



U.S. EPA



CARNEGIE
INSTITUTION FOR
SCIENCE

DEPARTMENT OF
GLOBAL ECOLOGY

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Mercury Capture in Artisanal and Small Scale Gold Processing

Why focus on Gold Processing?

- Mercury-gold amalgam burned during gold purchasing – secondary processing of gold doree which still has mercury content of 5 – 20%
- Typically little or no control of emitted airborne mercury
- Regional funnel points for ASM gold production
- Located in regional economic centers
- Located in regional population centers – high human exposure rates



Gold Shops are a common selling point for mercury in artisanal scale mining communities



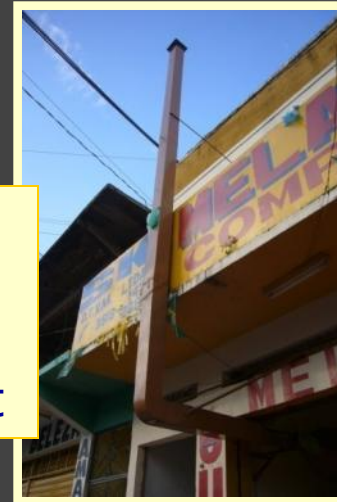
Amalgam or
Doree

(5-15 % mercury)



Burned in the
Gold shop

Mercury
Released to
the
Environment



Purified Gold



Simplified ASGM gold shop processing cycle

Amalgam
(5-15 % mercury)



Burned in the
Gold shop

Mercury
Released to
the
Environment



Mercury
Capture System



Purified Gold



Mercury Emissions Occur in High Population Areas in Brazil



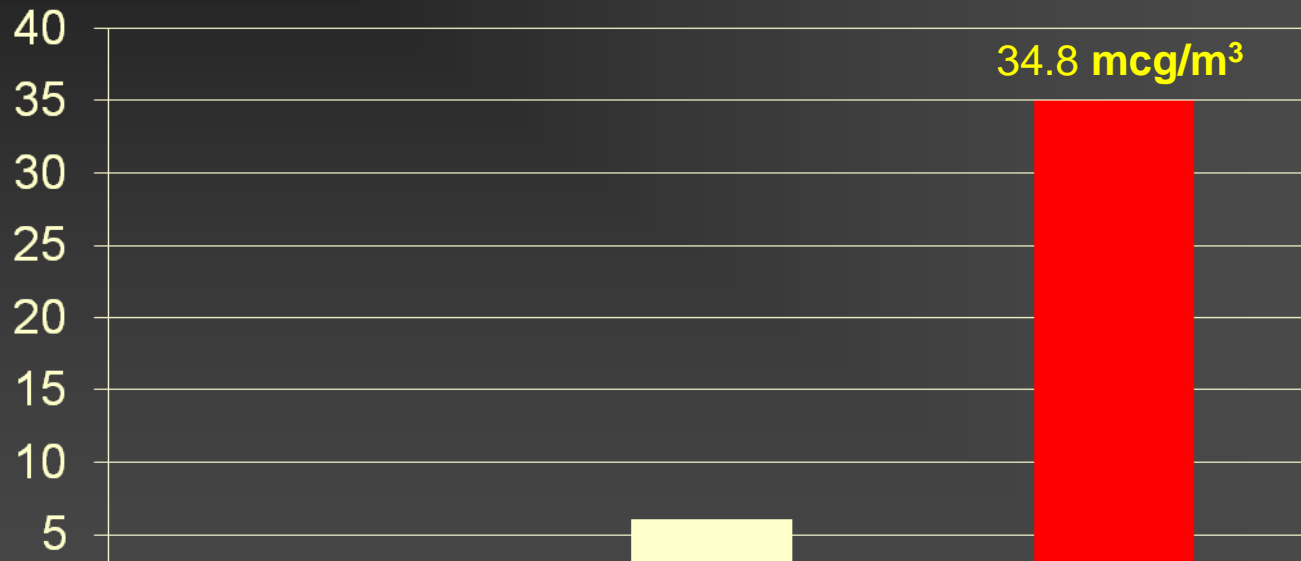


Ambient Air Mercury Concentrations

Ambient air @ 1 block from gold shops, Puerto Maldonado, Peru

Mercury Concentration (mcg/m³)

In streets in front of gold shops



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_14409

