

GOVERNMENT OF GHANA



MINISTRY OF LANDS AND NATURAL RESOURCES (MLNR)

PROJECT APPRAISAL & IMPLEMENTATION DOCUMENT
(PAID)

FOR THE

MULTILATERAL MINING INTEGRATED PROJECT
(MMIP)

JUNE 2017

Copyright © MLNR, June 2017

The information appearing in this publication may be freely quoted and reproduced provided the source is acknowledged. No use of this publication may be made for resale or other commercial purposes.

For further information, contact:

Ministry of Lands and Natural Resources

Starlets 91 Street,
Accra P. O. Box M 212 Ghana
Adjacent Ministry of Gender, Children and Social Protection
and Ministry of Food and Agriculture
233 – 0302 – 672336
info@mlnr.gov.gh

Report Prepared by:



PMB L 44, Legon, Accra
Ghana
Tel: +233-302 418 404; +233-243858235
info@jmkconsultinggroup.org

TABLE OF CONTENTS

TABLE OF CONTENTS	III
FOREWORD	VI
ACRONYMS.....	VII
PREFACE	VIII
CHAPTER 1	1
INTRODUCTION.....	1
1.1 BACKGROUND.....	1
1.2 SMALL-SCALE MINING CURRENTLY IN GHANA.....	3
1.2.1 <i>Definition</i>	3
1.2.2 <i>Creation of Mining District Offices and Capacity Building</i>	4
1.2.3 <i>Extension Service Delivery and Training of Miners</i>	4
1.2.4 <i>Assistance Schemes for Small-scale Miners</i>	4
1.2.5 <i>Mining Sector Development and Environment Project</i>	5
1.2.6 <i>Mercury Pollution Abatement Programme</i>	6
1.3 CONTRIBUTION OF SMALL-SCALE MINING TO GHANA’S ECONOMY	6
1.4 EXTENT AND NATURE OF OPERATIONS	8
1.5 TYPES OF MINERALS MINED	8
1.6 PEOPLE INVOLVED.....	9
1.7 FACTORS ENCOURAGING ILLEGAL SMALL-SCALE MINING (GALAMSEY)	9
1.8 IMPACTS OF ILLEGAL MINING (GALAMSEY) TODAY	9
1.9 MEASURES TAKEN TO ADDRESS THE ILLEGAL MINING MENACE	10
1.10 CHALLENGES TO CURBING ILLEGAL MINING	11
1.11 SHORTCOMINGS OF THE PREVIOUS INTERVENTIONS.....	11
1.12 ON-GOING MEASURES	11
CHAPTER 2	12
POLICY FRAMEWORK FOR MINING	12
2.1 SUMMARY OF NATIONAL POLICIES WITH RELEVANCE TO SMALL-SCALE MINING IN GHANA	12
2.2 KEY ISSUES IDENTIFIED FROM THE POLICIES	12
2.2.1 <i>Minerals & Mining Policy of Ghana</i>	12
2.2.2 <i>National Environmental Policy</i>	12
2.2.3 <i>National Land Policy</i>	12
2.2.4 <i>National Water Policy</i>	13
2.3 THE MULTILATERAL MINING INTEGRATION POLICY	13
2.4 THE MULTILATERAL MINING INTEGRATED PROJECT (MMIP)	14
CHAPTER 3	17
PROJECT DEVELOPMENT OBJECTIVES (PDO).....	17
3.1 HIGHER LEVEL OBJECTIVES TO WHICH THE PROJECT CONTRIBUTES	17
3.2 SPECIFIC PROJECT DEVELOPMENT OBJECTIVES.....	17
3.3 PROJECT BENEFICIARIES	18
3.4 PDO LEVEL RESULTS INDICATORS	18
CHAPTER 4	19
PROJECT DESCRIPTION AND COMPONENTS	19
4.1 PROJECT DESCRIPTION	19
4.2 DETAILED PROJECT DESCRIPTION.....	19
4.2.1 <i>Review and Enforce the Legal and Regulatory Regime [US\$10 million]</i>	19

4.2.2	<i>Reclaim Degraded Lands, Dredge silted Estuaries and Waterways and Free Lands for Agribusiness [US\$45 million]</i>	19
4.2.3	<i>Implement Social Interventions to facilitate livelihood creation in mining communities [US\$50 million]</i>	20
4.2.4	<i>Adapt Technology to ensure efficient mining, processing, environmental and monitoring activities [US\$20 million]</i>	21
4.2.5	<i>Capacity Building of ASMs, Regulatory Institutions and Project Management [US\$10 million]</i>	22
4.3	PROJECT PHASING	22
4.3.1	<i>Immediate & Short Terms [<1 year]</i>	22
4.3.2	<i>Medium Term [2-3 years]</i>	23
4.3.3	<i>Long Term [4-5 years]</i>	23
4.4	PROJECT COST AND FINANCING	24
4.5	LESSONS LEARNED AND REFLECTED IN THE PROJECT DESIGN.....	24
CHAPTER 5		26
PROJECT INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS		26
5.1	IMPLEMENTATION ARRANGEMENTS	26
5.2	RESULTS MONITORING AND EVALUATION.....	28
5.3	SOCIO-POLITICAL (POLITICAL WILL AND SUPPORT)	29
5.4	ENVIRONMENT (INCLUDING SAFEGUARDS).....	29
5.5	KEY RISKS AND MITIGATION MEASURES	29
5.7	FUNDING.....	31
5.8	PROJECT CLOSURE AND SUSTAINABILITY	31
CHAPTER 6		33
PLANNING AND FINANCIAL MANAGEMENT		33
6.1	PLANNING, WORK PLANS AND BUDGETS.....	33
6.2	FINANCIAL MANAGEMENT ARRANGEMENTS.....	33
6.3	ANNUAL CAPACITY BUILDING	34
CHAPTER 7		36
PROCUREMENT PROCESS AND GUIDELINES		36
7.1	PROCUREMENT	36
7.1.1	<i>Fraud, Coercion and Corruption</i>	36
7.1.2	<i>Procurement Policy</i>	36
7.1.3	<i>Procurement Plans</i>	36
7.1.4	<i>Procurement Arrangements</i>	36
7.1.5	<i>Procurement of Non-Consulting Services</i>	37
CHAPTER 8		37
MONITORING AND EVALUATION OF OUTCOMES/RESULTS.....		37
CHAPTER 9		38
PROJECT BENEFIT ANALYSIS		38
CHAPTER 10		41
PROGRESS REPORTING		41
10.1	INTRODUCTION	41
10.2	OVERVIEW OF THE PROGRESS REPORTING SYSTEM.....	41
10.3	MID-TERM PROJECT REVIEW (MTR)	41
10.4	IMPLEMENTATION COMPLETION REPORT (ICR)	41
10.5	DISSEMINATION OF PROJECT RESULTS AND LESSONS LEARNT	42
CHAPTER 11		44

COMMUNICATION PLAN FOR THE MMIP	44
11.1 COMMUNICATION STRATEGY	44
11.2 OBJECTIVES OF THE COMMUNICATION STRATEGY	44
11.3 METHODOLOGY AND APPROACH	44
11.4 COMMUNICATION APPROACHES IN THE MMIP.....	45
11.5 TYPES AND CHOICE OF MEDIA FOR THE STRATEGY FOR MMIP	45
11.6 DEVELOPING A BRAND AND A MESSAGE FOR THE MMIP CAMPAIGN	45
11.7 DELIVERING THE CAMPAIGN MESSAGE	46
11.8 INTERPERSONAL COMMUNICATION	48
11.9 DIGITAL/ SOCIAL MEDIA.....	48
ANNEX 1: PROJECT DEVELOPMENT OBJECTIVE (PDO)	50
ANNEX 2: TERMS OF REFERENCE.....	52
ANNEX 3 CAPACITY BUILDING FOR REGULATORY AGENCIES AND ASMS	62

The Multilateral Mining Integrated Project (MMIP) Appraisal and Implementation Document (PAID) covers the overall strategy and activity components that the Ministry of Lands and Natural Resources (MLNR) has developed to help curb the illegal mining menace (galamsey) in Ghana. The MMIP is a five-year project that presents an integrated approach for achieving overall project outcomes and deliverables and represents a framework for collaboration with key stakeholders to sanitize the Galamsey menace.

This Document has been developed by technical experts and advisors in close collaboration with Ministry of Lands and Natural Resources, sector Ministries and key implementing agencies with the Minerals Commission as the lead. A series of consultations at all levels were done regularly in order to discuss the adopted approaches and activities required to establish and implement the project.

Indeed, there has been intense stakeholder validation workshops covering four (4) Regions (Greater Accra, Western, Eastern and Ashanti) to elicit adequate buy-in and ensure local ownership of the PAID.

Details of PAID include background information on small-scale mining activities in Ghana, the policy and legal framework, organizational project components structure, issues on budgeting, the projects phasing, social interventions, and training priorities. Content of these subjects have been reviewed with the Ministry of Lands and Natural Resources, other sector ministries, agencies and stakeholders, and their comments and inputs duly incorporated. Obtaining this level of buy-in at this important stage has been a central objective in the making of this document; and this approach is viewed as crucial for the continued support of the MMIP.

The MMIP is indeed an ambitious program, and continuing with the strong spirit of collaboration and partnership demonstrated so far would ultimately enable the success of the project.

On behalf of the Ministry of Lands and Natural Resources Advisory Board I wish to thank all who supported to produce the PAID.

Hon. John-Peter Amewu
Minister of Lands and Natural Resources

ALP - Alternative Livelihood Project
 ASM - Artisanal and Small-scale Mining Project
 AWPB - Annual Work Plan and Budget
 MCDS - Mining Community Development Scheme
 CEDECOM - Central Regional Development Commission
 COTVET - Centre for Technical and Vocational Training
 CSR - Corporate Social Responsibility
 DMC - District Mining Committee
 DSC - District Steering Committee
 DVLA - Driver and Vehicle Licensing Authority
 ENR - Environment and Natural Resource
 ERP - Economic Recovery Programme
 FMS - Financial Management Specialist
 GTZ/GIZ - German Technical Cooperation
 LECITA - Legislation, Enforcement, Civil, Integrated & Technology Approach
 MCAS - Mining Cadastre Administration System
 MC - Minerals Commission
 MDF - Minerals Development Fund
 MIS - Management Information System
 M&E - Monitoring and Evaluation
 MMDA - Metropolitan, Municipal, District Assembly
 MLNR - Ministry of Lands & Natural Resources
 NGO - Non-Government Organisation
 NSC - National Steering Committee
 PAID - Project Appraisal Implementation Document
 PCU - Project Coordination Unit
 PPP - Public Private Partnership
 PU - Procurement Unit
 PDO - Project Development Operation
 IA - Implementing Agency
 SAP - Structural Adjustment Programme
 SC - Steering Committee
 ASM - Artisanal and Small-scale Mining
 SBCC - Social and Behavioural Change Campaign
 UNDP - United Nations Development Programme
 UNIDO - United Nations Industrial Development Organisation
 AWPB - Annual Work Plans & Budgets

Liberalization of laws on mining in 1989, which legalized artisanal and small-scale mining with the primary aim of providing employment for the people and increasing government revenue, has rather turned out to be a curse!

Large tracts of farm lands have been degraded, forest reserves have been encroached upon, water bodies have been polluted and social vices have been on the ascendancy in communities with high population of artisanal and small-scale miners.

Efforts made by past governments have failed to adequately address the aforementioned ills. The impunity with which the environment is being destroyed, among other unsustainable mining practices by artisanal and small-scale miners, has been a major concern of the current government.

As a further demonstration of its commitment to address the menace of illegal and unsustainable mining practices, the government upon assumption of office established the Multilateral Mining Integrated Project (MMIP) to tackle the issues using a project management approach.

Consequently, a moratorium was put in place on the 1st of April 2017 to temporarily suspend artisanal and small-scale mining operations for a period of six (6) months. The issuance of new licenses to ASM was also put on hold. Artisanal and small-scale mining sites (both legal and illegal sites) were, during the period, inspected by the Sector Minister and experts drawn from requisite agencies under the Ministry of Lands and Natural Resources to ascertain the extent of environmental degradation and mining practices used in ASM operations; and to also ascertain compliance to the ban imposed by the Minister.

These visits resulted in some arrests of both Ghanaians and non-Ghanaians (Asians, Eastern Europe etc.) operating in unauthorized areas (on waterbodies, forest reserves, etc.). Some others were also mining beyond their concession limits.

These unannounced visits have generally resulted in cessation of such activities, leading to some degree of improvement in the quality of water bodies, to the extent that the Ghana Water Company could now treat water for domestic consumption in some affected localities.

However, for a more sustainable approach, the MMIP is to deal with the issues holistically and introduce some reforms that will firmly deal with, once and for all, the illegal and unsustainable practices so far associated with what clearly are irresponsible small-scale mining activities in Ghana. The MMIP will have components, activities, milestones, targets, timelines and outcomes to deal with the menace for a period of five (5) years from project start date.

1.1 BACKGROUND

- 1.1.1 The indigenous people of Ghana have carried out small-scale mining activities, particularly for gold and diamonds during the pre-colonial era. This period dates as far back as the 5th and 6th century BC, when the Phoenicians and Carthaginians sailed along the coast of West Africa and exchanged goods for gold. Artisanal and Small-scale Mining (ASM) activity in Ghana is concentrated within Ghana's greenstone belts (Birimian and Tarkwaian) and alluvial areas especially along the paleo-placer terraces of the Offin, Pra, Ankobra and Tano rivers and their tributaries.
- 1.1.2 It is worthy to note that ASM activities remained informal for almost thirty-two years after Ghana's independence. The potential for the development of the small-scale mining sector was, however, realized when the government launched the programme for resuscitating the mining sector, under the Economic Recovery Programme, in 1989. Since then, ASM has continued to be an important economic activity, particularly within the remote and poorer areas of the country. Other minerals presently mined on small-scale include salt, limestone, kaolin, oyster shells, silica sands, and brown clays.
- 1.1.3 Prior to 1989, artisanal and small-scale mining activities, mining of gold, especially, was regarded as illegal because of non-existence of appropriate legislation to control the activity¹. However, artisanal and small-scale mining is a global phenomenon. It is a socio-economic phenomenon allowing miners to earn low, often subsistence levels of income, generally in economies characterized by low levels of earnings. Artisanal and small-scale mining are frequently labor-intensive, employing a semi-skilled or unskilled workforce, with low levels of mechanization, production, productivity, recovery and efficiency.
- 1.1.4 Artisanal and small-scale miners are often simultaneously engaged in subsistence farming and other similar low-income livelihoods. It is most commonly practiced in economies with old mining activities and where the commodity has a high value relative to its mass, such as is the case with gold and precious stones. Individuals either work alone or in teams, mining and panning for gold and selling their product to complex, often opaque, networks of middlemen and financiers.
- 1.1.5 Artisanal and small-scale miners frequently work in collectives comprising two to twenty or more people, with varying forms of commercial incorporation and business models. Artisanal or non-mechanized mining operations were popular with indigenes before the colonial era. Mostly shallow land deposits were worked on by using simple tools such as shovels, pick axes, wheelbarrows, etc.

¹ It is worth noting that the Minerals Act of 1962 did not recognize ASM, especially for gold.

- 1.1.6 With the passage of time, most of these shallow high-grade deposits mined by ASMs have been depleted leaving deposits that are deep seated and difficult to exploit with simple implements. This has led to the introduction of heavy equipment (mechanized and semi-mechanize operations) to get access to deep-seated ore bodies.
- 1.1.7 The key challenge facing Government in managing the issues associated with artisanal and small-scale mining is how to develop a strategy which permits co-existence and promotes the development of orderly, viable and sustainable small-scale mining sectors in collaboration with host communities and governments within the context of environmental integrity and sanity. These issues are complex and numerous, involving:
- a) *conflict*:- this is common between large-scale operators, working within a formal, regulated land tenure framework and some small-scale miners, illegally working on land over which they have no legal entitlement (though they may claim to have some historical entitlement);
 - b) *difficulty in accessing land*:- small-scale miners often have difficulty in accessing land appropriate to their type of mining practices. They experience a lack of capital needed to allow even rudimentary production efficiencies, leading to resultant debt bondage and poverty traps, which prevent them from achieving little more than just using a day's earnings to feed themselves and their families;
 - c) *inadequate marketing of minerals produced*:- unregulated, inefficient and, often, illegal pricing and distribution mechanisms and practices contribute further to commercial inefficiencies, often facilitating associations by miners involved in human rights violations;
 - d) *poor working conditions*:- the sector is characterized by poor health and safety practices;
 - e) *poor environmental conditions*:- environmental degradation is common, with artisanal miners seldom rehabilitating the areas they have mined. The uncontrolled and unsafe use of mercury in the processing phase is of particular concern given its bio-accumulation tendencies in the eco-system;
 - f) *emergence of vulnerable groups*:- the sector often includes a large proportion of people from vulnerable groups such as women, children and migrants, culminating in labour exploitation, including a lack of respect for basic rights of workers in the sector;
 - g) *lack of effective regulation and enforcement*:- there are substantive legislative hurdles characterized by either a lack of regulation, ambiguous legislation or a lack of appropriate legal framework; and, consequently, with virtually no enforcement regime;
 - h) *social problems*:- issues such as crime, increased levels of substance abuse as well as prostitution and high exposure to HIV/AIDS are common;
 - i) *inadequate financial and technical support to upscale ASM activities*;
 - j) *inequitable sharing of benefits*:- inequitable distribution of benefits among all stakeholders accruing from mining; and
 - k) *inadequate local capital*:- unwillingness of local banking institutions to invest in the ASM sector.
- 1.1.8 These challenges can best be addressed by adopting a multi-stakeholder approach, in deep consultation with the artisanal and small-scale miners themselves, NGOs

and development agencies, etc, but with government taking a lead role in addressing the issues. It is worthy to note that in a bid to mainstream these activities, Government made a policy decision in 1989 to regularise the activities of artisanal and small-scale miners. The objectives of the regularisation were to:

- a) provide an avenue for employment generation with a view to curbing rural-urban labour drift;
- b) absorb some of the excess labour to be retrenched as a result of the Structural Adjustment Programme (SAP), which was being implemented at the time;
- c) monitor and supervise the activities of small-scale miners by ensuring acceptable mining practices with minimum damage to the environment;
- d) provide ready official market for minerals to ensure maximum contribution of the sub-sector to the national economy thereby reducing the incidence of smuggling of precious minerals to neighbouring countries; and
- e) stem the tide of encroachment of small-scale miners on large-scale concessions.

1.1.9 Consequently, Government enacted a new legislation under which ASM was regulated. The main laws that regulated ASM were the Small-scale Gold Mining Law PNDCL 218 of 1989², in addition to the then existing Minerals and Mining Law, PNDCL 153 of 1986 and other diamond legislations³. Under the Law, regulation and monitoring of the small-scale mining activities were carried out through District Offices of the Minerals Commission located in the following areas; Asankrangwa, Bibiani, and Tarkwa in the Western Region, Assin Fosu and Dunkwa-on-Offin in the Central Region, Akim Oda and Kibi in the Eastern Region and Konongo in the Ashanti Region.

