead toxicity issues based on the today discussion we will be ready to make necessary improvement as well as also promulgate another required standards through concerned stakeholder consultation in our province. He formally inaugurated the program by asking to play Video Message from WHO (<https://youtu.be/9WUsZ5hNGcc>).

**Remarks from Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal.**



Chair, chief guests, guest, panelists and all participating representatives joining through Zoom in this inaugural session on behalf of WHO Country Office for Nepal. He thanked CEPHED for continue such program and with the support of WHO since 2013. Earlier our programs were focused for demanding lead paint standards and now its effective implementation.

In the beginning when we did not have the standard, there were maximum lead content in the paint up to 2, 12,000 ppm. Now we have our standard of 90 ppm and most of the paints (over 70%) of the paints are now found to be complying the lead paint standard. We have made significant improvements but still more programs needed to ne achieved 100 percent compliances. This year even during the COVID pandemic, we were organizing these programs with province no. 1, 2, and today with this Lumbini province.

As use of paints has been ongoing process all around us, and thus we need to continue such awareness program. Because while using paints, or paints after decaying turns to dust and people will get exposed to it from air, water and dust and affects our health badly.

While talking about supply side of the paints, definitely there has been number of paints industries in this Lumbini province. There were examples from even Nepalese paints industries of producing paint without lead. So if industry opt for produce lead free paints, it found to be adhere with the government laws in one hand whereas protecting public health in other hand.

If we talking about demand side, we can find low leaded or lead free paints abundantly available in different markets. So there is need to continue raise awareness among the people about alternate safer paints during this painting season.

In context contain ongoing COVID, people who have some health compromises condition are suffering more from the COVID such as heart problem, stork problem or any other intellectual disability related problem and hence more such awareness program needed widely.

**Remarks from Dr. Umashankar Chaudhary, Chief of Health Division, Ministry of Social Development, Lumbini Province.**



Dr. Chaudhary saluting all chair, guests and participants. Today program on awareness about lead poisoning is most important and timely. Awareness about lead, its impacts, how it gets into our bodies?, and how we can prevent its exposure? needed to be massively disseminated up to the grassroots level. We are in policy level network, we all are getting exposed to lead knowingly and unknowingly and until and unless the information regarding the lead impacts reaches to the community level, population level, till then it will be hard to control and reduce its impacts.

It is good to see this kind of program today organized by CEPHEd with WHO support, it is very important and should not be limited to this program only. There must be massive dissemination about this issue through media, radio, TV and increasing more participants etc. He closed his inaugural remarks and made commitment to take this lead poisoning related program up to the community level from the health fraternity of the Lumbini Province.

**Mr. Hari Bhusal, District Public Health Officer (DPHO), Lumbini Province.**



He saluted all the Chair, Chief Guest, Guest and participants and shared his happiness being able to participate in this important program organized today on the occasion ILPPW 2020. We have been consuming poisons knowingly and unknowingly as we all including our children also consuming leaded products and hence such awareness and interaction programs needed to be taken up to the grassroots community level, local level continuously including producer, consumers and users of paints. The impact of lead, impacts of toys containing lead, jewelry containing lead needed to be disseminated to large number of people. Lead poisoning, one of the public health problem and needed to be addressed.

One way may be localizing the massive awareness program and radio jingle made and broadcasting from central Kantipur FM, needed to be massively disseminated and broadcasted through provincial level mass media including local TV and Radio station.

**Mr. Bhupendra Sharma, Sr. Environment Inspector**, Department of Environment on behalf of Department of Environment, Ministry of Forest and Environment (MOFE), Government of Nepal congratulate organizers for continuously organizing such awareness week every year since 2013.

He highlighted the fundamental right to live in healthy environment provision of the Nepalese Constitution as well as the Environment Protection Act of Lumbini Province. No any industry will be allowed to pollute the environment in contradiction to the prescribed standards. Specifically while producing, using and even disposing lead and lead containing products. No one is allowed to pollute the environment with lead and harm public health. So the paint industries, dealers, retailers and painters should only promote the use of paints that comply the lead paint standards. Finally he also request the provincial government to address the lead and other toxic chemicals issues in days to come by giving high priority.

**Mr. Mohan Katuwal, Chair of the Inaugural Session:** Saluting all the participants including chief guest, special guest, guest, chamber of commerce and industry, other concerned organizations representative and most importantly the supporting organization WHO.



From the different speeches this morning, we have found industry were done remarkable improvements as over 70 per cent of the market covering paints complying the standard, however, more efforts needs to be made to achieve 100 % improvement. The government agencies needs to help industry to enhance compliance, Industries should also improve their product to protect consumers and paint industry themselves. Not only domestic products from Nepalese industry should comply with the standards but all the imported products including illegal importation due to open boarder should also be regulated.

Government policy should be clear and transparent and we effectively implemented. There has been needed to discuss the problems and challenges of not complying the standards and help them to solve the problem along with massive market monitoring of both domestic and imported products.

Painting the house comes at the end of construction with almost finished the budget. So there has been a tendency to go for any paints without paying much attention on the paint quality or the lead content related issues. Therefore it is utmost important to stop producing substandard product or leaded products and promote the production, sale and distribution of lead free quality products to protect children, workers and painters.

On behalf of industry, we as an industry owner are also the consumer and hence all of us need to become more responsible towards production of paints meeting all the government requirements.

He finally once again reiterated the needs of clear and transparent policy with enhanced effective implementation and monitoring from the federal and provincial level government.

The new radio jingle produced were aired at the end of inaugural session before the technical session started.

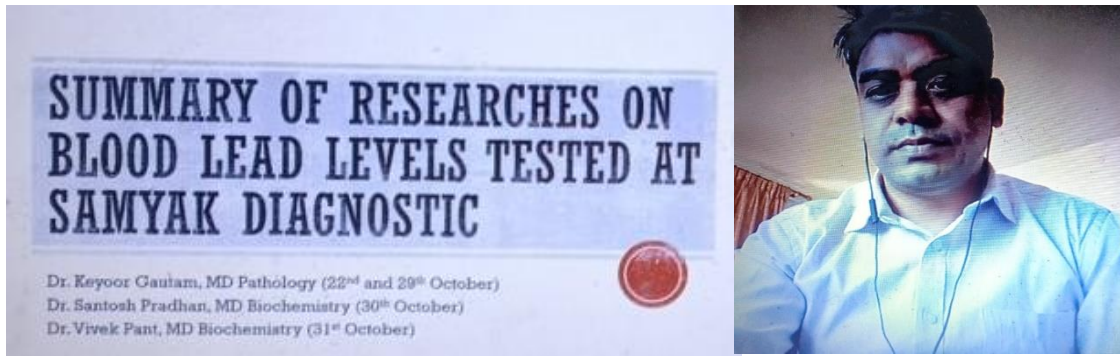
### **Technical Session**

On this Occasion four technical papers on different issues related to lead, paints and associated socio economic impacts, blood lead level, government response and WHO initiatives towards elimination of lead paints had been presented.

**First paper** entitled” Status of Lead in Paints and associated Socio-Economic Impacts in Nepal “were presented jointly by Mr. Sumin Maharjan, Program Officer and Mr. Ram Charitra Sah Executive Director/Environment Scientist, CEPHEd;

**Second paper** presented by Dr. Santosh Pradhan, Samyak Diagnostic Pvt. Ltd. entitled “Summary of Researchers on Blood Lead Levels tested at Samyak Diagnostic”. He started introduction with no testing center available in Nepal and therefore data was not available on blood lead level of people in Nepal.





He started presentation by thanking organizer for providing the opportunities to share the Samyak Diagnostic's researches on lead among children, rag pickers and people who consume Ayurvedic medicine. He introduce the topics Lead from the history of lead being used since long back, a toxic chemicals that accumulates in bone and teeth. 60 percent of absorbed lead get deposited into the children bone where as 95% in adult's bone. Children are most vulnerable, it severely reduced their IQ. He then clearly describe mechanism of lead toxicity through mimicking properties of lead similar of Iron and Calcium. Meaning when body required Iron or Calcium especially during pregnancy and growing period, lead grabs that places and start impacting. Sign and symptoms of lead poisoning are clearly seen from the pictures as all most all important body organs get impacted. Main important impacts are on our CNS and causes IQ retardation. Lead also cause anemia and damage heart, reproductive systems, kidney, and liver etc.

Lead poisoning one of the major issue in case of Nepal. Because Nepalese population are at the border range of average IQ and hence we were much worry about this issues. Because as BLL increases it reduces the IQ.

There has been three studies carried out by our center with three international publications. He summarizes the results of three research

In case of Kathmandu among 50 Children, on an average BLL is 7.01  $\mu\text{g/dL}$  Situation among the Children of Birgunj among school children adjoin to an industrial area were still very alarming. In Birgunj, among 50 Children, on an average BLL is 20.33  $\mu\text{g/dL}$  with 100 % of children in the study have elevated BLL As we know there is no safe level of lead and average BLL 20 has already might have reduced their IQ alarmingly. CDC recommendation an area is considered as a high risk if 12% or greater of children tested are found with blood lead level more than or equal to 10  $\mu\text{g/dL}$ , called for a larger studies

Our finding were more or less coherence with the other previous studies carried out in Nepal.

In addition to prime children concerned. Samyak also tested lead among 50 Rag pickers. Study was done to evaluate blood lead level in Rag picker working in selected area of Kathmandu including hematological and biochemical parameters were also tested among them. .

The average BLL among paper and metals collectors were 7.35  $\mu\text{g/dL}$ ; among Plastic, Metal and Paper collectors 8.47  $\mu\text{g/dL}$ ; plastic, Metals, paper and Paint Container 8.47  $\mu\text{g/dL}$  and Plastic, Metals, Papers, Paints containers and electronics waste workers were having average BLL 12.89  $\mu\text{g/dL}$ .



The findings of this study suggest that the Rag-pickers working in Kathmandu are at increased risk of lead toxicity and this occupational exposure to lead is attributed to the use of bare hands for handling solid waste. There has been high possibility of transfer their lead exposure to their neared kin and family members. Working instructions with solid waste should be prepared and training to this vulnerable group should be provided. Community based study on blood lead level should be reinforced.

The lead toxicity due to Ayurvedic Medicine use in a 38 year old people with acute abdomen pain health complication following intake of Ayurvedic medicines for increasing power. Initial blood level was 82.3 µg/dL. The used Ayurvedic medicine when analyzed for presence of lead revealed very high concentration of lead (102 ppm) against the prescribed limit is only 10 ppm by WHO. The awareness program is needed regarding the potential health risks posed by Ayurvedic remedies, especially in countries like ours where use of Ayurvedic medications has been popular.

He shared the causes of high lead among the Birgunj Children linked to old decaying paints with most of the houses have flacked paints. He also explained the route of exposure from respiration, food and to some extent from skin as well. Dr. Pradhan provided the lists of lead poisoning prevention with major highlights as “**Lead Poisoning is 100% Preventable**”. He further suggested frequent hand wash before eating; wash toys regularly; clean surface with wet mop weekly, chipping, peeling paints chips; moisture, molds and mildew alongwith calcium and iron supplements can help to prevent the absorption of Lead. He finally stressed the need of increasing knowledge about lead and its toxicity and massive awareness raising among all.

**Third Paper entitled “Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal** by Mr. Bhupendra Sharma, Environment Inspector, Department of Environment, MOFE, GON and

**Fourth Paper entitled” WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020”** were presented by Mr. Raja Ram Pote Shrestha, National Professional Officer, WHO Country Office for Nepal.

Details of all other technical papers can be read from Annex 1 (page 23 to 31)

### **Question and Answer Session**

The forum is opened for discussion and Question Answer. As most of the things has been clear. There was no any pertinent question raised during this session.

### **Closing Session**

Under the chairmanship of technical session Dr. Dipak Janawali, Under Secretary, MoITFE, Lumbini Province. Several distinguished guests have made the closing remarks with their sectorial commitments.

**Closing Remarks from Dr. Sudhir Kumar Shah, Assistant Professor, Community Medicine Department, Universal Medical Science College (UCMS), Bhairahwa, Lumbini Province.**

He started closing remarks by thanking the organizers for organizing today provincial level awareness raising and capacity buildings on “Prevention of Lead Exposure and Effective Implementation of Lead Paint Standard”. This program has successfully disseminated different information related lead, exposure pathway, sources of exposure, associated health and environmental impacts and most importantly way forward to prevent lead exposure. I am very much benefited and received many information by fully participated from beginning to the end. As we also came to know that Lead poisoning is 100% preventable and early deification and testing of lead in blood among children, better will be the option to envision abatement programs. Most of the things has been already adopted at policy level. However these are yet to be implemented in practice, translated into the community level. It will be better to reach out to community level. To realize the ultimate objective of ILPPW 2020 is to eliminate lead paint from the world, all of we needs to work at individual, organization, community, local, provincial and federal level.

**Remarks from Mr. Laxman Prasad Mainali, Social Development Division Office, Palpa.** Thank you for inviting us to this important program and this issues of lead paint required efforts from all three leave of government. We are committed to include this program in our social division and offices program as well and take as priority agenda and take it forward.

