



# West Africa Regional Training Workshop on Environment, Community, Health and Safety

Accra, Ghana,  
15-18 March 2016

Programme Partners:



Empowered lives.  
Resilient nations.

Event Partners:



ACP-EU Development Minerals Programme.  
Implemented in Partnership with UNDP

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This study is published as part of the publication series: *Development Minerals in Africa, the Caribbean and the Pacific*

**About the ACP-EU Development Minerals Programme:** The ACP-EU Development Minerals Programme is an initiative of African, Caribbean Pacific (ACP) Group of States, coordinated by the ACP Secretariat, financed by the European Commission and United Nations Development Programme (UNDP) and implemented by UNDP. This €13.1 million capacity building program aims to build the profile and improve the management of Development Minerals in Africa, the Caribbean and the Pacific. The sector includes the mining of industrial minerals, construction materials, dimension stones and semi-precious stones.

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## Acknowledgements

The **ACP-EU Development Minerals Programme** delivered its third Regional Training Workshop on Environment Community Health and Safety in Accra Ghana. In addition to the programme partners, the African, Caribbean, Pacific (ACP) Group of States, the European Union and the United Nations Development Programme, the workshop was co-hosted by Ghana's Minerals Commission, the African Union Commission (AUC), the African Minerals Development Centre (AMDC), and the Economic Community of West African States (ECOWAS). Each of these partners is acknowledged for their patronage and support.

Appreciation goes to the country participants who participated actively and were deeply engaged in all sessions of the intense and compacted training workshop. Additionally, the mine owners and miners at the three field visit sites and the Minerals Commission of Ghana, are acknowledged for the unique opportunity provided to the workshop participants to witness first-hand, the intricacies of artisanal and small scale mining and large scale mining of Development Minerals in Ghana.

Special thanks are extended to the guest speakers namely William Baidoe, ECOWAS, Energy & Mines and Kyei Kwadwo Yamoah, Programme Manager Friends of the Nation, Ghana for sharing practical, hands-on experience with the workshop participants and to the co-trainers who made significant contributions to the workshop.

The workshop benefited immeasurably from the translators who bridged the communication gap between the Anglophones and Francophones and the drivers that for long hours drove the participants to the field visit sites. All are highly thanked.

Gratitude is further extended to the UNDP Country Office in Ghana for their invaluable commitment and logistics facilitation during the workshop delivery, in particular Bernard Gouw and Kordzo Sedegah.

Further acknowledgements go to Dr. Franks, Manager of the ACP-EU Development Minerals Programme, Brussels for his guidance and important insights during the preparation of the workshop content.



## Introduction and Background

The ACP-EU Development Minerals Programme is an initiative of African, Caribbean Pacific (ACP) Group of States, coordinated by the ACP Secretariat, financed by the European Commission and United Nations Development Programme (UNDP) and implemented by UNDP. This €13.1 million capacity building program aims to build the profile and improve the management of Development Minerals in Africa, the Caribbean and the Pacific. The sector includes the mining of industrial minerals, construction materials, dimension stones and semi-precious stones.

The Programme held its first Regional Training Workshop in Addis Ababa in November of 2015 in Partnership with the African Union Commission (AUC) and the African Minerals Development Center (AMDC) and has since been swiftly implementing activities at both the regional and country levels. At the regional level, the Programme has been conducting training activities and developing knowledge products. At the country level training is being accompanied with other activities, such as small grants and partnerships to produce maps and databases on Development Minerals, the review of policy and regulations, organizing community dialogues, addressing grievances, holding exhibitions, technology fairs and networking events etc. The thematic areas of the Programme are: 1) mine and quarry management; 2) environment, health and safety; 3) entrepreneurship skills; 4) market analysis and investment promotion; 5) geo-data and maps design; 6) community relations and addressing grievances.

The present report aims to document the West Africa Regional Training Workshop on Environment, Community, Health & Safety held between the 15th and the 18th of March 2016 in Accra, Ghana. The workshop was attended by 62 participants from 12 countries of West Africa.

The trainers for the workshop were Professor Salvador Mondlane, Eduardo Mondlane University, Mozambique, Lacina Pakoun, UNDP and Caroline Ngonze, UNDP. The trainers were supported by guest speakers from ECOWAS, AMDC, Friends of the Nation, Ghana and . Field visits to three active quarry and mining sites (a granite quarry, a limestone quarry and quartzite artisanal mine) helped the participants to relate the workshop themes with real cases. Hence, it was a unique opportunity to engage with operators and artisanal miners on the ground and exchange views on strengths, challenges and possible areas of improvement in the environmental issues related to the mineral extraction process.

## Training Workshop Objectives

The main objective of the training workshop was to improve the capacity of key stakeholders working in the Development Minerals (DM) sector, on the issues related to environment, health and safety, community relations and quarry management.

Specifically the workshop aimed to:

- Increase the awareness of environment, community, and health and safety issues and challenges in the DM sector;
- Promote south-south knowledge exchange on the practices and governance arrangements necessary for the DM sector to contribute to inclusive and sustainable development;
- Build the capacity of individual stakeholders in the DM sector through participation in the training workshop and the preparation of return-to-work plans.

The Training was delivered using a blend of techniques that included formal power point presentations, group work, group presentations and discussion, plenary discussions, practical exercises, knowledge sharing and field work.

### Partnering with leading regional organizations

The ACP-EU Development Minerals Programme continued its partnership with the Africa Union Commission (AUC) and the African Minerals Development Center (AMDC) in the delivery of the training workshop in West Africa. In addition ECOWAS joined as a regional partner. The Africa Union (AU) supported the workshop through participation in the event and the development of event agenda. The AMDC and ECOWAS supported the event with technical expertise to review the programme curricula and make a guest presentation. AMDC also assisted in the recruitment of the lead trainer. As recognition of their contribution and engagement, AUC, AMDC and ECOWAS were designated event partners, signified by their logo on workshop documents as well as training materials, while ACP, EU and UNDP were identified as the Programme partners.

## Participants overview

A total of sixty two (62) participants from twelve (12) countries benefitted from the workshop of which eight (8) were self-sponsored participants. The participants represented: Benin, Burkina Faso, Cote d'Ivoire, Ghana, Guinea, Mali, Mauritania, Niger, Nigeria, Sénégal, Sierra Leone and Togo. The presence of self-sponsored participants was a particularity of this workshop as for the first time, the curricula attracted sector stakeholders who decided to pay for themselves to attend the programme. From the eight (8) self-sponsored participants, five (5) were Nigerians, one (1) Togolese and two (2) Mauritians. While the Nigerians were individually self-sponsored, the Togolese participant—a woman miner—was sponsored by AFEMET, an association of Togo women miners. In addition, BGR, the German Federal Institute for Geosciences and Natural Resources, which is active in Mauritania sponsored the two participants from that country to the workshop. The presence of these self-sponsored participants was deemed to be a successful feature of the programme to be encouraged in

the future to enhance the reach of the programme.

### Process for selection of training participants

The selection process included a detailed request for applications, that was followed by a thorough assessment and nomination of the workshop participants, with special care taken to ensure that all four key stake holders of the programme were represented, while ensuring adequate representation of women participants. The programme focal points within government ministries of the participating countries supported the selection process.

### The request for applications

The Request for Applications was publicly announced on January 15, 2016. The Request was sent to the Programme focal points in the represented countries, the embassies of the represented countries in Brussels, and a large list of interested stakeholders. The announcement was posted in a range of for public fora, including GOXI and EcoMinerals list-serve. More than one-hundred applications were received from the targeted countries.

### Participants selection

The selection criteria for the participants was as follows:

- Experienced professionals working in at least one of the fields of environment, community, gender, or health and safety related to the mining of low value commodities.
- Minimum of 3 years of relevant professional experience in capacity building related to mining and sustainable development with a strong background in artisanal and small scale mining of low value minerals and materials.
- Working knowledge of one or more of the following commodity subsectors an advantage: construction materials; dimension stones; industrial minerals and semi-precious stones.
- Currently employed by an organization with relevance to the training thematic areas (unemployed participants will not be considered).
- Familiarity with international standards as well as industry best practice on mining governance, health & safety, environment, gender and community considered an asset.

## Overview of the Training Workshop

The Training programme comprised practical and theoretical elements. The main topics of the training workshop included: general concepts of DM, the environmental issues related to DM operations, the gender and community health, community relations, dialogue and rights,



enhancing the domestic linkages from DM, policies and regulations for DM and the return to work plans. On the day three the participants had a unique opportunity of carrying field work and observe *in locus* some of the issues discussed in the training. The training was delivered in both English and French with simultaneous translation provided by professional translators.

## Day 1

### Opening Ceremony

The opening ceremony was led by Hon. Nii Osah Mills, Minister of Lands and Natural Resources of Ghana who stressed the economic and social importance of DM in Ghana and in West Africa. His opening speech was preceded by remarks from Viwanou Gnassounou, Assistant Secretary General, ACP (by video speech), William Ansah Baidoe, ECOWAS representative, Mr. Johannes van der Ploeg, representative of the EU Delegation in Ghana and Mr. Mulugeta Abebe, UNDP Deputy Country Director for Ghana. Abstracts from some of the opening remarks are presented in the boxes below .

The event got an important media coverage which was echoed in Ghana media outlets<sup>1</sup>.

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<sup>1</sup> <http://www.ghananewsagency.org/economics/ghana-hosts-workshop-on-low-valued-minerals-101691>  
<http://www.newsghana.com.gh/workshop-on-management-of-low-valued-minerals-held/>  
<http://www.thefinderonline.com/News/Minister-makes-case-for-low-value-minerals.html>  
<http://omnighana.com/news/african-experts-meet-ghana-neglected-development-minerals/>  
<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-hosts-workshop-on-low-valued-minerals-424272>  
<http://www.ghanaweb.com/GhanaHomePage/business/Low-value-minerals-gain-attention-424971>

### **Box 1: The ACP Secretariat**

Honorable Nii Osah Mills, Minister of Land and Natural Resources of Ghana, Representative of the EU Delegation to Ghana, [...] Honourable Guests, Ladies and gentlemen, It is a great pleasure to have all of you gathered here in Accra for the Workshop on Environment Community Health and Safety in the Neglected Development Minerals sector. It's no easy to bring together 62 peoples [...] we are therefore happy to be able to take the challenge together with the EU and UNDP our partners. We also acknowledge the role of ECOWAS and AMDC in the implementation of the Programme.

One of the most striking paradox of our time which is also real in ACP countries is that people suffer while surrounded with abundance. This characterizes the minerals sector as our countries are blessed with tremendous potentials but poverty is still rampant [...] We think that harnessing the potential of the minerals sector could curve this situation. In 2012 55% of total export from ACP countries were minerals products. [...] based on this facts, a Framework of Action for the development of the minerals sector has been adopted by the ACP Countries Ministers and validated in 2011 [...]. This framework has 6 strategic areas of which 3 have been selected to be implemented under the current Programme. These 3 areas [...] are linked to (i) environmental and social impact reduction, (ii) capacity development of small scale operators and of (iii) public institutions [...] This has been inspired by the African Mining Vision which is the compass of the industry. That Vision highlights what the Programme will be undertaking in the sector including a variety of commodities in order to stimulate local and national business development that improve livelihood and integrate rural and small scale miners in sector development. This is particularly relevant at this stage of the Programme as we've been witnessing a continuous decline in commodities price on international markets.

The ACP-EU Development Minerals Programme is one of our key programmes adopted under the 10th EDF to insure economies transformation of our countries [...] We are seeking an inclusive development of mineral sector in order to ensure poverty reduction; improve policies and regulations for ASM (highly demanded by member States), minimize environmental impact on communities including rights protection and conflict prevention in operations.

2015 was a special year for the implementation of the Programme. At the international cooperation level, the strategic framework 2014-2020 that funds EU-ACP cooperation action under the 11th EDF was adopted. Additionally, the SDGs have been adopted by the United Nation [...] and COP 21 where we've decided to work together towards a reduced human born impact on the environment opening a post 2015 new development era. For the ACP Group, [...] Objective 9 relating to the priorities established under partnership in terms of resilient infrastructure building that promote inclusivity and durable industrialization in favour of innovation is a relevant one that the Programme can address even though it was design prior to the adoption of the SDGs.

We want to make sure that the implementation of the programme greatly contribute to the achievement of the SDGs so as during end line evaluation we can show results that reflect our common pledge from New York.

[...] I wish that this workshop serves as catalyser of all the positive changes that you also promote in the sector and in your respective countries. We no longer want the Development Minerals industry to be seen as neglected but as one that has a high potential that contribute to inclusive and sustainable development. This can be achieved not only through relevant policies but also necessary regulations that will allow stakeholder to confidently develop sector potential. [...]

**By Viwanou Gnassounou, Assistant Secretary General, ACP (video speech)**

## Box 2: The ECOWAS Commission

“On behalf of the Commissioner, Energy & Mines who unavoidably is on another institutional Mission, we wish to express ECOWAS Commission’s profound appreciation to everyone present, to be part of this Regional Training Workshop on Environment, Community, Health and Safety in the Neglected Development Minerals Subsector “[...] The Commission trusts that our Community can transform its Nature’s endowment of non-renewable natural resource capital to other demonstrably measurable forms of sustainable development capital. [...] This Training Workshop could assist deepen the convergence of our differing positions, at least, in the Neglected Development Minerals Subsector. To this end, this Workshop, whose stated objectives include, amongst others –

1. Assist increase the sub-sector’s productivity;
2. Encourage better management of related mining operations;
3. Enhance knowledge in environmental sustainability and standards;
4. Enhance effective community relations towards conflict reduction;

– aligns very well with our Community’s vision.”[...]“ As an aside, our regional petroleum policy which is under formulation shall of necessity, emphasize on the development of a regional petrochemicals industry that seeks to diversify economic linkages through the use of locally produced materials such as Neglected Development Minerals inputs to its infrastructures.”

**William Ansah Baidoe**

## Box 3: The Ghana Minister of Land and Mineral Resources

Mr. Chairman, Head, EU Delegation in Ghana [...] Distinguished Participants, Ladies and Gentlemen. Allow me to thank the organisers for choosing Ghana to host such a significant workshop. To all of you who have come from within and beyond our borders [...], I welcome you and convey good wishes from His Excellency John Dramani Mahama, the President of the Republic of Ghana, who is working with his colleague Heads of States to ensure that mining contributes to structural transformation of our economies. [...]



I am happy for the choice of the workshop theme, which I believe positions the development of these minerals within the current continental paradigm for development catalysed by mining, the Africa Mining Vision. [...] A number of low value minerals are exploited in Ghana. These include; limestone, granite, quartzites, clay minerals among others. These minerals are currently being mined on a small scale compared to the major minerals; gold, bauxite, manganese and diamonds [...].

[...] Ghana has been importing ceramic products. Available statistics show that in 2011 alone, ceramic products imported into the country amounted to GHC156 million. Thus harnessing these minerals will create jobs for local people, encourage local entrepreneurship and enhance socio-economic development. Additionally, since, these minerals are mostly exploited on small scale basis, it is imperative that governments’ develop policies aimed at improving the environmental impact from their operations. [...] It is worth noting that the goal of ensuring that mining takes place in a responsible manner will be difficult to achieve if the social and the environmental impacts resulting from mining activities are not properly regulated and managed. We will therefore expect active collaboration and support from all stakeholders on this journey.

**Honorable Nii Osah Mills, Minister of Land and Natural Resources of Ghana**

## Session 1. Development Minerals

**Session 1** was designed to prepare the participants and facilitate their immersion in the world of Development Minerals and to take ownership of the training workshop. To that end, three activities have been designed to enlighten participants and engage them in an interactive manner. Namely, (i) an introductory module on Development Minerals (DM), a guest presentation on (ii) Industrial minerals, construction materials, dimension stones and semi-precious stones in West Africa and lastly (iii) a knowledge sharing session – on the Mapping of Development Minerals in each country.

### Module 1 - Introduction to 'Development Minerals' and so called 'Low Value Minerals and Materials'

The main objective of this module was to level the knowledge of the participants on the basic concepts on the DM. The module discusses also the different uses of the four DM groups, namely industrial minerals and rocks, dimension stones, construction materials and semi-precious stones.

The expectations to this module were to capacitate all participants and give them a clear understanding of what DMs are and be able to appreciate their importance in their own countries both economically and socially.

### **Guest Presentation - Industrial minerals, construction materials, dimension stones and semi-precious stones in West Africa, by Charles Akong, AMDC**

The Guest Speaker framed his presentation around the importance of DM and how they represent *low hanging fruits* for the West African Region and dowed around the statistics in terms of demand for DM and gave examples of the Dangote Group as success story in the utilisation of DM. He also framed the discussion in terms of regional policy response, mainly around AMV and its implementation instruments. And stressed the importance of the value addition in the continent.

As expected results, the presentation aimed at enhancing participant's knowledge on DMs in West African Region's context. The module and the guest presentation were both delivered through formal PowerPoint presentation followed by group work.

### **Knowledge sharing –Exercise 1: Mapping of Development Minerals**

The knowledge sharing was guided by a set of questions that participants grouped by countries of origin had to answer on a flip chart and later present to the plenary.

1. Which of the described materials are produced in your country?
2. Describe the models of production and licensing procedures.

3. What are the main uses of industrial material mined in your country?
4. Describe the market structure including prices where possible

At the end two countries—Nigeria and Ghana— were selected to make plenary presentations of their answers as way to share the knowledge with other countries. The presentation was followed by discussion for clarification and exchange of information.

NIGERIA	
1 Minerals	Location
(a) Baryte	Nassauwari, Zangaria, Alkwar
(b) Gypsum	Baure, Taraba,
(c) Limestone	Gombe, Yobe, Edo, Kogi
(d) Dimension Stone	Abia
(e) Graphyte	Cross River, Ogun, Ebonyi, Kogi
(f) Granite	Nokkar, Gombe, Abia
(g) Salt	Kachuma, Ogun, Kogi, Abia
(h) Talc	Kachuma, Ogun, Kogi, Abia
(i) Kaolin	Abia, Kogi, Bauchi, Gombe, Plateau
(j) S	

Minerals	Uses
Baryte	As drilling mud for Oil Coys paper industry, paint etc
Gypsum	As cementing material for Cement manufacture
Limestone	As POP Cement raw material Hydrated Lime.
Granite	Aggregates/Construction.
Dimension Stones	Dimension/stones: Esthetic tiles & Slabs
Kaolin	Pharmaceutical raw materials, Paints, paper etc
Salt	Edible as Seasoning.
Graphyte	Battery

Figure 1. Illustration of the mapping of existing DM in Nigeria.



Figure 2. Group work – Ghana during the mapping of the DM.



## Summary of discussions

### Box 4: Main points of the discussions

Why call these minerals and materials “Neglected Development Minerals”?

Why dimension stones are classified as LVMM.

Diamonds are high value, so why include them in the DM?

Is there any development strategy for the DM in the West African Region or elsewhere?

Does UNDP have data on where private sector can invest when it concerns DM?

## Session 2. Environment

As the extraction of Development Minerals can have a significant impact on the environment, session 2 was framed to draw the attention of participants to specific issues and how they should be taken into consideration.

### Module 2: Environment

This module aimed at introducing the principles of environmental impacts resulting from DM operations in all stages, namely, exploration, mining, processing or treatment and mine closure and decommissioning; and it also elaborated further on the environmental impacts resulting from DM operations, especially the air and water, dust, noise and vibration. As a result, participants recognized the different phases of operations and their associated environmental impacts including mitigation measures for each phase.

The module was delivered through presentation which made a brief description of principles of environmental impacts of DM operations in all stages of the value chain. The presentation also discussed the impacts on air and water, and dust, noise and vibration as common impacts in DM.

### **Guest Presentation: Civil society perspectives on the environmental impacts of quarrying and alluvial sand mining in Ghana**

The presenter discussed the environmental impacts of quarrying and alluvial mining in Ghana with emphasis on quarrying and alluvial sand mining. Participants were delighted with specific impact of both commodities as they are currently being mined in Ghana mainly the unassisted use of explosives in artisanal quarrying and river bed siltation / degradation and disruption/modification of hydrography in alluvial mining areas.



The two powerpoint presentations were followed by a knowledge sharing session where participants were grouped by country of origin.

### Knowledge sharing – Environmental impacts of Development Minerals

The knowledge sharing was guided by a set of questions that participants grouped in countries of origin had to answer on a flip chart and later present to the plenary.

The main question that guided the knowledge sharing in this section were:

- What environmental impacts that can be clearly identified in the production process of the DM mined in your country (Choose only two commodities)?
- Take into account the mining life-cycle approach (exploration – mining – processing – use and closure/rehabilitation).



Figure 3. Group work (Niger and Mali) describing the environmental impacts of the DM mined in their countries.

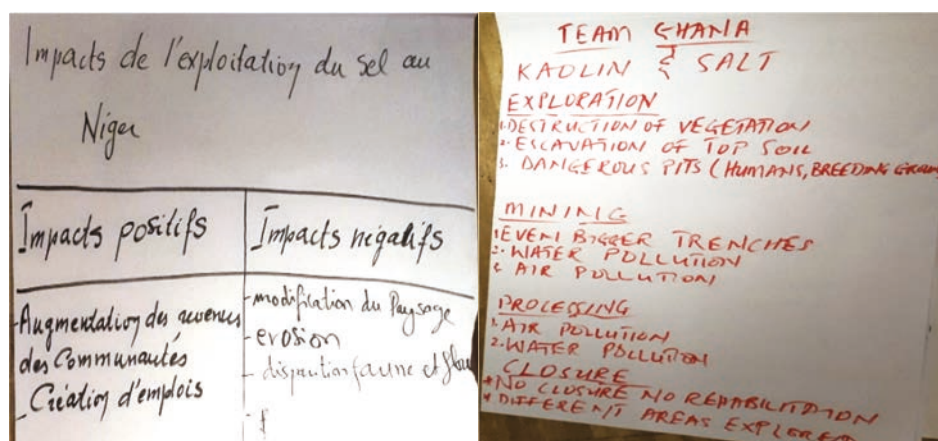


Figure 4. Illustration of notes from Niger (left) and Ghana (right) during the knowledge sharing

## Summary of discussions

### Box 5: Main points of the discussions

The participants interactively asked questions to the guest speaker mainly to elaborate on issues related to resettlement policies and community issues on quarrying and alluvial mining.

The discussion also stressed the need to clarify what can be considered the perspective of Civil Society as indicated in the title of the presentation.

The participants have asked a number of question seeking clarifications, especially the following:

According to the participants, it is recognised that the mining of DM produce negative environmental impacts, however, there is also need to list the positive impacts related to DM operations.

The participants asked the guest speaker how the mining of DM impact the underground aquifers?

The participants also recognised that the mining legacies are one of the major environmental problem in some countries of West Africa (e.g. Burkina Faso).

The participants also discussed the challenges for monitoring DM operations in West Africa?

## Day 2

### Session 3. Occupational Health and Safety (OHS)

#### Module 3: Occupational Health and Safety

The main objective of this module was to introduce the Occupational health and safety (OHS) or Workplace Health and Safety (WHS) as an area concerned with the safety, health and welfare of people engaged in work or employment. The module discussed also in detail the critical issues related to OHS in the DM operations describing the roles of both employer and employee. The module also highlighted the advantages of **zero accidents** and actions geared towards prevention of accidents and appropriate working environment and conditions.

At the end of the module, all participants were able to identify and discuss workplace and community health and safety issues with an increased ability to critically analyse vulnerabilities and risks associated with mineral operations in host communities.

## Summary of discussions

### Box 6: Main points of the discussions

The presentation was followed by plenary discussion where participants made suggestions and asked questions which included the following key issues:

- It is important to note that the Large Scale Mining (LSM) have high standards on OHS.
- The main concern should be on Artisanal and Small Scale Mining (ASM) and on Development Minerals in particular because they use obsolete machinery, they employ entire family in many cases (man, women and children). The OHS challenges are not overcome with formalization of ASM, there is need to think on the innovative approaches for the sector.
- Probably there is need to develop minimum standards for artisanal and small scale mining of neglected Development Minerals.

The participants shared that the cost of Personal Protection Equipment (PPEs) is prohibitive on one hand, but the poverty lead to, in countries where the government provides PPE to all registered cooperatives, the miners do not wear them. They prefer to use the PPE for parties and other ceremonies. The government has difficulties in enforcing the standards on OHS due to deficient financial and human capacity.

### Guest Presentation: Gender

The main objective of this presentation was to introduce the concepts of community (mining community), health and community health. The module also discussed the role of gender in the ASM communities and the health exposure associated. The module deepened also on the risk factors and the Gender assessment of community health systems in ASM communities.

Delivered by Caroline Ngonze who presented her experiences on the topic, this module sensitized participants to the gender issues in the sector.

## Summary of discussions

### **Box 7: Main points of the discussions**

The presentation was followed by plenary discussion where participants made suggestions and asked questions which included the following key issues:

- Socio-cultural, religious and physiological factors influenced the roles women took up in ASM operations;
- While in some countries (such as Guinea-Conakry), women were represented at all stages of the mining value-chain, in most countries, women were found at the bottom and least profitable position in the ASM value-chain;
- A significant number of children are engaged in child labour in development minerals in many of the countries represented, due to a number of push and pull factors – chief among them – poverty;
- The poverty-driven nature of ASM of DM also predisposed women and children to vulnerability in the sector;
- Several socio-cultural, political and religious barriers were cited as hindrances to women's access to land and mineral resources as primary rights-holders. Most of the access was as secondary rights-holders through male members of the families. Less than 11% of women were noted as primary-rights holders to land for all the 12 West African countries represented at the workshop;
- Lack of access to land as primary rights-holders by women, directly translated to difficulties in accessing financing for ASM operations since they lacked the needed collateral such as land-ownership;
- High rates of female illiteracy compared to their male counterparts indicated inability to draft bankable project proposals for presentation to financial institutions to facilitate financing;
- Women's un-paid care work and reproductive roles in the household impacted on the amount of time women were able to engage in economically productive work in the mining operations
- The need to ensure that all interventions in ASM of neglected development minerals took care of women's practical needs in the sector was emphasized: child care facilities; technologies to make work more efficient; hygiene facilities for the women etc.; while the strategic interests included: gender-responsive policies in education – particularly STEM subjects (science, technology, engineering, maths); SMEs; land rights; family laws on inheritance etc.;
- The design of advocacy and awareness raising activities – particularly on gender and community health needed to be carried out in accordance to the division of labour between women and men;
- The need for gender assessments of community health facilities in ASM operations of neglected development minerals was highlighted; with resultant gender responsive programming being put in place;
- The significant impacts and socio-economic costs of gender-based violence/Violence against women in ASM operations of neglected development minerals was highlighted; leading to the need for effective prevention and response activities to this community and public health issue.

## Session 4. Community Relations, Dialogue and Rights

### Module 4: Community relations, dialogue and rights

The main objective of this module was to introduce the basic principles and practices for effective community relations and discuss the unique circumstances of artisanal and small-scale mining.

The module also discussed the ways to engage with the communities through good practices and how early engagement could improve community relations and prevent conflict in commodity development. The module also elaborated on community relations challenges and perspectives for artisanal and small scale miners of Development Minerals in terms of how they can tailor down existing good practices to the ASM sector.

Delivered in a formal presentation, the module allowed participants to have good understanding of best practices in community relations, dialogue and rights.

#### **Knowledge Sharing: Brainstorming and Feedback on Community Engagement**

The presentation was followed by a group work and a plenary discussion which was guided by the following main points:

- Are there any additional practices and regulations aimed at improving community relations in mining?
- List the practical implementation challenges of each of the community relations approaches described in the module.
- What improvements can be made to adopt CR approaches in ASM for DM?

After a country-based group work, Burkina Faso and Sierra Leone share their experience in Community Relations in plenary session with the other participants.

#### **Summary of discussion points**

#### Box 8: Main points of the discussions

- How to apply the good practices in Community relations in a context where communities themselves are directly involved in non-organized commodity development?
- Why EIA in ASM when it is not really required in many other jurisdiction?
- Conflict often arising from false promises by operators
- Community relations works where expectations are known and transparently dealt with in a participatory manner.
- Extremely high expectations from the communities complicate relations with the communities
- Proper communication with the communities and their involvement in resource development could reduce conflicts.

#### Case study: Burkina Faso

After series of wildcats strike in mine-affected communities, the government decided to initiate mine-community forum. A yearly meeting that offers a unique opportunity to stakeholders to exchange ideas and express concerns relating to mining operation. While the initiative looks great in itself, Burkina participants underlined that it has not really stopped conflict from erupting in many cases as it has been proven that the Forum often failed to provide solution to conflict sensitive matters.

Nonetheless, participants found it relevant and worth replicating in their own country with minor improvements expecting it could work and make a difference.

## Session 5. Economic Opportunities and Business Linkages

### Module 5: Enhancing the domestic economic linkages from Development Minerals

The Module recognizes that the nature of DM has more potential to develop local linkages and has ability to integrate in the local economy by tapping into the lower end of the value chain (i.e. construction industry and services (sand, bricks, aggregates, tiles, etc.) which require limited capital and limited inputs and energy. The main objective of this module was to map and harness the potential linkages that can be developed or induced by DM operations.

The Module also explored the mining value chain for DM and enhanced the main linkages that the sector can generate. The Module introduced the concept of Value Addition versus Value Added approach and was delivered through formal presentation which made participants



knowledgeable on how to develop horizontal and vertical integration and build business resilience, linkages and integrating business into the local economy by tapping into the lower end of the value chain i.e. construction industry and services which require limited capital and limited inputs and energy.

The presentation was followed by group work, where the participants were grouped by country of origin and answered the following questions:

- In country groups the participants map the full value chain of one DM.
- Who are the upstream service providers and suppliers?
- What downstream markets are supported by the selected commodity or products?
- What are the local businesses that are involved and how can they be supported and by who?
- Develop a draft plan on how could you engage the stakeholders in order to improve the economic linkages.

#### **VIDEO (12 min.): Dimension stones value addition, linkages and business opportunities**

The Video demonstrated the different mining methods and the use of marble as dimension stone and illustrated the high and sophisticated cutting technologies on one hand and the still valid manual and traditional production of some products that can be applied on road paving and pedestrian and cyclists' paths. The video defends that paving stones cannot be mechanised due to its peculiarity and need to take advantage of the weak parts of the stone.

From participants' point of view, it was an eye-opening video as it showcases all the wonders that can be made out of stones. It has proven to them that stones-based development is possible and that the potential can be tapped for infrastructure and construction industry.

#### **Knowledge sharing – Local business and value-chain development**

The participants found the video very interesting and inspiring, especially for showing that there are products that do not require any machinery to produce. Others were more interested on the cutting and polishing machinery that was displayed in the Video.

#### **Summary of discussions**

After the group presentations there was further discussion (see Figure 5). The participants shared their experiences on the value chain development in DM and local business opportunities in their countries. The participants were very much interested in know that limestone is raw material not only for cement, but also for numerous other products.

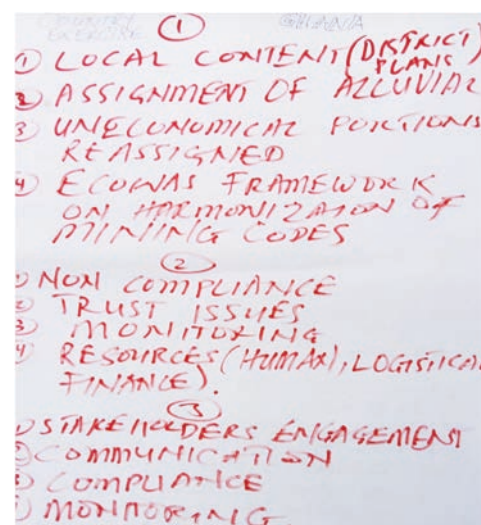
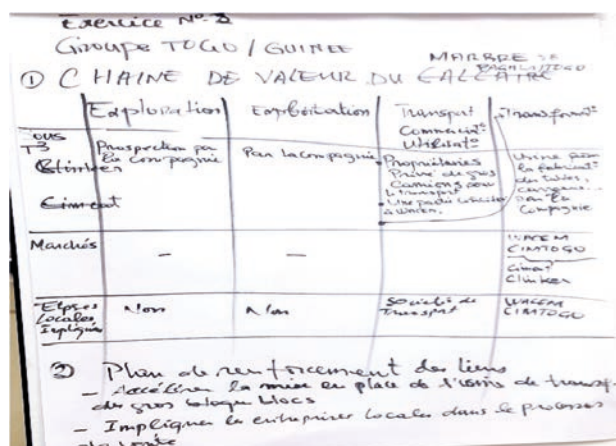


Figure 5. Knowledge sharing group presentations

## Session 6. Field Work

### Module 6: Field visit to three quarry and mining sites in Ghana

A preparatory session was held to orientate participants for the field visit. The purpose of the field visit was to observe in practice the issues that had been discussed in theory over the previous two days. The sites to be visited include a granite quarrying in Shai Hills (industrial-sized operation), a limestone open cast mining (mid-sized quarrying) in Aterkpolu area and a quartzite artisanal mine.

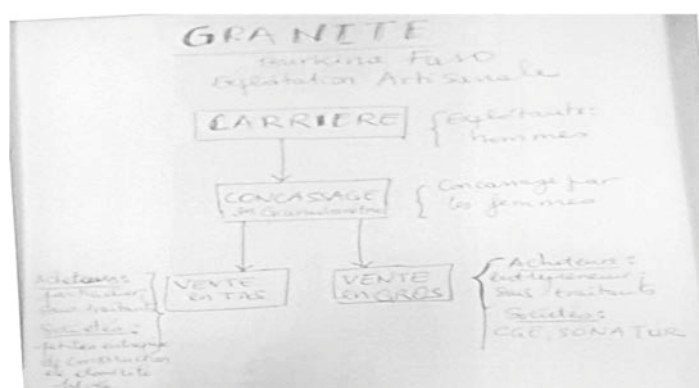
The distance to the furthest point is approximately 94 km from Accra.

The participants were divided into four thematic groups, namely, environment, health and safety, communities, linkages and economic opportunities, and they were briefed in what to observe while in the field.

#### Safety brief and logistics

While going to the field it was recommended that each participant exercise precaution measures that will keep him and the others safe. It was also recommended that participants do not take unnecessary risks by climbing into loose rocks or any other action

that may endanger their physical integrity. The capacity of judging a risky situation is very individual and each and every one will need to be alert and be safe at all time.



The participants were asked to identify the potential risks that may endanger their integrity during the field work. Some of the participants did share their experience in the field as geologists and recommended to the non-geologists on what to wear in terms of colours of the cloths.

The Minerals Commission's representative explained about the places that will be visited and the time of departure and the expected time of return. The UNDP supplied personal protective equipment (PPEs) for the field visit, specifically a high visibility vest, helmet and dust mask.



**Figure 6. Partial view of participants in the field.**

#### **Shai Hills Area [56km from Accra]**

The Shai Hills area is the hub of the Ghanaian quarry industry. Currently there are about twenty active quarries in the Shai Hills vicinity. Two (2) of the quarries will host participants for the field visit. These are Eastern and Cedar Quarries. Rocks suitable for use as aggregate are found in the granitic complexes across the country. In the Greater Accra Region, Dahomeyan garnet hornblende gneiss occurs at Shai Hills. Crushed stone is mined increasingly in Ghana owing to improved mining methods and modernized equipment.

#### **Eastern Quarries**

Eastern Quarries is owned by De Simone a multinational construction firm and is situated at Shai Hills. The quarry has a labour strength of 50.

COMPANY	YEAR	PRODUCTION (m3)
EASTERN QUARRIES	2013	280,614
	2014	216,452
	2015	425,242
TOTAL		922,308

#### Cedar Quarry

Cedar Quarry, a foreign owned company situated at Shai Hills was established in the year 2000. The Company has a labour force of 50 employees. Below is the production statistics from 2013 to 2015.

COMPANY	YEAR	PRODUCTION (m3)
CEDAR QUARRY	2013	62,643
	2014	31,575
	2015	51,774
TOTAL		145,992

#### Limestone: Aterkpolu Deposits [94km from Accra]

The Oterkpolu limestone deposits are located about 6.5 km east of Oterkpolu village. The limestone beds trend northeast and are composed of the main Oterkpolu deposit and two minor deposits at the villages of Yongwasi and Onumaku. Limestone deposits occur within Lower Voltaian sandstone, which is overlain by brown, iron-rich sandstone and underlain by white, coarse-grained sandstone having a localized purplish transition zone. The estimated resources of carbonate rock for the Oterkpolu deposit are 13,258,700 tonnes. The southern deposit totals 7,139,300 tonnes and the northern deposit totals 6,119,400 tonnes.

#### Ghana Cement Co LTD (GHACEM)

The Quarry covers a total land area of 201.21 acres (81.45 ha) and is located at about 1.2 km from Klo-Begoro on the boundary between the Lower Manya Krobo and the Yilo Krobo Municipalities in the Eastern Region of Ghana.

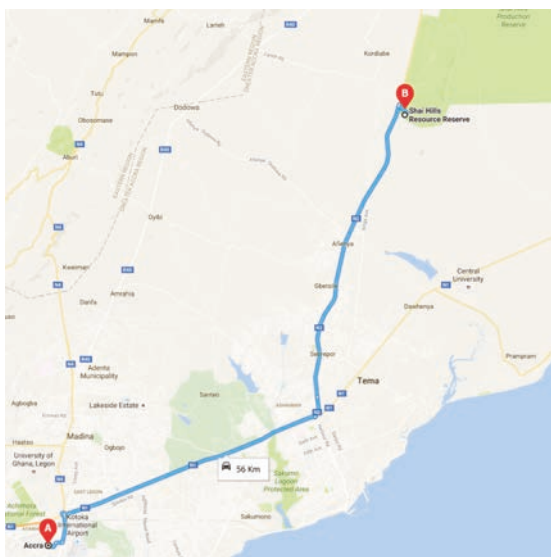
The quarry is managed by the West Africa Quarries Limited (WAQL) with A. J. Fanj Construction Ltd as a mining sub-contractor. The quarry has an installed capacity of 1.2 million metric tonnes per annum, however, current production levels indicates an annual output of 730,376 metric tonnes. The project employs a total workforce of about 400 persons.

GHACEM has been in the cement business for the past forty (40) years and has since 2004 been using limestone from its first quarry mining operation in the Eastern Region as filler (about 24 percent) for cement production. The table below shows limestone production from 2013 to 2015.

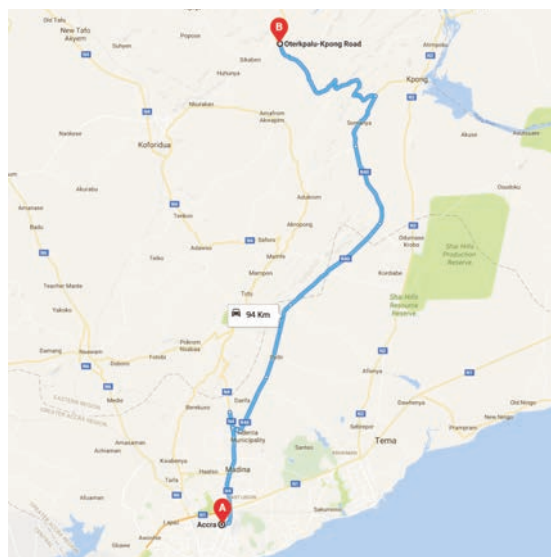
COMPANY	YEAR	PRODUCTION (MT)
GHACEM	2013	451,095
	2014	498,827
	2015	417,191
TOTAL		1,367,113

## Location Maps

Shai Hills: 56 KM, From Accra



Aterkpolu, Eastern Region: 94KM



## Day 3

### Session 6 (Continued). Field Work



Figure 7. Participants at the Eastern Quarry Shai Hills

The Module blended the theoretical concepts delivered in the first two days with field knowledge with emphasis to direct observations and means to derive best practices and recommendations for improvement to the host country.

At the first site, the Granite quarry at Shai Hills the participants were briefed about the company and the products being produced.



The CEO of the company also explained about the environmental mitigation measures and practices that include water spaying of the roads in order to suppress the dust from moving vehicles.

While touring the mine site and the processing year it was notorious the lack of safety signs.

The second site visited was a limestone open cast mine. The participants were received by the manager who gave a brief explanation about their operations, after a courtesy lunch. The participants were taken to visit the reclaimed area where they used elephant grass to rehabilitate the mined site. In this mine, it was notable the existence of safety signs throughout the camp and the mine area. Clear signs were also present at the explosives magazine and fuel tanks, including fire extinguishers. The mine has also a health, safety and environment officer and a community engagement process in place.

The third and last site was ASM mine operated by a cooperative which mines quartzite for aggregates. The site constitutes a challenge in terms of environment, health and safety.



**Figure 8. Examples of signs in the Limestone Mine.**



**Figure 9. Mine overview at ASM quartzite site.**



## Day 4

### Session 6 (Continued). Field Work Feedback and Reflections

#### Reflections and discussions on field visit

The groups spent about an hour consolidating their observations in order to be shared with rest of the participants. The group presentations were guided by the following key observation points:

- What were the main environment, community, local business development, gender, and health and safety issues being experienced on site? Be sure to identify both good practices and poor practice?
- What practices did you observe to manage these issues?
- How does the corporate/site management and policy/legislative context influence performance?
- What advice would you give to the mine/quarry site/regulatory agency on the management of the issues?
- What role does/could community play in the management/regulation of the issues?
- What alternate management/policy approaches are available reflecting on those available in your own countries.



Figure 10. Group work while preparing the presentation on the field observation.

Group 1: Health and safety

### HEALTH & SAFETY

#### SITE 1 - EASTERN QUARRIES

1. DESCRIPTION:

- Commencement: 1960s
- Product/Op: Granite (Granite blds)
- Location: Shai Hills (GR)
- Operation: Vegetation clearing, Excavation of overburden, Drill & Blast/Crushing

2. HSE

Good Practices	Bad Practices
- Good housekeeping	- Long working hours
- 80% PPE	- Presence of domestic animals in the mine
- Sign Post / Barricades	- Hanging rocks
- Clinic / Medical officer	- Exposure to vibration, noise, dust
- Safe blasting areas, fire office	
- Dust suppression	

### IMPROVEMENT

- Run shift-based operation
- Strict policies for the use of PPEs
- Enough protection to prevent the movement of animals
- Proper designation of haulage pathways
- Increase the rate of dust suppression

#### SITE 2 - KILAKI

1. Description

- Product/Op - Limestone/Dolomite
- Location - Oterkpo (EK)
- General Operation: - Vegetation clearing, Excavation of overburden, Drilling & Blasting, Crushing
- Commencement - 2004

2. HS

Good	Bad
- Good emergency preparedness	- Inadequate PPE for operators
- Sign Post	
- Explosive magazine	
- 80% PPE	
- Clinic / Medical officer	

- Recommendations / Improvements

- Improve in the use of PPEs

#### SITE 3 - SMQ (ASAMAN)

DESCRIPTION:

- Product - Stone quarry (Sand stone)
- Operation - Artisanal (Simple tools such hammers)
- Mode - Association quarry

HS

Good	Bad
- Seek expertise in blasting	- No PPEs
- Working under heels	- Excessive manual labour
	- No amenities (e.g. toilets, water, clinic)
	- Poor sanitation
	- Poor road/accessibility
	- Poor breeding grounds for mosquitoes

### Improvement/Recommendation

- Use of PPEs
- H/S Education (recording keeping)
- Provision First Aid kits
- Introduction of machines to improve their operation
- Provision of basic amenities (e.g. toilets, drinking water)
- Improve accessibility
- Occasional disinfection of the area
- Fumigation

Figure 11. Example of presentation page by the Group on Health and Safety – site one – Eastern Quarries (left) and ASAMAN site by Artisanal and Small Scale Mining (right)

The groups collected valuable information and systemised them in good and bad practices and made specific recommendation for each site.

Groupe Environnement			
	Site 1 Eastern G. Granite	Site 2 West Af. G. Limited Coal mine	Site 3 Artisanal Gold
I	<ul style="list-style-type: none"> <li>- Zone située à l'est d'Accra</li> <li>- Zone de Colline.</li> <li>- Proximité à l'Agua</li> <li>- Végétation assez riche</li> <li>- Grande exploitation industrielle</li> <li>- Des habitations au alentours</li> <li>- exploitation limitée en surface</li> </ul>	<ul style="list-style-type: none"> <li>- Zone située à Dikpoda</li> <li>- Zone de montagne</li> <li>- Riche en biodiversité</li> <li>- Proximité à l'Agriculture</li> <li>- Exploitation industrielle du Calcaire</li> <li>- Village à 100m</li> <li>- Exploitation en profondeur (-12m)</li> </ul>	<ul style="list-style-type: none"> <li>- Zone située à proximité du Village Atinguam</li> <li>- Exploitation artisanale</li> <li>- Présence de Végétation</li> <li>- Exploitation en profondeur (-5m)</li> </ul>
II	<ul style="list-style-type: none"> <li>- Aménagement du site</li> <li>- Mise de l'eau dans le air</li> <li>- Terre arable de coupe et stockée</li> <li>- Audit environnemental fait chaque année</li> </ul>	<ul style="list-style-type: none"> <li>- Plan de réhabilitation</li> <li>- Séance d'information</li> <li>- Existence d'une équipe environnementale</li> <li>- Test de réhabilitation (Reboisement)</li> <li>- Point de rassemblement</li> <li>- Collecte de huiles usées pour les entreprises prises.</li> </ul>	<ul style="list-style-type: none"> <li>- Travail organisé</li> </ul>

- ROUDE GENRE			
Site	Représentativité	Responsabilité	Contraintes
1 <sup>er</sup> site	2 = 6 femmes (majorité statistique) bes de jeunes temporaires sur un effectif de 10 employés	Secrétaire et Bureau Revente Manoeuvre - opers	Coûts culturels moyenne de la Sensibilité et de l'offre
2 <sup>e</sup> site	3 femmes sur 20 employés jeunes en majorité enfants au travail	Secrétaire (1) R.H. Ménage et Cuisine	offre et la Sensibilité
3 <sup>e</sup> site	60 % de femmes bes de jeunes (majorité statistique)	5 femmes sur 11 sans la poste de Secrétaire Encadrement jeunes et le cadre	transfert continuant Pour les femmes

Suggestions

- Encourager la formation technique pour les femmes
- Sensibiliser les entreprises à l'emploi femmes et jeunes

Figure 12. Example of presentation page by the Group on Environment (left) and Group on Gender (right)



## Session 7. Policy and Regulation

### Module 7: Policy and regulation (impact assessment/ management plans/ licensing)

The module aimed to familiarise the participants with possible challenges that emanate from interaction of different legal instruments that regulate the mining sector and related sectors. It is recognised that the licencing of DM need to interaction between mining law, land law, environmental law, water law, forestry law and their regulations.

Participants became familiar with legislation and regulation issues, gaps and how to deal with them in development minerals project context and in terms of policy making at country level.

The module was delivered through formal presentation, which heightened that mining activity requires environmental licences for each stage of the mining cycle; the most important being the pre mining environmental licence and the mining environmental licence (EL). In some countries, depending on the set up, the processing plants may require a separate environmental licence as well as special authorization for mine closure.

Environmental licencing process: It is a structured and non-flexible process. It is triggered by existence of a Project (licenced or not). EL is renewed periodically where an update to ESIA is presented. It is mandatory that the ESIA is carried by an independent certified Environmental Consultant.

The Module discussed in detail the licencing process including the ESIA process from DM. The Module also duel on challenges related to surface rights vs subsurface rights and the multiple structures that grant rights including the conflicting rights that might exist in some jurisdiction.

#### **Guest Presentation: West African regional mining policy and perspectives on Development Minerals, by William Baidoe-Ansah, ECOWAS**

The guest presentation aimed at informing the participants on the current ECOWAS Mineral Development Policy (EMDP) and its perspective on Development Minerals.

ECOWAS' objectives include the promotion of regional cooperation and integration, leading to an Economic and Monetary Union, and to ensure sustainable political and socio-economic development in the Community and Africa.

The presentation generated lots of interest and questions from the participants. One of the key questions was related to the mechanisms used by the Regional body to support Member States in relation to mining sector issues. Questions included:

- Where was ECOWAS when we were facing AREVA in Niger?
- What has ECOWAS done since the issuance of its Mining Policy to insure Member States are complying?
- We don't feel like ECOWAS is involved in supporting Member State with strong policy and technical assistance. Why is this so?

### Knowledge Sharing – Role Play on EIA Public Consultation

The Role Play aimed to simulate a real case of ESIA public participation with all stakeholders represented and each stakeholder defending its interests which may not go in line with rural development agenda (Government Agenda). The Role Play aim at consolidating all knowledge acquired in the course, from environmental impacts to standards for the effluents and emissions, including the community engagement technics and gender and community health assessment (full role play instructions are attached to this report).

The role play – took one and half hour: presentations and discussions



**Figure 13. EIA presentation to the community by the team of consultants (high table)**



**Figure 14. EIA presentation to the community by the Investor**

**Layout:** The consultant presented the study (ESIA), steps and procedures (based on the environmental law and regulations), the consultant asked the Project team to present the project and the Consultant team presented the results of the ESIA.

The discussion started with all other stakeholders presenting their views (consolidated in one or two slide – not projected).

At the end the consultant's group summarized the findings and allowed the government to intervene.

The role play was very interactive and the participants took the tasks very seriously. There were some challenges related with simultaneous translation during the role play presentation.

## Session 8. Return to Work Plan

Return to Work projects are a valuable mechanism for workshop participants' personal and professional development. As part of sponsorship, participants are required to develop a return-to-work plan on a project one will develop on the basis and applying the knowledge and skills gained in the training.

The aim of the Module was to engage the participants for longer period and consolidate the lateral networks that have started in the training.

Participants applied individually to be selected for the training with initial individual return to work plans. Once in Accra and after the 4-day immersion and following country discussion, all participants agreed to mutualise effort to produce a country return to work plan rather than sticking to the individual plans outlined in their application. Common country return to work plans are outlined in the following table.

Country	Return to work plan summary
Benin	
Burkina Faso	
Cote d'Ivoire	Creating Health Safety and Environment manual for quarrying
Ghana	
Guinea	Sector potential development through the extraction of granite
Mali	
Mauritania	Inventory of Development Minerals Potential in Mauritania to attract national or foreign investments
Niger	Sensitization of artisanal miners and local governments on the importance of Neglected Development Minerals and how to deal with their environment, Social, Health and Safety impacts/issues in order to promote a harmonious mine-community development
Nigeria	Promotion of the extraction of Development Minerals in Abia State in the form of Pilot Project for solid minerals development in Nigeria
Sénégal	
Sierra Leone	Sector organization and community sensitisation
Togo	Sensitization of women in mining over the environmental health and safety issues



## Training Effectiveness and Recommendations

### Training effectiveness

The West Africa training workshop was the third workshop after Addis Ababa, and Fiji. The training team was more integrated and the guest speakers had sent their presentations in advance, which allowed better synchronization of the topics. The participants of the 12 countries were quite professional and it was noted that the majority were from mining and geology backgrounds which contributed to raise the quality of the discussions.



**Figure 15. Certificates of participations handout ceremony**

The training methodology which included the mixing of formal presentations, practical exercises, role play, knowledge sharing and field work was very successful way to deliver the training. The return to work plan was key for keeping the participants engaged on the topics of the training and maintenance of lateral networks.

The use of guest speakers has also proved to be a good practice. Regarding the efficiency of the training, it was observed that the programme was very intensive which did not give enough time for the participants to crystalize the acquired knowledge, or allow the trainers to revisit the topics that were delivered few days earlier or control the reading of reference material by the participants. This issue was compounded by the need to simultaneously translate presentations, which slowed down the delivery.

### Recommendations

The training in general was very successful, however it is important to draw some recommendations that may contribute for improving the future training workshops:

- The training would benefit a lot from having at least two rapporteurs that would capture the discussions;
- The training need to be less intensive, especially for adult training methodologies.
- It is recommended that the training modules allocate more time for discussions during the knowledge sharing exercises.
- The list of participants need to be available for all participants during the training.

## Annexes

### Annex 1: Workshop Agenda as delivered

Day one: Tuesday, 15 March 2016		
Time	Opening Ceremony	Presenter
9:00 – 9:50	Welcome & opening remarks	Hon. Nii Osah Mills, Minister of Lands and Natural Resources, Ghana AUC representative ECOWAS representative Head of EU Delegation to Ghana UN Resident Representative, Ghana
9:50 – 10:10	Introduction to ACP-EU Development Minerals Programme (Presentation + Video)	Lacina Pakoun, Technical Specialist, UNDP
10:10-10:40	<b>Coffee Break</b>	
	<b>Session 1: Development Minerals</b>	
10:40– 10:50	Overview of the Training Workshop	Professor Salvador Mondlane
10:50 – 11:20	<b>Module 1:</b> Introduction to neglected 'Development Minerals' and so called 'Low Value Minerals and Materials'	Lacina Pakoun, Technical Specialist, UNDP
11:20 – 11:40	<b>Guest Presentation 1:</b> Industrial minerals, construction materials, dimension stones and semi-precious stones in West Africa	Charles Akong, AMDC
11:40 – 12:40	<b>Knowledge Sharing:</b> (Groups with more than one country – opportunity for sharing info – Three Countries Per Group – this should be a report of info brought by the participants) <ul style="list-style-type: none"> <li>Which Neglected Development Minerals are available in your country? (resources/reserves and extraction sites)</li> <li>Describe the models of production and licensing procedures</li> <li>What are the main uses of the commodities mined in your country?</li> <li>Describe the market structure including prices where possible.</li> </ul>	Co-trainers
12:40 – 13:40	<b>Lunch</b>	

	Session 2: Environment	
13:40 – 14:10	<b>Module 2:</b> Environment: Air, water and soil pollution	Professor Salvador Mondlane
14:10 – 14:40	<b>Guest Presentation 2:</b> Civil society perspectives on the environmental impacts of neglected Development Minerals	Friends of the Nation, Ghana
14:40 – 16:00	<b>Knowledge Sharing:</b> (Groups with more than one country – opportunity for sharing info – Three Countries Per Group) <ul style="list-style-type: none"><li>What environmental impacts that can be clearly identified in the production process of the Development Minerals mined in your country (choose only two commodities)?</li><li>Take into account the mining life-cycle approach (exploration – mining – processing – closure/rehabilitation)</li></ul>	Co-trainers
16:00 – 16:20	<b>Coffee Break</b>	
	<b>Session 3: Occupational Health and Safety (OHS) / Community Health and Gender</b>	
16:20 – 16:40	Wrap Up and Close	Co-trainers
19:00 – 21:00	Welcome Dinner at Buka Restaurant, Osu, Accra	UNDP

## Day Two: Wednesday, 16 March 2016

Session 4: Community Relations, Dialogue and Rights		
9:00 – 9:15	<b>Day 1 Reflections</b>	
09:15 – 09:50	<b>Module 3:</b> Occupational Health and Safety	Professor Salvador Mondlane
09:50 – 10:20	<b>Guest Presentation 3:</b> Gender and Development Minerals in West Africa	Caroline Ngonze Programme Specialist, UNDP
10:20 – 10:50	<b>Coffee Break</b>	
10:50 – 11:20	<b>Module 4:</b> Introduction to community relations, dialogue and rights	Lacina Pakoun

11:20– 12:30	<b>Knowledge Sharing:</b> <ul style="list-style-type: none"> <li>Brainstorm about any additional practices and regulations aimed at improving community relations in Mining sector</li> <li>List the practical implementation challenges of each of the community relations approaches described in the Module or brainstorm.</li> <li>What modifications could be made to adapt CR approaches to small scale mining and quarrying of DM?</li> <li>Present your best ideas to the plenary.</li> </ul>	Co- trainers
12:30 – 14:00	<b>Lunch</b>	
	<b>Session 5: Local Business &amp; Value Chain Development</b>	
14:00 – 14:30	<b>Module 5:</b> Enhancing the domestic economic linkages from Development Minerals (VIDEO)	Professor Salvador Mondlane
14:30 – 15:30	<b>Knowledge Sharing:</b> (Groups by Countries and three countries will be requested to make presentations) <ul style="list-style-type: none"> <li>In groups map the full value chain of one or more Development Minerals in your country.</li> <li>Who are the upstream service providers and suppliers?</li> <li>What markets are the commodity supporting downstream?</li> <li>What local businesses are involved and how can they be supported?</li> <li>Develop a rough plan for enhancing downstream economic linkages and present to the group.</li> </ul>	Co-trainers
15:30 – 16:00	<b>Coffee Break</b>	
	<b>Session 6: Field Trip Preparation</b>	
16:00 – 16:30	Field Trip Overview and Safety Preparation: Location, agenda, site description; safety share and what to expect Questions to be answered from the field visit – Groups forming	Bernard Gouw UNDP, Co-trainers
16:30 – 17:00	<b>Wrap Up and Close</b>	

Day Three: Thursday, 17 March 2016		
	Session 7: Field Visit	
7:30 – 8:30	Depart and Travel to Site 1	
8:30 – 11:30	<ul style="list-style-type: none"><li>Meet with licensing and regulatory authorities; site management; workers and communities.</li><li>Direct observation, group discussion, taking notes.</li></ul>	
11:30 – 12:20	Depart and Travel to Site 2	
12:20 – 13:00	Lunch (packed lunch)	
13:00 - 16:00	<ul style="list-style-type: none"><li>Meet with licensing and regulatory authorities; site management; workers and communities.</li><li>Direct observation, group discussion, taking notes.</li></ul>	
16:00 – 17:30	Depart and Return to Hotel	
Day Four: Friday, 18 March 2016		
	Session 8: Field Visit Reflection	
9:00 – 10:30	<p><b>Knowledge Sharing: Field visit reflection, presentation and discussion (group work)</b></p> <ul style="list-style-type: none"><li>What were the main environment, community, local business development, gender, and health and safety issues being experienced on site? Be sure to identify both good practices and poor practice.</li><li>What practices did you observe to manage these issues?</li><li>How does the corporate/site management and policy/legislative context influence performance?</li><li>What advice would you give to the mine/quarry site/regulatory agency on the management of the issues?</li><li>What role does/could community play in the management/regulation of the issues?</li><li>What alternate management/policy approaches are available reflecting on those available in your own countries?</li></ul>	Co-trainers
10:30 – 10:50	Coffee Break	
	Session 9: Policy and Regulation	
10:50- 11:20	<b>Guest Presentation 5:</b> West African regional mining policy and perspectives on Development Minerals	William Baidoe, ECOWAS
11:20 – 11:50	<b>Module 6:</b> Policy and regulation (impact assessment/ management plans/ licensing etc.)	Professor Salvador Mondlane
11:50 – 12:50	<p><b>Knowledge Sharing:</b> Role Play on EIA</p> <ul style="list-style-type: none"><li>What are the regulations in your country across all of the thematic areas already discussed?</li><li>How do the laws and regulations related to large-scale mining differ to the artisanal, small and mid-sized mining?</li><li>How does impact assessment apply to small mining and quarrying companies? Is it effective? Is it monitored?</li></ul>	Co-trainers
12:50 – 13:50	Lunch	



<b>Session 10: Return to Work Plan</b>		
<b>13:50 – 14:50</b>	<b>Knowledge Sharing:</b> Return to Work ‘speed dating’ <ul style="list-style-type: none"> <li>In small groups (first cross-country, then within country) share your draft RWP ideas and identify opportunities to reshape and/or join RWPs for larger impact</li> <li>Representatives from AMDC, ECOWAS and ACP-EU Programme will be available to discuss how the RWP can be aligned with regional/country policy frameworks and objectives AMDC &amp; ECOWAS and ACP-EU Programme Representatives</li> </ul>	Co-trainers
<b>Session 10: Return to Work Plan (continued)</b>		
<b>14:50 – 15:20</b>	<b>Knowledge Sharing:</b> <ul style="list-style-type: none"> <li>Work individually or in small groups to prepare a short (1-2 slide) overview of your RWP</li> </ul>	Co-trainers
<b>15:20 – 16:00</b>	<b>Knowledge Sharing:</b> <ul style="list-style-type: none"> <li>Short presentations and peer review of return to work plans (working coffee break)</li> </ul>	Co-trainers
<b>16:00 – 16:30</b>	Wrap Up and Close (Presentation of Certificates)	Minerals Commission Director

## Annex 2 Role Play

### Graphite Mine Project

The Project: 3,000 ha: The Graphite from a graphite schist will be mined 30 km from the processing site and transported by trucks of 40 tons using public roads.

The ore will be processed using a combination of electricity and coal and significant amount of water. Hence the need to reserve water in two dams that block completely two streams that cross the concession towards the Megaruma River to the North. The plant will use at least 1 million litres of water per week.

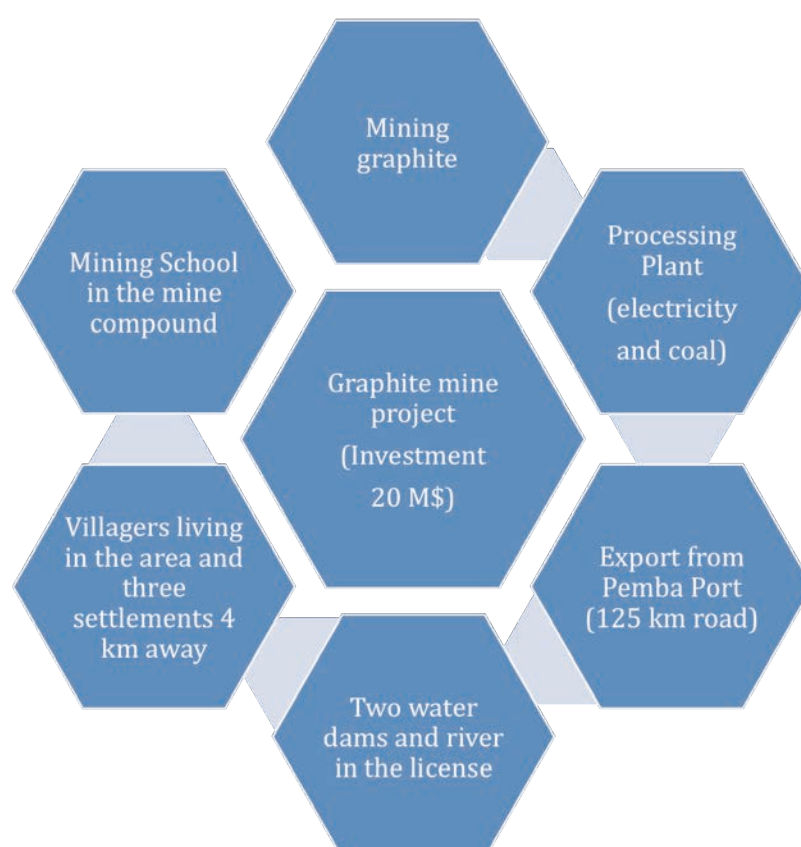
The graphite concentrate will be transported by trucks to the Pemba Port 125 km away through national highways.

The Investor will establish a mining school to train his workers and others from the nearby villages.

