Critical solutions for ASGM:

Facilitating the transition to the *formal economy* and *better mining* practices in **Africa**

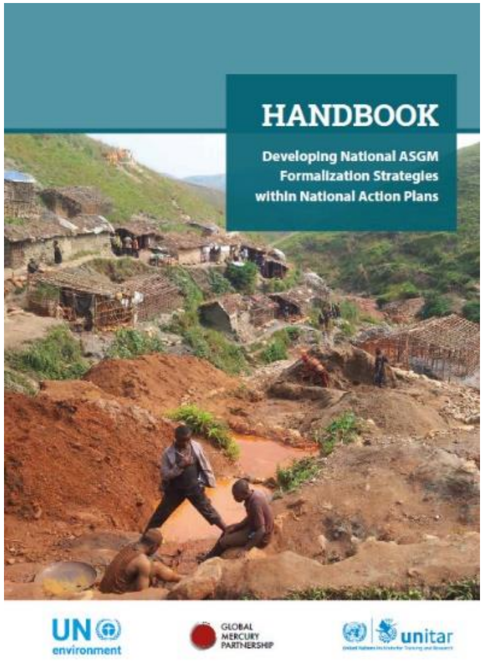
27 November 2019

Knowledge lab, Minamata COP 3

ASGM Formalization – what is it?

Formalization is a *process* that ensures that:

- *ASGM miners and traders :*
  - *Possess licenses and permits;*
  - *Are organized in legitimate entities which represent their needs;*
  - *Have access to technical, administrative, and financial assistance that* ***enables them to comply with national regulations;***
- *Policies are implemented, monitored, and enforced.*



ASGM Formalization – what is it?

Key components of the formalization process:

Engage local stakeholders throughout the formalization process

1. Geoprospect and allocate land for ASGM
2. Facilitate miners' organization
3. License and regulate ASGM
4. Organize the supply chain
5. Facilitate access to finance, assistance, and markets
6. Monitor and enforce ASGM regulations

Provide continuous support to ASGM actors

(Formalization is a *gradual process* that requires *continues improvement*)

Pact M2M's philosophy

- At its core, the Mines to Market (M2M) program works to make mining safer, formal, more productive, and using **market-based** approaches.
- In doing so, we focus on **governance,** strengthening local and national institutions through capacity development and sustained support.
- Formalization is a cross-cutting theme in nearly all of our programs in ASM.

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Pact's work on ASM formalization

- Since 2006, numerous multi-year projects supported by

World Bank	Microsoft
US-DOL / USAID	International Tin Association (ITA)
DFID (UK-AID)	Trafigura
UNDP	Apple
ILO	Rio Tinto, Freeport McMoran, etc.

- Work closely with government agencies
- Support for formalization needs to be responsive to regional context
- We recommend adaptive programming from multiple entry points & we advocate progressive improvement, with long term vision

Partnering with Large Scale Mining Companies Trafigura and Chemaf, at Mutoshi Mine in RDC

Core Elements of Program design

(*driven by market expectations for mineral supply chain due diligence*)

- Mutoshi-Model is built around "ASM committee" comprised of 4 parties: Pact, Chemaf, ASM co-operative, and regulator
- Priority risks: child labor, health and safety, supply chain management

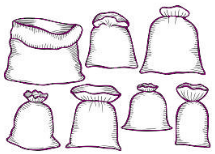
Pact's Value-add to partnership

- Coordination, advisory, reporting
- Capacity development of # actors
- Integration with development programming objectives, SDGs, SROI

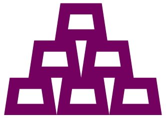
International Tin Supply Chain Initiative (ITSCI)

- Due diligence & traceability system in Great Lakes Region for 3Ts
- Award-winning program with 100% alignment to OECD DDG

~80,000 miners



2,100 active sites



>20,000 tonnes concentrate/yr

- Self-financed system based on export-levy, operated at cost as not-for-profit
- Comprehensive incident monitoring, risk reporting & mitigation

"ITSCI is the only on-the-ground traceability and due diligence programme that has been able to demonstrate a clear impact on mineral production and exports"

Better mining practices in ASGM

“How can ‘we’ make best use of our (collective) resources to support uptake of Hg-free processing?”

