

# **ILLEGAL MINING (GALAMSEY) IN GHANA**

**PRESENTED BY  
PROF. KWABENA FRIMPONG-BOATENG  
MINISTER FOR ENVIRONMENT, SCIENCE, TECHNOLOGY AND  
INNOVATION**

# DEFINITION OF ILLEGALITY (I)

- **Pollution of water bodies:**
  - diversion of tailings into water bodies;
  - mining in river beds (dredging);
  - mining on riverbanks;
- **Mining in forest reserves;**

# DEFINITION OF ILLEGALITIES (2)

- degrading and/or non-reclamation of land;
- use of dangerous chemicals;
- engagement of artisanal and small-scale mining activities by foreigners; and
- use of unlicensed heavy earth moving equipment such as excavators and bulldozers.



### Arrested Persons - Report No.#0016



WU CHUNYONG



MO YOUMIN



SHI JUNWEI

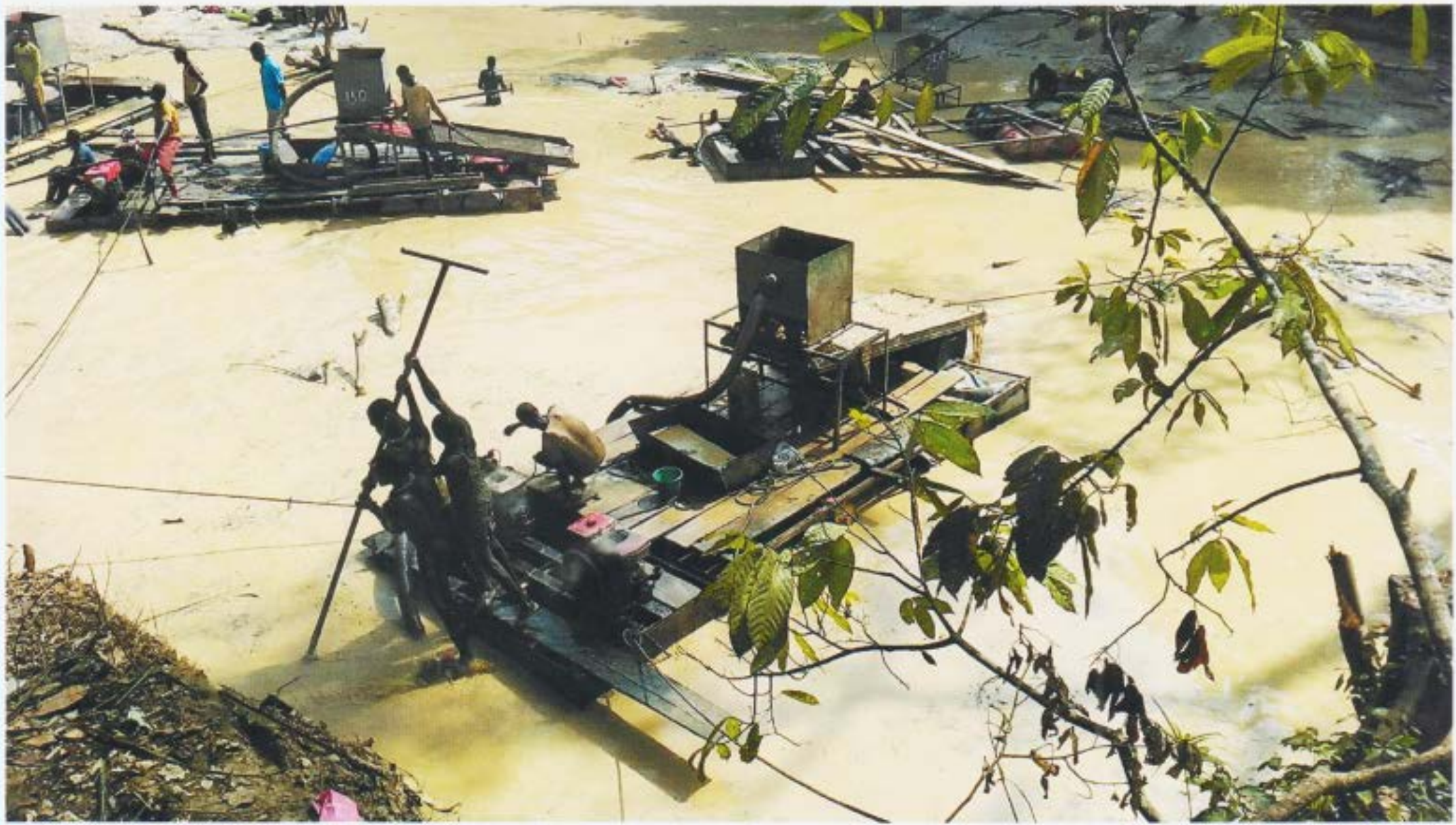




Photos d'illustrations :

(Pratique de l'orpillage dans un village ghanéen sur la Bia)





# MCIM Task Force



Upper Wassa Forest – C & G Aleska Company Ltd.





myjoyonline.com | edwin.appiah

*Monday, March 27, 2017*



# Kwasi Nyarko's Cocoa Farm in Wassa Amenfi District







**Plate 1: Galamsey activities impacting on Ankobra, Bogoso and Juabeso**

# High Turbidity Values at Akim Oda, Daboase and Dunkwa



# Twifo Praso and Dunkwa-on-Offin



# Degraded Land at Kobriso and River Pra at Twifo Praso- Water not flowing





# Alluvial Mining at Appiah Nkwanta and Manual Desilting at Daboase





*Figure. 9. Toilet mounted on the "vessel" where they defecate straight into the river.*



Figure 8. A mechanical conveyer for scooping the river bed for gold.

# Deployment of a Monitoring Team Equipped with Drones and Security Personnel



# Deployment of a Monitoring Team Equipped with Drones and Security Personnel





# CHALLENGES

- **Lack of employment opportunities**
- **Lack of sense of 'ownership' of water bodies by the people**
  - **Lack of pipe-borne water in communities with water treatment plants**
- **Difficulty in obtaining mining permit**
  - **Minerals Commission, EPA**
- **Role of opinion leaders**
  - **Chiefs**
  - **Security personnel guarding foreigners-operated small scale mining sites**
  - **Politicians**

# Reasons for Failure in the Past

- Security operation viewed as invasion & occupation
- Lack of community involvement
- Lack of input from miners
- Illegal miners chased out, escaped from responsibilities