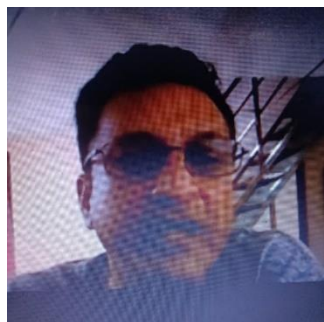


**Mr. Jham Bahadur Thapa, Coordinator, Nepal Environment Society.** Nepal Environment Society (NES) has been actively working countrywide and raising the voice of Environment Graduate for ensuring its rights and also playing active role and responsibility at different level of all three tires of the government. NES has been actively engaged in formulation of federal, provincial and local level environment related laws, policy, guideline and standards. He called for instant recruitment of Environment Inspectors at each local, provincial and federal level in order to have regular monitoring for ensuring the effective implementation of environment related laws, policy and standards. Community level awareness about lead poisoning is most important and urgent and hence NES Lumbini province as well as NES at countrywide level will be actively engaged in massive awareness raising. On behalf of NES and NES Lumbini province, I am very grateful to organizers for inviting NES Lumbini to participate and contribute to the process and closed his remarks.



**Remarks from Mr. Krishna Prasad Pokhrel, Chief, District Public Health Office, Nawalparasi.** He started appreciation the most important program. We became aware about our role, responsibility and duty to be played by all three level government including the role of our district health office and fulfil our duty. He also emphasized the need of massive community level awareness program on this issues with commitment to carry this issues forward.

**Remarks from Mr. Yubraj Bhatta, OSH Expert, Lumbini Province and Kathmandu:**



Bhatta expressed his gratitude for the invitation for participation and opportunity to share some closing remarks. Very important issues, environment and health are integrated issues, health cost can be minimized by addressing the environment issues. We should look the lead paint issues as holistic approaches, there has been need to make some investment in infrastructure development of laboratory facility to test lead in paints and blood lead level.

Increased impact of chemicals leads to increased number of cancers beyond the capacity of the cancer hospitals we have at the moments. As lead is also one of the very toxic and cancer causing chemicals, and hence we need to advocate for lead issues and increased our engagement towards solving the associated health and environment issues including lead. We will be successful in some point of time if continuously work on this issues together and urge for the same with all.

**Remarks from Mr. Ram Hari Pant, Under Secretary and Chief, Chure Forest Conservation**



**Program.** He started his closing remarks by remembering the initiative of CEPHED towards formulating lead paint standards while he was at the center with Ministry of Forest and Environment, Climate Change unit. He clearly said that lead is known to be a toxic chemicals and hence need to be eliminated from all of our daily use items. Toward this, I congratulate Mr. Ram Charitra Sah and his team worked with the ministry teams toward having the lead paint standard as one of the major outcomes. As a results most of the paints are improved a lot and we have access with lead free paints. They have worked not only paints, but also children toys issues. He wished to get success in reducing and eliminating the lead content from all consumable items in Nepal.

**Dr. Dipak Janawali, Undersecretary and Chair of Technical session, MoITFE, Lumbini Province.** He started his closing remarks by thanking once again CEPHED for organizing such as informative program that gave me personally a valuable opportunity to learn in depth about the issue of lead in paints and other chemicals issues.

He briefly review and summarized all the four technical papers in brief. He pointed out the high lead legacy in the paints in Nepal, getting improved over the years, dust loded with lead is the major source of lead exposure among children, standards has been in place since a while with trend of being effectively implemented. Still 30 percent industries yet to improved their products. Over 67 lakhs Nepalese children have elevated lead level needs to be urgently addressed. Mr. Sah has clearly recommended the required things to be done my respective government agencies at all level along with the role and responsibility all other concerned stakeholder. He and his team has been awarded for different chemical initiatives and research work is praiseworthy for all if us.

Send Paper presented by Dr. Santosh Pradhan presented summary of blood lead level among (Burgunj and Kathmandu) the children, rag picker sand Ayurvedic medicine consumer. Children of Birgunj are under high threat, rag pickers and even Ayurvedic medicine consumer are under threat. He also clearly picked up the point and highlight the issues of lead contaminated even in medicine and that becoming the source of lead exposure among the consumers. Finally he highlighted the issues raised by the presenter about the needs of knowledge sharing massively, one

can avoid the exposure of lead and be protected from associated health impacts through acquired knowledge about it. So knowledge sharing is major message of this paper as well as suggested simple preventive measure like frequent hand washing. He Finlay appreciate and congratulate the presenter Dr. Santosh Pradhan the presentation of medical research in very simple way to understand fully and enriching all the participants today.

Third paper by Mr. Bhupendra has described role and responsibility of all three level governments for lead paint elimination starting constitutional right to live in healthy environment, provision of EPA, EPR, Provincial EPA and EPR as well as Gazette Notification of Lead Paint Standard in much broader aspects and comprehensive manner. HE focused the need to do effective way of doing IEE, EIA as well as effectively implement the laws and standard. He provide the suggested for paint industry to produce the paints complying the standards as well as put the label about the lead content on the can as per the standards. Finally by making ZERO lead in paint can helps our children happier is the final message given from his last slides.

The fourth paper were presented by Mr. Raja Ram Pote Shrestha , WHO cover many sector including health and economic impacts, reason of using lead in paint etc., in much simple and understandable ways.

He them described briefly about the role of WHO , contribution of WHO from global, regional and national level and help government of Nepal and CEPHED to bring this issues up to this level. He also thanks WHO for all these initiatives. Citing the different countries example, He finally highlighted the awareness raising as the major requirement to help individual, communities, government to cope with this lead poisoning and associated implications.

All four paper were very good, educative and informative. From beginning we have received a lot of information with the clear cut message to be carried out by us as an individual and organsitiaon level and hence it creates hopes among us to do something to solve this problem. Second point he highlight is the initiative lead by NGO sector results up to the gazette notification of having lead paint standards in place is the clear example of how NGO and Government can work together and all we should encourage this kind of collaboration.

As far as province level initiative has been concerned, we are still at the beginning stage despite of being passing of almost two years. However, we have started looking at environment recently, we have limited human resources and we area also formulated and helping the local government as well to address the environmental issues. We are also going to have regulation and will go for monitoring and inspection too. Finally he conclude today workshop by singling out following points,

- (a). Mass dissemination of lead in paint related laws and standards.
- (b) Reach out to the community level.
- (c) Wide dissemination of research finding about lead, health impact and blood lead level.
- (d) Strongly and effectively implementation of the Standards and Laws by the government.

With the full commitment to effectively implement all these recommendations with the support of all industry and other stakeholder and we will be always ready and also needs help from the federal government. Finally he thanked CEPHED and WHO for organizing Lumbini Province level

program and providing the opportunity to coordinate, collaborate, participate and even chair the technical session. Thank you one and all once again.





### Program Schedule of Lumbini Provincial Level Program

|                           |   |
|---------------------------|---|
| Program Title             | Lumbini Provincial Level Stakeholders Workshop on<br>" Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards "   |
| Aim of Workshop           | 4. Sharing and Spreading Lead Paint Standard and its compliance status with Provincial Government<br>5. Awareness raising & Capacity Building and Media Outreaches<br>6. translating Lead Paint and other chemical safety issues at Provincial and Local level  |
| Collaboration and Support | Organized by CEPHED in Collaboration with Provincial Government of Nepal and Health Directorate, Lumbini Province, and supported by NHEICC, MOHP WHO Country Office for Nepal   |
| Expected Participants     | 50 + from Provincial and Local Government (Health, Industry, Environment, Education, Customs etc.) , Metropolitan city, Municipality, Science Teachers/professors, NGO, Youth groups, Medical Doctors, Public Health and Nurses, Paint Industries, Paint Dealers, Retailers, Painters, Professional Groups (Grill Fabricators), Consumer Association, Car reconditioning, Health & Environment Journalists etc.   |
| 10:30 to 11:00            | ZOOM MEEING ROOM OPEN AND CHECKING VOICE & CONNECTIVITY   |
| 11:00 to 11:45            | INAUGURAL SESSION   |
| 10 Min                    | <p>Invitation of Guest in Podium by MC of the Program : Provincial Level Coordinator / Rabina Suwal , Program Officer , CEPHED</p> <p>Chair: Mohan Katuwal, Vice President, FNCSI and Advisor of CEPHED</p> <p>Chief Guest: Dr. Dipak Janawali, Under Secretary, Province Government, Ministry of Industry, Tourism Forest and Environment, Lumbini Province.</p> <p>Guest: Mr. Uma Shankar Chaudhary , Health Directors of Lumbini Provinces , MOSD</p> <p>Guest : Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal</p> <p>Guest: Yam Bahadur Kuwar, Director, Industry Directorate, Lumbini Province</p> <p>Guest: Mr. Hari Bhusal, Public Health Officer , Lumbini Province</p> <p>Guest: Mr. Madan Kr. Karki, President, BCCI Butwal</p> <p>Welcome Speech and Program Highlights- Mr. Ram Charitra Sah, Executive Director, CEPHED.</p> |
| 5 Min                     | Inauguration of Program by Chief Guest by SWITCH ON Video Screening on Lead in Paints: Message from Dr. Maria Neira, WHO: <a href="https://youtu.be/9WUsZ5hNGcc/">https://youtu.be/9WUsZ5hNGcc/</a> / <a href="#">RADIO PSA Broadcasting</a>  |
| 5 Min                     | Radio PSA broadcasting and Distribution (sharing through chat)  |
| 5 Min                     | Remarks: Guests: WHO Country Office for Nepal   |
| 20 Min                    | Remarks Chief/ Guests and Sectorial Commitments for effective implementation of lead paint standard   |
|                           | GROUP PICTURES  |
| 11:45 to 12:45            | Technical Session and Q & A   |
| 15 Min                    | Status of Lead in Paints and associated Socio-Economic Impacts in Nepal by Mr. Ram Charitra Sah Executive Director/Environment Scientist / Mr. Sumin Maharjan, Program Officer, CEPHED.   |
| 15 Min                    | Summary of Blood Lead Level (BLL) Studies in Nepal, <u>Dr. Santosh Pradhan</u> , Dr Keyoor Gautam, Director, , Dr. Vivek Pant, Samyak Diagnostic Pvt. Ltd. Kathmandu,   |
| 15 Min                    | Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal: Mr. Bhupendra Sharma, Environment Inspector, DoEnv, MOFE, GON  |
| 15 Min                    | WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020. Mr. Raja Ram Pote Shrestha, National Professional Officer (NPO), WHO Country Office for Nepal.  |
| 12:45 to 1:00             | Q and A,  |
| 1:00 to 1:30              | <p>CLOSING REMARKS from Guest and PRESS RELEASE: English and Nepali</p> <ol style="list-style-type: none"> <li>1. Dr. Sudhir Kumar Shah, Public Health Department, UCMS, Bhairahwa</li> <li>2. Mr. Yogesh Chapagain, Environmental Inspector, Butwal Metropolitan city.</li> <li>3. Mr. Laxman Prasad Mainali, Social Development Division Office, Palpa.</li> <li>4. Mr. Jham Thapa, Province Coordinator, NES, Lumbini Province</li> <li>5. Mr. Krishna Prasad Pokhrel, Chief, District Public Health Office, Nawalparasi</li> <li>6. Mr. Yubraj Bhatta, OSH Expert, Lumbini Province and Kathmandu</li> <li>7. Mr. Ram Hari Pant, Under Secretary and Chief, Chure Forest Conservation Program.</li> <li>8. Dr. Dipak Jnawali, Spokesperson, MoITFE , Lumbini Province</li> </ol>  |

## ANNEX 4: Report of Awareness Raising and Capacity Building Program, Province No 2

### Awareness Raising and Capacity Building Program, Province No 2 on Prevention Lead Exposure and Effective Implementation of Lead Paints Standards through Zoom Webinar and Face Book live (October 31, Saturday)

October 31, 2020: Center for Public Health and Environmental Development (CEPHED) with the support of National Health Education, Information and Communication Center (NHEICC), MOHP, Provincial government, Ministry of Industry, Tourism, Forest and Environment (MoITFE), Health Directorate of Province No 2 and WHO country Office for Nepal organized provincial level awareness and capacity building program on “**Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards**” for the sectorial commitment towards enhancing full compliance of lead paint standards through effective implementation of lead paint standard so as to eliminate the potential sources of Lead exposure among general public especially children. Program were coordinated by District Youth Network (DYN), Dhanusha and



Figure. Banner of Pro Level Interaction Program with Province No 2

green Space Janakpur.

### Inaugural Session

The program were organized under the Chairmanship of Mr. Mohan Katuwal, Vice President of Federation of Nepalese Chamber of Cottage and Small Industry (FNCSI) & President of Federation of Grill and Steel Fabricators Nepal (FGSFN) and **Chief Guest Dr. Ram Chandra Kandel, Secretary, Ministry of Industry, Tourism, Forest and Environment (MoITFE) of Province No 2**, Other special guests were Mr. Bijay Kumar Jha, Health Director, Ministry of Social Development (MOSD), Province No 2, Other high level officials including Mr. Raja Ram Pote

Shrestha, National Professional Officer from WHO Country Office for Nepal, Mr. Bhupendra Sharma, Sr. Environment Inspectors, Department of Environment. Representatives of from different Municipalities, District Health Offices, District Forest Offices, medical students, representatives from different health, environment and youth groups of Province No 2 level organizations were also present on this occasion.

