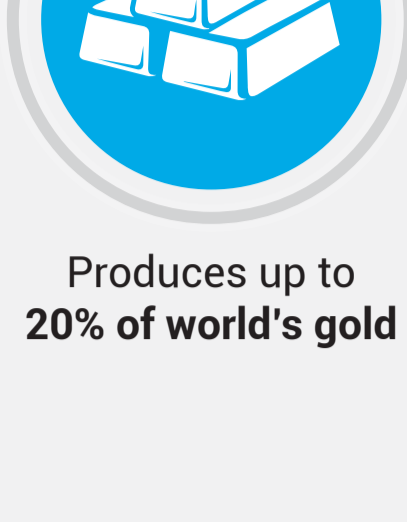


# REDUCING MERCURY USE IN ARTISANAL SMALL-SCALE GOLD MINING

## ARTISANAL AND SMALL-SCALE GOLD MINING



Produces up to **20% of world's gold**



Employs **15 million people** typically in remote rural areas



Involves **4 to 5 million women and children**



Takes place in over **70 countries** and often in areas where there is **limited economic opportunity**

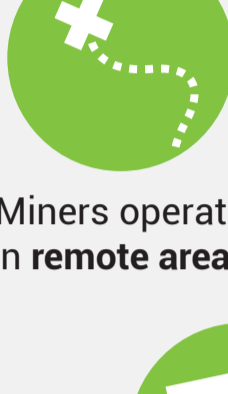


Constitutes **35% of all mercury** emissions to the environment

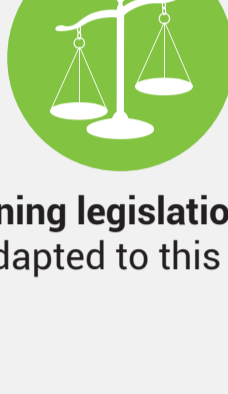


Is often considered an **informal sector**

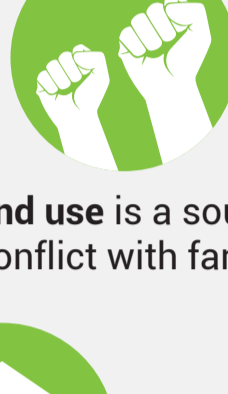
### WHY IS THE ASGM SECTOR OFTEN INFORMAL?



Miners operate in **remote areas**



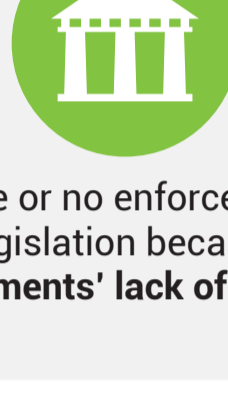
**Mining legislation** is not adapted to this sector



**Land use** is a source of conflict with farmers

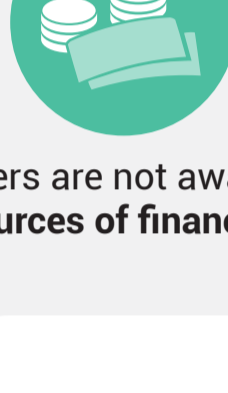


**Land ownership** is a source of conflict with mining companies

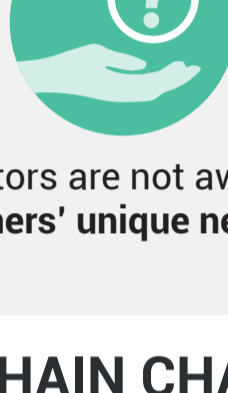


Little or no enforcement of legislation because of **Governments' lack of capacity**

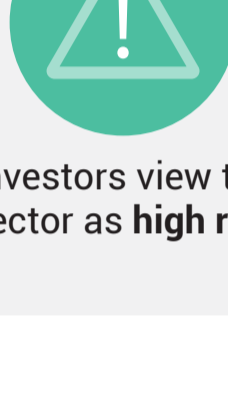
### LACK OF ACCESS TO FINANCE



Miners are not aware of **sources of financing**



Investors are not aware of **miners' unique needs**

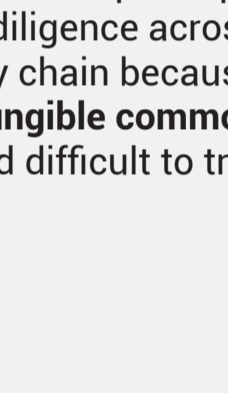


Investors view the sector as **high risk**

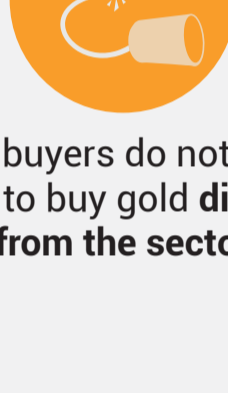
### SUPPLY CHAIN CHALLENGES



Miners have limited or no access to **international gold market**

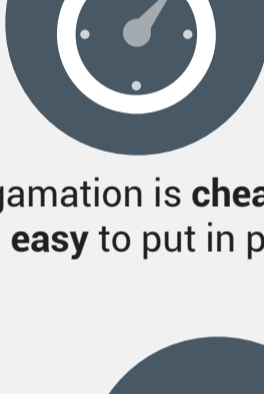


Difficult to put in place due diligence across the supply chain because **gold is a fungible commodity** – and difficult to trace

