

Exposure to agrochemicals in Palm Oil Production

By Profundo



Survey

1.436

Palm plantation workers

The International Palm Oil Workers United, with support from Profundo, conducted a survey among 1,436 oil palm plantation workers in Colombia, Ghana, and Indonesia in order to assess their risk of exposure to agrochemicals.

Colombia Ghana Indonesia



In the three countries regulatory frameworks for agrochemicals and occupational safety and health (OSH) show both strengths and gaps. Despite rather comprehensive laws, compliance is weak due to insufficient oversight and enforcement mechanisms.

None of the three countries has ratified key OSH conventions, and existing national policies often lack specificity regarding commercial plantations, leading to poor worker safety and health standards.

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Risks

There is growing evidence that the sector's reliance on agrochemicals (pesticides and fertilizers) poses significant risks, as workers are exposed to both acute and chronic health issues—cancer, neurotoxicity, and reproductive problems—disproportionately affecting vulnerable groups, including women and children.

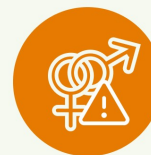
Health issues



Cancer

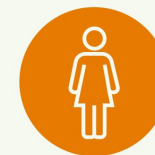


Neurotoxicity

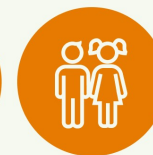


Reproductive problems

Vulnerable groups



Women



Children

Preventive OSH Measures in Palm Oil Production



Training

Most workers (over 50%) report positive experiences with OSH training; however, gaps exist, particularly in Indonesia, where training effectiveness may need improvement.



Health

Over 80% of Colombian and Indonesian workers express concern about health risks associated with their tasks.



Safety

In contrast, 45% of Ghanaian workers do not perceive their work as compromising their safety, which could indicate effective preventive measures.

Exposure to agrochemicals



Awareness

While all surveyed workers engage with agrochemicals, **55% exhibit significant gaps in awareness** regarding their exposure.



Timing

Proper timing for re-entering treated fields is essential for minimising exposure risks. 44% of Indonesian workers work during or immediately after pesticide applications.



Dangerous chemicals

Paraquat, a herbicide used in oil palm plantations in Indonesia, can cause Parkinson disease; and **tebuconazole**, a fungicide used in Colombian plantations, can cause congenital mutations.

Paraquat is banned in the EU, yet the bloc continues to be a significant exporter.

Oil palm plantation workers are exposed to agrochemicals directly when they apply fertilizers or mix and spray pesticides. They are also exposed indirectly when moving around sprayed palms as part of their work harvesting, maintaining fields, working in nurseries, and storing agrochemicals.



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Management of OSH risks



95% of workers reported receiving personal protective equipment (PPE) from their employers; however, **10% in high-risk roles such as spraying pesticides, reported not receiving it.**



50% of Indonesian workers indicated that **damaged PPE was not replaced** and 22% had to pay for their PPE.



2/3 reported awareness of daily agrochemical usage 55% of Colombian, 31% of Indonesian and 39% of Ghanaian had access to safety labels and chemical safety data sheets.



More than half of the workers report in the three countries a lack of facilities to effectively clean their protective gear.



63% of workers in RSP0-certified plantations reported no PPE washing facilities, compared to **59% of non-certified plantations.**

Lack of washing facilities poses contamination risks not only for workers but also for their families and communities, as workers may take their PPE home for cleaning or wash it in water streams.



24% of Indonesians said they could smoke any time and anywhere in the plantation. **70% of Colombian and 92% of Ghanaians** said smoking is prohibited anywhere in the plantation.



80% of workers said they were able to complete their tasks using their full PPE. However, 24% of Colombian and 25% of Indonesian informants said they could not.



24% of women workers reported difficulties completing their tasks while wearing full PPE compared to **13% men**, suggesting that PPE may not be adequately designed for women.



Health effects of agrochemicals

Of all workers

18%
No symptoms

16%
Headaches

11%
Dizziness

11%
Skin irritation

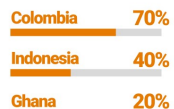


57% of workers indicated they had no health issues, but the likelihood of reporting no health conditions diminished the longer workers had been employed at the plantation, suggesting that long-term employment may correlate with the emergence of health issues.

Allergies and gastric disorders were the most common health conditions among workers.



Medical screening gaps were found: 85% of Colombian workers obtained a medical certificate before employment, while 85% in Ghana did not.



Regular medical screenings were reported by 70% in Colombia, but only by 40% in Indonesia. In both Ghana and Indonesia, 20% said screenings covered only certain workers.



"The daily work targets are generally too high, making it difficult for us to wear complete PPE. We request a reduction in these targets to better align with workers' capabilities, as well as no increase in the fertilizer wage per kilo."



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Management of occupational diseases

Nearly 80% of the respondents reported not knowing the procedure to diagnose occupational diseases.

Occupational diseases are often undiagnosed when medical screening results are not shared with authorities, and reporting focuses mainly on accidents.

Workers often reported not receiving medical screening results, violating their rights to access health information and preventing proactive health measures.

90% have social security, but 14% of outsourced workers lack full coverage, leaving them more vulnerable than direct workers.

60% of workers reported a **lack of regular inspections** by relevant authorities.