

8<sup>th</sup> August, 2016

Re: Response to the Report on the Theatre for Development (TFD) exercise conducted by Institute for Community Mobilisation and Empowerment (ICOME) In Karonga, Ntcheu and Phalombe Districts 22 March to 3 April, 2016.

## To whom it may concern,

We, C12, an independent environmental consulting firm, have conducted and submitted a report on an Environmental and Social Impact Assessment (ESIA) study, currently approved by the Technical Committee on the Environment (TCE), and awaiting final approval by National Council on the Environment (NCE). All comments and issues by the TCE of environmental/social nature were duly addressed by C12, all technical/contractual issues by Nyala Mines (Nyala). The Environmental and Social Impact Assessment (ESIA) report, which includes detailed results of public consultations at the mine's vicinity and relevant government authorities, has identified and documented all of the issues highlighted in the Institute for Community Mobilisation and Empowerment (ICOME) report captioned above and addressed them throughout the ESIA report, namely Chapter 4. Public Consultation, Chapter 7. Impact Assessment, Chapter 8. Environmental and Social Management Plan (EMOP/ESMP), and Chapter 9. Monitoring Plan.

Implementation of all the recommendations contained in the management plan are contingent on final ESIA approval, which will enable the planned expansion of Nyala mine (upgrade of the mine's operation and processing plant, not physical land expansion) and fulfilment of the complete array of proposed health, environmental, social and safety measures, some of which were highlighted by the ICOME report.

It should be noted that Nyala management has shown a high level of professionalism and disclosure of information during our impact assessment study, with genuine willingness to improve any current shortcomings of its operation in terms of safety, health and environment, as well as investment in social improvement projects and programmes of the surrounding communities. We, therefore, have every reason to believe that the proposed mitigation measure recommendations and planned corporate social responsibility (CSR) projects will be heeded by the client (Nyala Mines) once the ESIA is formally approved, and the mine achieves its new production goals.

## General observations of the ICOME report:

The presentation of problems, effects, mitigation measures and expectations in the report is rather confusing as they are often used interchangeably, some are repeated in several sections of the report and the tabulation of concerns is inconsistent with the text.



- It is not clear if the "causes" or "effects" or both are opinions of the author/ICOME researchers or the public (community members). If they are the author's, then the conclusions are fraught with unsubstantiated assumptions; if they are public's, then the portrayal of the issues would be more understandable, but appear rather overstated.
- The author makes a number of subjective assumptions and allegations that appear rather biased against the mine, such as
  - Discretion of employment
  - Discrimination of prospective employees
  - "Harsh" and "cruel" treatment of employees or community members
  - Community expectations, etc.
- Managing unrealistic expectations by the locals; it seems curious that perceived unfair employment is by far the most prominent grievance. One cannot expect a relatively small mining operation to solve all the unemployment woes of the wider community, especially if it requires only a handful of skilled workers. The statements given to support the report findings appear to be rooted in resentment towards the mine rather than the actual situation on the ground.

The concerns highlighted by the ICOME report are addressed in detail herein.



Table 1. Cause-effect

Note: MLA – Mining License Area; DDDF – Dzonze District Development Fund

PROBLEM	"CAUSE"	"EFFECTS"	C12 ANALYSIS	Section in ESIA Report where the issue is addressed
No clear demarcation	There is no physical demarcation between the mining area and peoples' farming and settlement area. As such, the miners just dig wherever they find fit at that particular time	Unwarranted arrests and beatings for merely being found in your own family's farm or garden. As long as one is seen closer to the mine, there is no sensible Explanation according to the mining investors; it is either you are stealing from them and hiding the stones in the farm or encroaching  People are living in fear in their own land and growing bitter by the day towards the mining investors. This kills the possibility of a future peaceful relationship between the community members and the present	While it is true that there is currently no physical demarcation of the mining area (mining licence area – MLA) such as a fence, it was indicated by Nyala mines that the existing perimeter fence was vandalised by surrounding villagers to allow further encroachment into the active mining areas. Any and all attempts to re-fence the perimeter have been met with similar acts of vandalism, thereby making it impossible to secure the area. It should also be noted that there are no farming and settlement areas within the MLA, so all the mining activities are carried within the licenced zone. Therefore, there is no encroachment into any settled or farming areas.  Active mining is currently limited to a small portion of the MLA, a 2 km² zone out of the total 15 km² at and around the summit of Chimwadzulu hill. Nyala is fully within its rights to move its personnel and machinery for its activities anywhere within the MLA. C12 did, however, in the mitigation measures recommend more extensive and visible safety signage around the site to serve as 'soft' demarcation to prevent future incidents.  This issue of passing through the site had come up during public meetings with local communities during the ESIA study, where it was confirmed that it is in good faith that the Mine currently allows	Section 1.3 Scope of Mining, pp.10-12  Figure 2. Chimwadzulu Mine – Mining Focus Area, p.12  Section 6.4.1, p.145  Section 7.5.7, p.218  Section 8.3, Table 27. Social Management Plan, p.241  Appendix XV – written statement from Nyala
		miners or any mining companies to come. As a result Malawi will not prosper in the mining industry because people will make	on the main road for safety and operational reasons, but using the route down the north side of the mine property along Kapeni stream.  Looking forward, as with any industrial operation, the people should stay away from the mining areas because of safety and	
		settlement area. As such, the miners just dig wherever they find fit at that particular	settlement area. As such, the miners just dig wherever they find fit at that particular time  one is seen closer to the mine, there is no sensible Explanation according to the mining investors; it is either you are stealing from them and hiding the stones in the farm or encroaching  People are living in fear in their own land and growing bitter by the day towards the mining investors. This kills the possibility of a future peaceful relationship between the community members and the present miners or any mining companies to come. As a result Malawi will not prosper in the mining industry because people	one is seen closer to the mine, there is no sensible Explanation according to the mining investors; it is either you are stealing from them and hiding the stones in the farm or encroaching  People are living in fear in their own land and growing bitter by the day towards the mining investors. This kills the possibility of a future peaceful relationship between the community members and the present miners or any mining companies to come. As a result Malawi will not prosper in the mining industry because people will make  one is seen closer to the mine, there is no sensible to sever the area. It should also be noted that there are no farming and settlement areas within the MLA, so all the mining activities are carried within the licenced zone. Therefore, there is no encroachment into any settled or farming areas.  Active mining is currently limited to a small portion of the MLA, a 2 km² zone out of the total 15 km² at and around the summit of Chimwadzulu hill. Nyala is fully within its rights to move its personnel and machinery for its activities anywhere within the MLA. C12 did, however, in the mitigation measures recommend more extensive and visible safety signage around the site to serve as 'soft' demarcation to prevent future incidents.  This issue of passing through the site had come up during public meetings with local communities during the ESIA study, where it was confirmed that it is in good faith that the Mine currently allows local farmers to pass through the mine site between 6am-6pm, not on the main road for safety and operational reasons, but using the route down the north side of the mine property along Kapeni stream.  Looking forward, as with any industrial operation, the people should stay away from the mining areas because of safety and



	PROBLEM	"CAUSE"	"EFFECTS"	C12 ANALYSIS	Section in ESIA Report where the issue is addressed
			to any mining investor for fear of being taken advantage of repeatedly	mine expansion passing through the mine for anyone except mine personnel will become a major safety risk due to intensified excavation activities and heavy machinery operation.	
				Nyala management has committed to work with community leaders in the DDDF to sensitize communities about the hazards involved.	3.4.2 Occupational Health
				Health and safety measures are coming into place at Chimwadzulu Hill since the recent EAD visit – this includes development of EHS management plan, mandatory personal safety equipment and signage. Additional measures are recommended by this ESIA for implementation such as the EMP to be kept on site, improvement of signage and fencing off potentially unsafe areas, containment areas, and retaining wall below the rockfall risk area above the main road from Katsekera.	and Safety p.48-50; 4.6 Recommendations p.82- 83; 8.3 Table of Actions, EMP p.171-176; 8.3 Table of actions, SMP p.177-179
				Following mine expansion, mining excavations and heavy machine activity will intensify, making it a serious safety hazard for anyone other than mine to continue trespassing.	
				We also note that during public consultations for the ESIA study, there was no mention by the local community members of unwarranted arrests, beatings, any type of abuse by mine personnel or encroachment onto farming properties as is claimed by the ICOME report. And although many concerns were raised regarding the mine's operation (as documented in Chapter 4 – Public Consultation of the ESIA report), the prevailing opinion of Nyala was positive and mood constructive.	Section 4.3 Consultations at Community level, pp.67-82
2	Poor working conditions	There is no workers union in the area responsible for attending to their grievances and checking the conduct of their bosses with	People work under pressure and in fear, which could affect the quality of work as people only do tasks for the sake of completing them rather than achieving the best results.	It is not clear whether source of this grievance is random community members or employees at the mine, nor how the author drew the conclusion that "mining investors have no work ethic and therefore are just cruel" from the fact that there is no workers union in the area.  During our several visits to the mine for the ESIA study, it was not	



	PROBLEM	"CAUSE"	"EFFECTS"	C12 ANALYSIS	Section in ESIA Report where the issue is addressed
		regards to allowances; working hours etc. The mining investors' have no work ethic, therefore are just cruel	Fatigue caused by working longer than necessary hours without rest and taking proper meals. This could result to an increase in the number of rather avoidable accidents in the workplace i.e. workers collapsing in the course of work; mishandling of machines; etc in turn leading to low productivity.  The harsh words and cruelty from the mining investors could reduce their employees' self-esteem.  And the long term effects of psychological trauma include low self-efficacy (or effectiveness) and lack of motivation to produce the best result, leading to low input and low productivity	observed nor reported by employees that they are working under pressure, fear and overtime hours without rest or food.  There was also no evidence that management was "cruel and harsh" to the employees, from which the author again draws a hypothetical consequence of psychological trauma, low selfesteem and loss of motivation to the employees.  What was observed during our visits was that the employees were conducting their work at a normal pace, independently without any visible duress or abuse. The workers were also equipped with appropriate personal protective equipment, including steel toe boots, coveralls, helmets, ear and respiratory protection.  In terms of sanitary facilities, there are currently three (3) toilets on site. Nyala is in the process of upgrading the staff facilities at the mine. The structure for six (6) new showers and changing room facility for the workers is ready, and the construction of two (2) additional toilets as part of the sanitary facility upgrade have been completed. A common area/shelter will also be built once the mine expansion is approved.  Further expansion of staff facilities (showers, toilets, common areas) will be commensurate to future increases in workforce at the mine	Section 2.8.6 Housing and sanitary facilities
3	Unfair employment	The human resource officer at Nyala mines is prejudiced towards Muslims and Indians than people of other religions and races.  The mining bosses	People will lose their sense of ownership and responsibility for the mine. As such they cannot collectively retain a position of strength to combat any challenges that might emerge due to the mine.	Key operations at the mine are technical and require a certain skill set and standards. As this is a private company, hiring personnel that meet these standards is at the discretion of the company, otherwise efficiency, integrity and productivity of operations can be jeopardised.  The ICOME author makes a contemptuous allegation that Nyala discriminates based on race and religion, without questioning	Section 2.9 Employment pp.50-52



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	seen to be concentrating only on people from the villages surrounding the mine than those	Everyone will feel it is the responsibility of those who directly benefited from the mine i.e. the mines' employees.	which skillset criteria need to be met for the positions in question. As far as we are aware, Nyala does not reject any prospective employee based on race, religion or provenance – it interviews every applicant thoroughly and hires workers based primarily on their skills and ability to perform on the job.	
	further from it	Division among villages; and people of different religions which could result to bitterness and anger toward each other. Increased theft rates as people will prefer getting what is due to them the	The present workforce of 60 people (57 local and 3 expat) accommodates the mechanical mining methods currently applied. The expat workers are assigned supervision /managerial duties. The citizen to non-citizen ratio is considered well above the normal for this type of industry in Malawi. Of the local workers, 90% (50) of the employees are local residents from the surrounding communities, and 10% (7) are migrant (Malawian) workers from other regions.	Section 4.3 Consultations at Community level, pp.67-82
		unsafe way. This will inevitably lead to low productivity for the mining investors depending on the quantities in which things (i.e. stones or machinery) are stolen.	Initially, the new expanded production at the mine is expected to at least maintain the current number of employees, with potential to increase the workforce if the higher processing throughput proves profitable. The expansion is therefore likely to bring new employment opportunities and equal access for all applicants through job announcement and interview process, especially for women. The company is oriented towards employment of schooled local citizens, both male and female, with a target of employing 40% female workers.	Section 2.9 Employment
		relationship between the mining investors and the community.	As documented in the ESIA report, Nyala management has committed to the following:	
			<ul> <li>training opportunities for unskilled workers who prove to have potential</li> <li>as this is a workplaces that involves use of heavy machinery and equipment all workers will be trained in Occupational Health and Safety (OHS) as a condition of their employment services</li> <li>employees at the mine will have 6 working days a week, 7.5 hours each day, or 45 hours weekly. Working hours will be</li> </ul>	



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			from 7:30 to 12:00 noon, and 13:00 to 16:00	
The mining investors have exclusive rights to any	The miners are taking advantage of the community's ignorance on issues related to	Victimization of anyone found in possession of a precious stone regardless of where they got it from.	The exploration and production figures indicate that theft of gem materials was a major problem in the past, both in the field and during milling and sorting.	Section 2.3.1 Alternative mining options;
stone	mining i.e. the community's rights and government policies on mining.	These stones are confiscated by the miners while others are beaten on mere suspicion of theft.	During the ESIA study, the mine had reported occasional night-time incursions onto the mine property by individuals looking to dig up precious stones. Guards occasionally fire warning shots into the air to chase the trespassers away. Trespassing and stealing should not be condoned or encouraged, despite the perception of "rightful	Section 4.4.4 Meeting 4: Meeting with Mr. Harry Phiri, Ntcheu District Commissioner
	The miners are misusing the authority given to them by government to mine in the area in that they tend to ignore the welfare of the	The community sees no benefit in mining. Therefore are less likely to participate where need be.	ownership" of stones referred to in the ICOME report. Furthermore, trespassing and theft of gemstones is illegal, promotes black market activities and loss of potential income from the absence of a proper value appraisal and trading mechanism to maximise profits. This means not only the mine but the government also loses income by bypassing transparent marketing and trade institutions.	
	community because it was not with the community that they signed a licensing agreement. So for		As far as our observations, literature review, MLA agreement review, interviews and anecdotal evidence can tell us, Nyala is operating fully within its rights to the MLA and minerals located within its boundaries, without interfering outside of the MLA.	
	them it is enough to have mining rights and what they do with these rights matters less as long as they are getting profits from their mining		It is also unclear how the author concluded that the mine is "taking advantage of the community's ignorance on issues related to mining, and misusing the authority given to them by government to mine in the area, "ignoring the welfare of the community" when the mine is protecting its property, provides employment for community members and has invested (and plans to further invest) into many community improvement projects.	
	exclusive rights to any	exclusive rights to any stone  community's ignorance on issues related to mining i.e. the community's rights and government policies on mining.  The miners are misusing the authority given to them by government to mine in the area in that they tend to ignore the welfare of the community because it was not with the community that they signed a licensing agreement. So for them it is enough to have mining rights and what they do with these rights matters less as long as they are getting profits from	exclusive rights to any stone  community's ignorance on issues related to mining i.e. the community's rights and government policies on mining.  The miners are misusing the authority given to them by government to mine in the area in that they tend to ignore the welfare of the community because it was not with the community that they signed a licensing agreement. So for them it is enough to have mining rights and what they do with these rights matters less as long as they are getting profits from their mining	exclusive rights to any stone  community's ignorance on issues related to mining i.e. the community's rights and government policies on mining.  The miners are misusing the authority given to them by government to mine in the area in that they tend to ignore the welfare of the community because it was not with the community because it was not with the community that they signed a licensing agreement. So for them it is enough to have mining rights and what they do with these rights matters less as long as they are getting profits from their imining



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5 T	Γheft	Nyala mining company's' unfair employment has made people bitter towards them.  The community lacks sense of ownership and responsibility to protect the mine.  The mining investors have shown no commitment to fulfil its promises on CSR and extend development to all villages as opposed to just those surrounding the mine.  No natural relationship between the mining and investors and the community; a relationship that would have paved way for mutual understanding	The mining investors will not feel the need to assist and commit in the development of a community that is stealing from their profits.  Low production and profits for the mining investors.  Poor relationship between the miners and their employees because they will work under tight supervision on suspicion of theft.	According to our observations and information gathered from interviews at the mine and public consultations, Nyala has set up the Dzonze District Development Fund (DDDF) committee; Its mandate is to support development initiatives aimed at bringing new hope, direct benefit and opportunity to local and disadvantaged communities around the mining area.  Nyala has already invested in many community improvements such as building three (3) new teacher's houses, two (2) new school blocks, two (2) boreholes, teaching and learning materials, sports equipment, qualified teaching personnel on the company payroll since 2013, a medical waste facility, a submersible water pumping system and upgrading clinic facilities, as well providing an ambulance vehicle for medical emergencies, among others.  Contrary to the ICOME report allegations, indications are that Nyala has made every commitment to fulfil its CSR promises and has laid out a Vision 2020 plan on the proposed projects. However, for this to materialize the mine needs to proceed with the proposed expansion of operations and reach the planned level of profitability. Until the increase in production and profitability is reached, it is only natural that the mine is implementing projects in the communities closest to it. The Vision 2020 plan does have projects planned that will benefit the District as a whole.  Any bitterness some members of the community might feel towards the mine have likely arisen from unrealistic expectations and preconceived notions of the mine and the license agreement.	Section 3.5 Corporate Social Responsibility pp.61-64



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66	Scramble for water resource	Kapeni River is the community's only large/main water source; but the miners use it as though it is their own i.e. closing all other outlets when they want to pump water into their enormous reservoir tank  Blocking of irrigation channels which causes the drying and stunting growth of crops.  The miners do not manage their dams appropriately.	Low yields resulting from insufficient supply of water through the irrigation channels to the crops. This will eventually lead to poor harvests as other crops will have died; this means hunger and a high rate of deaths related to it.  Eventually the river will dry out and irrigation will no longer be possible.  This could result to hunger that particular year or perhaps perpetual poverty if no solutions were found promptly.  Early drought caused by the reduction of the water table. Persistent drought will in turn lead to low yield and hunger in the area	<ul> <li>The ESIA study has also identified potential water scarcity from the shared water resource (Kapeni River) as the main environmental concern of the Nyala mine operation.</li> <li>The report addresses these concerns throughout the sections on Impact Assessment, Environmental and Social Management Plan and Monitoring. In summary, the Mitigation Measures propose saving water through:         <ul> <li>Processing plant design (dry screening which significantly reduces water demand by the mine, diversification of water sources to more reliance on groundwater, water recycling)</li> <li>Mitigation measures (rainwater harvesting, monitoring of surface water and groundwater levels as part of early warning system; suspending pumping if water levels drop below the critical line)</li> </ul> </li> <li>Nyala is fully aware that over-extraction of water from the Kapeni river would affect downstream irrigation farming. We have recommended that every measure be taken to reduce the additional pumping required for the mine expansion by upgrading the processing design and diversifying water sources.</li> <li>The mine has committed to commissioning several new community boreholes to reduce local reliance on Kapeni stream for domestic water use.</li> </ul>	Section 7.4 Scoping and Impact Identification pp. 199-204;  Table 21. Areas of potential environmental and socioeconomic impact, p.201  Section 7.3.4.1, p. 168-169 – Impacts on soil: mitigation measures  Section 7.3.5.1, p. 177 – Sedimentation and water quality measures  Section 8.3, Table 26. Environmental Management Plan  - Impacts on soil/construction phase, p. 235  Impacts on soil/operation phase, p. 236-237



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			According to our on-site survey, the mine diverts only part of the river channel near the pump house via small concrete dam – it does not obstruct the entire river channel and its flow.  The water pump at the Kapeni stream is only used for seven (7) hours per day, a detailed log-book records the timing and other necessary data thereof.  In addition, the mine is considering ways to share the reservoir	Section 4.6 Recommendations, pp.112- 113)
			with the community, although safety measures will have priority.  DDDF has in its long term plan irrigation assistance to local farmers, potentially through building small dams.  Further to the technical mitigation measures, based on our public consultations, the ESIA report makes the following recommendations relating to the water scarcity issue	
			Develop a strategy for drought years just as farmers need to do. Early warning systems and monitoring strategies - limits need to be in place on extraction i.e. when water flow drops below a certain level, operation needs to hold temporarily. Plan B needs to be in place so the mine is not taken by surprise.	
			<ul> <li>Consider instituting a catchment management programme into the DDDF community project portfolio to maximise water availability in the stream. Possibly partner with a small NGO for implementation.</li> <li>For the Environmental Program, promote awareness (e.g.</li> </ul>	Section 2.6.1, p.41 Section 4.4.6, p.92-93 Section 4.4.8, p.95 Section 5.4.3, p. 120-121
			recycling, waste collection) through a learning centre at Katsekera or Kandoma school, DDDF sponsored events or periodic school visits to the mine.	Appendices VIII-XI, XV – Applications, Official Receipts



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				In regards to regulatory requirements, Nyala Mines has to the Ministry of Irrigation and Water Development for licences to abstract surface water and groundwater, and a licence to discharge effluent into public waters	
7	Discharge of silt into Kapeni River. (River siltation)	The dug sand is cleaned to identify precious stones. The water from the cleaning process is stored in a dam for reuse once the silt has settled. However at times, there is spillage into Kapeni River as	Spillage into Kapeni River, being the main water source means that people can no longer drink the water because it turns into dirt / mad (dothi la katondo)	Siltation of Kapeni river is another environmental concern also identified by the ESIA study.  The process water from ore washing is discharged together with the tailings into the settling ponds (referred to as "dams" in the ICOME report. The soil and clay contained in the process wastewater from the plant progresses through a series of four settling ponds in which the sediment settles to produce clear water, which discharges into the gully below and flows into the Kapeni stream, if and when it is required to do so.	Section 7.4 Scoping and Impact Identification pp. 199-204; Table 21. Areas of potential environmental and socio- economic impact, p.201
		the dams fail to accommodate the silt for long; thus reducing the water table. And also as mentioned earlier, some farmers rely on supplying water	ccommodate the silt or long; thus reducing ne water table. And Iso as mentioned arlier, some farmers ely on supplying water	We note that Nyala will increase the settling pond capacity that will increase holding and settling time, and reduce silt-laden discharge. The discharge is not continuous but periodic, when the settling pond capacity is reached. Also, as part of the new processing plant operation, most of the water from the settling ponds will be recycled into the washing process, and will minimize the need for discharge into the stream.	Section 2.7 By-products of ore processing, pp. 44-46  Section 2.6 Water Supply and Usage, pp.41-43
		to their crops by means of channels; so once this spillage occurs, the channels are blocked by the heavy clay.		Mitigation measures for other potential sources of siltation such as erosion of exposed excavation pits and stockpiles are addressed in detail by the ESIA report, some of which include:  - Contouring of slopes to reduce erosion potential;  - Re-vegetating areas promptly: at the new platform slope combining mulching, seeding and erosion control until vegetation is re-established; planting elephant grass or reeds on settling pond slope walls; planting vetiver grass along the reservoir perimeter; and planting trees (e.g. Acacia) at	ana esage, pp12 -13



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			<ul> <li>disturbed areas where appropriate</li> <li>Use silt fence (installed to protect the Kapeni stream floodplain)</li> <li>Tree planting or and/or allowing natural regeneration where appropriate. Nyala has planted in excess of 15,000 trees over the last 3 years.</li> <li>Carrying out progressive rehabilitation (timely backfilling and capping of previously excavated mining pits)</li> <li>Allowing adequate time for sediment to settling out of process water</li> <li>Constructing a plunge basin below discharge point to reduce the velocity of discharged process water, and to help control sedimentation</li> <li>As part of keeping stockpiles to a minimum, EMP mitigation</li> </ul>	Section 7.3.4.1, p. 168-169 –
			measures now direct the proponent to either re-screen (through the processing plant) stockpiled material left over from previous mining activities and use reject material for access road reinforcement, or backfilled the materials into inactive mining pits and re-vegetated them.  In reference to the statement in the ICOME report "at times, there is spillage into Kapeni River as the dams fail to accommodate the silt for long; thus reducing the water table" it is unclear how the conclusion of reducing the water table was reached. Water table is the saturation line of underground water (groundwater) and it affects the water supply to borehole wells. Water level is the height of waterflow of a surface water body – river or stream. Discharge from the Nyala settling ponds or "spillage" would in no way reduce the water level of Kapeni, rather the opposite. It would, in the long-term and not to significant degree, act as a recharge source of the local groundwater table through percolation, and would also act to increase the water table, not	Section 7.3.4.1, p. 168-169 – Impacts on soil: mitigation measures Section 7.3.5.1, p. 177 – Sedimentation and water quality measures Section 8.3, Table 26. Environmental Management Plan - Impacts on soil/construction phase, p. 235 - Impacts on soil/operation phase, p. 236-237



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			decrease it.  There is a reference to people not being able to drink the water from the river when the silt levels increase from the discharge. We note that Kapeni water is not potable and should not be used for drinking at any time as it also contains runoff sediment from the surrounding farms (with likely pesticide and fertilizer residue) not just silt from occasional mine discharge. Potable water should be sourced from boreholes only. Surface water analysis conducted during the ESIA study does indicate that the mine is contributing to siltation of Kapeni stream, which is expected considering the ore washing process, and we have recommended in the ESIA report a number of mitigation measures to minimize sediment load from the mine including minimizing discharge of effluent with high suspended sediment, building a plunge basin below the discharge point and increasing sedimentation time in the settling ponds. Quarterly monitoring of surface water quality was also recommended. Should monitoring results continue to show elevated total suspended sediment concentrations, we additionally recommended designing a small constructed wetland in the gully below the discharge point and plunge basin to manage effluent water, as wetlands are particularly effective for removing sediment. The same analysis revealed that heavy metals loading, however, cannot be attributed to the mine operations as their concentrations in samples both upstream and downstream of the mine were comparable, and even slightly lower in the downstream sample.	Section 6.7.1.1 Surface water quality results, pp.154-156  7.3.5.1 Surface Water, pp.176-184  Monitoring Plan, Table 31 – surface water and Section 9.1.2., p.254



Table 2. Effects-mitigation

EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
Theft	Due to high levels of unemployment, some of the community members end up stealing the soil from the mines hoping that they may find the mineral deposits and sell them by themselves.	The company should provide job opportunities to the community members i.e. employ more people and use a fair basis so that everyone can benefit from the mine. This will reduce poverty and theft.  Government should set a certain percentage of benefit to go directly to the communities in which active mining is taking place. This will ensure that the miners are bound by law to fulfil promises depending on the standards set forth by government  The community members should be the ones to do the active mining and sell	High level of unemployment should not justify theft from private or any other property, including the mine which is has a valid lease agreement for the MLA.  It should be understood by the public that the Chimwadzulu hill mine is a relatively small operation which currently does not require a workforce larger than 60 people. As recommended by the ESIA report, the community needs to be further sensitized to keep their expectations realistic. The mine cannot absorb mass employment if the business is to survive.  As mentioned above the planned expansion of operations is likely to bring new employment opportunities and equal access for all applicants through job announcement and interview process, especially for women – but a specific skillsets and standards are required for some of the positions.  Mining operations in Malawi are already bound by law to provide community development contributions as part of the license agreement. According to our observations, Nyala provides a very positive model of supporting community development; it has contributed to many community improvements already and plans to continue the practice into the future.  According to the interviews with Nyala during the ESIA study and documentation provided, the mine has established the following marketing and value chain system for its products: Nyala Mines Limited have an exclusive marketing agreement with Columbia Gem House Inc (CGH) of Vancouver - USA. Owned and run by Mr. Eric Braunwart, a highly respected and trusted name in the	Section 2.9 Employment pp.50-52  Section 4.3 Consultations at Community level, pp.67-82



EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
		the minerals to the Nyala mines company. Meaning that the company should open a special office where they can be buying the stones from the community members who found the stones or dug them on their own.	Industry.  Mr. Braunwart is also a strong supporter of the Fair-Trade ethos, and with his encouragement, Nyala negotiated a Fair-Trade Mining Agreement with the Government of Malawi - believed to be the first of its kind in the world. Please see <a href="www.nyalaruby.com">www.nyalaruby.com</a> and <a href="www.nyalaruby.com&lt;/a&gt; and &lt;a href=" www.nyalaruby.com"="">www.nyalaruby.com</a> and	



EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
			brand, e.g. in the case of Nyala, there are 16 different colors and 4 or 5 clarity grades of untreated gemstones. On top of this, there is other corundum that benefits from heat treatments but again these stones will be offered as a separate brand.	
			When creating a distribution system, one must develop low-end buyers, middle buyers, high-end buyers, stone designers, museum quality, specimen markets, and in order to utilize the widest range of products from the mine. These different markets and products then need to be unified into an overall message, image and name, that supports the total production.	
			From the marketing viewpoint, it would be best to mine the entire surface deposits of Chimwadzulu Hill at an increased rate, rather than searching specifically for red and pink material.	
			Chimwadzulu Hill is primarily a low-grade sapphire deposit and the success of this particular mine is heavily dependant on the volume produced, as only one percent (1%) of the entire gemstone production is suitable for use on jewelry products in external markets.	
Victimization; Fear/ No safety in the area	Since there is no clear demarcation of the mining area, most people are beaten and arrested for trespassing.		There has been no evidence or indication during our ESIA study that people have been arrested or beaten. Not one person had brought up or even insinuated of these issues during our public consultations with the surrounding communities.	Section 4.3 Consultations at Community level, pp.67-82
			It is in good faith that the mine allows local farmers to cross the mining site private property (MLA) during daylight hours with their cattle, along the Kapeni river as a shortcut. The farmers were observed on several occasions during our field surveys to cross the site undisturbed by any mine personnel. But as with any industrial operation, the people should stay away from the mining areas	Section 6.4.1, p.145 Section 7.5.7, p.218 Section 8.3, Table 27. Social Management Plan, p.241



EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
			because of safety and security reasons. With the planned mine upgrade, there will be more machinery on site, active mining pits and no unauthorised persons should risk being in active mining areas.	Appendix XV – written statement from Nyala
			We do agree, however, that a more clear demarcation should be in place and have recommend more extensive and visible safety signage around the site, but have not recommended a physical barrier as it may be perceived as too obtrusive.	
Shortage of firewood; Deforestation	The Nyala mine company has been cutting down trees on Chimwadzulu hill for their projects on their site. They used the trees as fuel for their brick ovens.  Clearing of the natural forest has made firewood scarce and women have to travel long distances on foot just to fetch firewood enough for one day	To ensure that there is less damage done to natural resources, the community should consider identifying their precious stones experts who know just by instinct where in the ground the stones rest. These people will only dig holes enough to extract the stones and instantly refill them without destroying much land arable land and resources	According to the information gathered during the ESIA study, Chimwadzulu hill and the areas in vicinity have long been disturbed by the mining operations (including illegal artisanal mining for many decades prior to Nyala taking ownership) and hillslope farming (not just mining operations), and many of the original landscape characteristics have been altered. Vegetation on the hill is dominated by stunted trees and some grass cover. As a result of erosion from the hill during the rainy season, the soil on the hill itself tends to be thin with little biological build up. Consequently, grass grows reasonably well, but the trees tend to be stunted, which is typical of similar hills over basic intrusive rocks in the surrounding area (so lack of trees on the hill itself is also due to geology not just disturbance from mining). Large areas of the MLA, mostly to the West of the Mining Focus Area are undisturbed from mining activities, and it is planned to keep portions of the site as a conservation area, although these plans haven't been formalized.  As for the mine personnel, they use only the natural resources within the MLA, which is their legal right. There are no settlements or village property inside the MLA. The mining company does not remove natural resources outside this boundary. The company has also committed to reforesting/revegetating areas that have been disturbed by historic or current mining activities (once the mining	Section 6.3 Biological Environment pp.141-142  Section 3.2 Progressive rehabilitation p.54
			of those areas is completed).	Section 2.3 Analysis of



EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
			This has also been addressed in the ESIA report mitigation measures and recommendations on addressing community concerns arising from public consultations.	alternatives pp.17-28;
			As for the proposed ICOME mitigation measure to engage "community precious stone experts" (if ever they have or do exist), it is unclear whether it is suggesting artisanal mining at the site or	Section 7.3.5 Operation phase Impacts pp.176-196
			outside in community areas. Artisanal mining has proved inefficient, hard to manage and rife with theft in the past.	Section 8. ESMP
			It is quite apparent from historical records that the local community has illegally mined the deposit using primitive methods over the last 50 years! The revenue generated by these illegal miners MAY assist in providing families with food, basic schooling and access to health care. The operative word here is "MAY" as there are no guarantees and monetary gain is rarely tempered by rational behavior.	Table 26. Environmental Management Plan
			The additional monies have mostly contributed to and resulted in alcoholism from a young age, drug addiction, prostitution and other anti-social behaviors.	
			These illegal miners have for decades been disenfranchised by limited access to markets and to fair prices for their products. Furthermore, the mineral buyers who consist of foreigners have illegally exported the products, by making corrupt payments to Government officials to obtain export permits, which in turn has resulted in the loss of tax and export royalties to the nation.	
			It should be understood that "instinct" alone can only complement extensive research of mineral deposits at Chimwadzulu conducted by experienced geologists, and that the mining company has the right to determine the best business model – and mechanized mining has been determined to be the only feasible option. In turn,	



EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
			Nyala will practice progressive rehabilitation of backfilling previously excavated pits and revegetating them. This is addressed in several sections of the ESIA report, from mining practices, environmental design, impact assessment to environmental management plan.	
Poor harvest	For those who are practicing irrigation farming along the Kapeni River, they are experiencing lower yields since they are scrambling for the river water with the mining company. Crops do not grow once they have come into contact with the silted water		As mentioned in items #6 and #7 in the above table, Nyala has been made fully aware of the strain on the shared water resource of Kapeni stream. It will make every effort to reduce dependence on a single source of water, reduce water demand of its operations, minimize abstraction from the river/discharge of process water and suspend pumping if a critical line is crossed in term of Kapeni water levels.	
Fear (no safety in the area?)	The community is living in fear with the gunshots fired by the mine bosses when scaring their employees and thieves.  The people can no longer afford the luxury of their old lives i.e. land is being snatched ruthlessly as a result people cannot fend for their families and		During the ESIA study, Nyala did provide information that warning shots are sometimes fired into the air to deter night-time theft, as illegal digging of stones by individuals is common-place.  Indiscriminate use of firearms to scare employees or for "ruthless snatching of land", however, seems far-fetched and unlikely. Again, there has been no evidence or indication during our ESIA study that people have been mistreated in such a way and not one person had brought up or even insinuated of these issues during our public consultations with the surrounding communities. In fact, most had a positive attitude towards the mine.	



EFFECTS	Description	Mitigation proposed by ICOME	C12 RESPONSE	Section in ESIA Report where the issue is addressed
	themselves for long enough.			
	The Nyala miners should donate at least one vehicle to be serving as an Ambulance at  Katsekera ARV and Health Centre and be responsible for covering all vehicle expenses. This will act as a token of appreciation and show that they care for the welfare of the community in which they are accumulating themselves items wealth a lot of money		Nyala already provides an on-call vehicle from the mine to be used as ambulance, with fuel.  The head doctor at the clinic notes that there is a high cost of maintenance burden associated with having an own ambulance. This request can, however, be assessed through the DDDF around the clock.	Section 4.3.2 Meeting 2: Kandoma Primary School  Table 4. Summary of participant inputs, responses and mitigation measures



Table 3. Expectations

	EXPECTATIONS	C12 RESPONSE	Section in ESIA Report where the issue is addressed
i.	The company to drill at least 5 boreholes.	As documented in the ESIA report, Nyala has already completed	Section 3.5 Corporate Social
ii.	The company to construct a proper bridge over the Kapeni River.	many community improvement projects such as building new school blocks, constructing boreholes, upgrading clinic facilities,	Responsibility pp.61-64
iii.	The company to construct school blocks.	providing an ambulance vehicle, etc., and still plans to implement	
iv.	The company should construct a proper road which will help farmers to transport the produce to the nearest markets easily.	many more, if the mine expansion proceeds and yields positive results.	
		It is therefore important for the community to keep realistic expectations and for Nyala to manage those expectations. Some of the recommendations in the ESIA report on this topic include:	
		<ul> <li>Streamline the functionality of the DDDF Committee to maximise effectiveness (establish a Constitution for the DDDF, including a PR strategy; develop a more structured work plan for the Committee);</li> </ul>	Section 7.7.2 Social Impacts, pp.227-230
		<ul> <li>Inform the local residents on the planned projects with emphasis on realistic goals;</li> </ul>	
		- Manage expectations from the community;	
		- Involve community more widely in project implementation where possible	
		Nyala has already committed to commissioning several more community boreholes and constructing school blocks. As for other expectations, the community has the ability to lobby for specific projects through the DDDF Committee who are community members themselves.	



Sincerely,

Zoran Vucicevic

C12 Consultant

