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The Human Cost of Beauty: Occupational Risks and Public Health Burdens of Mica Mining in India: Reg No: 299

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ABSTRACT

Introduction: Mica, a naturally shimmering mineral, forms the foundation of several cosmetic products, including eye shadows, highlighters, and nail polishes. In India, major mica deposits are found in Jharkhand and Bihar, where extraction remains largely informal and unregulated. Workers, including women and children, often mine under unsafe conditions with minimal protective equipment. Such practices expose them to a range of occupational hazards—respiratory illnesses, musculoskeletal disorders, injuries, and psychosocial stress—while also creating broader environmental and community health challenges. Despite the mineral's economic value, research on the public health consequences of mica mining remains limited. **Methodology:** A scoping review was conducted using PubMed, Scopus, Web of Science, ScienceDirect, Google Scholar, and grey literature, including NGO and investigative reports. Studies focusing on occupational health outcomes, environmental exposure, or social determinants linked to mica mining were included. Data were extracted on exposure type, population, outcomes, and policy relevance, and synthesized descriptively. **Results:** Findings reveal significant evidence of occupational risks, particularly chronic respiratory disorders, ergonomic strain, and high rates of child labour. Environmental assessments report heavy metal contamination in soil and water near mining areas. Community-level effects include poor nutrition, limited healthcare access, and psychosocial strain among miners' families. **Conclusion:** Mica mining poses a serious occupational and public health concern in India. Strengthening occupational safety standards, regulating informal mining, and promoting ethical, sustainable sourcing are critical to protect worker health and community well-being.

KEYWORDS

Mica mining, Occupational health, Public health, Child labour, Environmental contamination, India, Ethical sourcing