1. Critical to have a *grounded understanding* of where miners are, at present
2. Ensure policies that are inclusive and allow for progressive improvement
3. Work with miners to demonstrate the <u>benefits</u> of mercury-free processing (support for technical training, access to financing)
4. Leverage (upstanding) market partners in doing so… (*but how?*)

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Appropriate choice of **mercury-free technology** depends on existing (usually *entrenched*) behavior; ore type; and ASGMs willingness and flexibility to adapt new business models

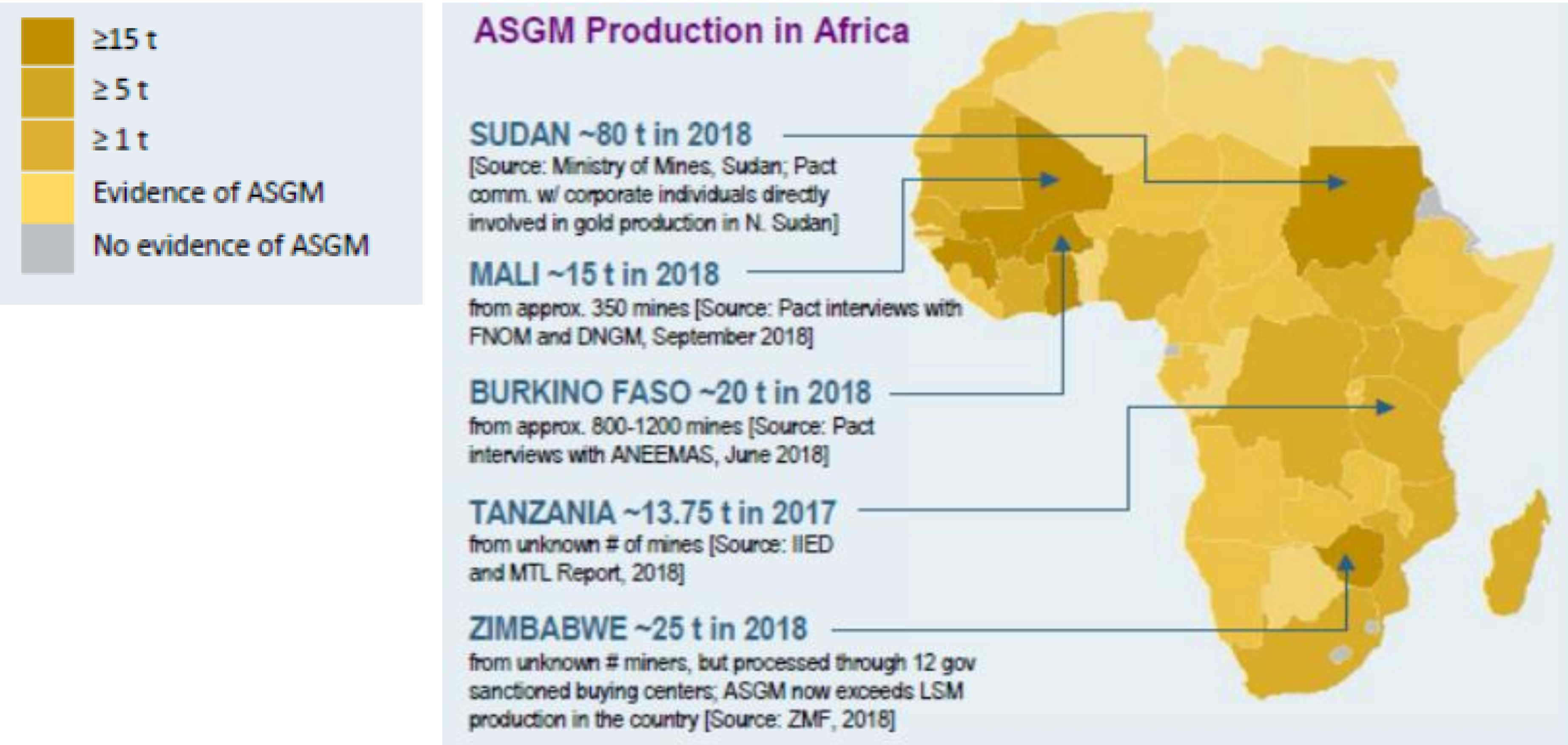
Gold extraction options include Direct Smelting, Cyanidation or other leachates (hypochlorite, etc), floatation