There were active participation of over **58** representatives from different provincial and local government along with the representatives from Health Directorates of the Province No 2. Participants from concerned government agencies from health and environment sector, students and faculties of medical colleges, nursing colleges, environment science colleges, Occupational Safety and Health (OSH) experts, trade unions, paint industry and representative from consumer forums and NGOs and youth network group etc. were also participated.

**Mr. Ram Charitra Sah, Executive Director of CEPHED** formally started the inaugural session by welcoming all the guests, participants and inviting all the distinguished guest and participants from different concerned government agencies of the Province No 2, federal government representatives and of different sectors to take their respective seat and be connected online.

**Chief Guest, Dr. Ram Chandra Kandel, Secretary, MoITFE, Province No. 2 formally inaugurated the program by asking IT professional to display today program banner.**



Mr. Ram Charitra Sah then started his welcome speech by inviting Chair of the inaugural session Mr. Mohan Katuwal, Chief Guest Dr. Ram Chandra Kandel, Secretary, from MoITFE, Province No 2, Mr. Bijay Kumar Jha, Health Director, Ministry of Social Development (MOSD), Province No 2 as special guests Mr. Jyoti Baniya, President, Nepal Consumer Forum, Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal and Mr. Bphupendra Sharma, Sr. Environment Inspector of Department of Environment, Mr. Ramesh Kumar Yadav, DPHO, Dr. Vivek Panta and all other participants from different organizations of Province No 2 including paint industries, NGOs, trade unions, environment graduate society representatives and local governments as well as different district health office representatives including all members of DYN Dhanusha and Green Space Janakpur etc.

Welcome speech started by Mr. Ram Charitra Sah calling lead, it is one of the 10<sup>th</sup> highly toxic chemicals with respect to public health as per the WHO and there is no any safe level of lead is safe for human health. It affect all age people, and causes physical, mental and intellectual disability among children. Lead exposure globally accounted for 10, 60,000 deaths, 24400000 DALYs losses and contribute to Global Burden Disease (GBD) of idiopathic developmental intellectual disability by 63.2% and to hypertensive (High blood pressure) by 10.3% of (IHME 2017). It also globally cause huge annual economic losses of 977 Billion Dollar with heist in Asia of 699.9 Billion Dollar (71.6%). The annual losses in Nepal due to lead exposure induced IQ losses among Nepalese children has been estimated to 1.5 billion dollar (4 % of Annual GDP of Nepal for the year 2014) New York University research paper. Different studies have shown high lead level among paints uses for painting house, furniture and school in Nepal.

He highlighted today programs along with the objective of today province level program was to widely disseminate the lead paint standards for enhancing the effective implementation of the Lead paint standards so as to reduce and eliminate the associated public health impacts, also especially the children health impacts as well as eliminate the leaded paints, advocate with the provincial level government to address the lead in paints and other chemical safety issues by making related laws and standards, share the lead paint study results, blood lead level studies reports and solicit the mechanism of control measures citing the cause of lead at province level about elevated level of lead in Nepalese Children as it is the right time where provincial government are in the position of enacting different health and environmental laws and hence needs to include this lead issues and toxic chemical issues.

Citing the serious health, environment and associated huge economic losses, Mr. Ram Charitra Sah summarized his welcome speech and program highlights by calling for provincial government to address the issues of high lead in paints, high BLL among Nepalese children through including of lead in paint and chemical safety issues in the provincial level acts, regulation, policy, guideline and standards while developing different environment and health related laws. The need of developing infrastructures like laboratory facilities, trained human resources and sufficient budget allocation to test BLL at province level is very important and dire needed. Today is the last program with province no. 2 after it has been successfully completed in province No. 1, Lumbini and Bagmati.

**Mr. Bhupendra Sharma, Sr. Environment Inspector,** Department of Environment. On behalf of Department of Environment, Ministry of Forest and Environment (MOFE), Government of Nepal congratulated CEPHED continuously organize such awareness week each years and WHO for continued support.



He highlighted that Lead is toxic, and it definitely affect health and environment. To protect human health and environment, Act, Regulation and Standard needs to be implemented by Government of Nepal, Ministry of Forest and Environment, Department of Environment, CEPHED and now also the provincial government needs to act immediately. Not only lead in paints but also the children toys, cosmetics, Ayurveda medicine etc. needed to be regulated. Mainly the paint industries as well as dealers and retailers has important role to



follow these Act, Regulation and Standards and protect public health and environment. Government of Nepal, MOFE, Department of Environment are always proactively working towards increasing awareness related to lead and its impacts. To make more effective, mainly industries should use lead free raw materials and produce lead safe paints to protect health, in coming days we all needs to come together and work even more effectively to address this lead paint and lead toxicity issues.

**Remarks from Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal.**



Chair, chief guests, guest, panelists and all participating representatives joining through Zoom in this inaugural session on behalf of WHO Country Office for Nepal. Despite of Saturday as well as in the time of festival (Dashain, Tihar and Chatha) we had gather today to participate in this important awareness program. In the context of COVID, there might a question about relevancy of this program? But all we know that during this festival of Dashain, Tihar and Chhath, we often paints our homes, furniture and school and consume much paints. So if we consume leaded paints, this is the time of likely getting more exposure and get impacted from the lead too.

Nepal has already formulated the lead paint standards of 90 ppm and its effective implementation is yet to be questionable if we talk about the supply and demand side. More works needs to be done because we have not yet achieve 100 percent compliance and satisfactory results. In the context of province No. 2, this issue has been even more important as we have large open boarder with neighboring country India. We imported and used these paint without knowing whether that imported paints meets the standards or not?

Earlier before five years ago when Government of Nepal enacted the lead paints standard of 90 ppm, there were hardly any paints that comply the lead paint standard, however, as of now, there has been many paints of different color, brands that comply the lead paint standard and widely available and sold from many market places of Nepal. Thus WHO supporting CEPHED to continue raise awarrence among the people about this and today we are organizing this event with province No. 2 after Province 1 and Lumbini. We are committed to continue our support in coming years for such continue awareness rising.

**Mr. Jyoti Bania, President, Nepal Consumer Forum and Senior Advocate:**



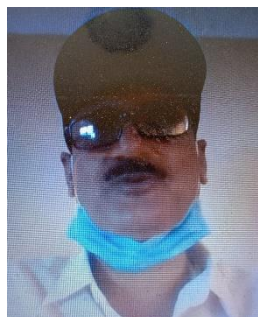
Thank you all the guests and participants. Despite of today the last program under the ongoing ILPPW 2020, I am fortunate to be able to joined today and share some of my views. We are working in collaboration with CEPHED and Mr. Ram Charitra Sah. Most of the participants are somehow aware of lead and I am not expert on lead either. However, there are very few country where consumer has to pay for even purchasing the toxic substance Lead or leaded products and getting affected out of it. He raised the issues of consumer interest, school dust with high lead, promulgation of constitution with the assurance of consumer rights as one of the fundamental right. He assume the lead paint standards has

been the outcomes of Mr. Sah`s pioneer research and initiatives in Nepal. There are three tier of government, with monitoring and market management, with the provision of hiring the inspectors. MOFE has just enacted the standards but Nepal Bureau of Standards and Metrology (NBSM) has



to monitor it. We are ready to take the legal action against the health and environment impacts if evidence found out of use of leaded paints. Lack of laboratory facilities, lack of coordination among and between line agencies are additional challenges as we have experiences in case of pesticide testing in the vegetables with several limitations. Numbers of good laboratories are urgently required. Not only having standards is enough, as in case of tobacco control its effective implementation needs to be realized by all.

**Remarks from Mr. Bijay Kumar Jha, Health Director, Ministry of Social Development, Province No.2.**



Mr. Jha saluted all chair, guests and participants and expressed happiness to join. Best wishes to the program on Lead Poisoning Prevention week with the WHO support and contribution. How we can make province no. 2 lead free?, we have standards and laws but we need more focused and more programs to realize the goal of making lead free Province No. 2. All we know that the lead is found in many products we use daily like paints, cosmetics, toys and medicines etc. and lead has been abundantly used and affecting children, lactating mother and all important part of our bodies. Thus lead free petroleum, cosmetics, food, utensils, cans etc. need to be produced strictly and made available to all who need them.

Effective implementation of the government act, regulation and standards needs regular monitoring and we need to focus on that as well, therefore we from our personal and on behalf of health directorate we are fully committed towards this. As this is the week long program, there is a need to make it massive and beyond the week and maximize outreaches and wider participation throughout the province using mass media (Radio, TV) and print and bring this program at community level. How we can make lead free products, how we can make aware community people and thanks for the efforts to make it happen from our health directorate and work towards making healthy society based on co-existence and co-working principle. **We need to convert all our energy into Synergy to achieve lead free society and especially the children.** I know that we have worked with CEPHED and Ram Charitra to make Bharatpur Mercury Free and similarly we can make this Province 2 Lead Free. There is need of consolidated and coordinated efforts towards reduce and eliminate the lead free paints and other products with enhanced testing of lead and bring this information to the public and regulated accordingly.

**Chief Guest, Dr. Ram Chandra Kandel, Secretary, MoITFE, Province No. 2 formally inaugurated the program by asking IT professional to play the Video Message issued from WHO Head quarter on the occasion of ILPPW 2020.**



He started his remarks by saluting all the distinguished guests and thanking the organizer CEPHED and its team for organizing such awareness and capacity building program at province level for the first time in this province No. 2 under the ongoing 8<sup>th</sup> ILPPW 2020 from October 25 to 31, 2020 on behalf of MoITFE, Province No. 2. CEPHED and Mr. Ram Charitra Sah has played pioneer role on this issues. He emphasized the massive awareness about the lead paint issues with the active engagement of all political parties, teachers, schools, colleges, activists, NGOs, INGOs and different concerned stakeholders. As there

has been lack of overall awareness and am also taking this as an opportunity to learn many things out of this program as this program has been happening in this province today.

In this province No.2, some laws related to Forest Act has been enacted, Tourism Act is under final discussion in the parliament, we are in ready position of formulating the environment related laws as well and hence this program on lead and chemical issues has been organized in very right time and we from province wish to assure that the issues of chemicals and lead in paints will be definitely included into the upcoming provincial level environmental laws if we receive the input to the points.

We hardly consider lead as enviroental pollution of great danger, however listening the dangerous alarming facts and figures from welcome speech of Mr. Sah, it is really a hot issues with respect to public health especially with the children health. This program is even eye opening for me as well. We have different role and responsibility from Federal and in the provincial level we will be definitely and happily incorporate into the upcoming policy and program. This is the symbolic program in this week and needs to be widely and continuously organized by making wider participation and open for the collaboration jointly from our ministry.

We are talking about urban development but we are polluting our river and water sources of rich cultural value, we need to work in integrated fashion, consume more pesticide laden foods and polluting our children and I hope tpday technical papers will enrich all the participants about chemical safety and lead toxicity issues. We aware of having the standards enacted and we need to work towards it's effectively implementation of this lead paint standards by including in our regular policy, plan and programs with allocation of enough budget required for continue market monitoring,

He formally closed his inaugural remakes by asking to play Video Message made available from WHO (<https://youtu.be/9WUsZ5hNGcc>). He thanks one and all for getting the chances to participate and opportunity for the chief guest and share few word. The Radio PSA prepared by CEPHED on the occasion of ILPPW 2020 were also played and requested to be shared from the provincial level too.



**Mr. Mohan Katuwal, Chair of the Inaugural Session:** Saluting all the participants including chief guest, special guest, guest, chamber of commerce and industry, other concerned organsitiaon representative and most importantly the supporting organization WHO as well as CEPHED and Mr. Ram Charitra Sah to bring all the issues of chemical safety and LEAD. He made his inaugural session closing remarks on the behalf of CEPHED and Federation of Nepalese Chamber of Commerce Cottage and Small Industry (FNCSI), Federation of Grill and Steel Fabricators Nepal (FGSFN).



From the different speeches this morning, industry had achieved more than 70 per cent success in compliance and hence more improved yet to be made. The concerned government agencies needs to help industry to enhance comply and industries should also improve their product to protect consumers as well as paint industry themselves as they are also the consumer of the paints. Not only domestic products from Nepalese industry should comply with

the standards but all the imported products including illegal importation due to open boarder should also be regulated.

Government policy should be clear and transparent and **we all need to focus its effective implementation.** Additionally we need to do massive market monitoring as we have facing the problem from the imported products or due to open boarder.

Painting the house comes at the end of construction with almost finished the budget. So there has been a tendency to go for any paints without paying much attention on the paint quality or the lead content related issues. Therefore it is utmost important to stop producing substandard product or leaded products and promote the production of lead free quality products and hence we can reduce the related impacts, on children, workers and painters.

On behalf of industry, we as an industry owner are also the consumer and hence all of us need to become more responsible towards production, marketing and even promotion of paints that fully complying the government of Nepal standards. I urge all the private sector and industries to think and got for production, promotion, sale and distribution of quality products so as to minimise and control its impact on public health and environment and remains committed for the same.

He finally once again reiterated the needs of clear and transparent policy with enhanced effective implementation, monitoring and making result public. The needs of public mass awareness should not limited to the week but should continue throughout the years with the support and active participation of all concerned.

He end his inaugural session chair remarks by thanking once again to one and all for continuing support to CEPHED to lead toxicity and other issues and urge for continue support to CEPHED.

