

Health Impact Assessment in Extractive Industries within Ghana

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Introduction

Extractive Industries in Ghana:

- Over 100 years of mining in Ghana: gold, diamonds, bauxite, salt, sand winning
- Exploitation in formal sector done mainly by multinational companies
- Recent policies & legislation on small scale mining
- Existence of large pool of artisanal informal sector miners : ‘Galamsey’ operatives
- Recent oil find fuelling development of oil & gas sector : Floating Production Storage & Offloading (FPSO) unit under construction & due to start drilling offshore in November 2010

Key Issues

- How has HIA been used in the mining sector?
- How has the health sector been involved in HIA?
- Entry points for HIA
- Challenges & Opportunities

How has HIA been used in mining sector?

(I)

I. Legislation :

A. Mining Regulations 1970? : Not much provision on HIA .

- Health issues covered border on provision of sanitary facilities in mines & provision of medical care for injured
- No formal requirement from health sector on HIAs

B. Environmental Assessment Regulations, 1999 LI 1652:makes some provision for ‘protection of human health & environment’

Environmental Assessment Regulations

- Part 1 Section 1(2): No commencement of activities in respect of undertaking likely to have adverse effect on environment or public health unlessenvironmental permit issued by EPA
- Part1 Section 5(2): Screening: ...Applicant shall submit report indicating:
 - a) ...‘environmental, health & safety impact of undertaking’
 - c) ‘Clear commitment to address unavoidable environmental and health impacts & steps... for their reduction’

How has HIA been applied in mining sector? (II)

C. HIA in Environmental Assessments: The Practice

- i. Earlier reviews (late 1990s under EPA) : revealed paucity of health-related & OSH considerations in environmental impact statements
- ii. UNIDO sponsored study on impact of mercury on artisanal miners (2003) : Body burden below reference levels
- iii. Socio-economic and health survey component of the EIA /SEA study under Mining Sector Support (auspices of Minerals Commission; EU sponsored) Project (2005-2008)

Methods: Interviews, FGDs, health records review, biological monitoring

Findings of MSSP-Health Component

A. Community perceptions

- Various types of ill-health attributed by communities to mining activities eg blasting of rocks causing strokes, & whooping cough & diarrhoeal diseases from the dust .
- In most cases not possible to confirm assertion as direct impact of mining : due to absence of baseline information preceding mining, limitations in use of public health facility data for monitoring (incompleteness, health seeking behaviours etc)

B. Biological Monitoring:

- However study was able to draw associations between human body burden of Heavy metal Arsenic & contamination of river sediments & fish :
 - study proposed follow-up work & mitigation measures

Arsenic

Screening results in Obuasi area

Levels of arsenic in hair ($\mu\text{g/g}$)

	Mean result	Max result	Min result
Wiaso	1,59	3,79	0,46
Dokyiwa	16,94	63,60	2,92
Kwabrafoso	22,66	114,00	1,39

HIA in mining sector II

C. Health System Issues:

- Inadequate collaboration between health facilities run by mining companies and the local health authorities : lack of clear policy guidelines for engaging with each other., no legal requirement for disclosure of data eg Newmont's baseline study, etc.
- Mining companies develop community health interventions without much collaboration with local health authorities and not integrated into the short and long term plans of the local authorities
- Health sector has not been pro-active in engaging mining sector

HIA in mining sector III

- Examples of improved collaboration :
 - AngloGold Ashanti's malaria control program in Obuasi. But
- Not integrated into NMCP Hence raises issue of long term sustainability
 - Ghana Manganese Company participatory approach to total community involvement
 - Newmont's attempt to involve H sector in community health initiatives

HIA in Oil & Gas sector

- Community perceptions: **High Expectations** (JOB CREATION!) vrs **Apprehension** (INTERFERENCE WITH FISHING,)
- If ramifications are not well investigated & managed, likely to lead to serious health consequences eg
 - i. reduced fish catches increasing poverty
 - ii. Shift from agriculture to other sectors posing threats to food security :
 - increasing malnutrition in children under 5yrs in Vulnerable region
- **27% under-nutrition (national average avg 14%) in W.Region:**
 - **1 of 2 regions with highest rates of severe anaemia (11-12%)**
- Influx of labour : Human settlement impacts incl. overstretched social services eg water & sanitation, slum creation, increasing risk of communicable diseases, injuries from RTAs, crime etc
- Prostitution with increase in STIs & HIV/AIDS
- Health Systems : ? Ability of health service infrastructure and personnel (numbers & specialties) to cope with increased burden

HIA in Oil & Gas Sector to date

- Tullow Oil EIA (Exploration) : Environmental permit granted
- SEA of oil and gas sector: Scoping report completed & recent stakeholder meeting
- Limited consideration of health issues: HIV prominent
- Health sector involvement: So far limited to participation in SEA stakeholder meeting.
- MOH/GHS / WHO emphasized the need for greater focus on health systems & more holistic assessment of impacts

Opportunities (I)

- Country missed out by not adequately integrating key health issues in mining from onset.
- For Oil & Gas sector: Opportunities exist for managing anticipated health challenges through:
 - i. Reinforcing importance of public health mandate within EIA Regulations : via inclusion of holistic HIA in the SEA & EIAs being conducted on the Jubilee Field etc
 - ii. Country's environment & health sectors have signed on to Libreville Declaration
 - iii. Health can provide important links to important development goals eg MDGs :poverty, environment, women empowerment

Opportunities (II)

- iv. Strengthening of health systems : through a ‘health in all policies’ approach within extractive industry sector will
 - facilitate health sector’s anticipation of increasing demands to be made on it and
 - enable it together with extractive industry sector to plan ahead for human & material resources
 - facilitate early introduction of preventive or corrective actions
 - facilitate engagement with local communities

Opportunities (III)

v. On-going Monitoring

- a) Using health as entry point to demonstrate impacts not easily identified from environment or social viewpoint by means of readily verifiable indicators: eg
 - Reduction in respiratory ill-health following envisaged shift from use of fossil fuels to LPG gas
 - Early Identification, & management of disease outbreaks resulting from inadequate sanitation facilities
- b) Expansion of scope of mechanisms in place by some lending institutions for monitoring community concerns & effects of undertakings to more fully incorporate health issues , in collaboration with state agencies (eg the World Bank Review Inspection Panel)

Challenges

- Health & environment sectors' understanding of the process & willingness to forge a new & closer relationship
- Maintaining participatory approach as broadly as possible, essential in ensuring the sustainability of projects
- Generation of primary data locally to complement existing routine data sources
- Application of sustainable HIA procedures occasioned by small scale and informal economy where considerable proportion of operatives eg in mining are found

Conclusion

- Not much advantage taken yet of HIA as a tool for sustainable development in extractive industry sector
- HIA offers immense potential for positively impacting health and socio-economic development
- Need for Ghana to explore opportunities for evolving HIA system while learning from experiences of other countries