Better mining practices in ASGM

BRIEFING NOTE

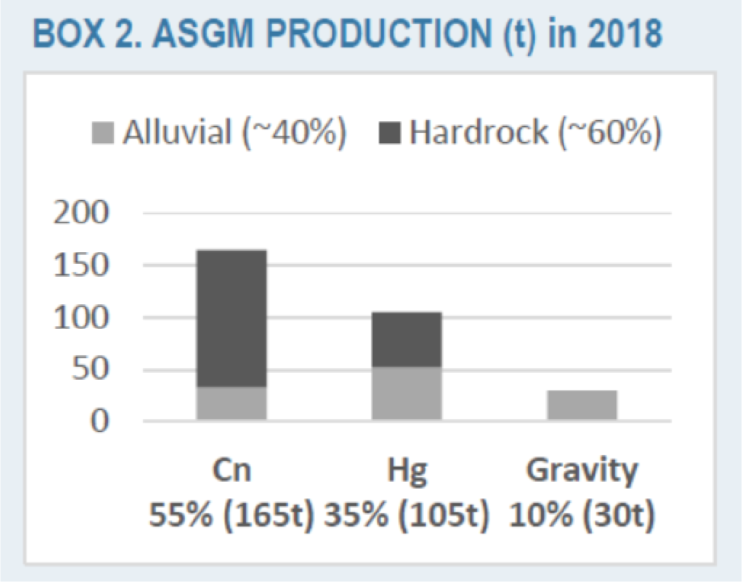
ASGM on the African Continent

(i) An updated estimate of gold production and mercury emissions
(ii) Which **Mercury Abatement Strategies** are effective?



Continental Au production and Hg emissions model for ASGM in Africa

"In several of the largest-producing ASGM countries including Zimbabwe, Tanzania, and Burkina Faso there is evidence that Au production from cyanidation has eclipsed Au production by mercury amalgamation, while in other countries including Mali, DRC, and Sierra Leone cyanidation has not (yet) been widely adopted."



Mercury and Cyanidation

Box 3. Mechanization in ASGM
Several countries in Africa have seen a strong trend towards semi-mechanization and proliferation of cyanide (vat-leach) operators. Pact photos at right, from Nigeria and Burkina Faso, in 2018.

FORMALIZATION OF ASMS/ASGMS AHEAD OF NAP- UGANDA

i. ASMs in general contribute 3.5% to Uganda's GDP

ii. Sustainable Management of Mineral Resources project (SMMRP-2004)- mineral maps, training on mineral processing technologies, associations (miner & umbrella)

iii. A new mineral policy 2018 was accented to by the president.

iv. Ongoing review of the draft mining and mineral bill, 2019 (formalization, acquisition of mineral rights)

v. Revision of fees for location licenses (ASMs-USD 703) and mining leases (ASMs-USD 1598)

vi. Biometric registration of miners (launched in March 2019 & end by June 2020. -issue ASMs with identity cards (enabled bio-chips)

vii. Comprehensive communication strategy for the mineral sector is underway

viii. Gold certification centers are underway

ix. Decentralization of mineral licensing & advisory services underway

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KEY ASPECTS OF THE ASGM FORMALIZATION STRATEGY (not sequential)

i. Developing/updating legal and regulatory framework that clearly defines ASGM operations and provides for the adequate monitoring of their activities

ii. Building the capacity of ASGMs and extension staff to manage the ASGM sector

iii. Forming, strengthening and defining ASGM Associations, companies and cooperatives

iv. Undertaking a national biometric registration and mapping of all ASGM value chain key players

v. Facilitating miners to access financial credit

vi. Geo-prospecting and zoning of ASGM mining areas

-Considering cancellation of dormant licenses

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LINKAGE BETWEEN FORMALIZATION AND TECHNOLOGY ADOPTION-UGANDA

- Exchange of gold for mercury to reduce
- Enhance trust among ASGMs to form and sustain associations
- Access to financial credit to buy equipment
- Implementation of regional certification mechanism standards & International Conference on the Great Lakes Region (ICGLR) ASM gold strategy
- Acquisition of mineral rights- land security -long term capital investment in alternative technologies
- Improved monitoring of sector by government Agencies-OSHE ensured
- Facilitate efficient information dissemination and capacity building of ASGM in alternative technologies

Formalization strategy Sierra Leone

Alluvial artisanal gold mining (alluvial AGM):

- Very mobile and geographically spread over the country
- Environmental and health costs are less alarming
- Insufficient capacity to formalize the entire subsector

→ Establish AM zones in identified alluvial AGM areas (formalize part of the subsector) and promote good practices among alluvial AGM elsewhere in the country

Hard rock artisanal gold mining (hard rock AGM):