**The Radio Jingle produced by CEPHED were aired at the end of inaugural session before the technical session started.**

## Technical Session

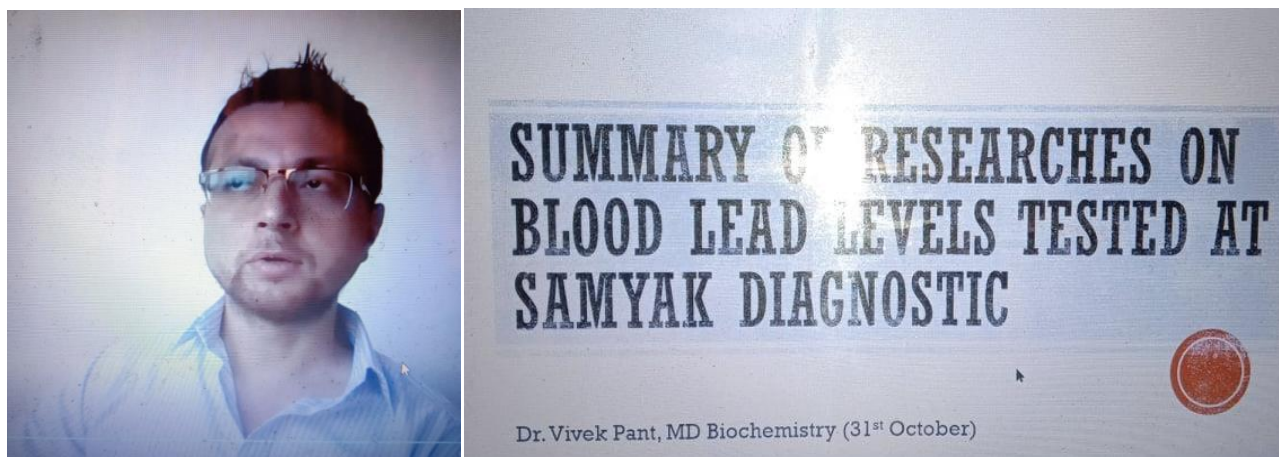
On this Occasion four technical papers on different issues related to lead, paints and associated socio economic impacts, blood lead level, government response and WHO initiatives towards elimination of lead paints were presented.

**First paper entitled**” Status of Lead in Paints and associated Socio-Economic Impacts in Nepal “were presented jointly by Mr. Sumin Maharjan, Program Officer and Mr. Ram Charitra Sah Executive Director/Environment Scientist, CEPHED;

**Second Paper entitled** “Summary of Blood Lead Level (BLL) Studies in Nepal” were presented by Dr. Vivek Panta, Samyak Diagnostic Pvt. Ltd. Kathmandu, Nepal;



**Dr. Vivek Panta, Samyak Diagnostic Pvt. Ltd.** presented the second paper on Summary of Researches on Blood Lead Levels tested at Samyak Diagnostic. Dr. Panta started by saying **“No level of Lead is safe as per WHO and CDC”**. Tested about 150 children from 2015 to 2018. In last 2 years’ 300 children with the problem of stomach pains, anemia and tiredness has been tested. As Children are most vulnerable.



He introduced the topics LEAD from its historical perspective, global perspective lead poisoning has been found in around 70s and in US lead free paints and lead free gasoline were produced, required testing of lead before children were admitted to school in US. Sources of lead exposure, mechanism of lead toxicity through mimicking nature of lead with Iron & Calcium. Sign and symptoms of lead poisoning are clearly seen from the pictures as all most all body organs get impacted from the lead. Most importantly, it causes the IQ reduction. Lead also causes anemia, heart, reproductive systems, kidney, and liver etc.

Lead poisoning in Nepal is one of the major health concerns. As Nepalese population at the border range of average IQ and hence we are much concerned about this as BLL increases it reduces the IQ.

He then presented the summaries of the results of three researches carried out at Samyak Diagnostic Pvt Ltd.

In case of Kathmandu among 50 Children, on an average BLL is 7.01  $\mu\text{g/dL}$  with 62% of children in the study have elevated BLL and 12 % of them have BLL > 10  $\mu\text{g/dL}$ . Situation among the Children of Birgunj among school children adjacent to an industrial area were still very alarming. In Birgunj, among 50 Children, on an average BLL is 20.33  $\mu\text{g/dL}$  with 100 % of children in the study have elevated BLL and 84 % of them have BLL > 10  $\mu\text{g/dL}$ . As we know there is no safe level of lead and average BLL 20 has already reduced their IQ by 4 to 5 points which is very alarming. It is so also because CDC recommendation is an area is considered as a high risk if 12% or greater of children tested are found with blood lead level more than or equal to 10  $\mu\text{g/dL}$ .

This calls for larger studies and due to limitation of resources we limit our studies up to 50 children in each Kathmandu and Birgunj.

Our findings are more or less coherence with the other previous studies carried out by Mehta et.al. Dhimal et.al. Previously in, Dharan and Biratnagar industrial corridors and Kathmandu.



In addition to prime children concerned. The center also carried out the BLL study among rag pickers. Study was done to evaluate blood lead level in rag picker working in selected area of Kathmandu including hematological and biochemical parameters were also tested among 50 waste workers. .

The average BLL among paper and metals collectors is 7.35  $\mu\text{g/dL}$  the findings of this study suggest that the rag-pickers working in Kathmandu are at increased risk of lead toxicity and this occupational exposure to lead is attributed to the use of bare hands for processing solid waste they collect. Related to Rag Picker elevated lead level (48 out of 50) have actually high issues of their childrens and family associated with them as they use to go and play with their children and stay with the family with the dress they use to wear during the rag/waste collection, may serve the lead exposure. So we have started awarding to the waste workers asking them to change the dress, use of PPE and take bath and frequent hand washing while they come to our home to collect the waste so that you can avoid the lead exposure to you and your family members.

The lead toxicity due to Ayurvedic Medicine use among 8 years make presented with acute abdomen pain, following intake of Ayurvedic medicines for increasing muscle power. Initial blood level were 82.3  $\mu\text{g/dL}$ , very high. The used Ayurvedic medicine when analyzed for presence of lead revealed very high concentration of lead (up to 102 ppm). The prescribed limit is only 10 ppm. The awareness program is needed regarding the potential health risks posed by Ayurvedic remedies, especially in countries where use of Ayurvedic medications is prevalent.

Finally, Dr. Panta provided the lists of lead poisoning prevention with major highlights as “**Lead Poisoning is absolutely Preventable**”. He further suggested wash hands before eating; was toys regularly; clean surface regularly, chipping, penning paints chips; moisture, molds and mildew and calcium and iron supplements can help to prevent the absorption of Lead to the greater extent.

#### A case Story of High Lead Exposure from consuming Ayurvedic Medicine



A working Army of 38 years old with some reproductive related problem has been consuming about 6 types of Ayurvedic Medicine as prescribed by his Doctors with NMC Registration Number. After consuming these Ayurvedic Medicine up to six months, He felt even more health implication such as heaviness, tiredness with no improvement in his weakness problem rather suddenly suffer from severe abdominal pain. He rushed to four different hospitals for treatment, No actual cause has been found out. Up on investigation by his doctors all the medical test like CT scan, Ultrasound, and blood test report normal except few sign of anemia. Based on the relation between anemia and abdominal pain, a doctor suspects the lead poisoning and send him to test for Blood Lead Level (BLL) at Samyak Diagnostic Pvt. Ltd. Jawlakhel, only one BLL referral center in Nepal. His BLL reading was extremely high 82.3  $\mu\text{g/dL}$  Up on investigation about the reason of his high blood level, earlier being an Army personnel's, lead exposure has been suspected from the different armory related weapons, first he is not been usually work with weapon related place and seconding he has been known to use all the PPE (Personal Protective Equipment's) while working with these weapons. Up on further investigation of the reason, he has been found to consuming 5 different kinds of Ayurvedic Medicines. After knowing this, Doctors were asked him to purchase same sets of Ayurvedic Medicine and with the help of Mr. Ram Charitra Sah, Executive Director, CEPHED, those Ayurvedic Medicine were sent to test at NESS Pvt. Laboratory at Thapathali and found to be highly contaminated with Lead. 6 out of 7 consuming Ayurvedic medicine were found to be contained high level of Lead up to 102 ppm against WHO prescribed lead limit of lead to the Ayurvedic Medicine is only 10 ppm. Based on finding this fact of Ayurvedic medicine is the reason behind his acute lead toxicity, cessation of Ayurvedic Medication along with chelating therapy with D-Penicillamine Therapy was given that is found to be beneficial in reducing his Blood Lead Level (BLL) and improvements of his abdominal pain with the help of doctors' teams. So this is the Acute Lead Toxicity case from Nepal associated with Ayurvedic Medicine.

(Source: *eJIFCC2020Vol31No4pp347-353*)



**Third Paper on Role, Responsibility and Programs of Lead Paint Elimination of Federal, Provincial and Local Government of Nepal**” was presented by Mr. Bhupendra Sharma, Senior Environment Inspector, Department of Environment, MOFE.

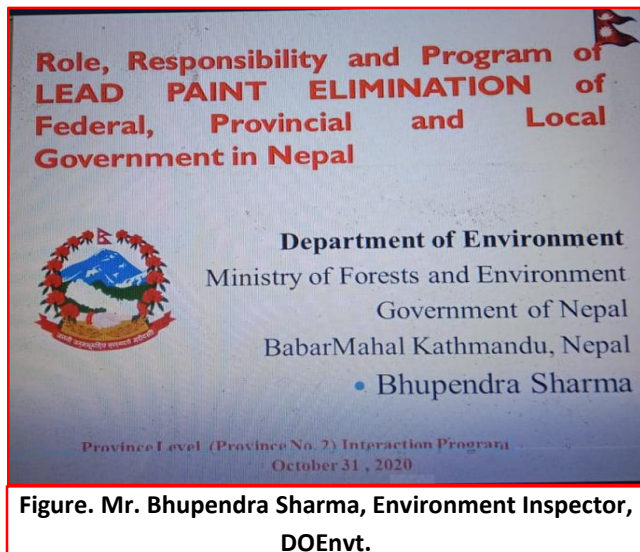
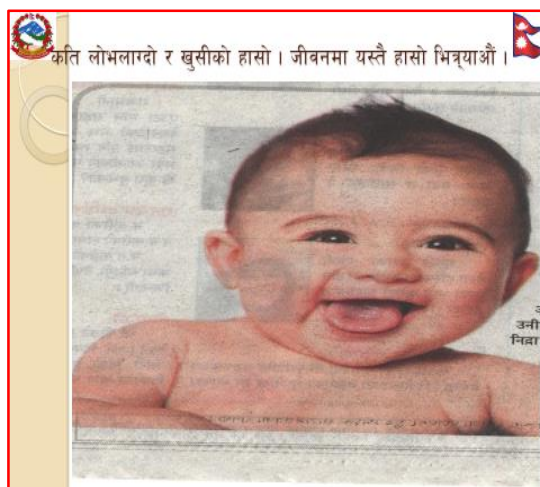


Figure. Mr. Bhupendra Sharma, Environment Inspector, DOEnv.



**Fourth paper on “WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020** presented by Mr. Raja Ram Pote Shrestha, National Professional Officer (NPO), WHO Country Office for Nepal.



Figure. Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal.

WHO playing global leadership jointly with UNEP, GAELP and EPA to prevent lead exposure globally. In case of Nepal, WHO has been continuously supporting.

- **Providing leadership** on matters critical to health
- shaping the **research agenda** and stimulating the generation, translation and dissemination of valuable knowledge;
- setting **norms and standards** and promoting and monitoring their implementation;
- articulating **ethical and evidence-based** policy

options;

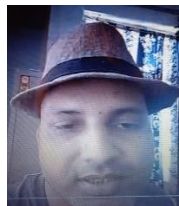
- providing **technical support**, catalyzing change, and building sustainable institutional capacity; and
- **Monitoring** the health situation and assessing health trends
- **Webinars on model law, guideline and monitoring guidelines** etc.

As a result also in Nepal, compliance has increased over time, level of lead has substantially reduced but still more needs to be done continuously.

Details of all other technical papers can be read from Annex 1 (page 23 to 31).

## Question and Answer Session

The forum is opened for discussion and Question Answer. Several questions were raised and answered directly or through chat box.



Q1. Evidence of BLL study from Province No. 2 raised by Mr. Krishna Dev Yadav, District Health Office, Siraha.

A. Samyak Diagnostic Center is only center for the BLL testing in Jawlakhel, Lalitpur and in order to do the testing budget as well as approval from NHRC is the major. Birgunj studies has shown very serious results. 100 percent of children studies from Birgunj has elevated lead level ( $> 5 \mu\text{g/dL}$ ). Any children may require further treatment and medication with such level of BLL.

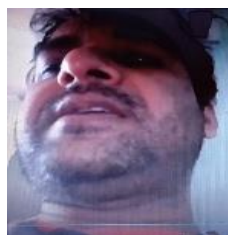
Q2. In province No. 2, (Siraha District) is there any help and planning to test BLL among the Children.

A.2. There has been already study of Children from Birgunj which falls in Province No.2. The results were so high and all 100% children have elevated level of Lead  $> 5 \mu\text{g/dL}$  with 84 % of children with  $> 12 \mu\text{g/dL}$  the Hot point with reference to BLL. More such studies needs to be made. In case of doing test in Siraha, there is need to increasingly allocate the budget and support.

