

PanAfGeo

WP3

Workshop on ASM in Ghana and the role of GGSA

Workshop name	FROM STEPPING ON A STONE TO OPENING A MINE
Approach and Training methods	<p>The workshop will present and describe in details the methods, tools, procedures and requirements for ASM operation in Ghana.</p> <p>Further the workshop will discuss the future role of the Ghana Geological Survey Authority (GGSA) in the ASM sector</p>
Timing, duration and number of participants	<p>The Workshop will be at City Escape Hotel. Accra</p> <p>Date of workshop: 18 to 21 September 2017</p> <p>The number of participants will be 40-45 from Ghana selected in corporation with national OAGS representative.</p> <p>The workshop is aimed at staff from Ghana Geological Survey Authority, Minerals Commission, environmental authorities as well as civil society and universities.</p> <p>The workshop will have 12-15 representatives from National Geological Surveys in Nigeria, Gambia, Sierra Leone and Liberia who will provide a regional input to the training.</p>
Workshop objective	<p>The overall objective of the workshop is:</p> <ul style="list-style-type: none"> • To train the participants to be trainers for ASM operators in Ghana and in the West Africa sub region • Provide an opportunity for the regulatory agencies and universities involved in the ASM sector to discuss ways forward for managing and assisting the ASM operators • Discuss the role of a national geological survey in the ASM sector • Provide some regional perspectives of the challenges in the ASM sector <p>The performance target of the workshop is:</p> <p>A: After completing the workshop the participants will be able to:</p> <ol style="list-style-type: none"> 1. Apply the key terms of mineral exploration 2. Recognize key legislation and issues 3. Describe the socio economics of ASM in the country 4. Recognize key occupational health safety issues related to ASM 5. Weigh different mining options for how best to develop a mineral deposit 6. Identify and apply the different types of methods involved in mineral processing 7. Identify and describe the obligation of the national geological survey and the national ministry of mines 8. Assess the issues related to business planning for ASM 9. Apply the training material <p>B: After completing the workshop, the participants have developed a road map for the future involvement of GGSA in the ASM sector in Ghana</p>

<p>Workshop content</p>	<p style="text-align: center;">Day one – 18. September</p> <p>09:30 – 10:00 Registration</p> <p>10:00 – 11:00. Module 1: Official opening and welcome: H.E. John-Peter Amewu Minister of Mines, Lands and Natural Resources H.E. William Hanna Head of EU-delegation to Ghana</p> <p>Group photo</p> <p>Coffee break</p> <p>12:30 – 13:00. Module 2: Introduction to the workshop and presentation of participants by <i>John Tychsen. GEUS.</i></p> <p>13:00 – 14:00. Lunch Break</p> <p>14:00 – 14:15. Module 3: Obligations of Ghana Geological Survey Authority in ASM sector in Ghana by the <i>Director Daniel Boamah. Ghana Geological Survey Authority.</i></p> <p>14:15 – 15:00. Module 4: Basic geology as guide on how to discover mineral deposits by <i>Senior Geologist Seidu Alidu. Ghana Geological Survey Authority.</i></p> <p style="padding-left: 40px;">This module will present guidelines on how to identify promising minerals and rock types. This involves description of most common geological environment; geometry of the most frequently mined commodities and the appropriate exploration methods for a follow-up on the deposit type</p> <p>15:00 – 15:45 Module 5: How to organise and develop an ASM mining site by Associate Professor Ishmail Quaicoe. University of Mines and Technology.</p> <p style="padding-left: 40px;">If the discovered commodities indicate that exploitation is viable then next step is planning of the mine site. Planning of a mine site depends on the geometry of the ore deposit as well as the amount of overburden. In near surface deposits it may be worthwhile to rent a bulldozer to scrape off the overburden thus giving immediate access to the ore body. If the ore body is deeper down, the shafts must be sunk and tunnels made to extract the ore. This requires many safety measures including ventilation of the tunnels.</p> <p>15:45 – 16:15. Coffee Break</p> <p>16:15 – 17:00. Module 6: Mineral processing techniques in ASM by professor Richard Amankwah. University of Mines and Technology. Ghana.</p> <p style="padding-left: 40px;">Some of the techniques used by the ASM can be considerably improved. A detailed description on how to improve the beneficiation in order to increase recovery especially in metallic ASM e.g. gold</p>
<p>Workshop content</p>	<p style="text-align: center;">Day two – 19. September</p> <p>08:30 – 09:00. Registration</p> <p>09:00 – 09:45. Module 7: Challenges for ASM sector in Sierra Leone and the role of The Geological Survey and Mines Division by Regional Geologist <i>Mr. Alhaji Turay</i></p> <p>09:45 – 10:30 Module 8: How can the Environmental Protection Agency support the ASM Sector in Ghana by <i>CPO Head of Mining Michael Sandow Ali. Environmental Protection Agency. Ghana.</i></p> <p>10:30 - 11:00 Coffee Break</p> <p>11:00 – 12:00. Module 9: Environmental issues related to ASM in Ghana by <i>Professor</i></p>