1.2 SMALL-SCALE MINING CURRENTLY IN GHANA

1.2.1 *Definition*

1.2.1.1 Small-scale mining in Ghana was defined to include the exploitation of some mineral deposits, using rudimentary tools at low-level production with minimal capital investment. This definition was given meaning from the Mining and Minerals Law 1986 PNDCL 153 Part X, section 77, clause 1, which states that: “where the sector Minister, after consultation with the Minerals Commission, considers that it is in the public interest to encourage prospecting and mining of minerals in any area of land by methods not involving substantial expenditure or the use of specialized technology, he may by notice in the gazette, designate that area for small-scale mining operations and prescribe the mineral to be mined.” This law has now been repealed and replaced by Minerals and Mining Act 2006, Act 703, Sections 81-99.

1.2.1.2 At the time of regularisation in 1989, small-scale mineral production was around 9,272oz (2% of total production) for gold and 34,158 carats (40%) for diamond. But since then the production increased significantly and by 2016 it had reached 1.2 million Oz for gold, representing 31% of total gold production. For diamond,

² This law has now been repealed and replaced by Minerals and Mining Act 2006, Act 703

³ In 1927 for instance, an act was enacted to regulate diamond mining. This was Diamond Mining Industry Protection Regulation 1927 (No.9/1927). Again, in 1950 Prospecting and Digging Licence Regulation (Vol. 111, 1954, Laws 7, Gold Coast, p.1032) was passed. Furthermore, in Reg.1 and Form 5 of the first schedule of L.I 231 of 1962, diamond-digging licence was taken care of in Act 126.

production increased to 173,863 carats (100% of total diamond production) in 2016.

1.2.2 Creation of Mining District Offices and Capacity Building

1.2.2.1 Eight (8) mining district offices were created for the implementation of the small-scale mining in Ghana in 1989 and subsequently increased to a total of nine (9) by 2016. A number of short courses were undertaken by officers at the time: trips to Zimbabwe and Tanzania to expose officers to experiences in small-scale mining operations outside Ghana; ‘trainer of trainers’ courses were organized in Environmental Management in ASM, basic book keeping and cost calculations, and health and safety issues in small-scale mining; and a number of short- and long-term courses have been undertaken by officers to build their capacity. These training programmes were undertaken to ensure that officers were well prepared to deliver targeted technical extension services to artisanal and small-scale miners.

1.2.3 Regularization and Licensing of Miners

1.2.3.1 Prior to 1989, some efforts were made by Government through the use of the security agencies to stop illegal gold mining. The use of the security agencies for this task had put the miners on the defensive. As a result, the regularisation concept was viewed as a ploy to arrest the illegal miners. The fears of the miners were, however, allayed due to the continuous education by Government; and the ingenuity of the District Officers who at times had to woo some leaders of the miners to their offices, fraternising with them, and getting the message across. These approaches paved the way for an accelerated licensing of miners.

1.2.4 Assistance Schemes for Small-scale Miners

1.2.4.1 Several assistance/support schemes have been implemented since the regularisation of the ASM activity aimed at improving on the operations of artisanal and small-scale miners. Some of these schemes included:

a. Rent-a-pump Scheme

Following persistent complaints by miners that they had problems with water management in pits particularly in alluvial mining areas, a “rent-a-pump scheme” was instituted in 1991. As part of the German Government’s assistance programme, through the German Technical Cooperation GTZ, (now GIZ), ten (10) water pumps of 5HP each were purchased and stored at Tarkwa and Assin Fosu to be rented by the miners for use at a small fee. This system did not succeed due to the following reasons, the:

- i. miners operated near rivers and water inflow into pits was therefore very high. To ensure that the pits were without water the following day, miners left the pumps working overnight. Since the pump capacities were too small for that duty, they soon got damaged; and
- ii. scheme was supervised by the District officers who could not visit the sites frequently because of inadequate personnel. The miners, after working for several days, reneged on payment, claiming that the pumps frequently broke down. The money realised could not purchase similar equipment for replacement.

b. The Hire-Purchase Scheme

Following the failure of the renting system, the Minerals Commission contacted the Central Regional Development Commission (CEDECOM), which was implementing a hire-purchase system to fishmongers and small-scale farmers in the Central Region for advice. CEDECOM came out with a proposal to run the system for small-scale miners. An agreement was therefore signed between the Minerals Commission and CEDECOM in July 1993 for the implementation of the scheme. An internal review of the scheme carried out after three years revealed the apparently low recovery rate (34%), an indication of the failure of the scheme. A further review by external consultants hired by GTZ in 1997 confirmed the non-sustainability of the scheme. CEDECOM was therefore left in a quagmire of either setting realistic interest rates, putting the total cost beyond the reach of miners, or set low rates, eroding their capital. The scheme was stopped and the money invested in other financial instruments to yield profit. The under-listed reasons, however, indicated that other unfavourable factors contributed to the dismal performance of the scheme:

- i. CEDECOM was managing the scheme from Cape Coast, hundreds of kilometres away from beneficiary miners. This made the cost of operation of the scheme expensive and therefore supervision was ineffective;
- ii. the criterion for the grant of the facility was based on past performance of a miner's operations rather than evidence of the viability of the concession as a whole;
- iii. some of the equipment were found to be inappropriate for the operations; and
- iv. inflation was too high for a financing instrument such as a hire purchase scheme where repayment period was up to one year.

c. Pilot Testing of Hammer Mills

A Brazilian-made hammer mill was brought to Ghana from Bolivia by the Federal Institute of Geoscience and Natural Resources (BGR) in 1998 for mineral processing test work at the Bolgatanga Mining District. At the end of the test period, the hammer mill was found to be acceptable except that the hammers were found to wear down frequently, making the operation rather expensive.

1.2.5 Mining Sector Development and Environment Project

1.2.5.1 The Mining Sector Development and Environment Project started in 1996 with the following as the small-scale mining component:

a. Pilot testing of identified modules of small-scale mining equipment: Both alluvial and hard rock processing equipment were purchased, installed and tested in two regions. The alluvial plants consisted of washing trommels, shaking tables, knelson concentrators etc. while the hard rock plants consisted of crushers, ball mills, knelson concentrators and shaking tables.

b. Provision of geological information to small-scale miners: Sixteen sites were selected and limited exploration work carried out. About 47% of the sites investigated were found to be suitable for small-scale mining and demarcated. More of these areas needed to be explored to ensure wider coverage.

1.2.6 *Mercury Pollution Abatement Programme*

a. Studies Undertaken: Mercury is used by small-scale miners to recover free gold from the concentrate. During the regularisation of small-scale mining, the Mercury Law was amended to allow small-scale gold miners to purchase limited quantities of the chemical necessary for their operations. Gold miners have therefore since been using mercury for this purpose.

1.2.6.1 Taking cognizance of the dangers of mercury, the Minerals Commission and GTZ introduced metal retorts to small-scale gold miners free of charge in 1993. The use of the retort was, however, not accepted by the miners. Some of the complaints were that the metal took too much time to heat and that some gold remained in the retort.

1.2.6.2 In 1997, Government applied to the United Nations Industrial Development Organisation (UNIDO) for assistance to determine the extent of mercury exposure as a result of its use by small-scale miners since the miners had been using the chemical without any protection. The request was granted in 1999 when the French government provided funds. A project, “Assistance in Assessing and Reducing Mercury Pollution Emanating from Artisanal Gold Mining in Ghana” was therefore started at Dumasi, an illegal small-scale mining village in the Western Region.

1.2.6.3 The results of the report of the study indicated that there was a strong evidence of mercury exposure among the Dumasi population. Since the Dumasi operations were purely for hard rock, it was agreed that a second study be carried out in an alluvial area where small-scale miners heated amalgam in the field. A second phase of this project was undertaken at Japa also in the Western Region in 2002. The results of this phase confirmed the earlier one.

b. Education and Training

1.2.6.4 The education of miners on the dangers of mercury and the need to handle the chemical with care started from the beginning of the regularisation scheme. Miners were continuously advised to use hand gloves while handling mercury, and to practice personal hygiene. The education intensified with the results of the studies mentioned earlier. The education took the form of durbars where the miners and the whole communities were shown films on the effects of mercury, followed by awareness campaigns and demonstrations on how the retort was to be used. It was hoped that with awareness creation, the communities would stop miners from burning amalgams in their homes. The introduction of the glass retort had increased the understanding of miners on the working mechanism of the retort. Of course there were complaints on cost, fragility, smallness of the heating chamber, among others.

1.3 CONTRIBUTION OF SMALL-SCALE MINING TO GHANA'S ECONOMY

1.3.1 The ASM sub-sector plays a very significant role in the socio-economic development of the country. It, without doubt, contributes significantly to foreign exchange earnings, generates both direct and indirect employment for many people countrywide and hence is a recognizably important component in Government's poverty reduction strategies. These and many other benefits

notwithstanding, the ASM sector is also plagued with numerous short- and long-term problems or challenges including, but not limited to, land degradation, water pollution, serious negative health impacts (e.g. dust, mercury, noise), crime and a host of others.

1.3.2 Small-scale mining of precious minerals continue to make significant contributions to the country's foreign exchange earnings. For example, total gold production by small-scale miners rose from an estimated 2.2% in 1989 to 31% of the national production in 2016 whilst production of all diamonds is now coming from small-scale mining. The 31% gold production includes contribution from both legal and illegal miners. It is noteworthy to state that despite this high percentage of gold production, taxing these miners is very difficult. Some taxes may be collected at the local level through levies imposed by the District Assemblies. However, the current strategy is to geologically explore areas for small-scale miners, organise them into groups and cooperatives and support them to obtain the requisite licenses for their operations. By so doing, it would be easier to tax them appropriately.

1.3.3 As a result of the emphasis on private sector development since the 1980s, the mineral sector is now fully privatized. Investments have come from both major multinational companies and junior mining companies. Whilst there have been some local equity interests, the sector remains predominantly foreign, save for the small-scale component. Table 1 shows comparative gold production of large and small-scale mining from 1990 to 2016.

Table 1.1 Contribution of Gold Production by Small-scale Mining/Large Scale Mining

Year	Total Ghana Production Oz	Diff (Year on Year) of Total Prod.	% Change in Prod	% of Small-scale To Total Production
1990	535,052			3.22
1991	840,715	305,663	57.13	1.86
1992	993,520	152,805	18.18	1.74
1993	1,257,489	263,969	26.57	2.79
1994	1,428,011	170,522	13.56	6.27
1995	1,708,531	280,520	19.64	7.43
1996	1,587,095	(121,436)	-7.11	7.08
1997	1,785,008	197,913	12.47	6.00
1998	2,373,153	588,145	32.95	5.41
1999	2,489,256	116,103	4.89	5.26
2000	2,314,464	(174,792)	-7.02	6.29
2001	2,369,909	55,445	2.40	7.83
2002	2,236,833	(133,076)	-5.62	7.19
2003	2,306,133	69,300	3.10	9.59
2004	2,029,970	(276,163)	-11.98	12.15
2005	2,138,945	108,975	5.37	10.54
2006	2,342,616	203,671	9.52	10.55
2007	2,628,272	285,656	12.19	14.79
2008	2,796,955	168,683	6.42	14.98
2009	3,119,832	322,877	11.54	17.81
2010	3,391,587	271,755	8.71	22.62
2011	3,648,954	257,367	7.59	27.59
2012	4,313,190	664,236	18.20	33.96
2013	4,249,902	(63,288)	-1.49	33.92
2014	4,341,607	91,705	2.16	34.31
2015	3,618,234	(723,373)	-16.66	28.35

2016 ⁴	3,754,668	136,434	3.77	30.22
-------------------	-----------	---------	------	-------

Figure 1.1 Contribution of Gold production by Small-scale Mining/Large Scale Mining

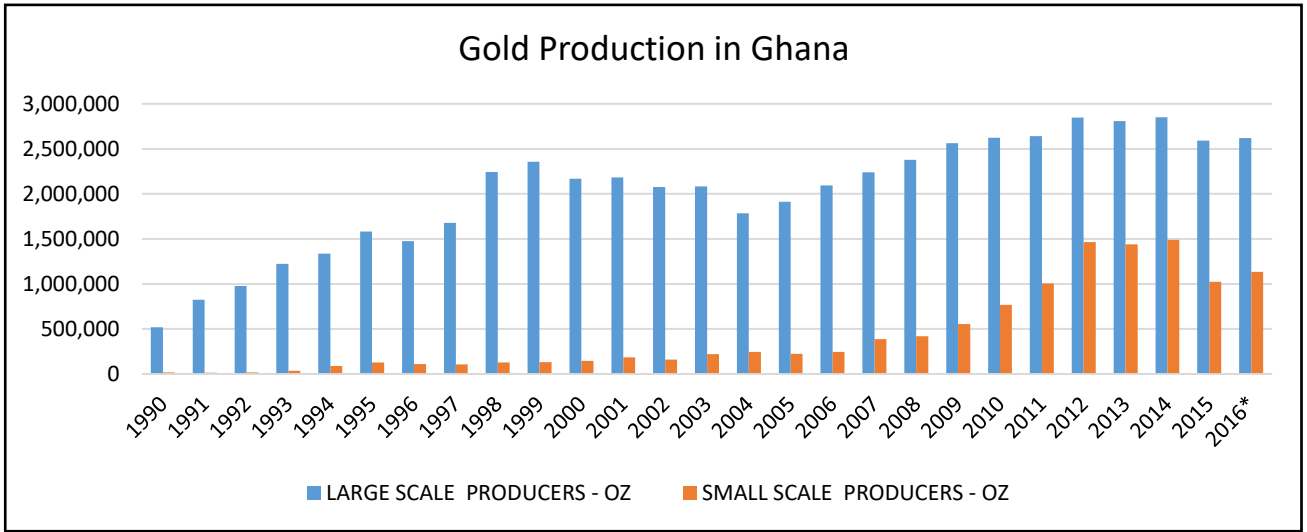


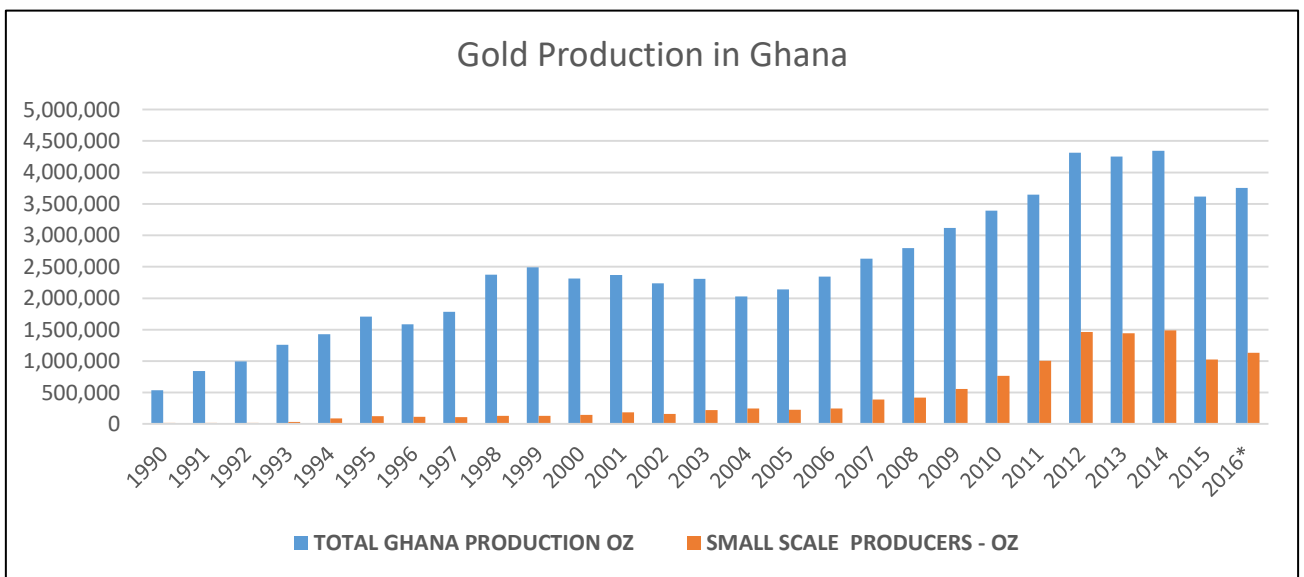
Figure 1.2 Contribution of Gold production by Small-scale Mining

1.4 EXTENT AND NATURE OF OPERATIONS

1.4.1 Small-scale mining (illegal and legal) activities are global in nature and are predominant in countries that are endowed with mineral resources. The extent and nature of small-scale mining activities are different based on the types of minerals involved and their occurrence. Approaches in curbing illegal mining activities therefore differ from country to country.

1.5 TYPES OF MINERALS MINED

1.5.1 In Ghana, illegal mining activities occur in almost all minerals, including precious metals such as gold, diamond, and other industrial minerals (sand, granite, salt, kaolin, gravel, feldsper, etc.).



⁴ Estimated

1.6 PEOPLE INVOLVED

1.6.1 In Ghana, small-scale mining is the preserve of Ghanaians alone. Currently, foreign nationals run the illegal activities with their Ghanaian collaborators. Some of the foreigners come from West Africa, Europe and Asia, among others. It is also important to emphasize that these activities are carried out in collaboration with some Ghanaians of all educational, social and political backgrounds.

1.7 FACTORS ENCOURAGING ILLEGAL SMALL-SCALE MINING (GALAMSEY)

- 1.7.1 The factors that encourage illegal small-scale mining include the following:
- a) relatively high gold price which makes marginal gold deposits economic for illegal small-scale miners;
 - b) illegal mining appears to be more lucrative than other small-scale poverty-alleviation ventures;
 - c) greed and ‘get-wealth-quick’ mentality;
 - d) connivance of some chiefs, landowners and opinion leaders with foreigners operating in remote areas (and areas not designated for mining activities, e.g. river bodies, forest reserves etc.);
 - e) Ghanaians fronting for foreigners to operate in the small-scale mining sub sector;
 - f) political interference and corruption;
 - g) perceived complexity of licensing process;
 - h) introduction of mechanized methods of mining and processing; and
 - i) weak enforcement by relevant institutions

1.8 IMPACTS OF ILLEGAL MINING (GALAMSEY) TODAY

- 1.8.1 Illegal small-scale mining poses multi-dimensional challenges to the mining industry and the economy as a whole. The devastation caused by galamsey is ardently manifested in the following:
- a) pollution of water bodies, including chemical pollution and sedimentation of rivers;
 - b) large pits left by illegal miners which become death traps and create ponds that harbour disease vectors;
 - c) uncontrolled use of mercury in amalgamation;
 - d) extensive land degradation, often involving vast farmlands and forest reserves;
 - e) deforestation and loss of fauna; and
 - f) unauthorised use of explosives in hardrock and underground operations.

The above general impacts can be disaggregated into social, health, environmental and economic dimensions.

- 1.8.2 Negative social and health impact of galamsey includes the following:
- a) worst form of child labour and child delinquency;

- b) exposure of children to unsafe working conditions (hazards);
- c) prostitution and teenage pregnancy;
- d) increase in school dropout rate and poor academic performance;
- e) armed robbery;
- f) land use conflicts;
- g) drug abuse;
- h) mine related accidents and premature deaths;
- i) polluted water sources for farming and other uses (consumption); and
- j) exposure to mercury fumes and other heavy metals.