  - Land reclamation & restoration not done
- Challenges facing local communities not addressed
- Large scale concession owners sell portions of their land to *galamsay* operators



# Cost of Illegal Mining

- **Social cost**
  - Drugs, alcoholism, prostitution, conflict with authorities, crime, violence
- **Economic cost**
  - Destruction of economic trees especially cocoa ( decreased revenue )
  - Land degradation 21 billion USD needed to reclaim and restores degraded land
  - 400 million dollars to restore River Ankobra alone
- **Security**
  - Conflicts, influx of criminals
- **Health**
  - Diseases from heavy metals poisoning, polluted water, air and soil.

# PRESIDENT TO THE RESCUE



**NANA ADDO DANKWA AKUFO-ADDO**

**President of the Republic**

# Project Definition

## Inter-ministerial Committee on Illegal Mining

- Environment, Science, Technology and Innovation (Chairman to the Committee)
- Lands and Natural Resources
- Monitoring and Evaluation
- Local Government and Rural Development
- Chieftaincy & Religious Affairs
- Regional Re-Organisation and Development
- The Interior
- Defence
- Information
- Water and Sanitation
- And a Presidential Staffer (Secretary to the Committee)

# Mandate of IMCIM

The IMCIM was tasked with the following mandate among others:

- To strengthen the existing regulatory agencies: Minerals Commission, Environmental Protection Agency, Water Commission and Forestry Commission;
- To ensure that these agencies enforce the existing laws that are related to the small-scale mining sector;
- To set-up adhoc district mining committees whose function are to coordinate the various activities of Ministries that constitute the IMCIM;
- To vet and verify the alleged 1350 legally registered small-scale mining companies and to regularize any discrepancies where possible;

# Mandate of IMCIM

- To sanitize and regularize small-scale mining activities in the various mining districts to ensure that miners work within the legal framework;
- To train small-scale miners in sustainable mining and mineral processing practices;
- To reclaim degraded land and restore impacted water bodies; and
- To coordinate activities related to alternative livelihoods for the youth, especially illegal miners in the various mining communities.

# Key Action Planned

The IMCIM will continue :

1. Public Education on the Negative Impact of Illegal Mining
2. Capacity Building of ASMs and Stakeholders
  - ☒ ASMs and adhoc District Committees on Illegal Mining
  - ☒ Regulatory Institutions – District officers of EPA and Minerals Commission
3. Activities of Operation Vanguard
4. Meetings with the Ghana National Small-Scale Mining Association

# Key Achievements

## I. Public Education on the Negative Impact of Illegal Mining

- Series of public education through press campaigns, meeting with the chiefs, religious leaders, opinion leaders, stakeholders and through the social media



Dialogue with chiefs by the IMCIM at Kwahu and Kyebi



Public education through social media

# Key Achievements

## 2. Capacity Building of Artisanal Small-scale Miners (ASM) and Stakeholders

- About 4,000 ASMs and 15 media personnel have been trained in sustainable mining and mineral processing practices



IMCIM Interaction with Participant of the Sustainable Mining Course at the University of Mines and Technology



# Key Achievements

## 3. Launching of Operation Vanguard

- On 31st July, 2017, Operation Vanguard, a force comprising officers and men from the military and police service task to prevent further pollution of our rivers and water bodies



Operation Vanguard

# Key Achievements

## 4. Signing of Ratification of the Minamata Convention on Mercury

- Ghana has signed on to the MINAMATA Convention. The Convention seeks to ban the use of mercury to reduce health risks

## 5. Meetings with the Ghana National Small-Scale Mining Association

- The Chairman and Secretary of the IMCIM met with the Executive of Ghana National Small-Scale Mining Association.

# Key Achievements

## 6. Formation of District Committees on Illegal Mining (DCIM)

- 59 adhoc DCIMs chaired by the MMDCEs have been formed across the Country to support the IMCIM fight against *galamsey* at the district level.



Inauguration of District Mining Committees at Sunyani and Dunkwa-On-Offin

# Members of District Mining Committee

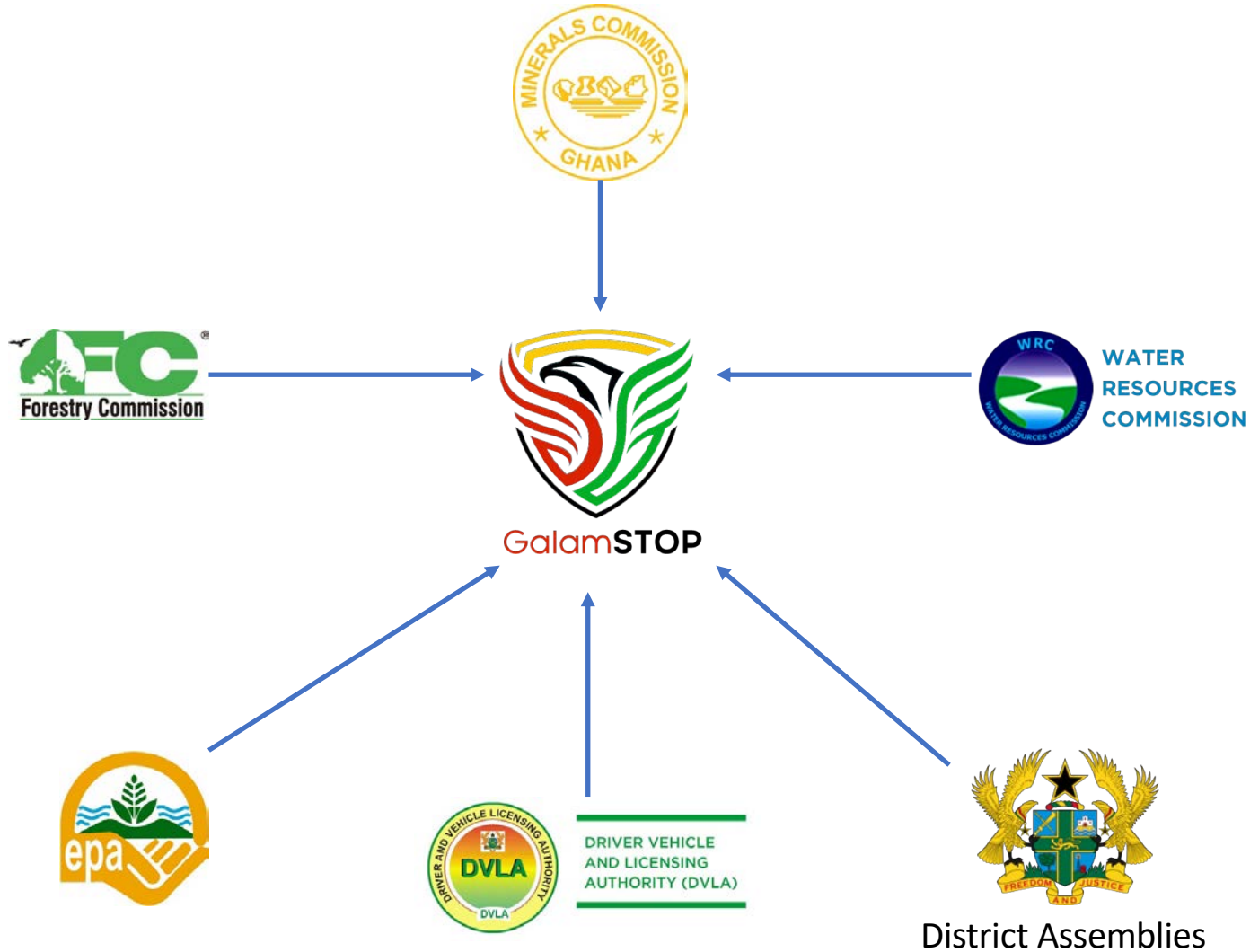
- **The DCE or his representative shall be the Chairman of the Committee;**
- **District minerals commissioner,**
- **Reps from town and country planning and**
- **Security heads**
- **EPA officer**
- **Forestry Officer**

# River Restoration

- **Dredging of river bed to increase depth to at least 6 meters**
- **Widen river to at least 30 meters**
- **Removal of trees trucks & roots**
- **Creating of lagoons along the river to check erosion & facilitate irrigation**
- **Restoration of the banks up to 100 meters from river**
- **Land reclamation (long term)**

# Alternate livelihood for local communities

- **Training of young people**
  - Auto mechanics
  - Tailoring
  - Fashion industry
  - Hairdressing
- **Tree planting & preserving biodiversity**
  - Timber species
  - Bamboo
  - Legumes



Galamstop is a single-window application that connects to various agencies to :

1. Monitor Mining License lifecycle
2. Monitor the lifecycle of other mining related licenses / permits
3. Report on the Activities of miners on their concession

**Galamstop has two parts:**

1. Field data collection application (on a ruggedized tablet)
2. Data/ mining company management system

# Drones Procured

	Phantoms series		Matrics series	DeltaQuad
	Proposed	Ordered	Ordered	Ordered
Districts (DCIMs)	130	60	-	-
Regions (Ministers)	16	8	-	-
Nation (IMCIM) - Mapping	-	9	1	
Nation (IMCIM)- Monitoring	-	-	1	2
Operation Vanguard	10	8	-	-
Minerals Commission	5	5	-	-
<b>Total</b>		<b>90</b>	<b>2</b>	<b>2</b>



Phantom 4 Pro + (30 mins +)



Matrice 210 Series (40 mins +)  
 ↑  
 Has a thermal camera for night vision

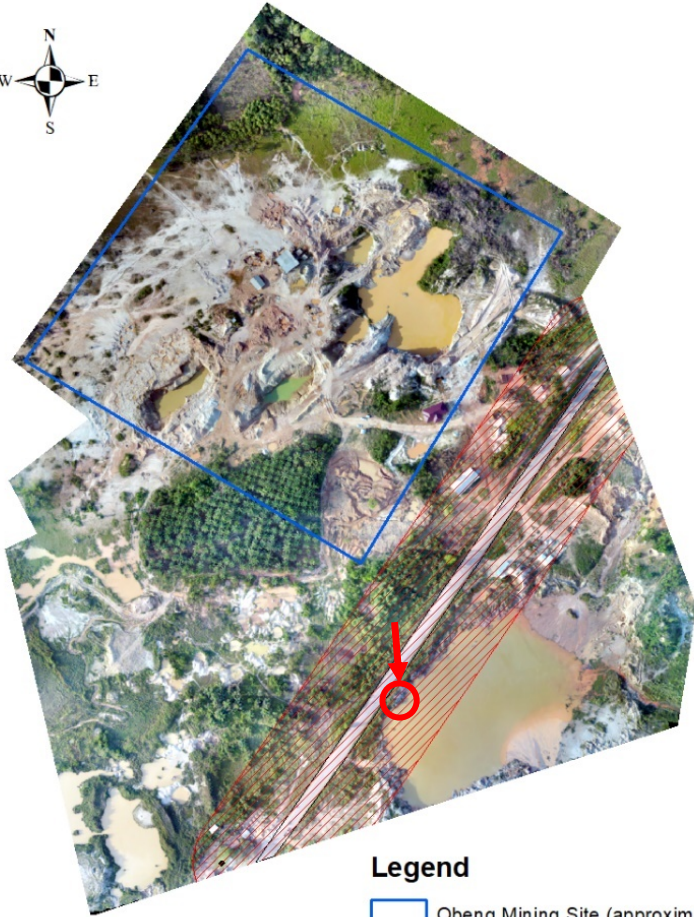


DeltaQuad (2 hrs+)



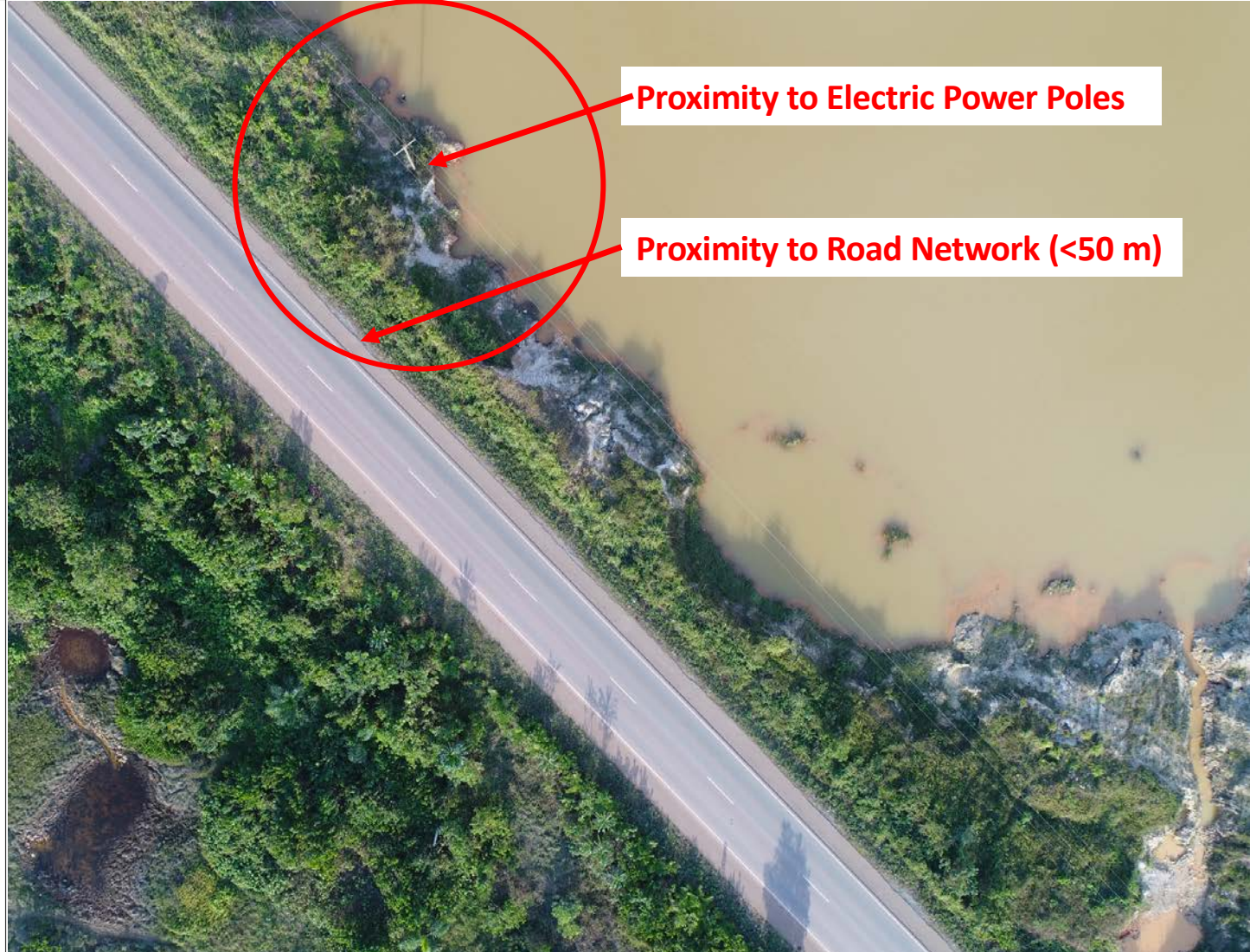
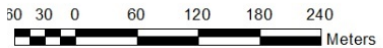
# Evaluation of Degraded Land

Obeng Mining Enterprise and Other Mining Sites (Japa)



## Legend

-  Obeng Mining Site (approximate)
-  Buffer around Road
-  Road



# Deployment of a Monitoring Team Equipped with Drones and Security Personnel

Illegal Mining Sites within the Concession of Newmont Ghana Limited, Kenyasi



## Legend

-  Zoomed Area of Interest
-  Illegal Mining Sites

0 3 6 12 18 24 Meters

# Measure to Prevent recurrence of Illegal Mining

## Monitoring and compliance

- Satellite imagery
- Use of drones
  - drones for all mining districts
  - training of 160 drone pilots begun at UMaT
- GalamStop monitoring software
- Creation of 3 mining districts and 14 satellite offices
  - 540 mining inspectors under training
  - 26 pick-ups purchased
- Operation Vanguard to continue its activities
- Community Mining for unregistered miners
- National Association of Small Scale Miners to self-regulate activities of their members<sup>43</sup>

# **Formalising ASM in Ghana - A case for Community and Model Small-scale Mines**

**Inter-Ministerial Committee on ILLEGAL MINING (IMCIM)**

# FIGHT AGAINST ILLEGAL MINING

- 4000 Miners trained
- Water bodies improving
- Alternative livelihood projects going on
- Many Asians have been deported, others left for neighbouring countries
- Fight enjoys the support of majority of Ghanaians

# Concept of Community Mines

- The small-scale mining law allows citizens, 18 years and above to apply for and own mines.
- However, not every Ghanaian is in the position to own a mine or be part of a co-operative that own mines.
- Many of the youth in the community who intend to mine but cannot own one, may find employment in these mines.

# Concept of Community Mines

- This will be a major step towards formalisation as it will give virtually all miners an official cover.
- It is expected that at least one community mine will be set up in each of the mining districts.
- The community mines will provide employment for the over 4000 miners that have been trained by Government at the University of Mines and Technology.

# Strategy and Implementation

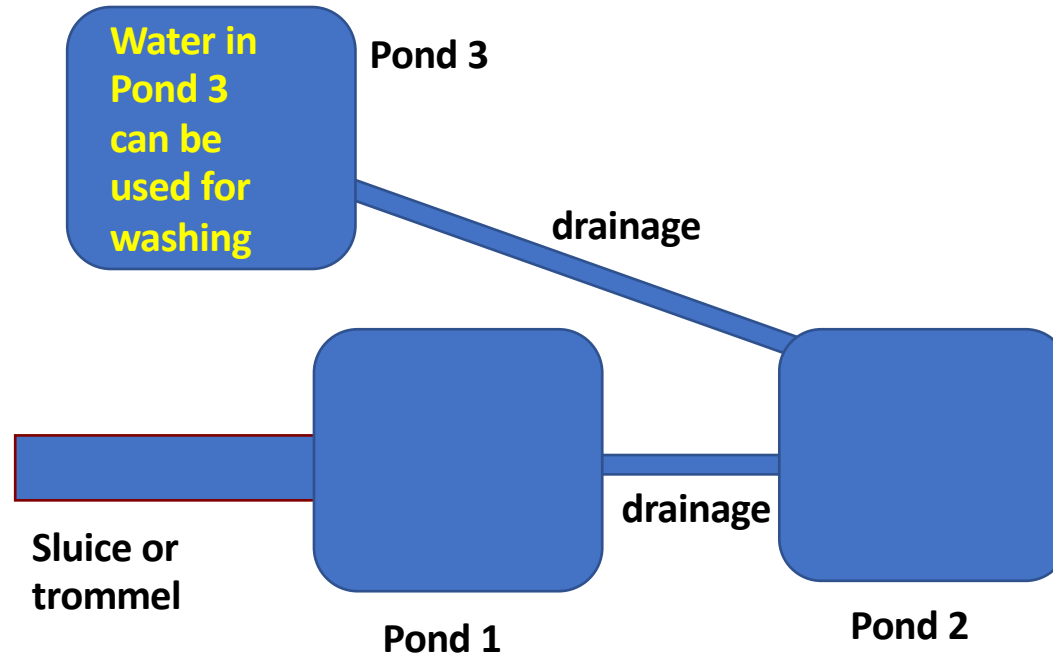
The rights steps for mining will be followed for both the model and community mines

- Geological investigations\*
- Proper layout and mining systems
- Standard extraction processes (mercury-free)
- Tailings management and water recycling facilities
- Acceptable management and accounting practices



# Water Recycling

- 3-pond water purification system



# OPEN BURNING OF AMALGAM



# DIRECT SMELTING



# Benefits of Community Mines

- Community mines will:
  - ✓ Help with formalisation of ASM
  - ✓ Contribute to the 1D -1F agenda **(over 70 factories);**
  - ✓ Create jobs and enhance local economic development;

# Benefits of Model Mines

- Model mines will:
  - ✓ Set standards for ASM in Ghana;
  - ✓ Serve as training grounds for workers in the community mines

# LESSONS LEARNT & OBSERVATIONS (1)

- **EFFECT OF PRESENCE OF OPERATION VANGUARD**
  - Reduction in armed robbery
  - Reduction in rape cases
  - Reduction in petty crime
  - Mining sites **NOT** under control of armed gangs

# LESSONS LEARNT & OBSERVATIONS (2)

- **REGULARISATION OF SMALL-SCALE MINING (COMMUNITY MINING)**
  - Improvement in water quality
  - Reduced deforestation
  - Reduced rate of loss of farmlands
  - Reduced rate of soil pollution
  - Reduced poaching
  - Reduction of conflicts between traditional rulers and miners
  - Increased economic activities in communities
  - Improved environmental sanitation

# LESSONS LEARNT & OBSERVATIONS (3)

- **REDUCTION IN SOCIAL VICES**
  - **Teen age pregnancies**
  - **Prostitution**
  - **Alcoholism**
  - **Drugs**
  - **Disrespect for local political & traditional authorities**
  - **Reduction in extortion of monies by renegade security agents**





*Thank you*