- Only limited to a handful of areas in Sierra Leone
- Less mobile and more permanent
- Mercury used in some hard rock sites

→ Establish AM zones for all places where hard rock AGM occurs (formalize the entire subsector)

Small-scale gold mining (SSGM):

- SSGM companies are all foreign owned and operating in the shade
- Much larger social and environmental impacts from SSGM companies

→ Necessary to formalize this entire subsector

Formalization strategy Sierra Leone

Geoprospect and allocate land for ASGM

- Conduct an airborne geophysical survey
- Develop a geodatabase and geological maps
- Conduct geoprospecting and geochemical mapping
- Conduct land use mapping
- Identify the most suitable areas for AM zones in consultation with stakeholders
- Mediate ASGM-LSGM co-existence
- Designate the authority to establish AM zones establish AM zones
- Manage ASGM in protected areas
- Resolve other land disputes
- Build NMA's capacity to train artisanal miners on "SMART mining", geoprospecting and gender issues
- Create partnerships with and build the capacity of technical institutions
- Investigate where and how SSGM companies operate

Facilitate miners' organization

- Investigate current forms of organization and social arrangements
- Organize workshops to provide information and to facilitate discussions about various modes of organization
- Facilitate the establishment of entities and provide ongoing assistance
- Train the established entities on cooperative governance, business management, and gender equality
- Facilitate the establishment of a national ASGM federation

License and regulate ASGM

- Train MMMR, NMA and EPA in policy making, ASM formalization and gender issues
- Redefine AM to allow for a larger scale of operation
- Redesign artisanal mining licenses
- Harmonize surface rent and community development fees
- Pursue negotiations with the MRU to harmonize regional fees, tax, and royalty rates
- Train NRA's staff and strengthen taxation systems
- Revise occupational health and safety regulations
- Ban the 'worst practices' as described in Annex C
- Adopt a provision for restricting ASGM activity in NPAs
- Design and disseminate regulatory guidelines for land rehabilitation and mine closure
- Include gender-sensitive provisions in the amendment of the 2009 Mines and Minerals Act
- Prepare and diffuse a simple guidebook on applicable regulations

Organize the supply chain

- Investigate the supply chain
- Organize workings to engage supply chain actors for mapping gold trade routes
- Facilitate the organization of traders, goldsmiths, and exporters
- Train staff in mercury-free gold processing and gold valuation and install the requisite facilities
- Establish two accredited regional gold-buying stations and pilot a state gold-buying programme
- Establish a system for tracing domestic gold trade
- Establish a certification system and a community development fund for gold

Facilitate access to finance

- Conduct a financial needs assessment
- Organize a workshop to engage and educate financial institutions about artisanal mining, and identify interested institutions
- Train miners on financial literacy and the process to accessing available financial products
- Provide ongoing assistance on opening bank accounts, developing savings and loans schemes and accessing microcredit
- Reserve a dedicated budget to assist AGM miners and small traders
- Include AM in Sierra Leone's National Strategy for Financial Inclusion

Facilitate access to assistance

- Conduct a needs assessment among AGM miners and small gold traders
- Institutionalize expertise and strengthen relevant NGOs and university departments working with AGM
- Develop an educational programme on AM and include it in the regular curriculum of relevant disciplines
- Establish specialized training and research centers

Facilitate access to markets

- Train NMA officers on gold valuation and value addition
- Train AGM miners a and small gold traders on gold trade, valuation and value addition
- Develop and implement a Green Gold marketing strategy and branding campaign for Sierra Leone's AGM sector
- Facilitate workshops to explore viable business relations between AGM miners and LSM companies

Monitor and enforce regulations

- Task compliance officers with inspection and assistance provision and review the current staffing
- Establish multi-stakeholder "local oversight committees"
- Designate responsibilities to each committee
- Train the staff of all established local oversight committees, and provide monitoring infrastructure
- Decentralize financial resources to provincial and district-level NMA and EPA offices and local oversight committees
- Adopt a new monitoring system including the use of drones
- Pursue ongoing discussions with MRU for strengthening border controls
- Train customs officers on curtailing gold smuggling and increase their wages
- Enforce penalties among traders and customs officers and establish new mechanisms to incentivize disclosure of illegal activity
- Enforce compliance with 'soft' coercive measures combined with technical guidance, and gradually tougher measures

Formalization in Zimbabwe

building
local
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Thank you / Merci beaucoup / Asante sana!