1.8.3 Negative economic impact of galamsey includes the following:

- a) reduction in investment, loss of revenue and folding up of large scale mining companies due to encroachment by galamsey operators;
- b) loss of revenues to the State due to non-payment of taxes by galamsey operators;
- c) destruction of farmlands without appropriate compensation to the farm owners; and
- d) destruction to rail and road infrastructure, electricity pylons and telecommunication masts sited within the operations of small-scale mining activities.

1.8.4 The negative environmental impact of galamsey includes the following:

- a) pollution of water bodies, including chemical pollution and sedimentation of rivers;
- b) large pits left by illegal miners which become death traps and create ponds that harbour disease vectors;
- c) uncontrolled use of mercury in amalgamation;
- d) extensive land degradation, often including vast farmlands; and
- e) deforestation and loss of fauna.

1.9 MEASURES TAKEN TO ADDRESS THE ILLEGAL MINING MENACE

19.1 Illegal mining continues to engage the attention of Government and the Regulators of the mining industry. Prior to the legalization of small-scale mining in 1989, as already alluded to above, the Government used security agencies to flush out illegal miners as and when such obnoxious activities were reported. In recent times, several interventions have been implemented with the view to addressing the problems of galamsey. Some of the measures that have been adopted in the past included the following:

- a) inauguration of Inter-Ministerial Task Forces;
- b) establishment of National Security sub-committees on lands and natural resources;
- c) creation of district mining offices of the Minerals Commission to facilitate licensing and monitoring of small-scale mining activities;
- d) financial assistance extended to small-scale mining cooperatives;
- e) blocking out areas for small-scale mining;
- f) introduction of alternative Livelihood Projects (ALPs);
- g) formation of small-scale mining associations;
- h) formation of District Mining Committees (DMCs);
- i) sensitization and educational programmes; and
- j) monitoring visits and radio programmes.

1.10 CHALLENGES TO CURBING ILLEGAL MINING

- 1.10.1 Several challenges have been encountered in the implementation of measures taken to curb illegal small-scale mining activities, including the following:
- a) involvement of some high-profile chiefs, landowners, farmers, opinion leaders, politicians and security personnel;
 - b) non-cooperation of state agencies and local government institutions such as the District Assemblies;
 - c) impediments placed on measures put in place by the District Assemblies to curb the menace;
 - d) lack of access to finance and technology encourages Ghanaians to front for foreigners;
 - e) inadequacy of geological information to assist prospective small-scale miners forces them to operate by trial and error; and
 - f) inadequate mineable land available to prospective small-scale miners, hence the encroachment on large scale concessions and mining in unauthorized areas such as river bodies and forest reserves.

1.11 SHORTCOMINGS OF THE PREVIOUS INTERVENTIONS

- 1.11.1 From the measures enumerated in 1.9 above, it is evident, with the exception of the training aspect, that most of interventions were either pilot schemes or tests that were carried out for specific projects. Any shortcomings were therefore considered as part of the learning process. The most important aspect should then be what had been learned, and what should be done to ensure improvement of the implementation of future programmes.

1.12 ON-GOING MEASURES

- a) Geological investigation and demarcation to delineate suitable areas for artisanal and small-scale mining is being undertaken by the Minerals Commission in conjunction with the Geological Survey Department.
- b) The Minerals Commission is strictly enforcing regulations in the various licensing regimes so that where appropriate, large scale exploration and mining companies will shed off part of their concessions accordingly for possible demarcation for small-scale mining.
- c) Promoting the formation of cooperatives and associations for small-scale miners in order to support them with equipment, technical assistance and working capital.
- d) The Mineral Cadastral Administration System (MCAS) currently being developed will enhance mineral title administration.
- e) Implementing the Mineral and Mining Act 2006 (Act 703) as amended by Act 900 2015.

2.1 SUMMARY OF NATIONAL POLICIES WITH RELEVANCE TO SMALL-SCALE MINING IN GHANA

- 2.1.1 In developing the project document for small-scale mining, a number of policies and other key Government documents were considered. Among these are:
- i. Minerals and Mining Policy of Ghana;
 - ii. National Environmental Policy;
 - iii. National Land Policy; and
 - iv. National Water Policy.

2.2 KEY ISSUES IDENTIFIED FROM THE POLICIES

The following key issues were identified in the aforementioned policy documents serving as input in the PAID. These issues are stated in sub-sections 2.2.1 to 2.2.4.

2.2.1 Minerals & Mining Policy of Ghana

2.2.1.1 Assistance to artisanal and small-scale miners to improve upon their operations involved the:

- a. establishment of District Offices manned by Minerals Commission personnel to give technical assistance to small-scale miners;
- b. blocking out areas for ASM, geological investigation and demarcation of areas suitable for small-scale mining; and
- c. provision of finance to small-scale miners to improve their operations.

2.2.1.2 Government, through the requisite sector agency, to ensure the continuous use of appropriate, safe and affordable techniques in artisanal small-scale mining through education, training and provision of logistics to enhance the corporate governance, efficiency, and safety of their operations.

2.2.1.3 Ensure ASM is reserved for Ghanaian citizens.

2.2.2 National Environmental Policy

2.2.2.1 This policy concluded that the main environmental problems associated with small-scale mining (SSM) include land devastation, soil degradation, water and air pollution, noise, land subsidence problems and visual intrusion.

2.2.3 National Land Policy

- 2.2.3.1 Key issues identified under the national land policy include the following:
- i. weak land administration system and conflicting land uses, such as, the activities of mining companies, which leave large tracts of land denuded, disturbing farming activities; and time-consuming land litigation, clogging the courts;
 - ii. the principle of optimum usage for all types of land uses, including human settlements, industry and commerce, agriculture, forestry and mining, the protection of water bodies and the environment;
 - iii. the principle of government facilitating equitable and reasonable access to land within the context of national land use planning:

- iv. whoever takes land for mining and timber operations should restore same to the state it was before the operation. In effect, the principle that the "*Polluter Pays*" applies to land, water resources and the environment, i.e., all efforts are made to prevent as much as possible the destruction of the environment and that where this is not possible then the agency or organisation causing the pollution should ameliorate same;
- v. land categories outside Ghana's permanent forest and wildlife estates are available for such uses as agriculture, timber, mining and other extractive industries, and human settlement within the context of a national land use plan;
- vi. no timber production activities shall be carried out on hill and mountain slopes of at least 30° gradient. Social and economic activities such as agriculture, mining, human settlement and other similar activities may be carried out on hill and mountain slopes provided appropriate technology is employed in each circumstance to mitigate any adverse environmental and ecological consequences. With respect to water bodies a minimum of 100 metres off the high-water mark should be declared as protected areas. In general, land use involving mining, other extractive industries, mechanised agriculture, cattle ranching, dairy farming and manufacturing industry will have to conform to prescribed environmental conservation principles and guidelines;
- vii. ensure the conservation of environmental quality - no land with a primary forest cover will be cleared for the purpose of establishing a forest or tree crop plantation or mining activity; and
- viii. no tree plantation shall be cleared for the purposes of establishing a mining activity.

2.2.4 National Water Policy

2.2.4.1 The main identified challenges relating to mining under the national water policy are:

- i. balancing the competing and conflicting demands of water between mining firms and adjacent communities; and
- ii. the source of water resources are increasingly being degraded as a result of agricultural, housing, commercial, industrial and mining activities.

2.3 THE MULTILATERAL MINING INTEGRATION POLICY

2.3.1 Government recently announced a policy framework (emanated from an extended Cabinet Memorandum from the MLNR on galamsey) aimed at integrating the various policy initiatives in the mining sector to address the menace of illegal mining in Ghana. The policy framework serves as the basis for the establishment and implementation of the Multilateral Mining Integrated Project (MMIP) which is in line with the Minerals and Mining Policy of Ghana. This project will help solve the current challenges of the illegal mining menace in the country.

2.3.2 The project will also help to strengthen the socio-economic capacity of mining communities; promote and support sustainable mining practices; support and

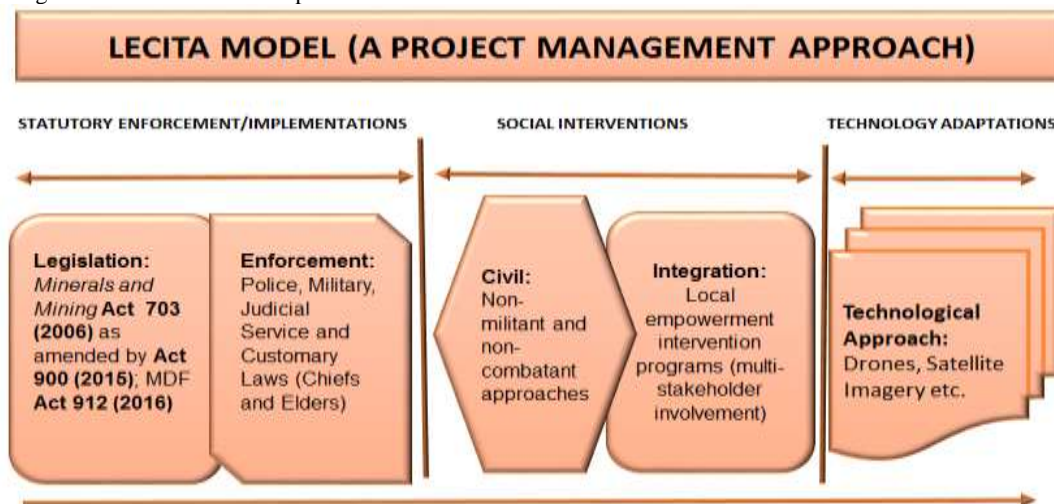
promote mining cooperatives; improve environmental conditions in mining communities; train small-scale miners on sustainable extraction processes; and promote gender equality and social inclusion in mining communities.

2.4 THE MULTILATERAL MINING INTEGRATED PROJECT (MMIP)

2.4.1 The challenges of illegal mining are multifaceted. Government therefore considers an integrated approach would be the best way of addressing illegal mining and its associated negative impacts on society. Government has thus dubbed the ensuing project as the “Multilateral Mining Integrated Project (MMIP). This approach relies on more than just militant and combat actions in the mining communities.

2.4.2 The MMIP combines a “Legislation, Enforcement, Civil, Integrated and Technological Approach (LECITA)” as a sustainable and structured but regimented conjoint concept which will encompass multi-stakeholders in dealing with the galamsey menace. The Project will be planned and implemented for five years, aimed at sanitizing illegal mall-scale mining activities referred to as galamsey. Figure 2.1 below shows a summarized concept of the MMIP.

Figure 2:1 The MMIP Concept



2.4.1.1 Legislation: Review existing legislation and policies.

2.4.1.2 Enforcement: This component ensures that the mineral and mining laws are adhered to and when breached, the security agencies must enforce the rules, and with the support of the judiciary, the appropriate punishment meted out as and when the laws are breached.

2.4.1.3 Civil & Integrated Approach: This is the participatory approach involving all stakeholders to get their buy-in in the fight against illegal mining, incorporating social interventions to prevent illegal mining activities.

2.4.1.4 Technology: Application of technology to track and monitor activities and movement of heavy mining equipment, monitoring areas designated for artisanal and small-scale mining; and also areas such as waterbodies, forest

reserves etc. that are susceptible or prone to illegal mining operations. This also includes adapting technology to improve mining and processing efficiencies.

2.4.2. The **Theory of Change** Underpinning the Project

- i. **IF** sustained awareness creation is undertaken; and
- ii. ... **IF** alternative livelihood opportunities are created, coupled with the identification of suitable areas for prospecting; and
- iii. ... **IF** operators are organized into cooperatives (mining-based organizations) and assisted with extension of technical services; and
- iv. ... **IF** the rule of law is allowed to operate;
- v. ... **THEN** jobs will be created and sustainable livelihood of mining communities assured;
- vi. ... **AND THEN** illegal mining would be sanitized under some concession arrangements and the environment protected (degradation minimized and water pollution stopped); and sanity brought into the mining sector, resulting ultimately in poverty alleviation.

2.4.3 The MMIP will consider some of the existing interventions such as geological investigation of designated areas for small-scale mining purposes, formation and strengthening of local structures to control illegal mining activities, possible introduction of the medium scale mining category by exploring Regulations 469 of the Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (L.I. 2182), enforcing existing mining laws and Regulations, and proposed new and advanced technologies (e.g. drones) to track the activities of illegal miners, among others. The successful implementation of the MMIP will yield the following benefits:

2.4.3.1 Economic Benefits

The following economic benefits would be *boosted*.

- a) Job creation especially within the mining communities.
- b) Increased mineral production.
- c) Skills development.
- d) Boosting local economy.
- e) Ensuring social cohesion.
- f) Foreign exchange earnings.
- g) Investors will be attracted into the country.

2.4.3.2 Social Benefits

The negative social impact of galamsey listed below will be *eliminated or reduced significantly*:

- a) worst form of child labour and child delinquency;
- b) exposure of children to unsafe working conditions and work hazards;
- c) prostitution and teenage pregnancy;
- d) increase in school dropout rate and poor academic performance;
- e) armed robbery;
- f) land use conflicts;
- g) drug abuse;
- h) mine related accidents and premature deaths;

2.4.3.3 Environmental and Health Benefits

The negative environmental impact of galamsey listed below will also be *reversed*:

- a) pollution of water bodies (and ecological sites), including chemical pollution and sedimentation of waterbodies;
- b) large pits left by illegal miners which become death traps and create ponds that harbour disease vectors;
- c) uncontrolled use of mercury in amalgamation;
- d) extensive land degradation, often including vast farmlands, forest reserves;
- e) deforestation and loss of fauna.
- f) exposure to mercury fumes by the illegal miners and the surrounding communities;
- g) accumulation of heavy metals on edible plants and aquatic life; and
- h) cleaner and less polluted source of water for mining communities and communities impacted by the activities of illegal mining activities

CHAPTER 3

PROJECT DEVELOPMENT OBJECTIVES (PDO)

The overall project development objective is to improve the management of artisanal small-scale mining in Ghana to ensure that its contribution to socio-economic development is felt within the mining communities through sustainable mining practices, minimising its negative impact on the environment. This will also take into consideration gender and child protection issues associated with artisanal and small-scale mining activities.

3.1 HIGHER LEVEL OBJECTIVES TO WHICH THE PROJECT CONTRIBUTES

- a. Strengthen the socio-economic capacity of mining communities.
- b. Promote and support sustainable mining and processing practices.
- c. Streamline and enforce laws and regulations relating to mining in and around prohibited areas.
- d. Strengthen collaboration between sector ministries and agencies to manage small-scale mining activities.
- e. Establish a medium scale category of mining operations [Restricted to Hard rock deposits?].
- f. Promote collaboration between stakeholders at the local level.
- g. Improve environmental and health conditions in mining communities.
- h. Promote gender equality and social inclusion in mining communities.
- i. Implement existing taxation system for artisanal and small-scale mining.
- j. Apply appropriate technology in monitoring ASM operations.
- k. Designate areas for small-scale mining through geological investigation by the Minerals Commission.
- l. Promote alternative livelihood projects in mining communities.
- m. Streamline the royalty payment system for the benefit of mining communities

3.2 SPECIFIC PROJECT DEVELOPMENT OBJECTIVES

The specific objectives are listed below:

- a. regulate and assist ASMs to improve efficiency of their operations;
- b. ensure the use of appropriate, safe and affordable technology in small-scale mining;
- c. develop alternative livelihood projects in mining communities;
- d. train miners on sustainable mining practices and extraction processes;
- e. ensure that relevant stakeholders enforce the Law reserving small-scale mining for Ghanaians;
- f. ensure sustainable use of resources (water, land, minerals) by promoting integrated land use planning, taking cognizance of ASMs;
- g. implement existing Taxation System for Artisanal and Small-scale Mining;
- h. reclaim degraded lands and dredge silted (polluted) water bodies' estuaries and waterways;
- i. promote gender equality and discourage any form of gender biases in mining communities;
- j. create and resource District Mining Committees to assist the Minerals Commission to manage small-scale mining at the local level;
- k. strengthen the socio-economic capacity of mining communities;
- l. support and promote mining cooperatives; and

- m. improve environmental conditions in mining communities.

3.3 PROJECT BENEFICIARIES

The ultimate beneficiaries of the project are the current and future generations benefiting from the revenues of sustainable use of natural resources and good environmental quality. The direct beneficiaries are the following:

- a. Small-scale miners;
- b. Land owners and Traditional Authorities;
- c. Farmers;
- d. Mining Communities and communities affected by mining activities;
- e. Metropolitan, Municipal and District Assemblies; and
- f. Utility Service providers e.g. Electricity, water, telecommunications.

3.4 PDO LEVEL RESULTS INDICATORS

- a. Minerals Commission in collaboration with Geological Survey Authority to geologically investigate 500 sq.km of designated areas annually to provide mineable areas for small-scale mining.
- b. Engage over 500,000 small-scale miners from mining communities (through their associations and groups) and incorporate them into the taxable bracket over the 5-year project period.
- c. Create 20,000 acres of oil palm plantation and other economic trees annually as part of the ALP.
- d. Train 1,000 Small-scale Miners in mining & processing methods annually (disaggregated by gender).
- e. Reclaim 7,140 sq.km mined-out areas over the life of the project.
- f. Reduce ASM Licence acquisition time by 40%.

CHAPTER 4

PROJECT DESCRIPTION AND COMPONENTS

4.1 PROJECT DESCRIPTION

The MMIP has the following five interrelated components:

1. Review and Enforce the Legal and Regulatory Regime
2. Reclaim Degraded Lands, Dredge silted Estuaries and Waterways and Free Lands for Agribusiness.
3. Implement Social Interventions to Facilitate Sustainable Livelihood Creation in Mining Communities
4. Adapt Technology to Ensure Efficient Mining, Processing, Environmental and Monitoring Activities
5. Capacity Building of ASMs, Regulatory Institutions and Project Management

4.2 DETAILED PROJECT DESCRIPTION

4.2.1 Review and Enforce the Legal and Regulatory Regime [US\$10 million]

This Component will ensure collaboration with Security Agencies to enforce existing laws and regulations. (e.g. Mining and Minerals (Amendment) Act 900). It will also engage Parliament to explore the possibility of exemption of ASM Licenses from ratification, review existing legislation for appropriateness and educate and create awareness on existing policies and legal framework. The project will also explore the possibility of reviewing the current ASM regulatory framework for the possibility of introducing a Medium-Scale Mining category to cover those Ghanaians who operate using heavy duty equipment in their operations but actually fronting for foreigners.

As part of the enforcement, Mining Intelligence Committees (MICs) will be constituted at the districts. This will be done in collaboration with the regulatory and security agencies; the district assemblies and other stakeholders.

The MICs will have the responsibility of assisting the District Offices of the Minerals Commission with intelligent information on mining activities in the District, especially issues on relating to illegal mining. The MICs will also collaborate with District Mining Committees to ensure the control of illegal mining in the Districts.