As we have been captaining for nationwide the BLL National Screening policy and once we have the policy in place the required infrastructure as well as allocation of trained human resources and enough allocation of the budget will be needed and we are working with federal government MOHP and other towards developing such policy and program throughout the country in each provinces.

## Closing Session

Under the chairman ship of technical session Mr. Sunil Karna, District Forest Officer (DFO), MoITFE, Province No. 2. Several distinguished guests have made the closing remarks with their sectorial commitments.



**Closing Remark from Mr. Ajit Srivastav, NES President, Province no. 2:** He share the result of Rock Feller Foundation about the study of heavy metals in effluents discharged from Carpet industries from Kathmandu dying and washing process as it required stamping Good Will trademark. He found heavy metals like Lead, Mercury and Cadmium to the larger extent. Such issues is also related to lead paint

**Closing Remarks from Dhiraj Sah, President, District Youth Network, Dhanusha:** We were not awareness about lead and its impacts and came to know about this through this program and therefore thanks for the opportunity to coordinate and be the part of this important events. Being local vibrant group, we will definitely take this issues forwards and work with the provincial government to raise awareness at the local government level and in our youth circle and pressurized the provincial government to do the necessary monitoring of the lead paint as well as other chemical issues.

**Closing Remarks Mr. Raja Ram Pote Shrestha:** We have been organizing and celebrating these



events since last 8 years but since last two years we came outside the Kathmandu and organized at two places and this years despite of ongoing COVID, we are able to organize this awareness and capacity building program in four provinces virtually namely in Province No. 1, 2, Bagmati and Lumbini. With these programs **we feel there has been increased awareness level and all the programs were organized very successfully** despite of ongoing COVID.

However weekly program like this may not be enough as this issues of lead paint and lead toxicity is one of the burning public health issues and burning environmental issues and hence needs continuous dissemination and organizing widely such program throughout the year. WHO is committed to help to continue. Considering seriously all these public health issues including lead in paints he called upon to come together, discuss the recommendations coming from you all and find out the way to take forward these issues towards reduction and elimination of environmental and public health related issues. We are very much positive for these and finally thank to CEPHED, its team and Mr. Ram Charitra Sah for successfully completion of these International Lead Poisoning Prevention week 2020. **We are very happy to be notified globally our Nepalese programs and events continuously.** This message has been conveyed well globally and it is really a great achievement for all of us. We are committed to retain all these achievements, trends and accomplishments and will work together with you all.

**Closing Remarks from Mr. Bhupendra Sharma, Sr. Environment Inspector, Department of Environment, MOFE, Federal Government:** Mr. Sharma appreciate the comprehensive inclusion of issues of lead in paint. He reiterate the need of effective implementation of the government act, regulation and standards by all federal, provincial, local government as well as paint producing companies and even consumers who use the paint to paint their homes.

Provincial government needs to recruited the required numbers of human resources as soon as possible and also suitably include the lead paint and other chemical safety issues in required act, regulation and standards and opt for their effective implementation. Even local government should also opt for having required legislation and institutional framework of regulating lead in paints and other environment and public health issues as there is no safe level of lead and hence all of we should move forwards acknowledging the toxic effect of lead.

We are happy to collaborate and coordinate with CEPHED and provincial ministry and local government officially as well as individually in days to come for collaboration and sharing the information. In coming days during our festival of Dipawali and Chhtha, we use only lead free paints and widely disseminate the information about lead in paints and lead free paints to raise awareness among one and all throughout the years beyond this week.

**Closing Remarks Mr. Sunil Karna, DFO, Dhanusha, MoITFE:** We have been participating more than 2 and half hours in the provincial level awareness raising and capacity building program on Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards. In the inaugural session, we have listen important personnel's about the lead in paint, its status, and its impact and prevention measures.



I am thankful to the organizer CEPHED for the opportunity to chair the technical session including the closing remarks of the program.

Today four technical presentations were made by distinguished experts.

Mr. Ram Charitra Sah presented status of lead in paints since 2010 to 2017 and how it has been improved. Still have found lead in paints up to 48000 ppm and class rooms dust with very high lead. However we have also seen remarkable achievement up to

60 percent paints are complying as lead is toxic, fatal and affecting different age group. Despite of improvement trend, monitoring needs to be continued, and closing of mal advertisement to avoid misguiding of consumer was also importantly raised in his paper.

The second Paper on Summary of Blood Lead Level among children, rag picker and Ayurvedic medicine consumers has been presented by Dr. Vivek Panta. He finally conclude the presentation of BLL among Kathmandu and Birgunj have found more than 5 among more than 65% children. Rag pickers were also at the high risks (48 out of 50) peoples. Lead toxicity among Ayurveda study (6 out of 7 Ayurvedic Medicine) also shown very high lead contamination called for the medicine or other products should not contain lead at the health concerned level.

The third paper on the Role, responsibility and program of all three level government towards lead paint elimination were presented by Mr. Bhupendra Sharma, Environment Inspector, DoEnv. He highlighted the legislative and institutional aspect of regulating lead paints including the article 30 of the Constitution which is about right to live in healthy environment. Definitely we all should be safe and live in clean environment as fundamental right of the Nepalese people. Thus it is the responsibility of the State Government. Provincial Environmental Acts has been already enacted with the provision of no one can pollute the environment. Massively dissemination ongoing time to time from the department of environment as well.

Lastly the fourth paper on Prevention and control of Lead Exposure in light of ILPPW 2020 by Mr. Raja Ram Pote Shrestha mainly focussed on environmental pollution and environmental health with the high contribution from lead. Huge contribution of lead into the global death with very high economic loses. Lead causing mental retardation, reduction of IQ and hence need to maintain clean environment.

All presentation were of very excellent, we were even did not aware of these and came to know through this program. We are in process of formulation several environment, health and industries related act, regulation and standard and hence will definitely incorporate them appropriately in our provincial level legislation as also committed by our secretary during the inaugural session as some of our acts are under preparation so it is right time and appropriate for us. We will definitely try to eliminate the different sources of lead and associated anthropogenic activities including lead acid battery, paints etc. Lead free paints, rechargeable batteries, lead free gasoline needs to be promoted.

In conclusion, we all should maintain the lead free environment and make environment free from pollution (air, water, land, solid waste), voluntary participation, awareness, and research should be encouraged. We will also include all these issues in our DFO level program by including lead



issues on our training curriculum, looking at labeling, complying or non-complying etc. will be included into our all trainings organized under Forest, soil conservation and industry related offices. Maintain permissible limits.

He encouraged the level of lead in paints, know the lead level in different cities in order to envision related abatement programs, plan and policy. Lead finally enter into the soil and vegetation can absorb the lead and hence plantation needs to be done in the industrial area to reduce the lead affects. He finally close the session by thanking CEPHED, its team and Mr. ram Charitra Sah and also committed to widely disseminate the information about lead. .

Finally TV PSA has been played and closed the session.







### Program Schedule for Province Level ( 2 ) Program

|                           |  |
|---------------------------|--|
| Program Title             | Provincial Level Stakeholders Workshop on<br>" Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards "  |
| Aim of Workshop           | 7. Sharing and Spreading Lead Paint Standard and its compliance status with Provincial Government<br>8. Awareness raising & Capacity Building and Media Outreaches<br>9. translating Lead Paint and other chemical safety issues at Provincial and Local level   |
| Collaboration and Support | Organized by CEPHED in Collaboration with Provincial Government of Nepal and Health Directorate, Province No.2, DYN and supported by NHEICC, MOHP WHO Country Office for Nepal   |
| Expected Participants     | 50 + from Provincial and Local Government (Health, Industry, Environment, Education, Customs etc.) , Metropolitan city, Municipality, Science Teachers/professors, NGO, Youth groups, Medical Doctors, Public Health and Nurses, Paint Industries, Paint Dealers, Retailers, Painters, Professional Groups (Grill Fabricators), Consumer Association, Car reconditioning, Health & Environment Journalists etc.  |
| 10:30 to 11:00            | ZOOM MEEING ROOM OPEN AND CHECKING VOICE & CONNECTIVITY<br><a href="https://nren.zoom.us/webinar/register/WN_hzbV5WhVTvemK72K7ozBdQ">https://nren.zoom.us/webinar/register/WN_hzbV5WhVTvemK72K7ozBdQ</a>   |
| 11:00 to 11:45            | <b>INAUGURAL SESSION</b>   |
| 10 Min                    | Invitation of Guest in Podium by MC of the Program : Provincial Level Coordinator / Or Mr. Sumin Maharjan and Rabina Suwal , Program Officer , CEPHED<br>Chair: Mr. Mohan Katuwal, Vice President of FNCSI and Advisor of CEPHED<br>Chief Guests: Dr. Ram Chandra Kandel, Secretary ,Province Government, Ministry of Industry, Tourism Forest and Environment , Janakpur<br>Guest: Mr. Bijya Kumar Jha , Health Director of Province No. 2 , MOSD, Janakpur<br>Mr. Bhupendra Sharma, Sr. Environment Inspector, DoEnv, MOFE, kathmandu<br>Guests : Mr. Raja Ram Pote Shrestha, NPO, WHO Country Office for Nepal<br>Mr. Jyoti Bania, President, Nepal Consumer Forum and Senior Advocate<br>Guest: Dr.Vivek Panta, Saymak Diagnostic Center , Kathmandu<br>Welcome Speech and Program Highlights- Mr. Ram Charitra Sah, Executive Director, CEPHED. |
| 5 Min                     | Inauguration of Program by Chief Guest by SWITCH ON Video Screening on Lead in Paints: Message from Dr. Maria Neira, Director of Public Health and the Environment, WHO: <a href="https://youtu.be/9WUsZ5hNGcc">https://youtu.be/9WUsZ5hNGcc</a> / <b>RADIO PSA Broadcasting</b>   |
| 5 Min                     | Radio PSA broadcasting and Distribution (sharing through chat)   |
| 5 Min                     | Remarks: Guests: WHO Country Office for Nepal  |
| 20 Min                    | Remarks Chief/ Guests and Sectorial Commitments for effective implementation of lead paint standard  |
|                           | <b>GROUP PICTURES</b>  |
| 11:45 to 12:45            | <b>Technical Session and Q &amp; A</b>   |
| 15 Min                    | Status of Lead in Paints and associated Socio-Economic Impacts in Nepal by Mr. Ram Charitra Sah Executive Director/Environment Scientist / Mr. Sumin Maharjan, Program Officer, CEPHED.  |
| 15 Min                    | Summary of Blood Lead Level (BLL) Studies in Nepal by <u>Dr. Vivek Pant</u> Dr. Keyoor Gautam, Director, Dr. Santosh Shrestha, , Samyak Diagnostic Pvt. Ltd. Kathmandu, Nepal  |
| 15 Min                    | Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal: Mr. Bhupendra Sharma, Environment Inspector, DoEnv, MOFE, GON   |
| 15 Min                    | WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020. Mr. Raja Ram Pote Shrestha, National Professional Officer (NPO), WHO Country Office for Nepal.   |
| 12:45 to 1:00             | <b>Q and A,</b>  |
| 1:00 to 1:30              | <b>CLOSING REMARKS</b> from Guest and <b>PRESS RELEASE:</b> English and Nepali<br>Mr. Ajit Srivastav, Nepal Environment Society (NES) President, Province no. 2<br>Mr. Dhiraj Sah, President, District Youth Network (DYE), Dhanusha<br>Mr. Raja Ram Pote Shrestha , NP, WHO,<br>Mr. Sunil Karna, DFO, Dhanusha, MoITFE  |

## **ANNEX 5. Press Release on ILPPW 2020 in Nepal**

### **PRESS RELEASE**

#### **International Lead Poisoning Prevention Week 2020 Kick Off through National Level Interaction Program in Nepal**

October 22, 2020, Kathmandu, Nepal: Environmental health, child health advocates, governments, and paint industries are uniting this week (October 25-31, 2020) for the **International Lead Poisoning Prevention Week of Action**. Calling for protections for the children coordinating with the Global Alliance to Eliminate Lead Paint (a voluntary partnership hosted by the UN Environment Program and the World Health Organization), urge governments to adopt and effectively implement legislation to protect children's health. In Nepal, Center for Public Health and Environmental Development (CEPHED) with the support of National Health Education, Information and Communication Center (NHEICC), MOHP, and Provincial government of province 1,2, Bagmati and Lumbini and WHO country Office for Nepal organizing series of national level ILPPW 2020 Kick Off program and Provincial level awareness and capacity building program on "Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards in Nepal" program for the sectorial commitment towards enhancing full compliance of lead paint standards through effective implementation of lead paint standard so as to eliminate the potential sources of Lead exposure among general public especially children. .

The series of studies in Nepal including one conducted by Nepal Health Research Council (NHRC) have found elevated level of lead in Nepalese Children. Over 65 % of the Nepalese children has more than 5 microgram/deciliter of blood lead level that calls for immediate response of BLL Abatement program from Ministry of Health and Population, Government of Nepal as well as urgent needs for the health communities to prepare and response to this problem by developing and adopting **National Level Blood Lead Level (BLL) screening program along with arrangement of enough resource, human power and required infrastructure facilities of well-equipped laboratories in each provinces of Nepal** strongly demanded by Mr. Ram Charitra Sah , Executive Director and Environment Scientist of CEPHED.

