



## PanAfGeo

### WP3

## Workshop on ASM in Zambia and the role of GSD

<b>Workshop name</b>	<p style="text-align: center;"><b>FROM STEPPING ON A STONE TO OPENING A MINE</b></p>
<b>Approach and Training methods</b>	<p>The workshop will present and describe in details the methods, tools, procedures and requirements for ASM operation in Zambia.</p> <p>Furthermore, the workshop will discuss the future role of the Geological Survey Department (GSD) in the ASM sector in Zambia.</p>
<b>Timing, duration and number of participants</b>	<p>Workshop venue:</p> <p><i>Southern Sun Ridgeway Cnr. Church Road and Independence Ave Lusaka</i></p> <p>Date of workshop: <b>19 to 22 March 2018.</b></p> <p>The number of participants will be around 40 from Zambia selected in cooperation with the national OAGS representative Mr. Chipilauka Mukofu, who will be the host of the workshop.</p> <p>The workshop is aimed at staff from Geological Survey Department, Ministry of Mines and Minerals Development, ZEMA, civil society, ASM associations and universities.</p> <p>The workshop will have representatives from National Geological Surveys of Malawi, Namibia, Zimbabwe, South Africa, Swaziland and Botswana who will be invited to provide a regional input to the training and an appendix to the <i>ASM handbook of Zambia with a regional perspectives</i>.</p>
<b>Workshop objective</b>	<p><b>The overall objective of the workshop is:</b></p> <ul style="list-style-type: none"> <li>• To train the participants to be trainers for ASM operators in Zambia and in the South African sub region.</li> <li>• 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.</li> <li>• Discuss the role of a national geological survey in the ASM sector.</li> <li>• Provide regional perspectives on the challenges in the ASM sector.</li> </ul> <p>The performance target for the workshop is:</p> <p><b>A: After completing the workshop the participants will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Apply the key terms of mineral exploration.</li> <li>2. Recognize key legislation and issues.</li> <li>3. Describe the socio-economics of ASM in the country.</li> <li>4. Recognize key occupational health and safety issues related to ASM.</li> <li>5. Weigh different mining options for how best to develop a mineral deposit.</li> </ol>

<p><b>Performance target</b></p>	<ol style="list-style-type: none"> <li>6. Identify and apply the different types of methods involved in mineral processing.</li> <li>7. Identify and describe the obligation of the national geological survey and the national Ministry of Mines.</li> <li>8. Assess the issues related to business planning for ASM.</li> <li>9. Apply the training material.</li> </ol> <p><b>B: Upon completion of the workshop, the participants will have developed a road map for the future involvement of the Geological Survey Department in the ASM sector in Zambia.</b></p>
<p><b>Workshop content</b></p>	<p style="text-align: center;"><b>Day 1 – 19 March</b></p> <p><b>09:00 – 09:30 Registration.</b></p> <p><b>09:30 – 11:00 Module 1:</b> Official opening and welcome:</p> <p><i>Hon. Richard Musukwa, Minister of Mines and Minerals Development.</i>  <i>H.E Alessandro Mariani, Ambassador of the European Union.</i>  <i>H.E. Janet Rogan, UN Resident Coordinator to Zambia.</i>  <i>Director Mr. Chipilauka Mukofu, Geological Survey Department.</i></p> <p>Master of Ceremony will be Public Relation Officer Mr. Alexander Nyirenda. Ministry of Mines and Mineral Development.</p> <p>Group photo.</p> <p>Coffee/tea break.</p> <p><b>11:30 – 12:00 Module 2:</b> Introduction to the workshop and presentation of participants by PanAfGeo WP3 Lead <i>John Tychsen. GEUS.</i></p> <p><b>12: 00 – 12:15 Module 3:</b> Obligations of the Geological Survey Department in the ASM sector in Zambia by the <i>Director Chipilauka Mukofu.</i> Geological Survey Department.</p> <p><b>12:15 – 13:00 Module 4:</b> Basic Exploration Methods by <i>Geologist Kondwani Zimba.</i> Geological Survey Department.</p> <p>13:00 – 14:00 Lunch Break.</p> <p><b>14:00 – 14:45 Module 5:</b> Significance of Geological Knowledge to Developing an ASM Mining Site by <i>Lecturer Cryton Phiri.</i> University of Zambia.</p> <p><b>14:45 – 15:30</b> Coffee/tea break.</p> <p><b>15:30 – 17:30 Module 6:</b> Group work.</p> <p>Introduction to group work by <i>John Tychsen</i>  The group work on day 1, 2, 3 and 4 will be a continuous case study, which will be expanded day by day as participants gain additional information and knowledge.</p> <p>The results of the group work will be presented and discussed in plenum in the afternoon of day four.</p> <p style="text-align: center;"><b>Day 2 – 20 March</b></p> <p><b>08:00 – 08:30 Registration.</b></p> <p><b>08:30 – 09:00 Module 7:</b> Challenges of the ASM sector in Namibia and the role of The Geological Survey of Namibia by <i>Senior Geoscientist Ms.Sarti Makili.</i></p> <p><b>09:00 – 09:30 Module 8:</b> Challenges of the ASM sector in South Africa and the role of The Council of Geoscience by <i>Geologist Ms Tshilidzi Mudau.</i></p>

<p><b>Workshop content</b></p>	<p><b>09:30 – 10:15 Module 9:</b> Mineral processing by <i>Principal Metallurgist Mutumbi Nguni</i>. Geological Survey Department.</p> <p><b>10:15 – 10:45</b> Coffee/tea break.</p> <p><b>10:45 – 11:30 Module 10.</b> Experience with “Mining and Environment” in PanAfGeo WP4 by Geoscientist Matthias Fackel. Swedish Geological Survey.</p> <p><b>11:30 – 12:15 Module 11:</b> How Can the Environmental Management Agency support the ASM Sector in Zambia by <i>Principal Inspector Mr. Ngwata ZEMA</i>.</p> <p><b>12:15 – 13:00 Module 12:</b> Environmental Issues Related to ASM in Zambia by <i>Inspector of Environment. Mr. Labson Chinyamuka</i>. Department of Mines Safety.</p> <p><b>13:00 - 14:00</b> Lunch Break.</p> <p><b>14:00 – 17:00 Module 13:</b> Group work (Transport to bank for Training Allowance). Introduction to group Work by <i>John Tychsen</i>.</p> <p>The group work on day 1, 2, 3 and 4 will be a continuous case study, which will be expanded day by day as participants gain additional information and knowledge. The results of the group work will be presented and discussed in plenum in the afternoon of day four</p> <p style="text-align: center;"><b>Day 3 – 21 March</b></p> <p><b>08:30 – 09:00 Registration.</b></p> <p><b>09:00 – 09:30 Module 14:</b> Challenges of the ASM sector in Malawi and the role of The Geological Survey of Malawi by <i>Chief Geologist Mr. Kondwani Dombola</i>.</p> <p><b>09:30 – 10:00 Module 15:</b> Challenges of the ASM sector in Botswana and the role of the Botswana Geological Survey by <i>Mr. Othugile Rulele</i>.</p> <p><b>10:00 – 10:30</b> Coffee/tea break.</p> <p><b>10:30 – 11:15 Module 16:</b> Health and safety Issues Related to ASM in Zambia by <i>Inspector of Mines Canisius Mwenya</i>. Department of Mines Safety.</p> <p><b>11:15 – 12:00 Module 17</b> Socio-economic Issues Related to ASM by Associate Professor Mrs. Charlotte Wonani Sanga. <i>University of Zambia</i>.</p> <p><b>12:00 – 13:00 Module 18:</b> Business Planning for ASM in Zambia by <i>Manager of Enterprise Development Mrs. Theresah Chuula</i>. Zambia Development Agency (ZDA).</p> <p><b>13:00 – 14:00</b> Lunch Break.</p> <p><b>14:00 – 14:45 Module 19:</b> Strengthening Community Voices in Mineral Resource Governance in Zambia by <i>Assistant Resident Representative Ian Milimo</i>. UNDP.</p> <p><b>14:45 - 17.30 Module 20:</b> Group work incl. Coffee/tea break. Introduction to group work by <i>John Tychsen</i>.</p> <p>The group work on day 1, 2, 3 and 4 will be a continuous case study, which will be expanded day by day as participants gain additional information and knowledge. The results of the group work will be presented and discussed in plenum in the afternoon of day four.</p>
<p><b>Workshop content</b></p>	

	<p style="text-align: center;"><b>Day 4 – 22 March</b></p> <p><b>08:30 – 09:00 Registration.</b></p> <p><b>09:00 – 09:30 Module 21:</b> Challenges of the ASM Sector in Zimbabwe and the Role of The Geological Survey of Zimbabwe by <i>Acting Deputy Director Mr. Ernest Mugandani.</i></p> <p><b>09:30 – 10:00 Module 22:</b> Challenges of the ASM sector in Swaziland and the role of The Geological Survey of Swaziland by <i>Geologist Ms. Ncamsile Sigwane.</i></p> <p><b>10:00 – 13:00 Module 23:</b> Plenum presentation of group work incl. the break by <i>John Tychsen. GEUS.</i></p> <p>13:00 – 14:00 Lunch break.</p> <p><b>14:30 – 15:00 Module 24:</b> Plenum feedback on training material by <i>John Tychsen. GEUS.</i></p> <p><b>15:00 – 15:15 Module 25:</b> Participants fill out feed-back form.</p> <p><b>15:15 – 15:30</b> Coffee/tea break.</p> <p><b>15:30 – 16:30 Module 26:</b> Course Certificate Presentation Ceremony by <i>Mr. Paul Chanda/Mr. Chipilauka Mukofu.</i></p> <p><b>16:30 – 16:45 Module 27:</b> What happens next by <i>John Tychsen.</i></p> <p><b>16:30 – 17:00 Module 28:</b> Conclusive remarks by <i>Mr. Paul Chanda/Mr. Chipilauka Mukofu.</i></p>
<p><b>Trainer &amp; Lecturer</b></p>	<p>Director John Tychsen. GEUS. Public Relation Officer Mr. Alexander Nyirenda. Director Chipilauka Mukofu - Geological Survey Department. Geologist Kondwani Zimba – Geological Survey Department. Lecturer Cryton Phiri – University of Zambia. Senior Geologist Mutumbi Nguni - Geological Survey Department. Director General John Msimuko – ZEMA. Inspector of Environment Labson Chinyamuka, - Department of Mines Safety. Inspector of Mines Canisius Mwenya - Department of Mines Safety. Lecturer Charlotte Wonani Sanga. - University of Zambia. Manager Enterprise Development Mrs. Theresah Chuula – Zambia Development Agency (ZDA). Senior Geologist Mr. Othugile Rulele. Geological Survey of Botswana Acting Deputy Director Mr. Ernest Mugandani Geological Survey of Zimbabwe Chief Geologist Mr. Kondwani Dombola geological Survey of Malawi. Senior Geoscientist Ms.Sarti Makili Geological Survey of Namibia Geologist Ms Tshilidzi Mudau The Council of Geoscience South Africa Geologist Ms. Ncamsile Sigwane Geological Survey of Swaziland</p>
<p><b>Approach and Training Methods</b></p>	<p>Lecturing Case Studies Group and Panel Discussions Group Work.</p>
<p><b>Literature and Source Materials</b></p>	<p>Training material will be draft “Artisanal and Small-scale Mining Handbook for Zambia”</p>
<p><b>Summary of Recommended Facilities and Equipment</b></p>	<p>Conference room Group rooms Viewer Laptop</p>