4.2.2 Reclaim Degraded Lands, Dredge silted Estuaries and Waterways and Free Lands for Agribusiness [US\$50 million]

This Component will cover the dredging of the estuaries of affected Rivers to help desilt and promote rapid river flow, reclaim 7,140 sq.km mined-out areas over the life of the project. These reclaimed lands will be used for agriculture purposes, where appropriate, facilitating the implementation of Government's programmes such as "One District, One Factory", and "Planting for Food and Jobs" in mining communities. The MMIP will consider PPP arrangements in the dredging of silted estuaries and waterways and support the rehabilitation of disturbed lands.

4.2.3 *Implement Social Interventions to facilitate livelihood creation in mining communities*
[US\$50 million]

The following activities will be implemented under this component:

(i) Provide Geologically Investigated Areas to Small-scale Miners

As part of Government's effort to provide livelihood opportunities to the unemployed youth in mining communities, geological investigation will be conducted to identify economically viable areas for small-scale miners. Currently, about 150 areas covering 5,400 sq. km have been designated for ASMs. However, there is the need to conduct detailed investigation to ensure the areas are viable before licensing to prospective applicants. This activity would be key criteria to reducing the wanton degradation of land by illegal miners. Currently, only 9 of these areas were explored and those that proved positive were demarcated to small-scale miners. A total of 2,500 sq. km of land will be prospected geologically over the period of the project.

(ii) Alternative Livelihood Projects

Demonstrating the commitment of the MMIP to address social needs of people within the illegal mining communities, the MMIP will develop and implement Alternative Livelihood Programs (ALP's) to train current and prospective artisanal miners in different skills development programs. The aim here is to actively involve the local communities whose livelihood depend on the illegal mining activities in alternative income generating activities to help improve their living standards.

In deciding on the kind of ALP to be implemented across the mining districts, a careful analysis of the economic and social benefits that the project will bring to the final beneficiaries (illegal miners, farmers, land owners, chiefs etc) will be done. The project will make use of the updated Alternative Livelihood Project document prepared by the Minerals Commission as basis for determining the kind of alternative livelihoods to be implemented.

Below are some of the Livelihood Empowerment programmes:

- a. Building Skills for Employment (BSE) model which starts from the needs of employers in the Ghanaian construction sector to have job-ready employees with the technical and employability skills required to be productive on the job; and of small-scale entrepreneurs to be able to competently and effectively work in this sector. The model is multi-dimensional, recognizing that there is both a need to bring out-of-school youth who are engaging in illegal mining into skills training. A short-course (10 -12 weeks) will provide youth with sufficient skills and knowledge to work within a specific trade within the construction sector - e.g. painting, tiling, window & door installation, plumbing, carpentry, solar panel installation - in an entry-level position. The MMIP will link up with technical and vocational training centres across the districts to deliver such training for the youth.

The Project Coordinating Unit (PCU) of the MMIP will work with Centre for Technical and Vocational Training (COTVET) and other stakeholder groups to assess the current programs related to the construction sector, and based on labour market information, identify occupations which require more entry-level skilled workers, and build institutional capacity (technical and vocational training

- centres) to develop and deliver competency-based programs; and be more effective in meeting the objectives of the ALP's within the MMIP framework.
- b. Oil palm and other tree plantations would be undertaken on reclaimed lands by the Forestry Commission and Minerals Commission, employing locals for land preparation, tree planning etc.

4.2.4 Adapt Technology to ensure efficient mining, processing, environmental and monitoring activities [US\$20 million]

(i) Tracking of Heavy Equipment for Mining and Construction in Ghana

In the medium to long term, the Minerals Commission will collaborate with the DVLA to register and track earth moving equipment in the country as a means of ensuring that the use of these equipment in inappropriate locations are sanctioned in accordance with the Minerals and Mining Act, 2006, Act 703.

(ii) Application of Satellite Imagery and Drones for Baseline Data and for Monitoring

Satellite Imagery will be employed to create a baseline for the disturbed land areas within the designated areas for small-scale mining. The undisturbed areas will then be monitored using drones.

In view of the large size area to be monitored for enforcement purpose, Aerial Surveillance (Drones) which is very efficient and more cost effective in monitoring and data collection will also be used to track earthmoving equipment in areas designated as no go zones, water bodies and forest reserves. Based on geographical computations and operational strategic planning to allow for the achievement of a very effective aerial surveillance and monitoring of galamsey activities across the district, monitoring and control stations will be established to have the overall command, control and supervisory responsibilities in the districts for both real time monitoring and collection of data. This will help in sharing information with the security agencies for quick response and enforcement.

(iii) Adapt Appropriate Technology for Mining, Processing & Rehabilitation

Technology will be applied to minimise the impact of small scale mining by either doing a concurrent mining, processing and reclamation or sequencing the operation to ensure that disturbed lands are reclaimed before moving to another site. The Component will allow the construction of sediment ponds for water management to re-use water for mining and processing instead of discharging it into water bodies. Mercury Retort can be used in the processing to minimise mercury loss (this could save about 70% of the mercury) and also reduce the mercury oxide inhaled and/or released into the atmosphere. The use of non-mercury gold extraction method (direct-smelting "sika bukyia") will be promoted. This is in line with the MINAMATA convention on mercury which Ghana is a signatory.

(iv) Sustainable Source of Funding for ASM (Dealers and Buyers Associations)

In ensuring sustainable funding source for the ASM sector in the country, MMIP will facilitate Public Private Partnership arrangements with investors and/or the PMMC to provide interest free loans and equipment support services to small scale miners. Small scale miners at the districts and communities will come together and form cooperatives to

enable them assess funding for their operations. Prior to the award of funding an assessment will be carried out to determine whether the cooperative group has the capacity and technical know-how on sustainable mining practices. The funding arrangement will be made in such a way that the cooperative groups after receiving the interest free loan will sell their products (gold) to the refinery company. To ensure compliance and enforcement of sustainable mining practices the PPP consortium that will be formed will also monitor the activities of the cooperatives in the various district and communities and the feedback will form the basis for continuous funding of the cooperative groups in the districts and communities.

4.2.5 Capacity Building of ASMs, Regulatory Institutions and Project Management including Communication (US\$10 million) [US\$20 million total]

(i) Training of small-scale miners - The objective of this training programme is to build capacity of the District Mining Officers of the Minerals Commission; EPA District Officers; members of the Small-Scale District Mining Committees to enable them to discharge their duties effectively and efficiently. Also, members of the Ghana Association of Small-scale Miners will be trained.

Small-scale miners will be trained in the area of mining, processing, land reclamation and water usage. The Project will train 1,000 Small-scale Miners in mining & processing methods annually (disaggregated by gender). The table at ANNEX 3 illustrates the training programs that the MMIP will implement to help build the capacity of MC, EPA, ASM, DMC's etc to enable them to discharge their duties effectively and efficiently.

(ii) Capacity Building for regulatory agencies and ASM's – This activity will cover selected staff of the Minerals Commission and the Environmental Protection Agency (EPA). It would also involve members of District Mining Committees and the Ghana National Association of Small-scale Miners (GNAASM) (see Annex 3 for Details).

(iii) Course Duration - The course shall be delivered on modular basis. Each module will run for five (5) days per week. Two modules will run per day for 8 hours. To ensure effective management of the small-scale mining sector, the following institutional strengthening activities will be implemented:

- a. setting up additional district offices of the minerals commission;
- b. EPA having a desk at the Minerals Commission; and
- c. exploring ways to increase the involvement of traditional authorities' in the mineral rights administration process itself.

4.3 PROJECT PHASING

4.3.1 Immediate & Short Terms [<1 year]

- a. Moratorium: Call for at least 6 months moratorium on small-scale mining operations (legal and illegal) in the country.
- b. Suspension of issuance of new ASM licenses.
- c. Establishment of baseline data of key indicators:
 - level of land devastation caused;
 - size of proven areas for small-scale mining operations;
 - ALP projects established;
 - number of ASMs employed;
 - size of area reclaimed; and

- time taken to acquire ASM License etc.
- d. Conduct audit on operations of ASM Licenses granted.
- e. Intensify Social and Behavioural Change Campaigns (SBCC) including education and sensitisation.
- f. Intensify monitoring of small-scale mining activities.
- g. Encourage formation of groups and small-scale mining cooperatives.
- h. Establish additional Regional and District Mining offices of the Minerals Commission in areas of primary activities and the requisite personnel.
- i. Strengthen law enforcement efforts among Environment and Natural Resource sector institutions on illegal mining.
- j. Engage the judiciary on the need to impose sanctions commensurate with the offence in accordance with the laws of Ghana (Act 900).
- k. Strengthen inter-agency collaboration (including the national association of small-scale miners) as a means of improving the effectiveness of overall governance issues relating to illegal mining in Ghana.
- l. Re-classify artisanal small-scale mining operations.
- m. Engage Parliament on the need to exempt ASM licenses from ratification.

4.3.2 *Medium Term [2-3 years]*

- a. MMDAs should operationalize District Mining Committees and facilitate operations of small-scale mining associations to assist in the local management of small-scale mining issues in accordance with provisions of the Minerals and Mining Act, 2006, Act 703.
- b. Implement capacity development programmes for Small-scale Mining (ASM) relating to their operations.
- c. Support the Small-scale Mining operators to commit and comply with the various mining and environmental regulations and showcase their success stories as best practices.
- d. Develop competitive and attractive sustainable alternative livelihood programmes in mining communities as a means of discouraging illegal mining.
- e. Consider the introduction of a medium scale category of mining operations in Ghana.
- f. Consider Institutional Reform and Capacity Building for regulatory agencies
- g. Facilitate adoption of Social Security Schemes for ASMs.
- h. Leverage funds from the Mining Community Development Scheme (MCDS) to establish viable commercial projects in mining communities.

4.3.3 *Long Term [4-5 years]*

- i. Continuous capacity building of regulators in mining, processing and environmental rehabilitation technologies for effective regulation.
- ii. Continuous capacity building of ASMs in mining, processing and environmental rehabilitation technologies, including the “polluter pay principle”.
- iii. Geological investigation to identify more economic mineable areas for ASMs.
- iv. Encourage “Fair Trade Fair Mined” gold concepts in the ASMs.
- v. Facilitate a more Efficient Taxation System (e.g. Royalty) for Artisanal and Small-scale Mining.
- vi. Encourage ASMs to sustain Community Social Responsibility (CSR) programmes in mining communities.
- vii. Encourage ASMs to sustain Alternative Livelihood Projects in mining communities

- viii. Continuously facilitate implementation of Government’s programme such as “One District, One Factory”, “Planting for Food and Jobs” in mining communities.

4.4 PROJECT COST AND FINANCING

4.4.1 The implementation of the MMIP will bring additional cost to the Government of Ghana. The costs will involve the establishment of the MMIP Secretariat, compensation, goods and services, education, reclamation of degraded areas, research, enforcement of legislation, modern technologies adaptation, technical and rental plant pool services, training, among others.

4.4.2 The project is expected to be financed by statutory funds such as the Mineral Development Fund and Annual Budgetary allocation from Government. Other sources of funding include partnerships with Diplomatic Missions (Funding/Technical Support), Civil Societies, Corporate bodies and other funding organizations through PPP arrangements etc.

Table 4.1 Source of Project Funding

Project Cost (US\$)	Funding Partners (US\$)	Gog Contribution (US\$)	PPP (US\$)	Others (US\$) (Corporate Bodies, Fund Raising Etc)
100%	50%	20%	20%	10%
150,000,000	75,000,000	30,000,000	30,000,000	15,000,000

Table 4.2 Project Component and cost

Project Component	USD	%
Review and Enforce the Legal and Regulatory Regime	10,000,000	6.67
Dredge Rivers, Reclaim Degraded Lands and Free Lands for Agribusiness	50,000,000	33.33
Implement Social Interventions to facilitate livelihood creation in mining communities	50,000,000	33.33
Adapt Technology to ensure efficient mining, processing, environmental and monitoring activities	20,000,000	13.33
Human Resource Development and Project Management Communication	10,000,000	6.67
Total	150,000,000	100

4.5 LESSONS LEARNED AND REFLECTED IN THE PROJECT DESIGN

4.5.1 The current laws on small-scale mining does not actively involve the traditional authorities in the control and management of the mining operations in their jurisdictions. This conspicuous exclusion of the traditional authority in the mining law makes them unconcerned, some of them having been found to be participating actively but covertly in the activities of illegal mining.

4.5.2 There should therefore be a review of the mining laws, to include traditional rulers and community members in small-scale mining areas in the management of small-scale mining operations. Mining Regulatory Agencies should involve the traditional authorities, local government and other opinion leaders in their various processes in managing small-scale mining activities at the local level.

4.5.3 The amendment of the mining law should include the roles that local level structures should play, ensure capacity building, determine benefits for them and

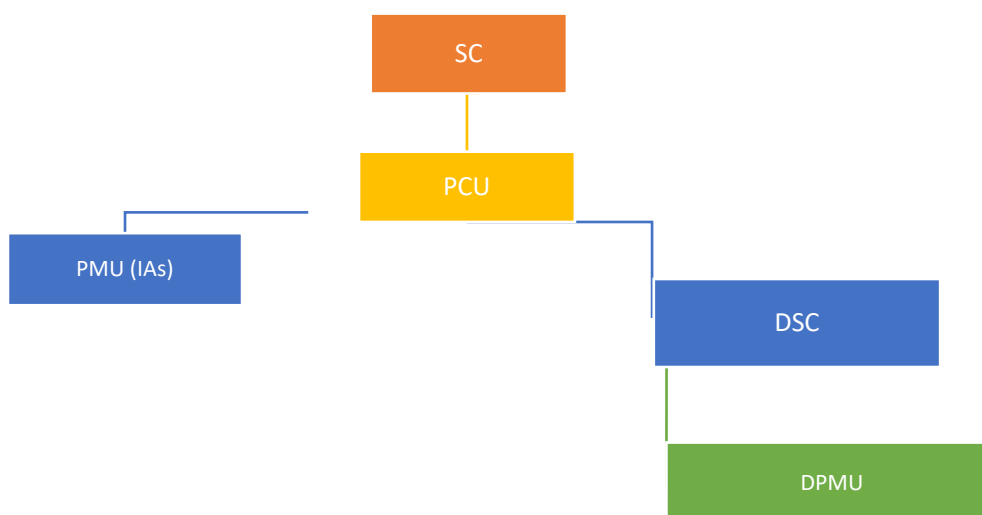
include the payment of special levies by the small-scale miners to these local participants for their operations.

- 4.5.4 *For re-categorization of mining to take care of medium scale mining, Regulations 469 of the Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (L.I. 2182) can be exploited or looked at.*
- 4.5.5 On the use of new technologies in tracking the activities (drones) of illegal mining activities, the Civil Aviation, the Police and other relevant organization already have laws on the deployment of new technologies on land and the airspace.
- 4.5.6 The above existing legal framework shows that the MMIP can be implemented while steps are being taken to involve Local Authorities and others into the small-scale mining law.

5.1 IMPLEMENTATION ARRANGEMENTS

5.1.1 The proposed structure of the MMIP will adequately address the workflow demands on the project, while allowing for sufficient checks and balances to maintain the integrity of the initiative. There will be three levels of organization-Steering Committee (SC), Project Coordinating Unit (PCU) and the Implementing Agencies (IA's). The organization chart included below illustrates this structure.

Figure 5.1 High level organizational chart



a. The Steering Committee (SC)

The SC will operate as the primary decision-making body for the MMIP. This includes having oversight responsibility over which project components will be funded and ensuring the proper administration of the Project. Presided over by the Minister of Lands and Natural Resource, the Minister will constitute the SC for the implementation of the MMIP. Directly reporting to the SC is the Internal Audit Office, whose main responsibility is to guarantee the appropriate internal functioning and operations of the MMIP by assuring compliance with policy, procedures, norms and financial management agreed upon by the SC. All functional units that form a part of the MMIP shall be subject to internal audits. The Internal Auditor is named by and reports to the SC, to whom he submits his reports. Effective internal audit within the MMIP would be one of the first lines of defence against misuse and/or mismanagement of public funds. It will be based on a sound internal control environment, and not seen as a substitute for one.

b. National Project Coordinating Unit (PCU).

This unit will serve as the secretariat to the Project. The PCU, with the Project Coordinator as the head, will be responsible for project co-ordination and to carry out and supervise implementation, as appropriate. It shall be the executive arm of the

Steering Committee and carry out its responsibilities under the overall supervision exercised by the SC. The professional staff of the Secretariat will consist of the Project Coordinator (PC) who will be the administrative head of the project and reports directly to the Minister of Lands and Natural Resources. Finance Specialist (FS) reports to the PC, whilst the Project Accountant (PA) reports to the FS. The M&E Specialist, Communication Specialist (SC) reports to the PC. The Auditor reports directly to the SC. These positions will be filled by experienced technical persons in the various disciplines through a competitive recruitment process.

Daily administration of the MMIP will be the responsibility of the Project Coordinating Unit (PCU). An autonomous organisation, the PCU will report directly to the SC. The PCU will comprise all the IA's which are to prepare activities and work plans for implementation, track the MMIP's expenditures, coordinate the availability of information regarding the project to the public, and monitor the results obtained by the projects.

c. National Project Management Unit (PMU)

This will be made of the representatives from the implementing agencies (IAs) assigned to the Project and reports to the PCU.

d. Implementing Agencies (IAs)

IA's who will be responsible for implementing the various components of the MMIP. These IA's include MC, EPA, Water Commission, Land Commission, Security Agencies, MMDA's etc.