The project is on FID stage, however an EIA is required.

The project has an Exploration license, and an EMP for exploration phase.

Land rights are pending EIA closure and RAP approval.



## Community Participation (EIA)

### Role Play on Stakeholder participation and information disclosure

- Example of EIA process – to design and share experiences
- Group Roles
  1. Investor Graphite Zanda Mine Project from KEZAMTU
  2. Community representatives
  3. Government representatives (local and Provincial)
  4. Ministry of Environment representatives (Provincial and national levels)
  5. Representatives of Civil Society
  6. Representative of the EIA consultancy firm
  7. Representative of the Farmers Associations
  8. Water authority representatives



### Community Interests and Concerns

- The Community's economic activities include farming (cassava, ground nuts, beans, maize, tobacco, and green vegetables etc.) fishing and hunting.
- Activity: Map the main concerns of the communities and summarize and make a presentation in the Public Consultation meeting for the EIA.



- Community needs to clarify its concerns and needs to be assured that all impacts on the community will be mitigated.
- The community has external assistance from the International NGO

### Government Interests and Concerns

- The Local Government sees the Project as source of tax and solution to the unemployment which is at 70% in the rural areas and 60% in the District Capital, about 10 Km from the Mine.
- Government also needs to secure its vote from the community in the local elections next year.
  - **Activity:** Map all interests and concerns from the local and provincial government
  - Make a presentation in the Public Consultation meeting for the EIA

### Ministry of Environment concerns and interests

- The Representatives of the Ministry of environment are expected to observe the whole process and make sure that all technical issues, procedures, and interests of the parties are protected, specially those of the communities, nature and wildlife.
- The area of the concession falls in the buffer zone of the Quirimbas National Park.



- Activities: Map all interests and concerns from the Ministry of Environment
- Make a presentation in the Public Consultation meeting for the EIA

### Civil Society in the Public Cons

- An International NGO operates in the area; has teamed up with local CBOs and are all trying to make sure that the Mine does not open. Some of the reasons include the cultural heritage of the communities that will be resettled, and the negative social and economic impacts of the Mine.
- **Activities:** The group has to represent the NGO and Map all interests and concerns
- Make a strong presentation in the Public Consultation meeting for the EIA
- And produce a press release to advocate your position.



### Water authority

- The Water authority is responsible for regulating the harvest of surface and ground water and provides licenses for such activities. It is also responsible for guarantying the sustainable exploitation of water resources.
- **Activities:** The group has to represent the Water Authority and Map all interests and concerns
- Make a strong presentation in the Public Consultation meeting for the EIA

### Farmers Association

- The area of the mining concession is very fertile land. It is a combination of low lands and river flood planes and high lands of granitic inselbergs. The area is quite productive and supplies agricultural products to the District's Capital and Provincial Capital (125 km away).
- **Activities:** Considering the interest of the Farmers association, map all interests and concerns from these stakeholders
- Make a strong presentation in the Public Consultation meeting for the EIA



## EIA Consultant

- The consultant is hired by the Project in order to make sure that the Project complies with Governments policies and regulations.
  - **Activities:** Map all studies and the procedures that are required to secure the awarding of Environmental Licence to the project
  - In real life the consultant will make the presentation of the steps, stages, studies, results of the studies and final conclusions at the Public Consultation Meeting.
  - The consultant is also responsible for mapping the main stakeholders, interested and affected parties for the PC Meeting
  - The consultant moderates the meeting and produces minutes of the PC meeting.

## Roles

- **Time**
  - The groups will have about one hour for preparation (it is important that groups are formed and tasks are distributed a day before – in order to allow preparation as home work).
- The role play – will take one hour: presentations and discussions
  - **Layout:** The consultant will present the study (EIA), steps and procedures (based on the environmental law and regulations), the consultant will ask the Project team to present the project and the Consultant team will come back and present the results of the EIA.
  - The discussion will start with other stakeholders presenting their views (consolidated in one or two slides – not projected).
  - At the end the consultant's group will need to summarize the findings and allow government to intervene

## Annex 3: List of Participants

Country	Name	Gender	Organization	Type	Position
Benin	Yaotcha S. D. Calixte	M		CSO	Executive Director
	Emmanuel Gnaha	M	Ministry of Mines	Public	Director, Mining Assets
	N'sougan Albert	M		ASM Association	
	Boko Tegbede Emile	M		ASM	Private
Burkina Faso	Balkoulga Fabien	M	(Research Institute) IRSAT	Public	Engineer
	Herman Ilboudo	M	Univesrity of Ouagadougou	Academic	Lecturer
	Sambare Abdoulaye	M	Ministry of Mines	Public	Director, Quarries
	William Ilboudo	M	ISOMET	Private	CEO
Cote D'Ivoire	Ada Ghislain Kanon	M	Ministry of Mines	Public	Head Hygiene and Mine safety
	Aime Kouame	M	Ministry of Mines	Public	Deputy Director
	Oumou Bangoura	F	ONG Club Union Africaine	CSO	Assistant Project Officer
	Parfait Kouame Kouadio	M	Ministry of Mines	Public	Mines Engineer
Ghana	Ishmael Quacoe	M	University of Mines and Technology	Academic	Lecturer
	John Adu Kumi	M	Presbyterian University College	Academic	Lecturer, Environmental and Natural Resources Management
	Lawrence Amoako Asare	M	Geo Survey Dept	Public	Head of division of ceramics and clay mineralogy,
	OKLA Rose Mary	F	Geo Survey Dept	Public	Principal Engineering Technician/GIS Expert
	Kudzawu D'Pherdd Raymond Korbla	M	Accra Mining Network	CSO	General Secretary
	Sylvia Sefakor Senu	F	Undp C.O		Extractives Advisor
	Jerry Kwame Ahadjie	M	Ghana Min Com	Public	Assistant Manger

Country	Name	Gender	Organization	Type	Position
Ghana	Richard Ellimah	M	Centre For Social Impact Studies (Cesis)	CSO	Executive Director
Guinea	Aboubacar Biro Kouyate	M	SAMEC, Consult Firm	Private	Director General
	Fode Berete	M	Ministry of Mines	Public	National Director
	Doussou Nabé	F	Construction company	Private	CEO
	Mamadou Diaby	M	CECIDE	CSO	Artisanal and Small Scale mining Prog Off
Mali	Boubakar Sidiki Sangaré	M	FDS	CSO	Pogramme Officer
	Mahamadu Camara	M	Ministry of Mines	Public	Regional Director, Mines
	Gekobed Sogoba	F	Women in Small Scale Mining in Mali	Private	Woman Miner
	Seydou Keita	M	Ministry of Mines	Public	Deputy Director General
Niger	Amadou Dan Malam	M	Dimension stones and construction materials operators association	Private	Chairperson
	Mariama Abdoulaye	M	Miner	Private	Small scale miners, Semi-precious
	Solli Ramatou	F	GREN	CSO	National Coordinator
	Sanda Issoufou	M	Ministry of Mines	Public	Officer ASM Monitoring and Compliance

Country	Name	Gender	Organization	Type	Position
Nigeria	Michael Awara Ernest	M	Miero Marble Granite And Stones Limited.	Private	Director Of Operations
	Ojeka Patrick Oclebe	M	Ministry Of Solid Minerals Development	Public	DIRECTOR
	Oladiran Bello	M	Good Governance Africa – Nigeria (GGA-Nigeria)	CSO	Executive Director
	Uchenna Onyeizu	M	Abia State Government	Local Government	Senior Special Assistant Environment
	Vivian Chinee	F	Federal Government Of Nigeria	Public	Assistant Director
	Sam Heart	M	Abia State Government		Senior Special Assistant Environment
	Obioma Ezeogbulafor	M			Special Adviser to the Governor of Abia State on Trade and Investment
	Chinenye Nwaogu	M			
	Chinedu Onyeizu	M			
Senegal	Mbakhane FALL	M	Ministry of Environment	Public	Environment Officer
	Mohamed NDIAYE	M	Neglected Development Minerals Miners Association	Private	Chairperson
	Tabara Cissokho	F		CSO	Programme Officer
	Adama Diop	M	Ministry of Mines	Public	Regional Director, Mines

Country	Name	Gender	Organization	Type	Position
Sierra Leone	Joseph Sapunka Turay	M	Environment Protection Agency	Public	Head of Department, Field Operations and Extension
	Joseph Smith	M	Africa Youth On Mining And Environment	CSO	Coordinator
	Jusu Stephan Siryll	M	National Minerals Agency	Public	Environment, Health And Safety Manager
	Melissa Ekua Deyegbe	F	Environment Protection Agency	Public	Environment Officer
Togo	ADAM Aboudou Rassidou	M	Marble operator	Private	CEO
	TAKPA Koolaba	M		CSO	Chairperson
	TETEGAN Aimée	F	Women in Construction materials	Association	AFEMET
	POUTOULI Essomanambou	F	Women in Construction materials	Association	AFEMET
	Karamon Gnemessassam	M	Ministry of Mines	Public	Chief Inspector Mining
Mauritania	Abdellahi Bellal	M	Mauritania Geo survey	Public	Deputy Director General
	Emanetoullah Limam	M	Mauritania Geo survey	Public	Technical Advisor









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