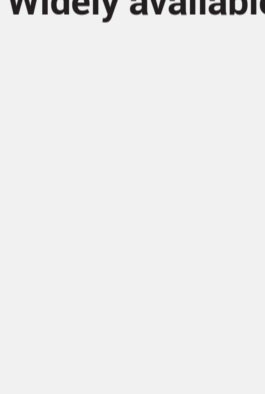


Gold buyers do not know how to buy gold **directly from the sector**

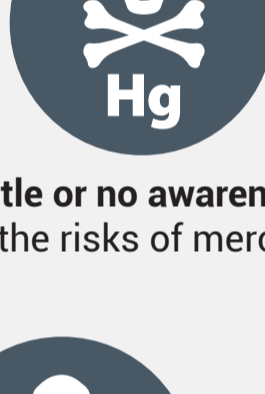
## WHY IS MERCURY USED IN ARTISANAL AND SMALL-SCALE GOLD MINING ?



Amalgamation is **cheap, fast and easy** to put in place



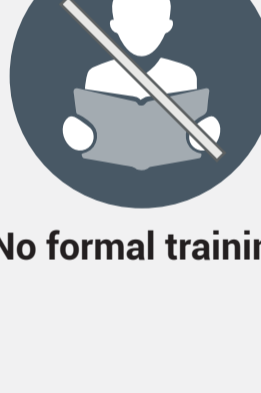
**Widely available**



**Little or no awareness** of the risks of mercury



**Gold traders supply mercury** to the miners – miners then sell the gold back to the traders

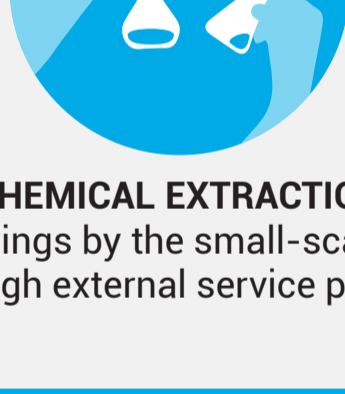


**No formal training**

### ALTERNATIVES TO MERCURY



**GRAVIMETRIC SEPARATION** separating the gold from the ore using panning, sluicing, centrifuges



**CHEMICAL EXTRACTION** of the tailings by the small-scale miners or through external service providers

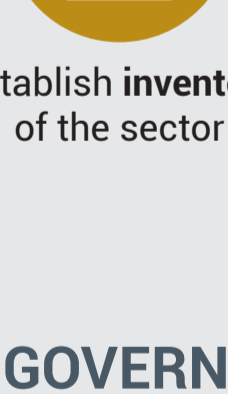


Alternatives involve **increased technical knowledge** of the gold deposit and mineral processing

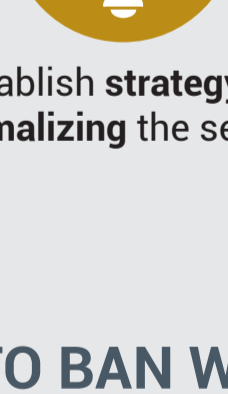
## HOW THE MINAMATA CONVENTION SAFEGUARDS ARTISANAL SMALL-SCALE GOLD MINING SECTOR (ASGM) ?

**Article 7 and Annex C of the convention provide binding obligations on ASGM**

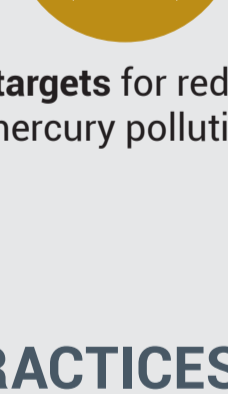
Countries with "more than insignificant ASGM" have the obligation to develop and implement National Action Plans which:



Establish **inventory** of the sector

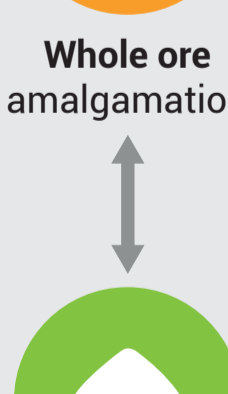


Establish **strategy for formalizing** the sector

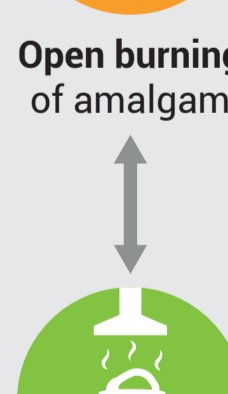


**Set targets** for reducing mercury pollution

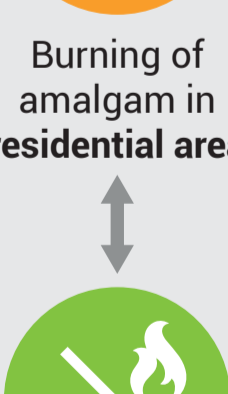
### GOVERNMENTS TO BAN WORST PRACTICES



**Whole ore amalgamation**



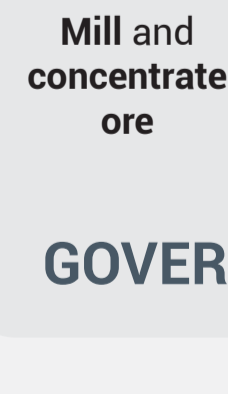
**Open burning of amalgam**



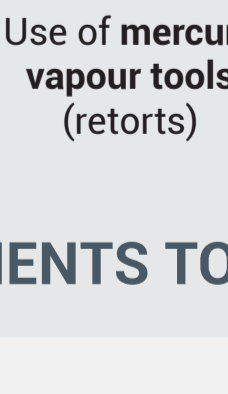
**Burning of amalgam in residential area**



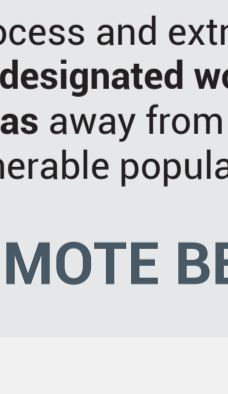
**Cyanide** after mercury has been used



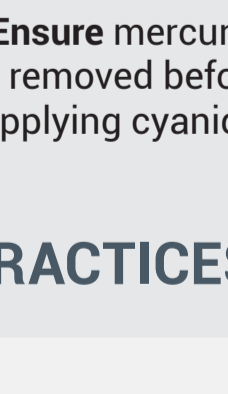
**Mill and concentrate ore**



**Use of mercury vapour tools (retorts)**



**Process and extract in designated work areas** away from the vulnerable population



**Ensure mercury** is removed before applying cyanide

### GOVERNMENTS TO PROMOTE BEST PRACTICES

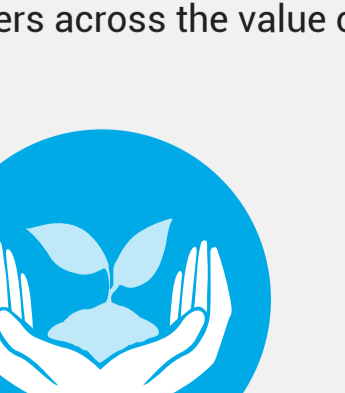
## HOW WILL THE PLANETGOLD PROGRAMME TRANSFORM ARTISANAL SMALL-SCALE GOLD MINING ?



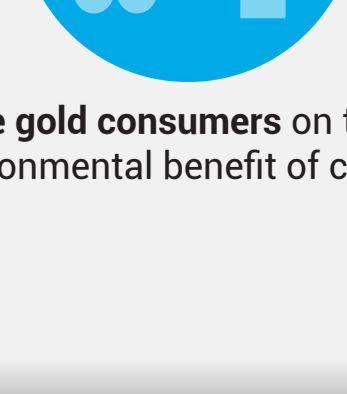
Demonstrate and share **best practices on formalization**



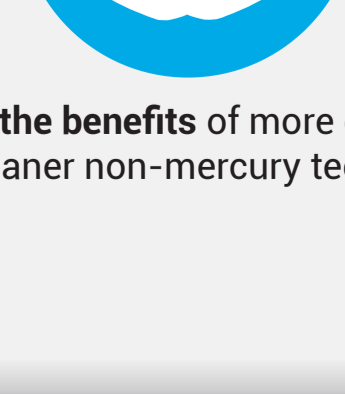
Pilot **access-to-finance** options



Provide mining communities with **direct access to international gold markets** and/or remove barriers across the value chains



**Educate gold consumers** on the social and environmental benefit of cleaner gold



**Show the benefits** of more efficient and cleaner non-mercury techniques

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