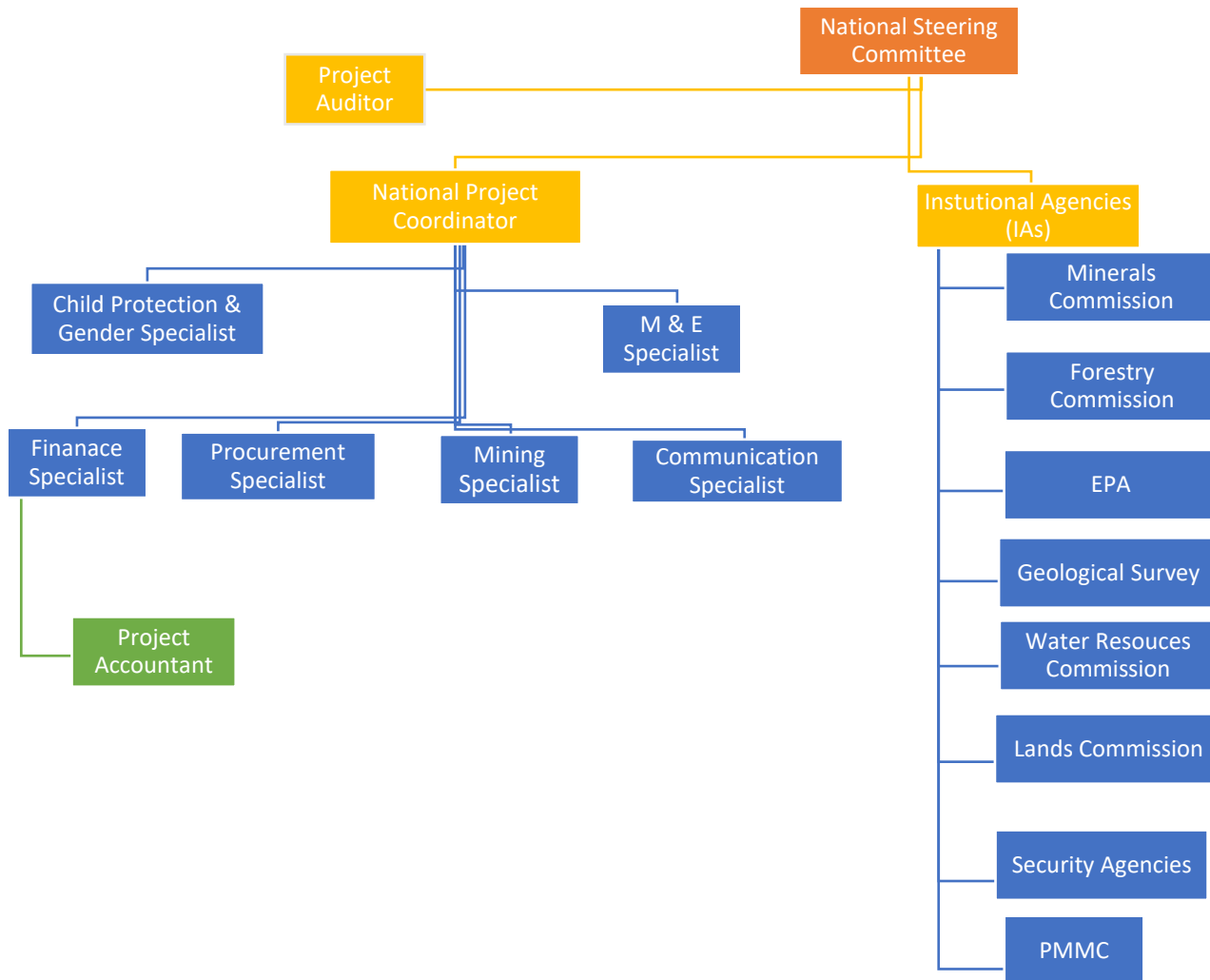
e. District Steering Committee (DSC)

This will be made up of the MMDCEs and the representatives of the IAs at the district level. The MCE/DCE shall head the DSCs.

f. District Project Management Unit (DPMU)

This will be made of the representatives from the implementing agencies at the district level chaired by the MCE/DCE [a Representative of the Minerals Commission]. The district IAs will report to their IAs at the NPMU.

Figure 5.2 Diagrammatic representation of national management structure



5.2 RESULTS MONITORING AND EVALUATION

5.2.1 The project monitoring and evaluation (M&E) framework will serve to: (a) monitor and report on implementation progress as agreed in work plans and related budget plans to be prepared; (b) proactively identify potential bottlenecks in implementation of the activities and decide appropriate corrective actions; and (c) assess and report on the achievement of planned outputs, outcomes and impacts as per the Results Framework to be established for the Project (see Annex 1). A project M&E system will be based on the Results Matrix.

5.2.2 The PCU will be in charge of coordinating the data collection effort with the other IAs. It will compile the data collected and prepare a progress report describing overall progress towards achieving results to be presented to the SC. Cost for collection of monitoring information is embedded in the Project

activities. The Project will also directly contribute to the setup of M&E system at different levels.

5.3 SOCIO-POLITICAL (POLITICAL WILL AND SUPPORT)

- I. An analysis of interventions implemented so far, shows political will is paramount in the fight against illegal small-scale mining. MMDCEs must own and be held responsible for all small-scale mining activities within their respective districts.
- II. Traditional authorities should be empowered to assist in the management of small-scale mining within their areas of jurisdiction

5.4 ENVIRONMENT (INCLUDING SAFEGUARDS)

- 5.4.1 Environmental assessments will be done on proven areas after geological investigation before licensing the areas to artisanal and small-scale miners.

5.5 KEY RISKS AND MITIGATION MEASURES

- 5.5.1 The overall risk of the project is rated as “moderately likely” during preparation and as of a “moderate impact” during implementation.
 - i. There is a risk that new technology supported by the project (including ICT applications to ASM activities, use of satellite imagery and drones) may not be sustainable due to inadequate budget allocations to mining agencies and a possible lack of a maintenance culture. A risk mitigation measure will be to increase the share of revenues that mining agencies are allowed to retain.
 - ii. General risks that project management may face in achieving the PDO are summarized in the risk rating table below as follows:

Table 5.1 Key risk and mitigating measures

Type of Risk	Risk Rating	Mitigating Measures
i. Risk of Non-Compliance by the participating IAs to Internal Controls. E.g. in the initiation of activities, seeking approvals etc. prior to submission of supporting documentation for payments.	S	Internal controls will be in line with GoG approval and authorization processes. Monitoring of controls for compliance will primarily be the responsibility of the respective internal auditors and subsequently by the Project Auditor.
ii. Project Stakeholder Risks. The risk that small scale miners, traditional authorities, implementing agencies, civil society and the judiciary will not cooperate with the proposed reforms.	M	Public awareness programs was incorporated into the program design through stakeholder consultations during preparation and will be central throughout project implementation. A communication strategy has been prepared and will be rolled out during implementation. In addition, civil society involvement is catered for at the Steering Committee level.
iii. Implementing Agency Risks. There is a risk of lack of willingness to undertake	M	The project has made substantial provision for capacity and skill development for the scale miners and

institutional and business process reforms (Risk of resistance to change).		
<p>iv. Project Risks - Design The Project impacts on national and district levels throughout most of the country and aspects are demand driven which is quite new to project staff and stakeholders.</p>	L	<p>other participating key groups. This includes provision of technical assistance in areas where there is the need. There will be continuous re-training in different skills required for change management and effective implementation of project activities to achieve the project's objectives.</p> <p>A decentralized project management system whereby district management committees as well as a national oversight committee (SC) with representations from various stakeholders is envisaged. A robust M&E systems will be set up to provide timely and adequate feedback to management.</p>
<p>v. Project Risks - Social and Environmental Provision of Alternative Livelihood Programmes for acceptance by the miners may prove to be a challenge. So also will be substantial reclamation of disturbed lands for release for agribusiness.</p>	H	<p>Internationally agreed development goals (SDGs) - esp., Goal 12 ("ensure sustainable consumption and production patterns" with its second target, "by 2030 achieve sustainable management and efficient use of natural resources" ... to serve as a catalyst in achieving reclamation and reforestation.</p>
<p>vi. Project and Funding Partners The ready availability of funds especially GoG counterpart funding may not be forthcoming as expected due to continuous budgetary constraints. Financing assurance by Government and funding partners has to be watched carefully.</p>	S	<p>All Ambassadors of Regional Blocs in Ghana were sensitized in meetings spearheaded by the Ministry of Foreign Affairs on the galamsey menace. Full support was pledged by almost all of them.</p>
H – High S – Substantial	M – Modest	L – Low

Procurement Risks:

1. The overall risk assessment is rated **Modest**. The key risks for procurement are: (i) possible delays in receiving technical inputs like TOR and Specification from beneficiary IAs leading to implementation delays and poor quality of contract deliverables.

2. To address the above risk areas, the following actions are recommended: (i) preparation of a Project Operational Manual by the Project Coordinating Unit specifying the roles to be played by beneficiary IAs' relevant staff; and that of the PCU which would be disseminated to all staff of agencies who will be involved in the project implementation at project launch; (ii) completion of all TORs by end of year of project implementation; (v) close monitoring of procurement plans on a monthly basis and closely monitoring and exercising quality control on all aspects of the procurement process, including evaluation, selection and award; and (vi) preparation of standard bidding documents for NCB.

3. The table below summarizes the key risk areas and proposed mitigation measures.

Table 5.2: Procurement Risks and Mitigation Measures

Key risks	Mitigation Actions	By Whom	By When
Possible delays in processing procurement actions under the projects due to lack of procurement focal person	Officially assign the procurement specialist of MLNR as the direct person in charge of procurement management under the project	Coordinator, PCU	At the beginning of project.
Delays in handling procurement documents and actions	Close monitoring of procurement plans on a monthly basis and closely monitor and exercise quality control on all aspects of the procurement process, including evaluation, selection and award. Since majority of the procurement activities are on consultancy, it is recommended that all the TORs will be prepared and approved by the Steering Committee in advance to curtail any delays that may occur due to the absence of technical support for procurement.	Project Coordinator	Throughout project life By end first year of project implementation
Possible delays in processing procurement and payments.	Setting of standard processing times Continuous tracking and monitoring of contract performance. Undertake yearly post-reviews in addition to compliance audit by Internal Audit Agency.	Project Coordinator	Throughout project life
Weak procurement and contract management.	Provide an overall oversight to managing of contracts and setting of standard processing times in the project implementation manual. A contract management system must be developed for implementation.	Project Coordinator and Procurement Specialist	Throughout project life

5.7 FUNDING

Funding will come from various sources such as GoG, funding partners, corporate bodies, etc.

5.8 PROJECT CLOSURE AND SUSTAINABILITY

Results and all follow up activities of the project will dovetail into the sector medium term programmes of the IAs for continuity.

- 5.8.1 The sustainability of the components of the project beyond the implementation period is considered likely. Implementation arrangements, financial management and procurement procedures are all mainstreamed through statutory mining sector agencies responsible for the implementation of project activities at the national and regional levels. The Government has provided the necessary legal and statutory framework by the enactment of Procurement Act 663, 2003, Minerals and Mining Act, 2006 (Act 703) as amended in 2015 (Act 900) and the Minerals Development Fund Act 2016 (Act 912). The agencies and procedures stipulated in the laws will continue to exist and perform functions described in the project document beyond the life of the project.
- 5.8.2 More recently, the Minerals Commission, through a WB project, facilitated the establishment of District Mining Communities (DMCs) in addition to training and equipping them. This is to strengthen the capacity of the Minerals commission to manage artisanal and small-scale mining in the field. Training modules were developed and implemented and equipment such as cameras, differential GPS,

and computers were procured for existing MC district offices. The training did not only include district mining committees, but also included a broader set of stakeholders, such as district assembly representative, miners, civil society, local law enforcement, and EPA officers. The outcomes of this intervention will serve as solid basis for the implementation of the activities of the MMIP to ensure sustainability.

6.1 PLANNING, WORK PLANS AND BUDGETS

6.1.1 To ensure the main tasks set for MMIP are completed on time and the agreed objectives achieved, a basic set of Annual Work Plans and Budgets (AWPBs) will be prepared by the PCU and reviewed by the project's oversight committee (the SC) and executed by project implementing agencies/entities (IAs). The IAs, in collaboration with PCU and other stakeholders, would prepare the AWPBs through a planning process that involves the participation of the IAs. Both the planning and execution of the AWPBs are expected to be informed by experiences on the ground as observed by implementers and beneficiaries and reflected in monitoring and evaluation reports. Too often programs fail because of rigid adherence to a project document when the evidence from the field clearly indicates that a modification may be desired. Significant changes in activities would be undertaken after the Mid-Term Review of the Project. In this regard, the IAs will be encouraged to work closely with the key stakeholders in the planning of project activities.

6.2 FINANCIAL MANAGEMENT ARRANGEMENTS

6.2.1 The overall financial management responsibility will be handled by the Financial Management Specialist (FMS) at the PCU. The responsibility of the FMS is to ensure that throughout implementation there are adequate financial management systems in place which can report adequately on the use of project funds. A dedicated Project Accountant (PA) will be responsible for the operational and day-to-day transaction, processing and collation of financial reports from implementing agencies. The PA would interact frequently with accountants at the various implementing agencies. To ensure the timely submission of imprest reports and transfers of reimbursements to these agencies, the PA will train them to be able to present these reports in a manner that facilitates their consolidation into the project's financial system. The FMS, supported by the Project Accountant, would be responsible for ensuring compliance with financial covenants such as submitting Interim Unaudited Financial Reports (IFRs) to the PCU, maintaining internal controls over project expenditure and engaging External Auditors.

6.2.2 Project Accounts would be maintained at each of the key implementing agencies to which funds would be transferred from the designated account for the running of their activities. Monthly reports would be submitted by these agencies to the project accountant at PCU who would coordinate and aggregate these and submit one quarterly FM report to the SC. The monthly reports from the implementing agencies would form the basis for replenishment of the imprest based on the agreed ceiling and the amount of funds on hand at the IAs.

6.2.3 Project Auditing

All accounts are subject to internal and external annual audits by the Auditor General and independent external auditors selected by the Auditor General and acceptable to the Government of Ghana (GoG) in keeping with the terms of project agreements. Auditor's reports are furnished to the funding agencies within

six months of the close of the fiscal year. Selection of external auditors shall be on a competitive basis in accordance with the GoG's regulations and guidelines.

6.2.4 Project Management Reports (PRM)

The objective of the PMR is to enable tracking of indicators as well as efficient usage of funds. The IAs accounting system, which will be used for the implementation of MMIP, has the capacity to generate the PMRs. The content and format of the PMR will be agreed upon during project implementation.

6.2.5 Annual Work Plans and Budgets

Annual Work plans and Budgets (AWPBs) encompass all components, regardless of funding source and are the basis for budget approvals and disbursement, co-ordination of program implementation, detailed program planning, monitoring and reporting progress on implementation of MMIP. The AWPB will list the activities to be completed in the MMIP for any given period (year and quarter), proposed time of completion and the estimated budget for each of the activities. The AWPB will be organised by component, sub-component and outputs. The IAs will be responsible for preparing the AWPBs. IAs and PCU are expected to regularly review their technical work plan and prepare their own detailed work programmes for each activity or task. It should be possible for the IAs and PCU, in collaboration with local stakeholders, to define an objective, clarify assumptions, specify indicators and verifiers of achievement, schedule sub-activities, define resources and assign responsibilities for each task.

6.2.5.1 Component leaders (for responsible IAs) will coordinate the preparation of AWPBs for each component which must be submitted to the Project Coordinator by the last quarter of the previous year (October). A format for the AWPB will be developed for the project. The kind of resources the IA requires to carry out agreed activities will be specified under five headings:

- i. Vehicles, Equipment and Materials (goods);
- ii. Technical Assistance, Training, Studies and Surveys (services);
- iii. Operating costs; and
- iv. Implementation cost (project components).

6.2.5.2 Work plans will be presented to PCU only by the IAs, which means the Agencies responsible for administering implementation activities. All other institutions involved are facilitators, advisors, service providers, beneficiaries or stakeholders, etc. and get engaged in the Project only under a contract or an agreement with one of the IAs.

6.2.5.3 A consolidated Annual Work Plan will be prepared by the PCU and submitted to the SC.

6.3 ANNUAL CAPACITY BUILDING

6.3.2 The IAs will submit a capacity building programme, which will be developed based on a training needs assessment to the Project Coordinator. Component Leaders will coordinate the preparation of annual capacity building schedules and submit same to the Project Coordinator by the last quarter of the previous year (October). A composite Annual Training Schedule of MMIP will then be

prepared by the PCU for approval by the Steering Committee. The Composite Annual Training Schedule will specify all capacity building activities, meetings, seminars, conferences, study tours and workshops (both local and overseas) to be carried out.

6.3.1 Annual Training Schedules

The IAs will develop their own training schedules.

7.1 PROCUREMENT

7.1.1 *Fraud, Coercion and Corruption*

All procurement entities as well as bidders and service providers, i.e., suppliers, contractors, and consultants shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project in accordance with paragraphs 1.14 and 1.15 of the Procurement Guidelines and paragraph 1.22 and 1.23 of the Consultants Guidelines, in addition to the relevant Articles of the Ghana Public Procurement Act, Act 663, which refer to corrupt practices.

7.1.2 *Procurement Policy*

Procurement is a major part of the process of implementation. It determines the pace at which many of the tasks set out in the Annual Work Plans are implemented. In the past, the term ‘procurement’ was applied specifically to the purchase of goods and equipment, but its use has now been widened to the obtaining of goods, works or services from others in pursuit of project objectives. To implement a program of the magnitude of the MMIP, plans for procurement of all the resources needed to undertake in the first two years of the project, and on a yearly basis, thereafter must be prepared for approval by GoG and other funding partners. The GoG has five basic concerns that govern its procurement policies to:

- a. ensure that goods and services needed to carry out the project are procured with due attention to economy and efficiency;
- b. ensure that project funds are used to buy only those goods and services needed to carry out the project;
- c. give all qualified bidders equal opportunity to compete for provision of civil works, goods and services;
- d. encourage development of local contractors and manufacturers; and
- e. ensure that the procurement process is transparent and accountable.

These guidelines will be strictly followed.

7.1.3 *Procurement Plans*

The PCU will be responsible for preparing the Annual Procurement Plans (APP) as part of its annual planning process. The procurement plans of MMIP would be finalized and agreed with the GoG and other funding partners and incorporated into the Project Appraisal and Implementation Document (PAID).

7.1.4 *Procurement Arrangements*

The Procurement Unit (PU), under the PCU, will assist the IAs in all procurement activities under the project. To the extent possible, goods required by IAs would be aggregated to allow for national competitive bidding. GoG Guidelines for procurement of Goods, Civil Works and Consultancy Services will be followed. Procurement for the proposed project would be carried out in accordance with the GoG **‘Guidelines on Public Procurement’**.

Procurement of non-consulting services such as transport services, mapping and servicing of office equipment, will follow procurement procedures of GoG.

CHAPTER 8

MONITORING AND EVALUATION OF OUTCOMES/RESULTS

- 8.1 An appropriate monitoring, information and evaluation system and relevant reporting formats would be developed taking into consideration lessons learnt from implementation of previous interventions. Monitoring of environmental and gender implications of the project will be integrated within the M&E system. Each IA would monitor against agreed-upon results and outcome indicators described in the Results Framework. (The Results Framework to be reviewed after the M&E Consultancy). Performance indicators will be reported upon during the quarterly and annual reports and discussed during Steering Committee meetings. Reporting formats developed jointly by IAs and the Project Coordinator will utilise the monitoring information as management tools to improve their performance.
- 8.2 The M&E system will be used both to track overall project performance and outcomes, using the key indicators in the project's log frame, through qualitative and quantitative enquiries and data collection, review of work plans, timeframes, and financial performance. It will ensure that lessons learned are fed-back into project implementation on a systematic basis to facilitate responsiveness to changing national and local conditions. The IAs will submit their monitoring reports to the M&E Specialist. The M&E Specialist will be responsible for compiling monitoring reports of all IAs into a coherent whole report for GoG, its funding partners and the public at large. It is important to undertake project evaluation with active participation of all stakeholders during the project cycle.
- 8.3 The M&E Specialist will contract out beneficiary assessment and impact evaluation work to academia, think tanks, NGOs and private consulting firms. The M&E Specialist will, in consultation with IAs, be responsible for preparing the TORs, selecting and supervising the entities contracted to carry out beneficiary assessments and impact evaluation and the publication and dissemination of the findings. The M&E Specialist will be strengthened with additional staff, training and logistics to carry out these functions effectively. He/she will provide regular reports and organize seminars on project progress to the funding partners, cooperating sector agencies and ministries, key project stakeholders, and feed these into the project's broader communication strategy. This will ensure that all project actors are well-informed and up-to-date about project activities.
- 8.4 Mining Sector CSOs (National Coalition on Mining) will be trained in M&E to play a role in participatory monitoring of the project.