Lead paint, a major source of childhood lead exposure, can cause permanent and irreversible brain damage in children. Lead exposure globally accounted for 1060000 deaths, 24400000 DALYs losses and contribute to Global Burden Disease (GBD) of idiopathic developmental intellectual disability by 63.2% and to hypertensive (High blood pressure) by 10.3% of (IHME 2017). It also globally cause huge annual economic losses of 977 Billion Dollar with heist in Asia of 699.9 Billion Dollar (71.6%). The annual losses in Nepal due to lead exposure induced IQ losses among Nepalese children has been estimated to 1.5 billion dollar (4 % of Annual GDP of Nepal for the year 2014) New York University research paper. The recent report entitled "**The Toxic Truth: Children's Exposure to Lead Pollution Undermines a Generation of Future Potential**" of UNICEF and PURE EARTH 2020 revealed over 800 Million Children worldwide (**1 in each 3 children**) are at the high risk of lead exposure and having elevated blood lead level (BLL) >5µg/dL and **same report revealed the fact about Nepal that 67,19,235 Nepalese children have also got elevated BLL >5µg/dL which is similar of Nepalese study's findings of over 65 % are Nepalese children's are under high risk of Lead Exposure in Nepal.**

**In other hand series of lead paint studies in Nepal clearly revealed that the amount of lead content in the paint produced, imported, marketed and used in Nepal have decreased over time and compliance of lead paint standards improved.** The compliance monitoring of lead paint standard carried out by Ministry of Forest and Environment (MOFE) in the year 2016 showed only 30 percent paints comply with the standard. However similar study carried out by CEPHED in a year later in 2017 and 2018 of 56 enamel paint samples from 27 paint industries shows increased compliance of lead paint standard by 60 percent of paints. This is very remarkable achievements by the paints industries in Nepal however needs to be continued improvement towards reaching **100% full compliance** so as to eliminate leaded paints from Nepal thus protecting public health and environment from eliminating the source of lead from paints said **Mr. Ram Charitra Sah, Executive Director and Environment Scientist of CEPHED.** Though the compliance of lead paint standards increased over the years, some of the paint products mainly from the domestic paints industries were still found extremely very high up to 75049 ppm. **Therefore, a regular monitoring of lead paints marketed in Nepal has been planned by the Department of Environment, said by Mr. Sah.**

**“There are no safe levels of lead exposure”** thus urgently calls for Effective Implementation of Lead Paint Standard and Harmonization of Sectorial laws such as proper inclusion of the mandatory provision of lead paint standard in NS Mark criteria, Building Codes, Green Building guidelines and color coding guidelines of school infrastructure including school building bus, toilets and even public vehicle like taxi as well as translating the national laws and standards into all three tiers governmental structure of Nepal i.e. federal, provincial and local levels.

**Mr. Mohan Katuwal, Senior Vice President, Federation of Small and Cottage Industry Nepal** applaud the efforts of paints industries moving towards lead free achieved higher rate of compliance than previous years. More has yet to be done towards achieving 100% full compliance of lead paint standard. Industries should not only move towards Responsible Production of Paints and other products but also needs to be responsible for import, sale distribution and proper advertisement of paints and all other products. All the paint industries, their brand ambassadors celebrities, models, comedian actors as well as media houses and even journalist should do the responsible advertisement and be informed about the related act, regulation and standards exist in the countries to regulate lead in paints and other products. We from Grill and Steel fabricating industry also use a lot of paints but we are well aware of Lead Paint standards and make sure to use the paints that fully comply the standard by all of our members grill industries and enterprises.

The major goal of the Global Lead Week of Action is **TIME TO TAKE ACTION ON LEAD PAINT.** ILPPW 2020 Kick off and National level interaction program on Stakeholder workshops and following three provincial level awareness and capacity building program. Additionally, radio jingle broadcasting throughout the week has been planned to celebrate ILPPW 2020 in Nepal and requested to join you all.

Today ILPPW 2020 Kick off and National Level Interaction programed successfully organized by CEPHED with the active participations of over 35 personnel's from different provinces and sectors of Nepal government, province government, health, industry, university, media, students etc. under the

Chairmanship of Mr. Mohan Katuwal, Vice President of FNCSI & President of Federation of Grill and Steel Fabricators Nepal (FGSFN) and inaugurated electronically by Dr. Sindhu Pd. Dhungana, Secretary, Province Government, Ministry of Industry, Tourism, Forest and Environment (MOITFE), Bagmati Province through playing a video message issued from the WHO Head Quarter (<https://youtu.be/9WUsZ5hNGcc>) along with his commitment to translate the national lead paint related laws and standard in the province level and regulate the lead paint and other sources.

On this Occasion four technical papers on different issues related to lead, paints and associated socio economic impacts has been presented Status of Lead in Paints and associated Socio-Economic Impacts in Nepal by Mr. Ram Charitra Sah Executive Director/Environment Scientist, CEPHED. Summary of Blood Lead Level (BLL) Studies in Nepal, Dr. Keyoor Gautam, Director, Samyak Diagnostic Pvt. Ltd. Kathmandu, Nepal; Role, Responsibility and Program of LEAD PAINT ELIMINATION of Federal, Provincial and Local Government in Nepal: Mr. Bhupendra Sharma, Environment Inspector, Department of Environment, MOFE, GON and WHO initiatives towards prevention and control of Lead Exposure in light of ILPPW 2020. Mr. Raja Ram Pote Shrestha, National Professional Officer, WHO Country Office for Nepal. Finally Prof. Dr. Sunil Kumar Joshi, from KMC, TU and OSH expert of the nation conclude the interaction program by highlighting the needs of bringing all related stakeholder together to envision solid program of action towards Blood Lead Abatement national policy and increased compliance monitoring of the lead paint standard by adopting the carrot and stick principles.

CEPHED with the support of National Health Education, Information and Communication Center (NHEICC), MOHP, Government of Nepal, Provincial Government (1, 2, Lumbini and Bagmati) and WHO Country Office for Nepal has planned following weeklong programs.

1. **Collection , customization and distribution of GAELP / ILPPW 2020 IEC Materials**
2. **Broadcasting of Radio Jingle on Lead Paint Standards and associated Blood Lead Level from October 22 to November 7, 2020**
3. **Oct. 22, 2020 (Kartik 6), Thursday: ILPPW Kick Off and Interaction Program at National & Bagmati Province level to kick off the ILPPW 2020, 11 AM to 1:30 PM through ZOOM. (Due to Dashain Holiday start at Kartik 7)**

**PLEASE REGISTR HERE:**

[https://nren.zoom.us/webinar/register/WN\\_QGI6N6fsSdq4W152cFkMiQ](https://nren.zoom.us/webinar/register/WN_QGI6N6fsSdq4W152cFkMiQ)

4. **Oct. 29, 2020 (Kartik 13) Thursday “Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards” from 11 AM to 1:30 PM through ZOOM with province No. 1**

**PLEASE REGISTR HERE:** [https://nren.zoom.us/webinar/register/WN\\_1Eh8mwqQQa-q7T-D-f5CoQ](https://nren.zoom.us/webinar/register/WN_1Eh8mwqQQa-q7T-D-f5CoQ)

5. **Oct. 30, 2020 (Kartik 14) Friday “Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards” from 11 AM to 1:30 PM through ZOOM with province No. 5 (Lumbini).**



**PLEASE REGISTR HERE:** [https://nren.zoom.us/webinar/register/WN\\_4e7fTZKjRP-SO5xkFiukBw](https://nren.zoom.us/webinar/register/WN_4e7fTZKjRP-SO5xkFiukBw)

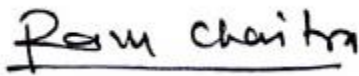
**6. Oct. 31, 2020 (Kartik 15) Saturday “Awareness Raising, Capacity building program on "Prevention of Lead Exposure and Effective Implementation of Lead Paint Standards” from 11 AM to 1:30 PM through ZOOM with province No. 2**

**PLEASE REGISTR HERE:**

[https://nren.zoom.us/webinar/register/WN\\_hzbV5WhVTvemK72K7ozBdQ](https://nren.zoom.us/webinar/register/WN_hzbV5WhVTvemK72K7ozBdQ)

**7. Final Press Release and Review of weeklong program”**

Thank you



Ram Charitra Sah,  
Executive Director/ Environment Scientist,  
Mob: 9803047621  
Email: ramcharitra@gmail.com

## **ANNEX 6. Media Coverage:**

# **Int'l lead poisoning prevention week to be observed from October 26**

**Khabarhub**, October 24, 2020

KATHMANDU: Environmental health and child health advocates, governments, and paint industries are uniting this week (October 26-31) to observe International Lead Poisoning Prevention Week (ILPPW).

Calling for the protection of the children, they have urged the governments to adopt and effectively implement legislation to protect the children's health.

In Nepal, the Centre for Public Health and Environmental Development (CEPHED) with the support from National Health Education, Information and Communication Centre (NHEICC), and the State governments and WHO country office for Nepal are organizing series of national level program on "Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards in Nepal".

Over 65 percent of the Nepali children have more than 5 microgram/deciliter of blood lead level that calls for immediate response of Blood Lead Level (BLL) abatement program from the concerned authority — response including developing and adopting national level BLL screening programme, allotment of sufficient human-resource and facilities such as well-equipped laboratories in each state, said Ram Charitra Sah, executive director of CEPHED, and environment scientist.

Mohan Katuwal, senior vice president of Federation of Small and Cottage Industry, said that the efforts of paint industries were more encouraging than previous years in creating lead-free environment.

"However, more needs to be done to achieve 100 percent compliance of lead-paint standards," he added.

<https://english.khabarhub.com/2020/24/137530/>

## **Stakeholders urge governments to effectively execute legislations to protect children's health**

Republica National Daily, Published On: October 30, 2020 06:30 PM NPT  
acebookTwitterMessenger

KATHMANDU, Oct 30: Environmental health, child health advocates, governments, and paint industries are coming together this week from October 25 to 31 for the International Lead Poisoning Prevention Week of Action.

Calling for protections for children coordinating with the Global Alliance to Eliminate Lead Paint (a voluntary partnership hosted by the UN Environment Program and the World Health Organization), stakeholders have urged governments to adopt and effectively execute legislations to protect children's health.

In Nepal, Center for Public Health and Environmental Development (CEPHED) with the support of National Health Education, Information and Communication Center (NHEICC), Ministry of Health and Population, and governments of Province 1, 2, Bagmati and Lumbini and WHO country office for Nepal, is organizing a series of awareness and capacity building programs at the provincial level.

The programs are themed as "Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards in Nepal" for the sectoral commitment toward enhancing full compliance of lead paint standards through effective implementation of lead paint standard so as to eliminate the potential sources of lead exposure among general public especially children, according to a press release issued by the CEPHED.

Lead paint, a major source of childhood lead exposure, can cause permanent and irreversible brain damage in children, according to the press release. Lead exposure globally accounts for 1,060,000 deaths, 24,400,000 DALYs losses and contribute to Global Burden Disease (GBD) of idiopathic developmental intellectual disability by 63.2% and to hypertensive (High blood pressure) by 10.3% of (IHME 2017). It also globally causes huge annual economic losses of 977 billion dollar with the highest in Asia of 699.9 billion dollars (71.6%). The annual losses in Nepal due to lead exposure induced IQ losses among Nepali children has been estimated at 1.5 billion dollars (four percent of the annual GDP of Nepal for the year 2014), according to a New York University research paper.

Series of lead paint studies in Nepal have revealed that the amount of lead content in the paint produced, imported, marketed and used in Nepal has decreased over time and compliance of lead paint standards have improved, according to the press release.

The compliance monitoring of lead paint standards carried out by the Ministry of Forest and Environment (MOFE) in the year 2016 showed only 30 percent paints comply with the standards. However, a similar study carried out by CEPHED a year later in 2017 and 2018 of 56 enamel paint samples from 27 paint industries showed increased compliance of lead paint standards by 60 percent of paints.

"This is a very remarkable achievement by the paints industries in Nepal. However, there is a need for continued improvement toward reaching 100 percent compliance so as to eliminate leaded paints from Nepal, thereby protecting public health and the environment," said Ram Charitra Sah, executive director and Environment Scientist of CEPHED.

Though the compliance of lead paint standards increased over the years, some of the paint products mainly from the domestic paints industry were still found carrying extremely high lead content of up to 75049 ppm. Therefore, a regular monitoring of lead paints marketed in Nepal has been planned by the Department of Environment, Shah said.

[https://myrepublica.nagariknetwork.com/news/stakeholders-urge-governments-to-effectively-execute-legislations-to-protect-children-s-health/?fbclid=IwAR3HTq4utp\\_ahH6oC7pUTnYJB-Ldkil5ZptEO3hkF3iDACU-bdMHBKHRUtg](https://myrepublica.nagariknetwork.com/news/stakeholders-urge-governments-to-effectively-execute-legislations-to-protect-children-s-health/?fbclid=IwAR3HTq4utp_ahH6oC7pUTnYJB-Ldkil5ZptEO3hkF3iDACU-bdMHBKHRUtg)

NATION

## Int'l Lead Poisoning Prevention Week From Oct. 26

The Rising Nepal 24 Oct, 2020



By A Staff Reporter

**Kathmandu, Oct. 24:** Environmental health and child health advocates, governments, and paint industries are uniting this week (October 26-31) to observe International Lead Poisoning Prevention Week (ILPPW). Calling for the protection of the children, they have urged the governments to adopt and effectively implement legislation to protect the children's health.

In Nepal, the Centre for Public Health and Environmental Development (CEPHED) with the support from National Health Education, Information and Communication Centre (NHEICC), and the State governments and WHO country office for Nepal are organising series of national level programme on "Prevention of Lead Exposure through Effective Implementation of Lead Paint Standards in Nepal". Over 65 percent of the Nepali children have more than 5 microgram/deciliter of blood lead level that calls for immediate response of Blood Lead Level (BLL) abatement programme from the concerned authority -- response including developing and adopting national level BLL screening programme, allotment of sufficient human-resource and facilities such as well-equipped laboratories in each state, said Ram Charitra Sah, executive director of CEPHED, and environment scientist. Mohan Katuwal, senior vice president of Federation of Small and Cottage Industry, said that the efforts of paint industries were more encouraging than previous years in creating lead-free environment. "However, more needs to be done to achieve 100 percent compliance of lead-paint standards," he added.

## लेडको जोखिममा बालबालिका



सुजिता मातागुल

विश्व स्वास्थ्य सङ्गठनले लेड (Pb) लाई विश्वव्यापीरूपमा जनस्वास्थ्यलाई असर पुऱ्याउने १० रसायनहरूमध्ये एक प्रमुख घातक रसायनको रूपमा पहिचान गरेको छ । त्यसले मानव शरीरमा लेडको कुनै सुरक्षित सीमा हुँदैन भन्ने तथ्य पनि स्थापित गरेको छ । लेडले हरेक उमेर समूहका मानिसको, खासगरी बालबालिकाको शारीरिक, मानसिक तथा बौद्धिक विकासमा अवरोध पुऱ्याउँछ । यसले विशेषगरी स्नायु प्रणालीमा हानि पुऱ्याउँछ जसले गर्दा बालबालिकाको बौद्धिकता (आईक्यू) घट्दै जाने गर्दछ । लेडकै कारण संसारभरि १० लाख ६० हजार मानिसको बर्सेन मृत्यु हुने गरेको, २ करोड ४४ लाख वर्ष बराबरको मानिसको जीवनको अशक्तताको कारण मुम्ने परेको, ६३२ प्रतिशत बौद्धिकता अशक्तता र १०.३ प्रतिशत उच्च रक्तचापसम्बन्धी समस्या आएको तथ्य रहेको छ । (आईएफएमई २०१७)

विश्वसंस्थानले विश्वका विभिन्न मध्यम र निम्न विकसित मुलुकहरूमा लेडबाट ५ बर्षमुनिका बालबालिकामा पर्ने असरबाट हुने आर्थिक क्षतिको विश्लेषणनुसार नेपालमा मात्र कुल अमेरिकी डलर १.५ खर्ब बराबरको आर्थिकरूपमा क्षति हुने तथ्य प्रकाशन गरेको छ । यो रकम नेपालकै कुल गार्हस्थ्य उत्पादनको करिब ४ प्रतिशत

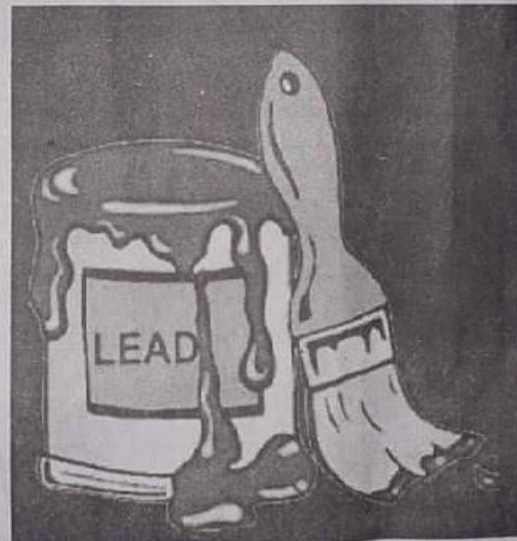
हुन्छ । यो सम्पूर्ण लेडसँग सम्बन्धित व्यापार र व्यवसायबाट राज्यले पाउने राजस्वभन्दा धेरै गुणाने बढी हो । (Teresa M. et al, 2013, New Work University, USA) ।

हालै सन् २०२० मा युनिसेफ र 'प्योर वर्ल्ड'बाट जारी 'द टक्सिक ट्रुथ' नामक प्रतिवेदननुसार विश्वका हरेक ३ बच्चामा एक बच्चा वर्षान् ८० करोड बालबालिकाको रगतमा लेडको मात्र बढी रहेको पाइएको छ । नेपाल स्वास्थ्य अनुसन्धान परिषद्लगायतका चार-चार पटकको बालबालिकाको रगतमा लेडसम्बन्धी गरिएको अध्ययनले ६५ देखि १०० प्रतिशतसम्म बालबालिकाहरू लेडको उच्च जोखिममा रहेको देखाइसकेको छ ।

यस्तो खतरनाक लेडको प्रयोग पेन्टहरूमा अत्यधिक मात्रामा देखिएको छ । पेन्टले चम्क दिने, पेन्ट चढिँ सुक्ने तथा फलामलाई खिपा लगाउनबाट बचाउने भएकोले लेडको प्रयोग गरिने हो । हाडी र हाया बालबालिका प्रत्यक्ष सम्पर्कमा आउने पायः सबै सरसामानदेखि लिएर भित्ताहरूमा यस लेडयुक्त पेन्टको प्रयोग गरिएको हुन्छ । जनस्वास्थ्य तथा वातावरण प्रबर्द्धन केन्द्रले विसं २०७४ र २०७५ गरी २७ पेन्टस उषोगका ४६ वटा इनामेल पेन्टहरूमा गरिएको मापदण्ड परिपालनाको अवस्था ६० प्रतिशतमात्र रहेको पाइएको थियो । वातावरण मन्त्रालय स्वयम्ले २०७३ मा गरेको अध्ययनले देखाएको परिपालनाको अवस्था ३० प्रतिशतमात्र रहेको थियो । कुनै कुनै पेन्टहरूमा त अझै अत्यधिक मात्रामा (मापदण्डभन्दा ८३२ गुणा बढी) सम्म लेड पाइएको थियो ।

वर्षा पेन्टमा लेडको मापदण्डको पूर्ण परिपालना र प्रभावकारी कार्यान्वयन हुन आवश्यक छ । हाल गुणस्तर तथा नायनीन विभाग र वातावरण विभागबाट परीक्षण भइरहेको जनाइएको छ । यसको परिणाम तत्काल साबंजनिक गर्नुपर्ने टङ्करी छ । यसै लेडको मापदण्डको

प्रभावकारी कार्यान्वयन गरी बालबालिका र आम जनस्वास्थ्यलाई लेडको सम्पर्कमा आउनबाट जोगाउन ठोस योजना पुऱ्याउने र लेडयुक्त पेन्टको उन्मूलन गर्ने बराउनेतर्फ सहजीव, प्रदेशीय र स्थानीय सरकारहरूसँग आवश्यक पहल गर्ने मुख्य उद्देश्यका साथ कार्तिक ९ देखि १५ गतेसम्म लेडको विषबाट बचावको लागि आठौँ अन्तर्राष्ट्रिय सचेतना सप्ताह (इन्टरनेसनल लेड पब्डरनिङ्ग वीक, २०२०) मनाइयो । सम्बन्धित निकायहरूसँगको सहयोग र सहकार्यमा 'जनस्वास्थ्य तथा वातावरण प्रबर्द्धन केन्द्र'ले नेपालमा विभिन्न राष्ट्रिय र प्रदेशस्तरीय कार्यक्रम गरेको थियो ।



सप्ताहबाट निस्केका निष्कर्षहरूलाई भवन गरी सरोकारवालाहरूले लेडको प्रयोगलाई नियन्त्रण गरी समस्या समाधानका उपायहरू पहिल्याउने जमको गर्नुपर्दछ । त्यसैगरी सबै जनसाधारणसामु लेडको प्रयोगबाट हुने प्रत्यक्ष असरको बारे जनचेतना फैलाउनुको साथै हरेक नेपाली बालबालिकाको रगतमा रहेको लेडको मात्राबारे अनिवार्यरूपमा परीक्षण गर्ने

एउटा राष्ट्रिय नीति (नेशनल लड लेड सेभल स्ट्रिकनिङ पोलिसी) बनाई परीक्षाका लागि आवश्यक प्रयोगशालालगायत सोत, साधनसहितको पूर्वाधारको विकास हरेक एदेशमा तत्काल गर्नुपर्ने एकदम जरूरी देखिन्छ । यसका लागि सरकार सँगसँगै निजी निकायहरूको पनि सहकार्य हुनुपर्दछ ।

२०७१ पुस ७ गते राजपत्रमै प्रकाशित गरी तोकिएको पेन्टमा लेडको मापदण्डअनुसार पेन्टमा लेड (१० पीपीएम) हुनुपर्छ । सोहीअनुसार हरेक पेन्टमा बटुमा कति लेड छ भन्ने उल्लेख हुनुपर्छ । यसैकारण हरेक पेन्ट उषोगी,

व्यापारी, आपातकर्ता, बिक्री वितरण र प्रयोगकर्ताले समेत पूर्णरूपले परिपालना गरी यसबाट सृजित मानव स्वास्थ्य, बालबालिका, पेन्टर, मजदुरहरूको स्वास्थ्य बचाउनुको साथै वातावरण पनि जोगाउन मद्दत पुग्ने विश्वास लिइएको छ । यस विश्वासलाई कायम राख्नको लागि भने पेन्टमा भएको लेडको मापदण्डका प्रभावकारी कार्यान्वयन आजको आवश्यकता रहेको छ ।

Figure: Children under threats of Lead Poisoning-published in a National newspaper MAJDOOR, 1st November 2020



# नेपालमा लेड को विषबाट बचावटका लागि(सिसा) अन्तर्राष्ट्रीय सचेतना सप्ताहको शुभारम्भ

[https://www.naiummid.com/2020/11/blog-post\\_18.html?m](https://www.naiummid.com/2020/11/blog-post_18.html?m)

६७,१९,२३५ नेपाली बालबालिकाको रगतमा अत्यधिक लेड सामाधान समस्या सम्बन्धि लेड रगतमा :  
कार्यान्वयनको प्रभावकारी मापदण्डको लेडको पेन्टमा एवं माग ल्याउन कार्यक्रम र निती राष्ट्रिय गर्न  
जरूरी

मिति २०७७।७।६ गते, काठमाण्डौ, नेपाल: आम जनस्वास्थ्य र खासगरी बालबालिकालाई लेड को (सिसा) विषाक्तता बाट जोगाउनका निम्ती नेपाल सरकार, स्वास्थ्य तथा जनसंख्या मन्त्रालय, राष्ट्रिय स्वास्थ्य शिक्षा, सुचना तथा सञ्चार केन्द्र र विश्व स्वास्थ्य संगठन को सहयोगमा जनस्वास्थ्य तथा वातावरण प्रवर्धन केन्द्र काठमाण्डौले लेडयुक्त पेन्ट उन्मुलनका निम्ती अन्तर्राष्ट्रीय सन्जाल द्वारा सन् २०२० अक्टूबर २५ देखि ३१ (गते १५देखि १९कार्तिक २०७७)सम्म लेडको विषबाट बचावटका लागि आठौँै अन्तर्राष्ट्रीय सचेतना सप्ताह को शुभारम्भ स्वरुप बागमती प्रदेश लगायत एक राष्ट्रिय स्तरीय अन्तरकृया कार्यक्रम एवं विभिन्न तिनवटा प्रदेशहरु १), २ एवं लुम्बिनीसंगका सहकार्यमा प्रादेशिक स्तरीय जनचेतना तथा क्षमता ( गराउन पाउँदा खुशी लागेको छ अभिवृद्धी कार्यक्रमको आयोजना गरी मनाउन गैरहेको कुरासहर्ष जानकारी ।

यस वर्ष आयोजना गरीने साताब्यापी कार्यक्रमहरुको मुख्य उदेश्य नेपाल सरकारले पेन्ट्समा तोकेको लेड को मापदण्डको प्रभावकारी कार्यान्वयन गरी बालबालिका र आम जनस्वास्थ्यलाई (सिसा) लेडयुक्त पेन्टको उन्मूलन गर्ने लेडको सम्पर्कमा आउनबाट जोगाउन ठोस योगदान पुर्याउने र गराउने तर्फ केन्द्रिय र प्रदेश सरकारहरूसंग आवश्यक पहल गर्ने । नेपालमै भएको पेन्ट्स मा लेडको अध्ययनहरुका परीणाम र बालबालिकाको रगतमा अत्यधिक लेड पाईएको तथ्यबारे सरोकारबालाहरूसंग अन्तरकृया गरी नियन्त्रण तथा समस्या सामाधानको उपायहरु पहिल्याउने जमर्को गरीएको छ ।

विश्व स्वास्थ्य संगठनले लेड लाई विश्वब्यापीरुपमा जनस्वास्थ्यलाई असर पुयाउने प्रमुख (सिसा) रसायनहरु मध्ये एक प्रमुख घातक रसायनको रुपमा पहिचान गरेको छ भने मानव शरीरमा १० स्थापित गरेको छ । लेडले मानिसको र खासगरी लेडको कुनै सुरक्षित मात्रा हुदैन भने तथ्य पनि बालबालिकाको शारीरिक, मानसिक तथा बौद्धिक विकासमा अबरोध पुयाउदछ । संसारभरी लेडकोकारण १०६०००० मानसिको मृत्युहुने गरेको, २४४००००० बर्ष बराबरको समय मनिसको जीवन

असक्तताको कारण गुमने, ६३तिशत उच्च रक्तचाप प्र १०.३प्रतिशत बौद्धिकता अशक्तता र २. सम्बन्धि समस्याको कारण लेडको सम्पर्कमा आउनुबाट भएको तथ्य रहेको छ ।

नेपाल लगायत विश्वका विभिन्न मध्यम तथा निम्न विकशित मुलुकहरुमा लेड बाट ५ वर्ष मुनीका वालवालिकाहरुमा पर्ने असरहरुले हुने आर्थिक क्षतीको विश्लेषण ले नेपालमा मात्र कुल अमेरीकी डलर १५३३२४५१२५ ( खर्व १.५)बराबरको वार्षिक रुपमा आर्थिक क्षती हुने तथ्य प्रकासन गरेको छ । जुन रकम नेपालको कूल ग्राहस्थ उत्पादनको करीब ४ प्रतिशत हुने अनुमान गरीएको छ जुन राज्यले सम्पूर्ण लेड संग सम्बन्धित ब्यापार र व्यवसायबाट पाउने राजस्व भन्दा धेरै गुणाले बढी छ । हलै मा जारी त्जभ त्यहष्अ त्चगत २०२०सन् 'ज नामक प्रतिवेदन अनुसार विस्वका हरेक तिन बचचामा एक बच्चो अर्थात ८० करोर बालबालिकाको रगतमा लेडको मात्रा पाईएको छ । यसै अध्यनले नेपालका ६७१९२३५ बालबालिकाको रगतमा लेडको मात्रा रहेको पाईएको छ । जुन नेपालमा गरीएको अध्ययनको परीणाम संग मेल खान्छ । नेपाल स्वास्थ्य अनुसन्धान परीषद लगायतका चार चार पटकको बालबालिकाको रगतमा लेडसम्बन्धि गरीएका अध्यनहरुले ६५ देखी १०० ∞ सम्म बालबालिकाहरु लेडको उच्च जोखीममा रहेको अध्ययनहरुले देखाइ सकेको छन् ।

विश्व लगायत नेपालमा पनि लेडबाट पारेको यत्रो ठुलो सामाजीक एवं आर्थिक समस्या निम्त्याउने लेड बारे नेपाल सरकारका सम्बन्धित तिनै तहका स्वास्थ्य र वातावरण सम्बन्धि मन्त्रालय, स्वास्थ्य समुदाय र सबै सरोकारवालाहरुले नोपली बालबालिकाको शरीरमा लेडको अध्यन, नियन्त्रण तथा सम्बन्धित स्वास्थ्य समस्याको सामाधानका लागि एक राष्ट्रिय निती बनाई परीक्षणका लागि आवश्यक प्रयोगशाला लगायत श्रोत, साधन सहितको पुर्वाधारको विकास हरेक प्रदेशमा तत्काल गर्नुपर्ने केन्द्रका कार्यकारी निर्देशक एवं वातावरण वैज्ञानिक राम चरित्र साहले जोडदार माग गर्नु भयो ।

जनस्वास्थ्य तथा वातावरण प्रवर्द्धन केन्द्रले वि२०७२ २०७४ .स.५ गरी २७ पेन्ट्स उद्योगहरुका ५६ बटा इनामेल पेन्ट्सहरुमा गरीएको मापदण्डको प्रभावकारीता सम्बन्धी अध्ययनले मापदण्ड परीपाल्नाको अवस्था (∞ ६०)मात्र रहेको पाईएको थियो । जुन वातावरण मन्त्रालय स्वयंले २०७३ मा गरेको अध्यनले देखाएको परीपाल्नाको अवस्था) ३० (∞ भन्दा दोबरले सुधार देखीए पनि कुनै कुनै पेन्टहरुमा अझै अत्यधिक मात्रामा .पि ७५०४९)पि.एम., अर्थात मापदण्ड भन्दा ८३३ गुणा बढी (. सम्म लेड पाईरहेको अवस्थामा पेन्टमा लेडको मापदण्डको पुर्ण परीपाल्ना र प्रभावकारी कार्यान्वयन हुन आवश्यक रहेकोमा हाल गुणस्तर तथा नापतौलविभाग र वातावरण विभागबा परीक्षण भैरहेको जनाएपनि परीणाम सार्वजनिक गर्नुपर्ने टडकारो आवश्यक रहेको छ ।

नेपाल घरेलु तथा साना उद्योग महासंघका बरिष्ठ उपाध्यक्ष मोहन कटुवालले पेन्ट उद्योग लगायत अन्य सबै औद्योगिक प्रष्ठानहरूले जवाफदेहीतापूर्ण उत्पादन मात्रै नगरी उत्पादित पेन्ट लगायतका बस्तुहरूको जवाफदेहीतापूर्ण आयात, निर्यात, विक्रिवितरण र खासगरी प्रचार प्रसारमा पनि ध्यान पुऱ्याउनुपर्ने बेला आएको छ । पेन्ट लगायत कुनै पनि आयातित वा नेपालमै उत्पादित बस्तुहरूको प्रचार प्रसार गर्ने गराउने कलाकार, हास्य कलाकार, सेलेब्रिटी र मोडेलहरू लगायत सञ्चार माध्यमहरूले पनि ती बस्तुहरूले जनस्वास्थ्य र वातावरणमा पार्नसक्ने असरहरूको बारेमा र सम्बन्धित बस्तुहरूको बारेमा नेपाल सरकारले तोकेको ऐन, नियमाबली र मापदण्डको बारेमा हेका राखी जवाफदेहीतापूर्ण प्रचार प्रसारमा मात्र जोडिनु पर्दछ । भ्रामक र भडकिलो प्रचार प्रसार गरी उपभोक्ता ठग्न कानुनतः अपराध हो । आम उपभोक्ताको स्वास्थ्य र वातावरणसंग खेलबाड, कमशल एवं किफाईती मालसमान कुनै पनि उद्योगी र ब्यापारीबाट गर्न गराउनु हुँदैन भनी विभिन्न उपभोक्ता अधिकारबादीका संघसंस्थाका प्रतिनिधीहरूले जोडिनु भयो ।

देशका विभिन्न भागबाट ३५ भन्दा बढी संघ, प्रदेश र स्थानीय निकायहरू र अन्य सरोकारबालाहरूको सहभागितामा आयोजीत एक राष्ट्रिय स्तरका कार्यक्रम नोपल सरकारका राष्ट्रिय स्वास्थ्य शिक्षा, सुचना तथा सञ्चारकेन्द्रका, निर्देशक सुनिल राज शर्मा, बागमती पादेश सरकारका उद्योग, प्रर्यटन, वन तथा वातावरण मन्त्रालयका सचिव डासिन्धु प्रसाद ढुंगानाले विधुतिय माध्यमबाट उदघाटन . कारलेपनि यस्ता रसायनजन्य समस्याहरूको बारेमा आवश्यक कानुनी र संस्थागत गर्दै प्रदेश सर क्षमताको विकासमा लाग्नुपर्ने मा जोडिनुभयो ।, स्वास्थ्य निदेशक रमेश अधिकारी, विस्व स्वास्थ्य संगठन नेपालका प्रतिनिधी राजाराम पोटे श्रेष्ठ, वातावरण विभागका प्रतिनिधी भुपेन्द्र सर्मा आदिको विशेष आतिथ्यतामा र लगायत मझौला तथा साना उद्योगहरूको महासंघका उपाध्यक्ष मोहन कटुवाल को अध्यक्षतामा सम्पन्न आजको यो बागमती प्रदेश सहितको राष्ट्रिय स्तरीय अन्तरक्रियाकार्यक्रममा नेपालमा पाईने पेन्टमा लेडको अवस्था र यसबाट पर्ने सामाजीक एवं आर्थिक प्रभाव बारे वातावरण वैज्ञानिक रामचरित्र साहले कार्यपत्र प्रस्तुत गर्दै मापदण्डको प्रभावकारी कार्यान्वयन मा जोड दिनुभयो, नेपाली बालबालिकाको रगातमा, फोहर ब्यवस्थापनमा कार्यरत श्रमीकहरूको रगतमा, आयूवेदीक औषधी शेवन गरीरहेको विरामीको रगतमा लेड सम्बन्धि गरेको अध्ययनहरूको परीणामबारे कार्यपत्र जाउलाखेल स्थित साम्याक डाईग्नोष्टिक प्राका निर्देशक .ली. केयूर गौतमले .डा, लेडयूक्त पेन्टमको उन्मूलन सम्बन्धि संघीय, प्रादेशीक एवं स्थानीय सरकारको दायीत्व र जिम्मेबारीबारे कार्यपत्र वन तथा वातावरण मन्त्रालय, वातावरण विभागका वातावरण निरीक्षक भुपेन्द्र शर्माले मापदण्डको अझ कडाईको साथ निरन्तर रुपमा बजार अनुगमन एवं पेन्टहरूको प्रयोगशाला परीक्षण गर्ने सम्बन्धित विभाग वात)ावरण विभाग र गुणस्तर तथा नापतौल विभागक भुपेन्द्र शर्माले हुरुको तयारी भैरहेको वातावरण विभागका बरिष्ठ वातावरण निरीक्ष ( बताउनु हुँदै अन्तर्राष्ट्रीय सचेतना सप्ताह मनाउन नेपाल सरकार, वन तथा वातावरण मन्त्रालय ,

विभागको निरन्तर सहयोग र एक्यबद्धता रहेको बताउनुभयो । लेडको सम्पर्कबाट आउनबाट जोगाउन र नियन्त्रण गर्न गराउन विश्व स्वास्थ्य संगठनका अधिकृत राजा राम पोटे श्रेष्ठले कार्यपत्र प्रस्तुत गर्दै विश्व स्वास्थ्य संगठनले विश्व स्तर, क्षेत्रीय स्तर र राष्ट्रिय स्तरमा गरीरहेको प्रयासहरूको बारेमा विस्तार पूर्वक जानकारी गराउनु भएको थियो साथै लेडबाट श्रीजीत समस्या सामाधानार्थ प्राविधिक, आर्थिक सहयोगको निरन्तरता रहने पनि प्रतिबद्धता जाहेर गर्नुभएको थियो । प्राविधिक शत्रको अन्तमा नेपालमा लेड सम्बन्धि समस्याको निराकरणको लागि सबै सम्बन्धित सरकारी निकाय र सरोकारबालाहरूबाट चालिनुपर्ने कदमको बारेमा आगामी पहलकदमी बारे प्रासुनिल .डा. ला हरु मिलेर अव ठोस कदम चाल्नु पर्ने आवश्यकता कुमार जोशीले मन्तव्य राख्दै सबै सरोकारबा औल्याउनु भएको थियो ।

लेडको विषबाट बचावटका लागि अन्तर्राष्ट्रीय सचेतना सप्ताहको मुख्य संदेश लेडयूक्त पेन्टमा “ पुर्ण प्रतिबन्ध लगाउनुपर्ने बेला आएकोआम जन्ता समक्ष सबैले पुयाउनुपर्नेमा जोड दिदै सचेतना ” पुर्ण सफताको कामना गरीएको थियो । सप्ताहको साताभरी आयोजना गरीने निम्न कार्यक्रमहरूमा पनि यहासबैको सहभाङ्गिताका लागि हार्दिक निमन्त्रणा छ ।

- मिति २०७७।७।६ विश्वब्यापी अन्तर्राष्ट्रिय सचेतना सप्ताहको विधुतिय माध्यमबाट बागमती प्रदेश सहित एक राष्ट्रिय स्तरीय अन्तरक्रियाकार्यक्रम मार्फत सुभारम्भ गर्ने ।

- लेड र पेन्टमा तोकेको मापदण्डको प्रभावकारी कार्यान्वयन र बालबालिकाको शरीरमा लेडको मात्रा घटाउनको लागि विभिन्न प्रादेशीक सरकार प्रदेश न) मा १ .मिति २०७७।७।१३ (, प्रदेश न मा २ . )मिति २०७७।७।१५मा का उद्योग( गते १४।७।२०७७मिति ) र लुम्बिनी प्रदेश (, प्रयटन, वन तथा वातावरण तथा सामाजीक विकाससंग सम्बन्धित मन्त्रालयहरु, स्वास्थ्य निर्देशनालयहरुको संयोजकत्वमा विधुतिय माध्यमबाट जनचेतना तथा क्षमता अभिवृद्धी कार्यक्रम आयोजना गर्ने ।

- रेडियो मार्फत नेपाल सरकारले तोकेका पेन्टमा लेडको मापदण्ड र नेपाली बालबालिकाको रगतमा लेडको अध्ययन परीणाम बारे बयापक प्रचार प्रसार गरी जनचेतना फैलाउने ।

[नेपालमा लेड - को विषबाट बचावटका लागि अन्तर्राष्ट्रीय सचेतना सप्ताहको शुभारम्भ\(सिसा\)Nai Ummid](#)



Figure. Mr. Ram Charitra Sah, Executive Director of CEPHD with ILPPW 2020 Banner



Figure. Mr. Mohan Katuwal, Vice President of Federation of Nepalese Chamber of Cottage and Small Industry (FNCSI) with ILPPW 2020 Banner