Toxic legacy of bad work inside workplaces and in communities

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What about the workers? Making workplaces safe for workers and the environment, (8TH Nov 2021)



Toxic Legacy and World of Workers

- Workers around the world are facing a global health crisis due to occupational exposure to toxic chemicals.
- Every year more than 1 billion workers are exposed to hazardous substances, including pollutants, dusts, vapours and fumes in their working environments (ILO, May 2021).
- Workers continue to be disproportionally exposed to chemicals across almost all workplace sectors.
- <u>WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, 2000-2016: Global</u> <u>Monitoring Report (2021)</u>: Almost 2 Million People die from Work Related causes each year.
 - 81 per cent of the deaths: Non-communicable diseases accounted
 - 19 per cent of deaths (360,000 deaths) related with Occupational injuries.
 - 19 occupational risk factors, including exposure to long working hours and workplace exposure to air pollution, asthmagens, carcinogens, ergonomic risk factors, and noise.
 - The key risk was exposure to long working hours linked to approximately 750,000 deaths.
 - Workplace exposure to air pollution (particulate matter, gases and fumes) was responsible for 450,000 deaths.
- A disproportionately large number of work-related deaths occur in workers in South-East Asia and the Western Pacific, and males and people aged over 54 years.
- The CDC estimate that more than 13 million workers in the U.S. might be exposed to chemicals by <u>skin</u> <u>exposure</u>.

international Labour Organization +

Exposure to hazardous chemicals at work and resulting health impacts: A global review



Occupational chemical exposures have toxic effects on different body systems, including reproductive, cardiovascular, respiratory and immune systems, as well as specific organs, such as the liver and brain.



Mercury Monitoring in Metal Plating Women Workers of Child Bearing Age in Nepal

Mercury concentration in 20 women metal plating workers

Avg. THg (ppm)	Max. THg (ppm)	Min.THg (ppm0)		
3.62	28.46	0.35		
www.mercuryconvention.org or http://ipen.org/Mercury-Monitoring-in-Women				

Bio-monitoring of mercury among metal plating women workers of 18 to 44 years age were **found very high and 75% of Workers were even having >1 ppm reference dose** (BRI/IPEN/CEPHED 2017/18 supported by UNO).











MERCURY MONITORING IN WOMEN OF CHILD-BEARING AGE IN THE ASIA & THE PACIFIC REGION





April 2017





HIGH LEVEL OF MERCURY EXPOSURE AMONG METAL PLATING WORKERS (Max 28.46 ppm) IN NEPAL Metal plating emits 12825 Kg of mercury from gold plating on sculptures (MIA 2019, MOFE)



HIGH BLOOD LEAD LEVEL (BLL) AMONG WASTE WORKER IN NEPAL

BLOOD LEAD LEVELS IN RAG-PICKERS OF KATHMANDU AND ITS ASSOCIATION WITH HEMATOLOGICAL AND BIOCHEMICAL PARAMETERS

This study was done to evaluate blood lead levels in 50 rag pickers working in selected area (Balaju and Koteshwor) of Kathmandu. Similarly, various hematological and biochemical parameters were also tested.



Group	Types of solid waste	Number of rag- pickers collecting these items	Mean blood lead level (µg/dL) 7.35
1	Paper and metals only	3 (6%)	
2	Plastic, Metals and Paper	6 (12%)	8.23
3	Plastic, Metals, Paper and Paint containers	11 (22%)	8.47
4	Plastic, Metals, Papers, Paint container and electronic waste	30 (60%)	12.89



USA CDC have reduced BLL Cutoff point from 5 to 3.5µg/dL recently



Nexus Between CC (Temperature increase)& Pesticide Import and Uses in Nepal



Nexus between CC and PM, POPs/Pesticides

P.D. Noyes et al. / Environment International 35 (2009) 971-986



KEY ACTION POINTS

- 1. PREVENTIVE ACTION THROUGH SAFER ALTERNATIVES (TECHNOLOGY & CHEMICAL).
- 2. PROTECTIVE ACTION THROUGH BAT, BEP & FULL PPEs.
- 3. TOXIC FREE DESIGN & PHASEOUT THE USE OF "FOREVER CHEMICALS's PFAS"
- 4. RIGHT TO INFORMATION ABOUT THE TOXIC CHEMICALS THROUGHOUT THE PRODUCT LIFE CYCLE & IN THE WORKING ENVIRONMENT.
- 5. MEDICAL SURVILLANCE ARE VITAL & TREATMENTS FOR THOSE ALREADY EXPOSED AND DISEASED.
- 6. CLEANUP THE CONTAMINATED SITES
- 7. CALL FOR OCCUPATIONAL HEALTH AND SAFETY AS FUNDAMENTAL RIGHTS
- 8. UNIVERSAL RECOGNITION OF COVID-19 AS AN OCCUPATIONAL DISEASES
- 9. EFFECTIVE GHS IMPLEMENTATION, PREVENTING CHEMICAL ACCIDENTS, & STRENGTHENING OSH
- 10. SOUND MANAGEMENT OF CHEMICALS THROUGHOUT THE PRODUCT LIFE CYCLE

11. SWIFT RATIFICATION & EFFECTIVE IMPLEMENATION OF ILO CONVENTIONS. e.g.

- a. ILO Promotional Framework for Occupational Safety and Health Convention No. 187
- b. ILO Chemicals Convention No. 170 and
- c. the Prevention of Major Industrial Accidents Convention No. 174,