- 9.1 A traditional economic analysis (i.e. NPV, IRR) was not conducted as part of the preparation process of this project. A quantitative economic analysis is very difficult to do for these kind of projects because it requires a lot of data that is unavailable before the project is implemented. The required data will be collected during project implementation to enable an ex-post analysis to be done at the end of the project. The project is expected to generate at least three sets of benefits: **Economic Benefits** (e.g. Job creation especially within the mining communities); **Social Benefits** (e.g. eliminating the worst form of child labour and child delinquency, eliminating exposure of children to unsafe working conditions and work hazards); **Environmental and Health Benefits** (e.g. reversing the pollution of water bodies (and ecological sites), including chemical pollution and sedimentation of rivers; reclaiming large pits left by illegal miners which have become death traps, creating ponds that harbour disease vectors; stop the uncontrolled use of mercury in amalgamation; and reverse extensive land degradation, often including vast farmlands, forest reserves; and deforestation and loss of fauna).
- 9.2 In addition, recent international studies have demonstrated that land restoration/reforestation of degraded environments adds considerable value to the growth of economies as measured by GDP; and this is in sync with internationally agreed development goals (SDGs) - especially Goal 12 (“ensure sustainable consumption and production patterns”. This is in consonance with its second target, “by 2030 achieve sustainable management and efficient use of natural resources”.
- 9.3 The high rate of natural resource degradation represents an annual cost of about 10 percent of GDP, representing almost half of Ghana’s US\$ 1.5 billion annual Official Development Assistance (World Bank Country Environmental Analysis, 2006⁵). The cost of lost productivity due to damage to human health⁶ and to five classes of natural assets⁷ totals US\$730 million per year. The highest costs are from timber depletion (US\$270 million) and inadequate potable water supply, sanitation and hygiene (US\$180 million). Although the cost of environmental degradation has decreased as share of GDP, as per recent EPA’s estimates, the rate of resources depletion continues to increase - especially in forests and fisheries. Fast urbanization is also exposing a growing number of citizens to the negative effects of air pollution and inadequate potable water supply, sanitation and hygiene.
- 9.4 The MMIP will be one of the instruments the Government will use to support its reform programme to curb degradation of natural resources and environment. Since this is the first time an integrated approach is being used to address the issues of small-scale mining, it is difficult to estimate the GDP contribution of such a project. However, because of the use of the restored lands for agro business, licensing of geologically proven areas for miners, massive alternative

⁵ The World Bank Group- 2006- Report No: 36985-GH

⁶ Resulting from urban air pollution, indoor air pollution and inadequate potable water supply, sanitation and hygiene.

⁷ Agricultural land, forest and savanna woodlands, coastal fisheries and wetlands, wildlife, and Lake Volta.

livelihood projects among others, an attempt will be made to evaluate its contribution to GDP during the mid-term evaluation of the project.

9.5 Also under a recent WB project a costed remediation plan for a selected mining contaminated hot spots was prepared, based on the prioritized list of hotspots identified in stakeholder consultations and studies. The project recommended reclamation of the degraded lands and restoration of biodiversity to reclaimed areas. For reclamation, the major engineering works required for the reclamation will include the following:

- a. cutting and haulage of fill materials to top up to the required ground elevations;
- b. earthworks which will involve spreading of stockpile of sandy/lateritic waste into pits;
- c. spreading of topsoil;
- d. construction of crest for river/stream course;
- e. raising of cover crops;
- f. tree planting (Phytoremediation);
- g. field maintenance, and
- h. monitoring and evaluation.

The MMIP will use these recommendations as basis for the extensive rehabilitation of disturbed lands under the project.

Figure 9.1 Economic trees planted

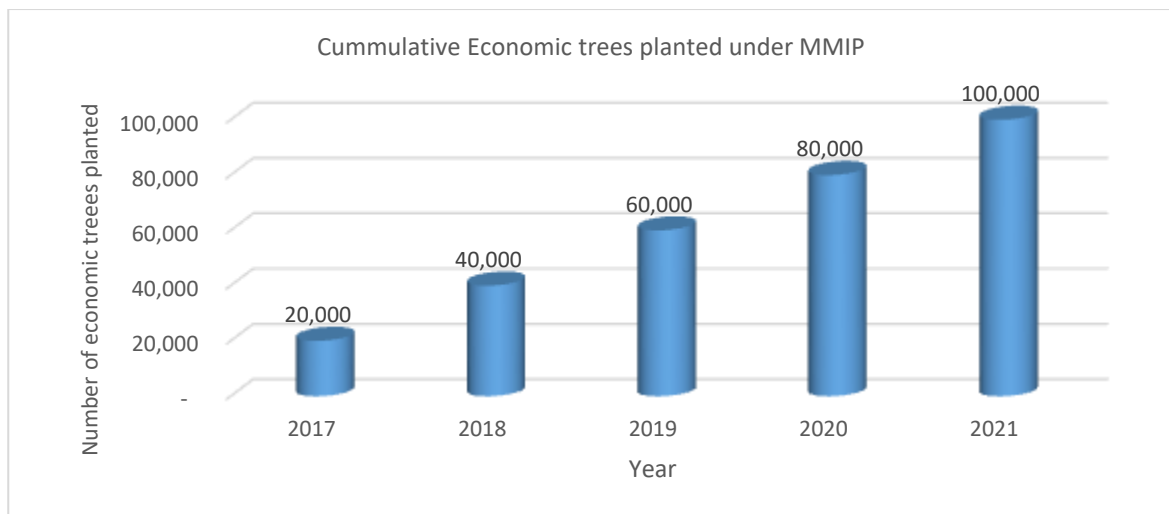
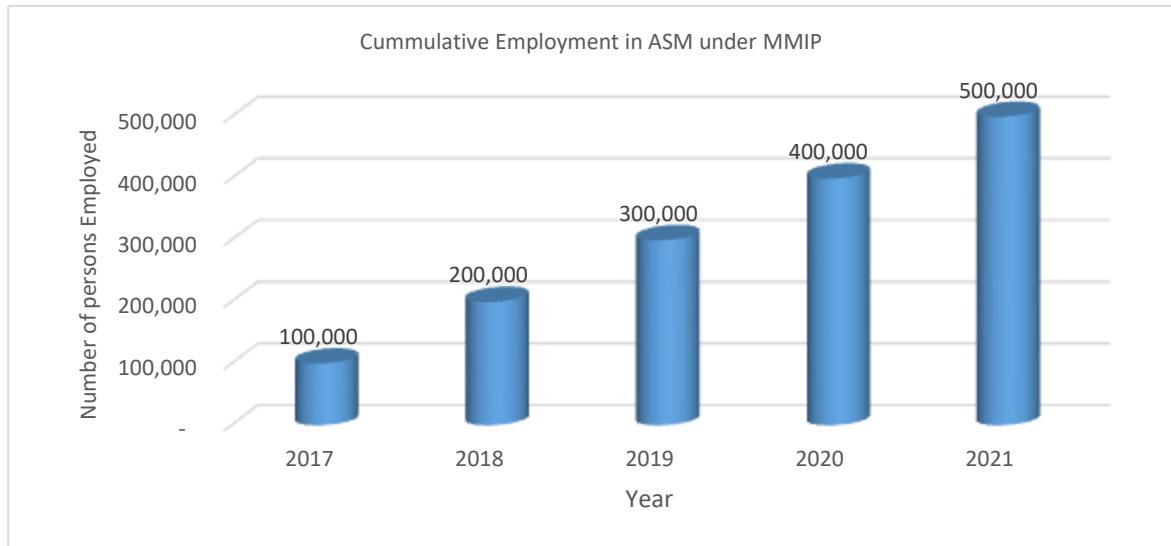


Figure 9.2 Employment created in ASM under the MMIP



CHAPTER 10 PROGRESS REPORTING

10.1 INTRODUCTION

This Section provides information on the system of progress reporting established for MMIP. The system will enable participating ministries, agencies, funding agencies and other stakeholders to keep track of progress on implementation.

10.2 OVERVIEW OF THE PROGRESS REPORTING SYSTEM

10.2.1 The main elements of the system are six-monthly (Bi-annual) and Annual Progress Reports and Completion Report to be prepared at the end of the MMIP.

10.2.2 *Bi-annual and Annual Progress Reports*

The Annual Work Plan (AWP) will form the basis for the bi-annual and annual reports. Activities are scheduled and grouped according to sub components and outputs (immediate objectives). For each component, a set of Key Performance Indicators, to be achieved by the end of MMIP has been agreed upon and will be used in the reporting. The indicators are a measure of the achievement of the overall objective for the component.

10.2.3 Every three months, the IAs will prepare reports for submission to the PCU describing progress on each of the activities scheduled in the AWP and the overall Project Appraisal and Implementation Document (PAID) on the achievement of the Key Performance Indicators and Triggers, challenges and how they were resolved.

10.2.4 An **Annual Report** describing project physical and financial progress, key issues, steps taken for resolving issues and future course of action shall be prepared by each implementing agency within one month of the close of the fiscal year. The format for reporting will be furnished by the PCU. The PCU shall synthesize the individual reports into the Project Annual Report which will be prepared by November each year and after discussion with the Steering Committee (SC) submit same to GoG and all funding partners and relevant stakeholders.

10.3 MID-TERM PROJECT REVIEW (MTR)

10.3.1 The PCU shall prepare all the documentation needed for conducting the project MTR and facilitate the carrying out of joint Government-Funding Partners mid-term review. The MTR is an important marker in assessing project progress, ascertaining reasons for under-performance and determining solutions to address implementation issues. It also affords an opportunity to revisit project development objectives, to restructure the project in view of emerging needs, and reset output and outcome indicators realistically based on lessons learned. Each implementing agency will prepare its own mid-term review report in a format supplied by the PCU. The finalized report will be collated and synthesized by the PCU before submitting to the SC.

10.4 IMPLEMENTATION COMPLETION REPORT (ICR)

10.4.1 The GoG and Funding Partners require preparation of an Implementation Completion Report (ICR) that assesses and evaluates the project components

from design through implementation to closing. Attention needs to be paid to achievement of the development objectives, overall achievements and factors affecting achievements, the likely sustainability of the project following closure, and the lessons learned. Sustainability is a key factor, as is achievement of objectives, not simply achievement of physical targets. An action plan to sustain the activities initiated under the project would also be desirable. The IAs will be required to complete their individual ICRs. There is no set format, but a useful general format is to cover the above principal topics. The report should also include statistics on funds expended, and benefits accrued to assist in economic analysis of some components.

10.4.2 Preparation of the ICR should be undertaken in the fifth year of the MMIP, and submitted to the SC six months prior to project closing date. The preparation of the ICR will be the responsibility of the PCU.

10.4.3 The ICR is meant to be a tool that enables the SC and Funding Partners to learn from experience and improve the design and implementation of future operations, as well as provide an evaluation of the project's performance.

10.5 DISSEMINATION OF PROJECT RESULTS AND LESSONS LEARNT

10.5.1 In order to maximise the impact of the MMIP, results and experiences emanating from the MMIP should be shared as widely as possible. The PCU should make arrangements for sharing the results of the project and establish a system to ensure that documents are referenced and retrievable. The PCU will also make provision for publishing, referencing, distributing and storing all MMIP documents centrally.

10.5.2 Sharing results is a critical element of implementation for numerous reasons, including:

- a. capacity building among implementers;
- b. increased understanding by civil society of resource management issues;
- c. encouragement, validation of ideas;
- d. building a culture of learning and innovation;
- e. ensuring accountability and transparency;
- f. mistakes are shared, understood and not repeated;
- g. successes are built upon; and
- h. saving time and resources.

10.5.3 The use of electronic mail (email) facilities, where available, will be encouraged in order to facilitate communication and the exchange of documents between IAs to reduce costs. An internet website will be established for dissemination of issues relating to the project. This website will be linked to other relevant websites and other social media platforms for information dissemination. For global readability, the website will be linked to relevant international journals.

10.5.4 The IAs will forward to the PCU, copies of all Technical Reports, Evaluations, Manuals and Workshop proceedings as attachments to Progress Reports, so as to ensure a copy is lodged at the MLNR's library. This is particularly important in the case of documents that will be used to verify the achievement of key

performance indicators and triggers for the subsequent phases of the MMIP, if required.

10.5.4 Periodically, the MMIP will publish and distribute series of Technical Papers to support and encourage a lively and critical debate on sustainable mineral resource management issues in Ghana. Papers providing original insights or first-hand experience which is of interest to a wide audience, will be requested from IAs.

10.5.5 The PCU will publish news in the MMIP newsletter. Responsibility for production of a regular newsletter would be contracted to a professional outfit. Responsibility for contributions to the newsletter would rest with the IAs. In addition, the PCU will issue a set of Information Leaflets on MMIP.

10.5.6 All Progress Reports, Technical Papers and Manuals will be bound with the MMIP standard cover and numbered.

11.1 COMMUNICATION STRATEGY

- 11.1.1 A key component of the MMIP is a thoughtfully organized and delivered communications strategy. The communications strategy will structure the creation and delivery of strong messages that are clear, consistent and coordinated through the building of a brand identity for this national initiative.
- 11.1.2 Successfully implemented, the communications framework will create awareness, confer understanding, change attitudes and perceptions of illegal miners, motivate action and boost recognition and positive perceptions of the MMIP project among stakeholders, leverage the position of GoG, MLNR and IAs, and provide target audiences with a sense of being “surrounded” by activities supported through the MMIP.
- 11.1.3 This general communications strategy serves as a guideline for the project, indicating how to communicate to its target audience, team members and stakeholders during the implementation period.

11.2 OBJECTIVES OF THE COMMUNICATION STRATEGY

- 11.2.1 The objective of the communication strategy is to create awareness, inform and educate the general public about the dangers of illegal mining activities and solicit the cooperation of all stakeholders for the smooth implementation of the MMIP to control illegal mining activities and associated negative impacts.
- 11.2.2 The communication materials that will be developed for the MMIP will provide target audience and stakeholders with valuable information regarding the progress, success and new opportunities of the project. MLNR expects to increase the knowledge, and understanding of the benefits that the MMIP brings to Ghanaians for all stakeholders.
- 11.2.3 Specifically, the following objectives will be achieved:
- i. sensitize and increase public awareness on the effects of illegal mining activities on lands, water bodies and the environments;
 - ii. promote and support sustainable mining processes and practices within the small-scale mining sector;
 - iii. create awareness about alternative livelihood programs that the MMIP provides and encourage beneficiaries and stakeholders to understand and motivate them to participate and support the programme;
 - iv. work with print and electronic media to emphasize the improved quality of life created by the MMIP activities; and
 - v. develop and distribute timely, effective publicity, news and feature articles about the MMIP

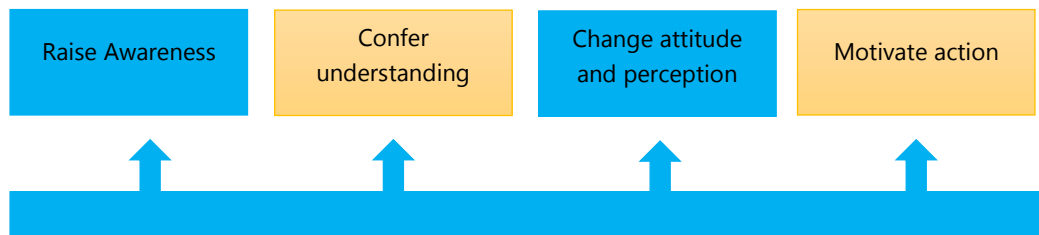
11.3 METHODOLOGY AND APPROACH

- 11.3.1 As already noted, the purpose of the communication strategy is to create awareness, confer understanding, change attitudes and perceptions of the illegal miners and the general public and motivate action for support and of sustainable

mining practices. Therefore, the communication effort will be strategic, systematic and sustained in order to avoid implementing sporadic communication activities unrelated to a broader plan. Each initiative will be linked to a specific communication objective aimed at a target audience and must transmit important strategic information through proper channel or tools.

11.4 COMMUNICATION APPROACHES IN THE MMIP.

11.4.1 In order to achieve the best result at each stage in the human behavioural change process, the strategy recommends appropriate form of interpersonal, mass media and ICT communication from a socio-psychological perspective. The function of communication in the MMIP campaign brand for behavioural change can be summarized in the table below.



11.4.2 The MMIP communication strategy will strengthen the impact and coherence of activities being implemented at different levels i.e. individual, interpersonal, organizational, institutional, regional, district and community levels. The strategy ensures that based on shared objectives the messages, identity and activities at each level will more clearly reinforce each other as part of a systematic intervention to help the promotion of sustainable mining practices within the small-scale mining sector.

11.5 TYPES AND CHOICE OF MEDIA FOR THE STRATEGY FOR MMIP

11.5.1 Based on the understanding of the communication function of the MMIP campaign brand, as illustrated above, more interpersonal communication strategies for complex stages of the behavior change process (change perception, attitudes and behavior, motivate action) will be employed. Moreover, the campaign will use mass communication or mass media strategies for less complex stages such as creating awareness and understanding of the MMIP. However, overlaps are anticipated arising from the need of the two forms of communication to reinforce each other. In addition, appropriate information and communication technology (ICTs) will be used to enhance the effectiveness of the two main types of communication, namely the internet and mobile phone communication.

11.6 DEVELOPING A BRAND AND A MESSAGE FOR THE MMIP CAMPAIGN

11.6.1 Creating a single brand will reinforce the unity of purpose which is essential to creating a motivated support base. Quick recognition of MMIP supported activities and events, or “brand recognition”, will contribute to the overall success of the project and likelihood for demand to continue beyond the anticipated Project’s end date. To establish thorough understanding of how target audiences need to be communicated with, the PCU will conduct a rapid survey of current awareness levels, attitudes and practices among the principal audiences. In addition, MMIP’s PCU will coordinate with the MLNR and other IAs to design a

logo and theme that could be used on all written publications, banners, or other materials produced in support of the MMIP campaign.

11.7 DELIVERING THE CAMPAIGN MESSAGE

11.7.1 There is a multitude of ways in which MMIP will deliver the campaign messages. Some mechanisms are more appropriate for certain audiences than others. In all cases, the MMIP campaign will integrate the message into each media in a manner that is supportive and does not conflict with previous information provided.

11.7.2 Television/ Radio

11.7.2.1 With its added advantages of sound, picture and movement, television will be strategically used to create awareness and educate the general public on the effects of illegal mining activities, promote sustainable mining practices, gather support for the MMIP etc. The radio, on the other hand, will be used to assist in reaching a wider audience and a cross section of people, including those in remote areas. Community radio in particular will be used to reach rural communities that do not receive radio signals from the national and private broadcasters. Community radio will also aid the spreading of MMIP campaign messages in local languages.

11.7.2.2 The primary audience for radio programs will be a cross-section of local and ordinary people. Secondary audiences will include: stakeholders; policy makers; traditional and religious leaders; and funding partners.