<p>Workshop content</p>	<p><i>Frank Nyamé. University of Ghana.</i></p> <p>The first part of the module provides an overview of the ASM relevant parts of the current or existing legislation while the second part focuses on aspects of the main environmental management issues in ASM, the benefits of good environmental management and how best to promote sound and sustainable environmental management practices at ASM sites and/or within the ASM sector. The module, in particular, describes selected key environmental management tools (e.g. EIA, audit, inspection and compliance) that are commonly used in the mining industry and also provides brief but relevant information on mine waste and water management (e.g. waste rock, tailings, spent or waste water), mine closure and environmental remediation including reclamation of mined sites.</p> <p>12:00 – 13:00. Module 10: Health and safety issues related to ASM in Ghana <i>by Professor Julius Fobil. University of Ghana.</i></p> <p>This module provides an overview of health safety concerns associated with artisanal gold-mining (ASM) and therefore covers all the relevant health issues from accidents through injuries and health effects of environmental pollution to mercury poisoning which may cause permanent brain damage resulting in dizziness, difficulty in concentration, muscle twitching, poor muscle coordination, memory loss, blurred vision, and numbness in the hands and feet. The module discusses the degree of mercury toxicity which depends on the level of mercury exposure, as shown here in order of decreasing seriousness: a) permanent overt brain damage, b) seizures, c) vision and hearing loss, d) delayed childhood development, e) language disorders, f) deficits in fine motor functions and g) memory issues. Other issues to be addressed include: occupational safety concerns, poor respiratory health, and infectious diseases as well as occupational health hazards such as shaft collapses and dust related lung diseases.</p> <p>13:00 – 14:00 Lunch break</p> <p>14:00 – 17:00 Group work : Introduction to group Work <i>by John Tychsen</i></p> <p style="text-align: center;">Day three – 20. September</p> <p>08:30 – 09:00. Registration</p> <p>09:00 – 09:45. Module 11: Challenges of ASM sector in Nigeria and the role of The Geological Survey of Nigeria by Assistant Director <i>Ms. Lucy Adelugba.</i></p> <p>09:45 – 10:30. Module 12: Challenges of ASM sector in Liberia and the role of the Liberian Geological Survey by Senior Geologist <i>Mr. Michael Sabondu</i></p> <p>10:30 – 11:00. Coffee break</p> <p>11: 00 – 12:00. Module 13: Socio-economic issues related to ASM <i>by Professor Frank Nyamé. University of Ghana and Professor Julius Fobil University of Ghana</i></p> <p>This module provides a presentation of the key socio economic findings from the field work and places these within a broader context of poverty alleviation.</p> <p>12:00 – 13:00. Module 14: Financing – business planning for ASM operators by Senior Finance Officer Mr. Eric Bright Davis. <i>Minerals Commission. Ghana</i></p> <p>The module provides an overview of the steps involved in developing a business plan for an ASM enterprise.</p> <p>13:00 – 14:00 Lunch Break</p> <p>14:00 – 17:00 Group Work: Introduction to group work <i>by John Tychsen</i></p>
--------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p style="text-align: center;">Day four – 21. September</p> <p>08:30 – 09:00. Registration</p> <p>09:00 – 09:45. Module 15: Challenges of ASM sector in The Gambia and the involvement of The Geological Survey of Gambia by Assistant Director <i>Mr. Alieu Jawo</i></p> <p>09:45 – 13:00. Module 16: Plenum presentation of group work by <i>John Tychsen. GEUS</i></p> <p>13:00 – 14:00. Lunch Break.</p> <p>14:00 – 15:00. Module 17: Plenum feedback on Handbook by <i>John Tychsen. GEUS</i></p> <p style="padding-left: 40px;">The Handbook and the Training material Pack are a final draft. It is crucial that the auditors receive comments, correction and good ideas for improving this material.</p> <p>15:00 – 15:30. Module 18: Participants fill out Feed-back form</p> <p>15:30 – 16:00 Coffee break</p> <p>16:00 – 16:45. Module 19: Ceremony of Course Certification by <i>Daniel Boamah/John Tychsen</i></p> <p>16:45 – 17:00. Module 20: Conclusive remarks by <i>John Tychsen/Daniel Boamah</i></p>
<p>Trainer & Lecturer</p>	<p>PanAfGeo WP-3 Project Manager John Tychsen. GEUS. Director Daniel Boamah. Ghana Geological Survey Authority. Senior Geologist Seidu Alidu. Ghana Geological Survey Authority. Professor Richard Amankwah. University of Mining and Technology. Ghana. Associate Professor Ishmail Quaicoe.. <i>University of Mining and Technology. Ghana.</i> CPO Head of Mining Michael Sandow Ali. Environmental Protection Agency. Ghana. Professor Frank Nyamé. University of Ghana. Professor Julius Fobil. University of Ghana. Senior Finance Officer Mr. Eric Bright Davis. Minerals Commission. Ghana. Regional Geologist Mr. Alhaji Turay. The Geological Survey and Mines Division. Sierra Leone Assistant Director Ms. Lucy Adelugba. The Geological Survey of Nigeria. Senior Geologist Mr. Michael Sabondu. The Liberian Geological Survey. Assistant Director <i>Mr. Alieu Jawo.</i> The Geological Survey of Gambia.</p>
<p>Approach and Training Methods</p>	<p>Lecturing Case Studies Group and Panel Discussions Group Work.</p>
<p>Literature and Source Materials</p>	<p>Draft Handbook Draft Training Manual</p>
<p>Summary of Recommended Facilities and Equipment</p>	<p>Conference room Group rooms Viewer Laptop</p>