11.7.1.3 The proposed TV/Radio formats in this strategy will be:

- a) **TV/Radio documentaries** - TV/radio documentaries to explore topics on the negative impact of galamsey activities on farm lands and water bodies. The documentary will also be used to allow for the capturing of views, testimonies and situations of the local people with respect to the galamsey activities in their communities. This will also enable both vertical and horizontal sharing of information. The documentaries will be produced in English and selected local languages based on the targeted regions and this will be aired across a selection of TV/ Radio stations
- b) **TV/Radio adverts** - Different TV/Radio Adverts with different concepts will be produced for different issues on illegal mining, promoting sustainable mining practice - A 30-45 seconds TV/Radio advert would be produced in different languages for different target groups as a means of engaging stakeholders, such as chiefs, land owners, farmers, youth etc.
- c) **TV/Radio talk shows** – to ensure a sustained media advocacy of the MMIP campaign against illegal mining activities, synopsis on different health topics such as the harmful effects of mercury to humans, aquatic life and food production related to water bodies will be developed for TV/radio talk show programs which will be held on weekly basis on a selection of TV/radio stations across the regions. The program will feature experts in the various disciplines, stakeholders, target groups in different regions discussing different topics and issues. The topics that will be discussed will be tailored to address specific issues in relation to the target group and region. It will be pre-recorded and/or aired live on TV/radio stations across the country.

- d) **TV/Radio docu-drama** - In order to reach as many audiences as possible across the country, the team will develop 15- 25-minute docu-drama scripts and produce films in episodes (video/audio) in English and selected local languages for airing on TV/radio stations across the regions. The drama will provide an avenue for presenting facts on issues in an entertaining and culturally sensitive manner. Different episodes will be produced for airing on related topics and will be linked across all the issues the campaign seeks to address. In addition to airing the docu-drama on TV/radio stations, it will also be used for mobile cinema programmes targeting the hard to reach communities who do not receive TV/radio signals in their communities.
- e) **TV/Radio Public Service announcement** - TV/radio public service announcement on different issues in English and the selected local language for airing across the regions.
- f) **Institute an award for the best journalist reporting on MMIP issues, impacts and result** – to encourage reporting on the campaign. The MLNR in collaboration with the Ghana Journalist Association to institute an award for the best journalist reporting on success stories, impacts and positive result of the MMIP implementation
- g) **Press releases** - Purpose/Content: Press releases will announce the launching of MMIP, share stories of public interest, and other information related to the MMIP as appropriate.
 - a. Audience: Primary - general public - Private Sector, Donor and NGO Community
 - b. Frequency: On a regular basis, PCU will assist the participating Ministries to prepare press releases for distribution to local media - both radio and print.
- h) **Press Conferences** - Purpose/Content: Opportunity for the MLNR to inform the public at large of important events, milestones, or other items of interest regarding the progress of the MMIP.
 - a. Audience: Primary - Local Population, Private Sector, Donor and NGO Community.
 - b. Frequency: On a regular basis, PCU will assist the participating Ministries prepare statements and materials.
- i) **Posters/billboards** - Purpose/Content: Posters/Billboards will be used to deliver specific messages on the negative effects of galamsey activities and the available alternative livelihood programme specific projects. The message should largely be conveyed using creative images, cartoons and limited text so that the illiterate population is not left out. The impact should be felt using few words as much as possible.
 - a. Audience: Primary - Local Population
 - b. Frequency - As and when needed.

MMIP Newsletter - Purpose/Content: The newsletter will contain stories and information relevant to on-going and planned activities, as well as updates on activities completed. It would also be made available on the MMIP website. The

project may also decide to produce a newsletter specifically for the MMIP on themes related to successful project management. Helpful tips on topics such as budgeting, establishing benchmarks, or other dimensions of project management and design may be included. This would be done in conjunction with the project's training courses.

- a. Audience: Primary - sector ministries, IA's, development partners; Secondary - media and the private sector, NGO Community (local and international);
- b. Frequency: A key means to share information about the MMIP activities and progress will be through a quarterly or bi-annual newsletter.

11.8 INTERPERSONAL COMMUNICATION

11.8.1 One of the best form of communication for the MMIP campaign is the one that allows for face-to-face interaction with the person that is conveying the information. Effective communication of MMIP requires direct delivery of the message to the recipient to allow for immediate feedback and clarification of certain issues. Interpersonal or human communication will be directed at community members, illegal miners, chiefs, farm and land owners etc. mainly for immediate attitudinal and behavioural change around illegal mining practices and on its negative impact on the environment. Human communication will also facilitate sustaining of positive attitudes and behaviours through regular interactions at individual and group levels.

11.8.2 The tools and formats for interpersonal communication include:

- a) Theatre for development (TFD) - Popular theatre will be very useful in getting the information out to the communities, especially those who do not have access to the mass media and other forms of communication. The MMIP campaign will be given a human face and a sense of realism through this channel. Script for theatre performance at the community level to educate the target groups on the effect of illegal mining activities on human health, food production, water bodies etc. will be produced. This will help the campaign to adopt a participatory approach by involving the target audience in the implementation of some of the activities at the district and community level since the implementing organization can use some of the existing theatre groups at the district and community level for these performances.
- b) Interactive dialogue - This tool will allow for free exchange of information between the campaign and the target audience. The strategy will encourage a two-way exchange of information, which will enable the target audiences to also provide their perspectives about illegal mining practices and sustainable mining practices. Proposed formats for the channels for interactive dialogue will include: peer education, meetings, demonstrations, field days, festivals, displays and exhibitions, community mobilization and sensitizations.

11.9 DIGITAL/ SOCIAL MEDIA

The MMIP campaign will develop different social media platforms to help dissemination of information to the general public, targeting the youth and other stakeholders. The platforms that will developed will include:

1. Internet *Website* - A Website will be developed for the MMIP to provide information on the awareness campaign and also act as an interactive tool for facilitating networking among various stakeholders. It will also be a link to social networking tools such as Facebook,

Twitter and other platforms. A web portal for the MMIP awareness campaign” is recommended. The website will target CSOs, media, development partners, MMDA’s researchers/academicians, NGO’s and the international community.

2. *Knowledge management* - (Resource centres) - Existing resource centres and libraries in the implementing ministries and IA’s will be used as information hubs or points where people will easily have access to MMIP campaign information through publications and other materials. The resource centres will subscribe to major publications to ensure that they contain latest information for the media and other readers.
3. *Documentation of best practices* - The target audience tends to practice what they see, so this approach will involve gathering, processing and dissemination of best practices and case studies based on programs implemented. The purpose of this activity is to enhance knowledge and behavioural change through learning what has worked or failed during project implementation. The tools for documentation will include documentaries, in the form of oral testimonies via video, audio and print documentation.

ANNEX 1: PROJECT DEVELOPMENT OBJECTIVE (PDO)

Project Development Objective (PDO):												
PDO Level Results Indicators*	Core	Unit of Measure	Baseline	Cumulative Target Values**					Frequency	Data Source/ Methodology	Responsibility for Data Collection	Description (indicator definition etc.)
				YR 1	YR 2	YR3	YR 4	YR5				
Indicator One: Geologically investigate 500 sq.km of designated areas annually to prove mineable areas for Artisanal and Small-scale mining	<input type="checkbox"/>	Sq. km	25	500	1,000	1,500	2,000	2,500	Annually	M&E reports	M&E Unit	
Indicator 2 Employ over 500,000 Artisanal and Small-scale miners from mining communities and incorporate them into the taxable bracket over the 5 year project period		Number	N/A	100,000	200,000	300,000	400,000	500,000	Annually	M&E reports	M&E unit	
Indicator Three Create 20,000 acres of oil palm plantation and other economic trees annually	<input type="checkbox"/>	Size (Acres)	35,000	20,000	40,000	60,000	80,000	100,000	Annually	M&E Reports	M&E Units of IAs	
Indicator Four: 1,000 Artisanal and Small-scale Miners trained in mining & processing methods annually (disaggregated by gender)	<input type="checkbox"/>	Number	500	1,000	2,000	3,000	4,000	5,000	Half Yearly	M&E reports	M&E unit of IAs	
Indicator 5: 240 sq.km mined-out areas reclaimed over the life of the project	<input type="checkbox"/>	Size (Sq. Km)	5 sq. km	50	100	150	200	240	Half Yearly	M&E reports	M&E unit of IAs	
Indicator 6: ASM License acquisition time reduced by 20% annually for the first 2 years	<input type="checkbox"/>	Number of Days	150	120	96	96	96	96	Annually	M&E reports	M&E unit of IAs	

INTERMEDIATE RESULTS

Intermediate Result (Component One): Strengthening the Policy, Legal and Regulatory Framework for Artisanal and Small-Scale Mining

<i>Intermediate Result indicator One:</i> Creation of 5 Additional Offices of MC	<input type="checkbox"/>	Number	12	2	2	1			Semi-annual	M&E reports	M&E unit	
<i>Intermediate Result indicator Two:</i> MCAS Deployed to 6 District Offices of MC	<input type="checkbox"/>	Number	2	2	4	6			Semi-annual	M&E reports	M&E unit	
<i>Intermediate Results Indicator Three:</i> Number of stakeholders trained (Judges, CSOs, Traditional Authorities)		Number	500	200	500	1,000	1,000	1,000	Semi-annual	M&E reports	M&E Unit	

A. PROJECT CO-ORDINATOR (REPORTS TO THE TD-M)

Under the overall guidance of the Technical Director (Mines) of the Ministry of Lands and Natural Resources, the Project Co-ordinator will be responsible for the overall co-ordination and day-to-day management of the Project and will head the Project Co-ordinating Unit established for the purposes of the MMIP.

The Coordinator will be the main link between the Ministry of Lands and Natural Resources and Implementation Agencies, Funding Partners and other relevant Ministries and Agencies. Specifically, the Project Coordinator's functions will include, but not limited to the following:

- provide overall oversight and guidance on the MMIP implementation at both the Ministry and Implementing Agencies to ensure the successful and effective attainment of goals and objectives set under the Project; Ensure that the Implementing Agencies abide by the tenets of the project implementation manual;
- advise the Minister through the Technical Director (Mines) on all matters relating to the Project.
- liaise with Funding Partners, the Parliamentary Select Committee on Mines, Land and Forestry, Chamber of Mines, SSM Coalition, Customary Land Authorities and Civil Society Organizations on matters relating to the project.
- act as Secretary to the highest level of authority, the Steering Committee and coordinate meetings of the project.
- prepare consolidated results-based narrative and financial periodic progress reports for project management and to relevant bodies, in accordance with approved reporting formats and timing.
- have overall responsibility for all project staff within the Project Coordinating Unit and ensure that all such staff (i.e. procurement, financial management, Child Protection and gender, communication and public outreach, monitoring and evaluation and any other staff appointed to the unit) performs their functions effectively.
- lead the preparation of Annual Work Plans and Procurement Plans for the various activities of the project.
- coordinate the implementation of Work Plans by Implementation Agencies
- in collaboration with Implementing Agencies, identify, recruit and monitor the performance of consultancies to be undertaken consultants;
- provide leadership and guidance in establishing and implementing the planning, organizing and control of project operations;
- ensure the development and maintenance of Management Information Systems (MIS) to track the Project's progress and performance and the effectiveness of implementation assistance provided by IA's and Consultants.
- review and advise on work plans and cash flow projections;
- ensure that all assets of the Project are managed efficiently in all areas of the Unit's operations and are used solely for the purpose for which they were procured;
- prepare semi-annual progress report to the SC.
- facilitate and ensure the timely procurement and delivery of various inputs and technical equipment in collaboration with the Procurement Specialist and Implementation Agencies in accordance with GoG guidelines; and

- any other functions assigned by the Technical Director, (Mines).

Qualification\Experience

The Project Co-ordinator must have a minimum qualification of:

- Post-Graduate Degree in Geoscience (Geologist, Mining Engineer, Metallurgist, Mineral Economics etc.)
- At least Ten (10) years post graduate working experience of which five (5) years must be in the mining industry and related management position;
- Good knowledge in information systems preferably Mining Information Systems;
- Good analytical, writing, communication and interpersonal skills;
- Conversant with the mining and mineral policy of Ghana;
- Must have a good track record of performance and achievements;
- Substantial work experience in Decentralization and Mining Administration on the African continent, preferably in Ghana; and
- Membership of recognized professional body(ies) is an advantage.

B. MINING SPECIALIST (REPORTS TO THE PC)

The Mining Specialist will be responsible for the following:

- the technical planning and administration of the project; and coordination with the technical IAs;
- will assist the Project Coordinator in the implementation of the project components relating to but not limited to land access by ASM, reclamation and rehabilitation of disturbed lands including planning and management;
- liaise with project personnel in the preparation and implementation of annual Work Plans under the various activities related to mining;
- provide technical support and assess output performance;
- support the Project Co-ordination Unit and provide technical backstopping to strengthen project management;
- facilitate the preparation and implementation of Annual Work Plans and Budgets (AWPBs) and their implementation;
- keep track of, and ensure timely program delivery from technical related Implementing Agencies and other stakeholders;
- carry out reviews of request from Implementation Agencies and submit recommendations to Project Co-ordination Unit;
- provide support to the Implementation Agencies to prepare appropriate Terms of Reference (TOR) for various technical consultancies envisaged under the project including evaluation of submissions, monitoring the performance of contractors, and reviewing of expected outputs and reports submitted in association with other project; and
- perform any other duties that may be assigned by the Technical Director, (Mining) and the Project Coordinator.

Qualification\Experience

- A Master's degree in Geoscience related field of study (Mining Engineer, Geologist, Metallurgist, etc).
- Not less than seven (7) years post first degree working experience of which not less than five (5) years working experience in the mining sector (Artisanal and Small-scale mining experience will be desirable).

- Familiarity with the current mining challenges situation in Ghana.
- Conversant with the mining and mineral policy of Ghana.
- Competence in project management is desirable.
- Good analytical approach to technical details and ability to arrive at solutions and propositions.
- Excellent interpersonal communications and coordination skills with both technical and IT communities.
- Computer literate and conversant with Geospatial Information Systems, Microsoft Project and relevant databases and spreadsheets.

C. FINANCE SPECIALIST (REPORTS TO THE PC)

The Finance Specialist will be responsible for the management of the Project finance and budget in accordance with the requirements of the GoG. He/she will report directly to the Project Co-ordinator and will work in close collaboration with the Project Co-ordination Unit. He/she will be responsible for the management and operations of the Finance Unit of the Project.

Operating within a computerized environment, the Finance Specialist will perform the following duties under his direction and control:

- prepare, monitor and control annual budgets;
- note any disparities between projections and results and analyze the causes;
- monitor budget entries, credit allocations and fund disbursements of any national counterpart funds;
- prepare a quarterly cash budget for the entire project;
- serve as liaison to other implementing entities for all budget matters;
- monitor funding agreements signed with any co-financing partners;
- process accounting and budget charges, maintain financial, cost and budget accounting, and keep accounting records;
- oversee that on a quarterly basis, the project's Interim Financial Reports;
- oversee that Periodic Project's Financial Statements;
- coordinate the preparation of annual special report on special account(s) performance for GoG and other funding partners; and
- supervise the Project Accountant in preparing financial reporting and support the project auditor and external auditors for auditing purposes.

Qualification\Experience

- The FM shall be a Professional Accountant (e.g. CIMA, ACCA, CPA, CA holder or equivalent) preferably, with a Master's degree in Accounting, Business or Finance.
- Five (5) to eight (8) years working experience and a good knowledge of Budgeting, International Financial Reporting Standards and International Standards on Auditing and budgeting and controls.
- Experience in interpreting Financial Management Reports, analysing variations to plans and determining remedial actions required;
- Knowledge of Accounting and Financial Reporting systems and software packages.
- Ability to advise and disseminate Financial Management knowledge.
- Strong background in planning, organizing and time management and the ability to manage multiple tasks.

- Strong analytical capabilities and proven skills to deal with budgeting and accounting issues innovatively and independently.
- Capacity to be a Member of a Multi-disciplinary Team, to provide advice and recommend actions.
- Excellent communication and report writing skills

D. PROJECT ACCOUNTANT (REPORTS TO THE FMS)

The Project Accountant will be responsible for the management of the Project accounts in accordance with the requirements of the GoG. He/she will report directly to the Project Finance Specialist. He/she will be responsible for the management and operations of the Finance Unit of the Project. Operating within a computerized environment, the Accountant will perform the following duties under his direction and control:

- supervise Implementing Agencies in the maintenance of financial records and the preparation of financial budgets;
- assist the Procurement Unit on Annual Work Plans;
- oversee and ensure proper use of the Manual of Procedures;
- perform a strong internal control system; and
- any other duties to be assigned from time to time by the Finance Specialist

Qualification\Experience

- The Accountant shall be a Professional Accountant (e.g. CIMA, ACCA, CPA, CA holder or equivalent) preferably, with a Master's degree in Accounting, Business or Finance.
- Five (5) to eight (8) years working experience and a good knowledge of International Financial Reporting Standards and International Standards on Auditing and budgeting and controls.
- Experience in interpreting Financial Management Reports, analysing variations to plans and determining remedial actions required;
- Knowledge of Accounting and Financial Reporting systems and software packages.
- Ability to advise and disseminate Financial Management knowledge.
- Strong background in planning, organizing and time management and the ability to manage multiple tasks.
- Strong analytical capabilities and proven skills to deal with accounting issues innovatively and independently.
- Capacity to be a Member of a Multi-disciplinary Team, to provide advice and recommend actions.

E. CHILD PROTECTION AND GENDER SPECIALIST (REPORTS TO THE PC)

Duties\ Responsibilities:

The focus will be on social safeguards and effective implementation of the gender equality and child protection strategy. Specifically, the Child Protection and Gender Specialist will be responsible to:

- facilitate the implementation of the child protection and gender strategy in the MMIP implementation;

- facilitate the integration of child protection gender equality strategic objectives, results, indicators into the MMIP planning and reporting;
- coordinate child protection and gender equality and social impact assessment as required and recommend actions for consideration;
- develop action plans, to sensitize various stakeholders, obtaining women's participation in project activities and decision-making, as well as ensuring that women's rights in the Artisanal and Small-scale mining sector and mining at large are acknowledged; and
- ensure a high degree of participation of key stakeholders including Civil Society Organizations (CSOs) and several others in planning, implementation, monitoring and evaluation of stakeholder engagement.

Qualification\Experience

- A Master's Degree in Social Science, gender, development studies or relevant field with over five (5) years' experience in donor funded Project.
- Must have a good track record of performance and achievements.
- Must have good communication skills and the ability to network with major stakeholders.
- Proven capacity to think strategically, seize opportunities as they arise, work with a variety of stakeholders and promote their participation in the project implementation process.
- Capacity to work under tight deadlines and to handle potentially controversial and/or very sensitive issues that require clarity, accuracy and speedy responses.
- Familiarity with the child protection and gender related issues in Ghana, existing policies,
- Membership of a professional body.
- Experience in working with CSOs in gender-related fields.

F. COMMUNICATION SPECIALIST (REPORTS TO THE PC)

Duties\Responsibilities:

- The Communication Specialist (CS) will assist the Project Coordinator by providing leadership in the implementation of an effective communication strategy under the MMIP.
- Ensure a high level of transparency and access to information, provide venues for feedback to all stakeholders and mobilize support for attitudinal change and institutional reforms.
- Ensure that the MMIP has a unified and accurate public image.
- Collaborate closely with the IAs other project personnel and consultants working on various aspects of the Project, to develop effective messages, etc. that would inform various stakeholders to promote a better understanding of the project activities.
- Provide leadership in the implementation of the communication strategy under MMIP for all stakeholders at the National, Regional, District and Community Levels.
- Design and implement periodic communication action plans to support project objectives and the achievement of the expected results.
- Develop a network of communicators/information officers in all IAs.

- Organize training workshops on development communication for key staff in selected IAs to promote understanding of the need for transparency methods available and information disclosure procedures; and enhance mechanisms for consultation and feedback with civil society.
- Set up and maintain a project information website and an active database of key stakeholders that must be regularly informed on project implementation activities including best ways to maintain contact, availability to act as MMIP ‘champions’ or promoters and other relevant information.
- Draft press releases to announce major project activities, nurture relations with members of the press and involve the media in the dissemination of MMIP results where appropriate.
- Monitor media coverage of ASM related issues and systematically brief technical staff; decide when it is strategically appropriate to respond; identify opportunities (news of events) that can shed light on certain aspects of the new mining related policy and thus facilitate MMIP implementation.
- Work closely with MIS unit in MLNR to develop electronic information systems that facilitate access to information and promote information sharing among key decision-makers.
- Prepare and implement awareness and information campaigns for improving the understanding of the importance of sustainable mining practises to the public, and prepare the communities for their role in the MMIP project.
- Responsible for the bi-annual publication of the MMIP Newsletter.

Qualification\Experience

- The candidate should have a minimum of Postgraduate Degree in Mass Communication, Marketing, and Public Relations with post qualification experience of not less than seven (7) years in Mass Communication, in areas such as participatory, Adult Education and Development Communication.
- Seven (7) or more years of professional communication experience in managing different aspects of the job, including media relations, public affairs, awareness and behaviour change campaigns, advocacy, IEC, materials development, community outreach, stakeholders’ consultation and training workshops.
- Experience in managing the communication aspects of complex Project
- Capacity to work under tight deadlines and to handle potentially controversial and/or very sensitive issues that require clarity, accuracy and speedy responses.
- Familiarity with the current ASM situation in Ghana, gender equality, existing policies, regional administrative challenges and relevant structures as well as competence in Ghanaian languages is desirable.
- Must be a good team player.
- Inform various stakeholders to promote a better understanding of the project activities.
- Must be computer literate.
- Membership of a professional body will be an advantage.

G. PROCUREMENT SPECIALIST (REPORTS TO THE PC)

Duties\Responsibilities

Under the overall guidance of the Project Coordinator develop and implement a procurement management system for the project that adheres to the project management information needs and implementation requirements in accordance with the Government of Ghana Guidelines.

The Specialist, shall, among other things, undertake the following:

- review all available project documents to enhance procurement procedures for the management and implementation of the project;
- establish a Procurement Management System for the Project Coordinating Unit and the Implementing Agencies based on the guidelines and procedures for the conduct of procurement under Government regulations for the procurement of goods, works and services under the Ghana Public Procurement Act;
- set up a simple procurement management tracking system that would monitor the implementation of procurement activities;
- using the GoG's Standard Bidding Documents, prepare customized Bidding Documents and Request For Proposals (RFPs);
- in consultation with the Implementing Agencies, prepare and update the Project's Annual Procurement Plan, detailing contract packages for goods and services, the estimated cost for each package, the procurement or selection methods and processing times till completion of each procurement activity;
- monitor procurement implementation and update the procurement plans prepared at the beginning of the project, for the procurement of goods, and the procurement of consultants services, annually and whenever it becomes necessary to do so;
- prepare the annual General Procurement Notices (GPNs), and also Specific Procurement Notices (SPNs), and Expressions of Interest (EOIs) whenever required;
- establish a register of qualified suppliers and consultants and periodically update this register;
- in consultation with the IAs, coordinate the preparation of Terms of Reference (TORs) for the preparation of Requests for Proposals (RFPs) on consulting assignments, and Specifications for the preparation of bidding documents for goods and activities, using standard documentation agreed with GoG and other funding agencies, and also participate in the evaluation of Expressions Of Interest for short lists and pre-qualification of suppliers and contractors where necessary;
- initiate the procurement processes, including those for International and Local Competitive Bidding procedures, ensuring compliance with agreed procurement methods thresholds, prior review requirements specific to the project and agreed aggregate threshold amounts for less competitive procurement methods;
- receive bids and participate in bid opening sessions, evaluate goods bids and consultants' proposals, and ensure that the appropriate guidelines are followed to arrive at the recommendations for award in favour of suppliers and consultants;
- co-ordinate the response to the inquiries, and communicate the results of the evaluation process to the applicants, in response to guidelines;
- monitor and ensure timely responses to procurement questions raised by GoG and other Donors. For services, follow-up with the short-listed consultants

within ten (10) days of RfP dispatch, to ensure their participation in the selection exercise, including their attendance at pre-proposal conference, as may be required;

- participate in selection of the Evaluation Panel, and assume the role of the Panel's Secretary in recording the minutes of the meetings;
- prepare the minutes of the Evaluation Panel meetings, and also prepare the requests for "no objection", and coordinate arrangements for the negotiation process where necessary;
- prepare final contracts, and ensure timely distribution of all relevant procurement and contract documents to all stakeholders (Consultants, Suppliers, GoG and other funding agencies and IAs)
- ensure timely receipt of the Goods and consultant's monthly status reports; confirming acceptability of goods delivered, and also acceptability of consultants' reports as reviewed, and recommending payments to the services providers, i.e. suppliers and consultants, as they fall due;
- establish a performance monitoring database for all suppliers and consultants, and ensure efficiency and timeliness in the delivery of outputs from the services providers;
- establish and maintain a central procurement filing system, and ensure all related documents are included in the respective files to ease the retrieval of information and the ease of following the paper trail of procurement by independent external auditors, authorised agents or the GoG during Post-Procurement Reviews (PPRs);
- provide support and training to the various IAs staff involved in the Project on the operation of procedures outlined in the Project Implementation Manual (PAID);
- provide training to address: i. staff weaknesses that may be identified as part of the supervision; training needs expressed by the users of the PAID. Basic procurement training will also be provided to Members of the Tender Committee on how to review bids and proposal evaluation reports, in response to the Public Procurement Act of Ghana; and
- carry out any other relevant periodic duties that may be assigned by the Project Coordinator, from time to time.

Qualification\Experience

- A Second Degree in relevant discipline, e.g. Business Law, Purchasing and Supply, Commerce with a minimum of 8 years Post Graduate experience in Procurement, and Contract Management in the public sector.
- Must have good knowledge of procurement policies and procedures of GoG and Development Co-operation Agencies, as well as a good knowledge of the institutional, technical, and commercial aspects of procurement.
- Must have demonstrated procurement experience in previous positions (as procurement staff) in a national environment.
- Must be computer literate.
- Excellent skills in Project Management demonstrated in previous jobs.
- Proven track record in working effectively within multidisciplinary teams.

H. MONITORING & EVALUATION SPECIALIST (REPORTS TO THE PC)

Duties\ Responsibilities

The Monitoring and Evaluation Specialist will be responsible for leading and guiding the development and implementation of a project monitoring and evaluation system with stakeholder participation; and will report directly to the Project Coordinator.

The functions of the M&E Specialist will cover but not limited to the following:

- relate closely with the PC to design and implement appropriate monitoring and evaluation systems for the MMIP that will also capture project indicators for the purposes of monitoring project performance and eventual evaluation;
- support the Project Coordinator in the planning, coordinating, monitoring and evaluation of the Project based on the lessons learnt;
- establish an effective monitoring and evaluation system for the MMIP
- work with appropriate institution/stakeholder, i.e. the Child Protection Gender Specialist to develop indicators for child protection, gender and environment;
- develop and maintain partnerships with civil society organizations to assist in the monitoring and evaluation of the project;
- assist the Project Co-ordinator by leading the process to generate and prepare annual reports on quarterly, half yearly and annual basis for onward submission to the Steering Committee which will eventually form the basis of the M&E report to the funding agencies;
- prepare semi-annual monitoring reports on all aspects of project implementation;
- train staff of implementing agencies in the monitoring and evaluation system of the project;
- develop simple reporting formats to be used in collecting data by the Implementing Agencies;
- supervise data collation, entry and generation of analysed data and information on all M&E activities;
- collaborate with other focal persons for timely submission of data in the form and format required for reporting;
- support the design and execution of baseline surveys in the project area;
- ensure that all service provider contracts include specifications for internal monitoring and reporting, and the penalties for failure to report as specified;
- plan for regular opportunities to identify lessons learned and implications for the project's next steps;
- prepare reports on M&E findings, as required, working closely with the financial specialist, technical staff and implementing partners;
- undertake regular visits to the field to support implementation of M&E and to identify where adaptations might be needed;
- guide the regular sharing of the outputs of M&E findings with project staff, Implementing Agencies and primary stakeholders; and
- check that monitoring data are discussed in the appropriate forum and in a timely fashion in terms of implications for future actions. If necessary, create such discussion forums to fill any gaps.

Qualification\Experience

- A Second Degree in any relevant discipline with not less than seven (7) years' experience in monitoring and evaluation.

- Capacity to work under tight deadlines and to handle potentially controversial and/or very sensitive issues that require clarity, accuracy and speedy responses.
- Familiarity with the current mining situation in Ghana, familiar with existing policies, environmental challenges and relevant structures; as well as competence in Ghanaian languages is desirable.
- Must have excellent computing skills.
- Membership of a Professional Body will be an advantage.

A. DISTRICT OFFICERS OF THE MINERALS COMMISSION	
Course	Course Content
1. Land Surveying & Applied Geographic Information Systems (GIS)	<ul style="list-style-type: none"> • Overview of Plane Surveying, Levelling, Theodolite and Total Station Applications • GPS Techniques and Applications • Remote Sensing Techniques • GIS Applications
2. Mineral Exploration & Evaluation Methods	<ul style="list-style-type: none"> • The Earth, Structure and Composition • Sedimentary Structures • Regional Geological Setting • Classification of Minerals • Processes of Mineral Formation and Association • Mineral Exploration Methods • Mineral Deposit Assessment and Evaluation <ul style="list-style-type: none"> ○ Delineation of alluvial deposits ○ Evaluation of hardrock deposits • Mapping and Sampling Techniques • Target Drilling and Ore Zone Demarcation • Grade Control
3. Mining Operations	<ul style="list-style-type: none"> • Description of Mining Methods • Unit operations • Equipment selection • Drilling Operations • Explosive Technology • Blasting Operations • Materials Handling • Mine Dewatering • Ground Stabilisation
4. Mineral Processing Methods	<ul style="list-style-type: none"> • Selection of Processing Method • Comminution and Classification • Concentration Processes • Pyrometallurgy • Metal Recovery • Treatment Methods • Assaying • Mine Waste Management • Artisanal and Small-scale Gold Trade
5. Environmental Management	<ul style="list-style-type: none"> • Overview of Environmental Management • Air, Water and Noise Pollution • Environmental Impact Assessment • Environmental Risk Management • Environmental Management Systems • Environmental Monitoring, Performance and Auditing • Mine Decommissioning
6. Occupational Health & Safety	<ul style="list-style-type: none"> • Overview of Occupational Health and Safety • Hazard Identification, Risk Assessment and Control • Accident Causation and Prevention • Ergonomics and Stress Management • Safety Technology

7. Continental Mining Vision, National Mining Policy & Legal Frameworks	<ul style="list-style-type: none"> • Africa Mining Vision • ECOWAS Directive on harmonization of Mining Policies • Minerals and Mining Policy • Minerals and Mining Act 2006 (Act 703) and accompanying Regulations • Environmental Protection Agency Act 1994 (Act 490) and Environmental Assessment Regulations 1999, LI 1652 • Water Resources Commission Act, 1996 (Act 522) • Ghana Forestry Policy
8. Mine Management and Corporate Social Responsibility	<ul style="list-style-type: none"> • Organisational Planning and Controlling • Human Factors, Motivation and Leadership • Basic Book Keeping and Accounting • Conflict Management • Definitions and Drivers of Corporate Social Responsibility • Principles of Sustainable Development • CSR Practices in Ghanaian Mines • Case Studies
B. DISTRICT OFFICERS OF THE EPA	
Course	Course Content
1. Land Surveying & Applied Geographic Information Systems (GIS)	<ul style="list-style-type: none"> • Overview of Plane Surveying, Levelling, Theodolite and Total Station Applications • GPS Techniques and Applications • Remote Sensing Techniques • GIS Applications
2. Mineral Exploration & Evaluation Methods	<ul style="list-style-type: none"> • The Earth, Structure and Composition • Sedimentary Structures • Regional Geological Setting • Classification of Minerals • Processes of Mineral Formation and Association • Mineral Exploration Methods • Mineral Deposit Assessment and Evaluation <ul style="list-style-type: none"> ○ Delineation of alluvial deposits ○ Evaluation of hardrock deposits • Mapping and Sampling Techniques • Target Drilling and Ore Zone Demarcation • Grade Control
3. Mining Operations	<ul style="list-style-type: none"> • Description of Mining Methods • Unit operations • Equipment selection • Drilling Operations • Explosive Technology • Blasting Operations • Materials Handling • Mine Dewatering • Ground Stabilisation
4. Mineral Processing Methods	<ul style="list-style-type: none"> • Selection of Processing Method • Comminution and Classification • Concentration Processes • Pyrometallurgy • Metal Recovery • Treatment Methods • Assaying • Mine Waste Management • Artisanal and Small-scale Gold Trade

5. Environmental Management	<ul style="list-style-type: none"> • Overview of Environmental Management • Air, Water and Noise Pollution • Environmental Impact Assessment • Environmental Risk Management • Environmental Management Systems • Environmental Monitoring, Performance and Auditing • Mine Decommissioning
6. Occupational Health & Safety	<ul style="list-style-type: none"> • Overview of Occupational Health and Safety • Hazard Identification, Risk Assessment and Control • Accident Causation and Prevention • Ergonomics and Stress Management • Safety Technology
7. Continental Mining Vision, National Mining Policy & Legal Frameworks	<ul style="list-style-type: none"> • Africa Mining Vision • ECOWAS Directive on harmonization of Mining Policies • Minerals and Mining Policy • Minerals and Mining Act 2006 (Act 703) and accompanying Regulations • Environmental Protection Agency Act 1994 (Act 490) and Environmental Assessment Regulations 1999, LI 1652 • Water Resources Commission Act, 1996 (Act 522) • Ghana Forestry Policy
8. Mine Management and Corporate Social Responsibility	<ul style="list-style-type: none"> • Organisational Planning and Controlling • Human Factors, Motivation and Leadership • Basic Book Keeping and Accounting • Conflict Management • Definitions and Drivers of Corporate Social Responsibility • Principles of Sustainable Development • CSR Practices in Ghanaian Mines • Case Studies
C. DISTRICT MINING COMMITTEES	
1. Elements of Mining	<ul style="list-style-type: none"> • Importance of Mining in Ghana • Stages of Life of a Mine • Unit Operations in Mining • Selection of Mining Methods • Terminologies in Mining • Artisanal and Small-scale Mining in Ghana
2. Mineral Processing	<ul style="list-style-type: none"> • Overview of Mineral Processing Methods • Mine Waste Management • Artisanal and Small-scale Gold Trade
3. Water Resource Management	<ul style="list-style-type: none"> • Hydrological Cycle • Surface and Groundwater Resources • Water Quality • Aquifer Properties • Integrated Water Resource Management • Ecological Sustainability
4. Environmental, Health and Safety Management	<ul style="list-style-type: none"> • Environmental Impact Assessment Practice in Ghana • Land Reclamation • Occupational Health and Safety • Accident Prevention and Control • Laws on Safety, Environment, Labour & Compensation
5. Corporate Social Responsibility and Sustainable Development	<ul style="list-style-type: none"> • Definitions and Drivers of Corporate Social Responsibility • Principles of Sustainable Development • Conflict Management • Examples of CSR Practices in Ghanaian Mines

6. Continental Mining Vision, National Mining Policy & Legal Frameworks	<ul style="list-style-type: none"> • Africa Mining Vision • ECOWAS Directive on harmonization of Mining Policies • Minerals and Mining Policy • Minerals and Mining Act 2006 (Act 703) and accompanying Regulations • Environmental Protection Agency Act 1994 (Act 490) and Environmental Assessment Regulations 1999, LI 1652 • Water Resources Commission Act, 1996 (Act 522) • Ghana Forestry Policy
D. GHANA NATIONAL ASSOCIATION OF ARTISAL AND SMALL-SCALE MINERS	
1. Land Surveying & Introduction to Geographic Information Systems (GIS)	<ul style="list-style-type: none"> • Overview of Plane Surveying, Levelling, Theodolite and Total Station Applications • General Overview of Remote Sensing Techniques • General Overview of GIS Applications
2. Mineral Exploration & Evaluation Methods	<ul style="list-style-type: none"> • General Overview of Mineral Exploration Methods • Mineral Deposit Assessment and Evaluation • Mapping and Sampling Techniques • Target Drilling and Ore Zone Demarcation • Grade Control
3. Surface and Underground Mining	<ul style="list-style-type: none"> • Mine Development • Mining Methods • Explosives and Ground Fragmentation • Excavating and Loading Machinery & Systems • Haulage Machinery and Systems
4. Mineral Processing	<ul style="list-style-type: none"> • Sampling and Analysis • Comminution and Classification • Concentration Processes • Purification • Pyrometallurgy • Metal Recovery • Amalgamation and Retorting • Treatment Methods • Small-scale Gold Trade
5. Water Resource Management	<ul style="list-style-type: none"> • Hydrological Cycle • Surface and Groundwater Resources • Water Quality • Aquifer Properties • Integrated Water Resource Management • Ecological Sustainability
6. Environmental, Health and Safety Management	<ul style="list-style-type: none"> • Environmental Impact Assessment Practice in Ghana • Land Reclamation • Occupational Health and Safety • Accident Prevention and Control • Laws on Safety, Environment, Labour & Compensation • International Best Practices in EHS
7. Mine Management and Corporate Social Responsibility	<ul style="list-style-type: none"> • Organisational Planning and Controlling • Human Factors, Motivation and Leadership • Basic Book Keeping and Accounting • Conflict Management • Definitions and Drivers of Corporate Social Responsibility • Principles of Sustainable Development • CSR Practices in Ghanaian Mines • Case Studies
8. Continental Mining Vision, National Mining Policy & Legal Frameworks	<ul style="list-style-type: none"> • Africa Mining Vision • ECOWAS Directive on harmonization of Mining Policies • Minerals and Mining Policy

	<ul style="list-style-type: none">• Minerals and Mining Act 2006 (Act 703) and accompanying Regulations• Environmental Protection Agency Act 1994 (Act 490) and Environmental Assessment Regulations 1999, LI 1652• Water Resources Commission Act, 1996 (Act 522)• Ghana Forestry Policy
--	--

SOURCES: