



LIBERIAN GEOLOGICAL SURVEY OLD ROAD, SINKOR P.O. BOX 10-9024



PANAFGEO WORKSHOP ACCRA, GHANA (18-21 SEPTEMBER 2017)

**CHALLENGES OF THE ASM SECTOR IN LIBERIA & THE ROLE OF THE
LIBERIAN GEOLOGICAL SURVEY
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GEOLOGIST**

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FORMALITIES OF THE ASM SECTOR IN LIBERIA

- **THE ASM SECTOR IN LIBERIA IS LEGAL & FORMALIZED UNDER RESEARCH & MINING LICENSES IN COMPLIANCE WITH CHAPTER 5 SECTION 5.2 & CHAPTER 6 SECTIONS 6.3 & 6.4 OF THE MINERALS & MINING LAW OF LIBERIA 2000.**
- **THE LICENSES ISSUED BY THE MINISTRY OF LANDS MINES & ENERGY IN THE SECTOR ARE PROSPECTING, CLASS B & C MINING LICENSES. TRADING LICENSES ISSUED ARE BROKERSHIP, DEALERSHIP & EXPORT LICENSES.**
- **THE MAIN COMMODITIES MINED IN THE SECTOR ARE BASICALLY GOLD & DIAMOND.**
- **THERE IS ONE CLASS B MINING LICENSE EACH FOR CORUNDUM, COLUMBIUM TANTALITE (COTAN), HEAVY MINERAL BEACH SANDS (RUTILE, ILMENITE, MONAZITE & ZIRCON) & BARITE.**

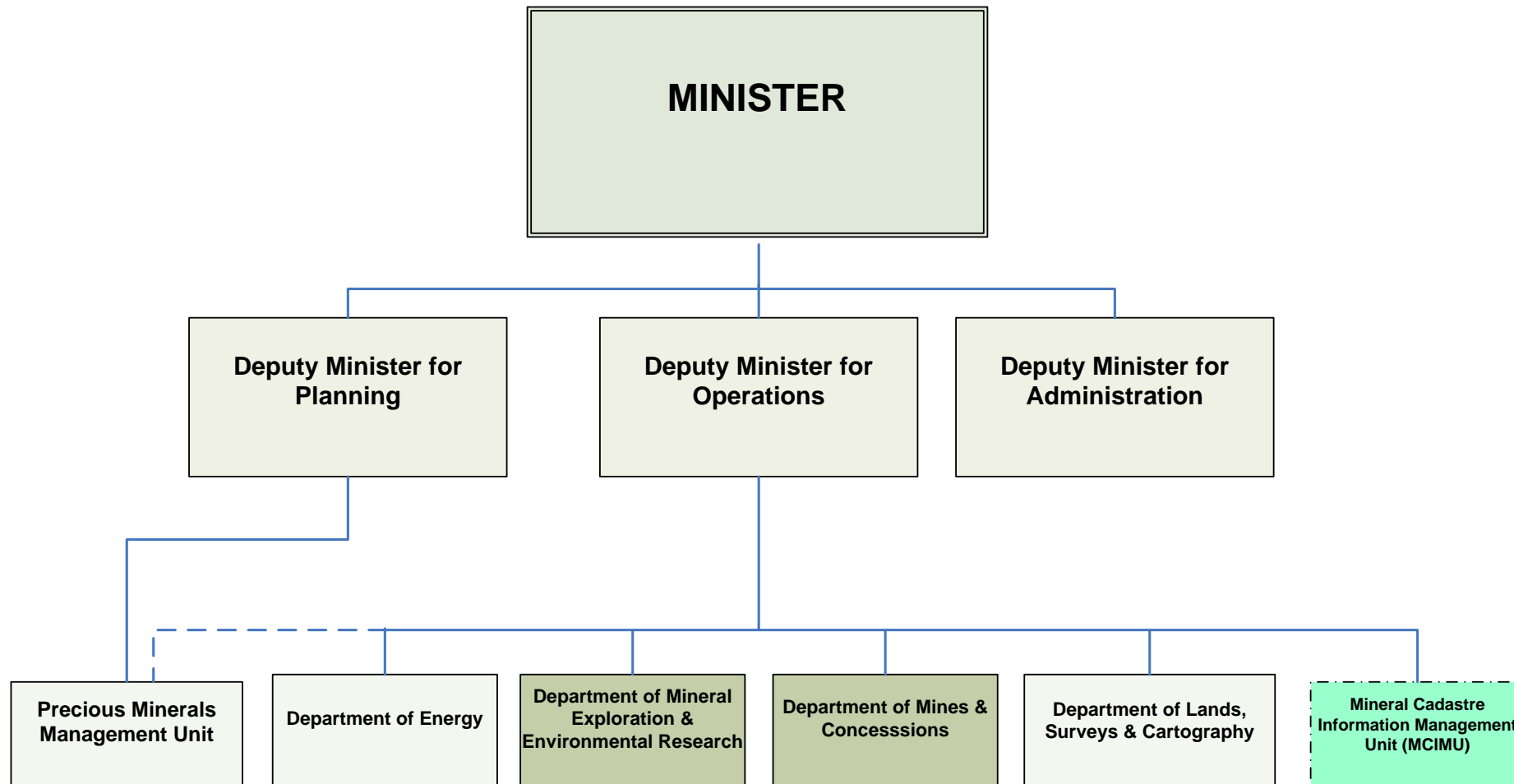
OWNERSHIP OF MINERALS

- **ACCORDING TO CHAPTER 2 SECTION 2.1 OF THE MINERALS & MINING LAW OF LIBERIA 2000 THE PROPERTY RIGHTS IN MINERALS STATES THAT MINERAL ON THE SURFACE OF THE GROUND OR IN THE SOIL OR SUBSOIL, RIVERS, STREAMS, WATERCOURSES, TERRITORIAL WATER AND CONTINENTAL SHELF OF LIBERIA ARE THE REPUBLIC AND ANYTHING PERTAINING TO THEIR EXPLORATION, DEVELOPMENT, MINING AND EXPORT SHALL BE GOVERNED BY THIS LAW.**

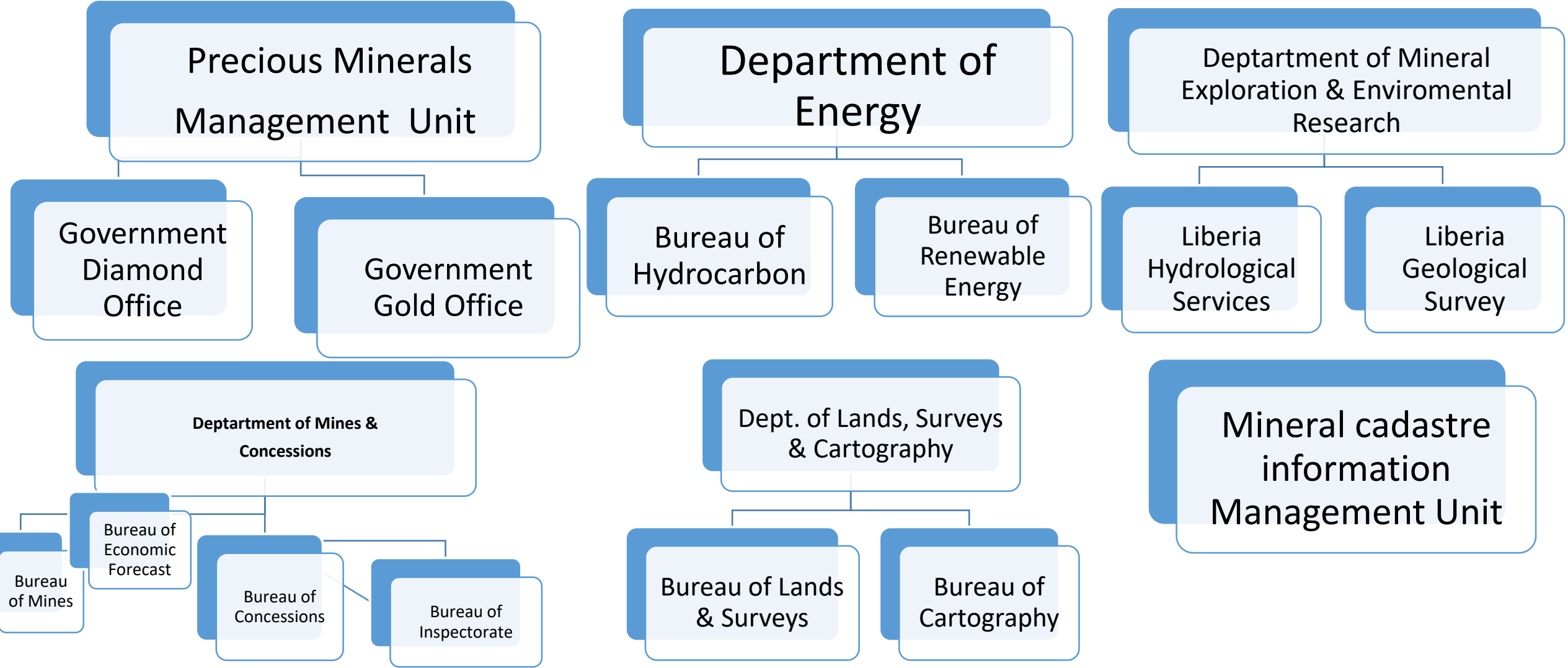
RESPONSIBLE GOVERNMENTAL AGENCY

(MINISTRY OF LANDS, MINES & ENERGY)

Ministry of Lands,Mines and Energy Higher Order Organogram



RESPONSIBLE GOVERNMENT AGENCY



MINERAL RIGHTS-LICENSES

Basic Mineral Titles:

Mining Licenses:

Class C License (ASM sector)

Class B License (ASM sector)

Class A License

Research Licenses:

Prospecting License (MPL)(ASM sector)

Reconnaissance License (MRL)

Exploration License (MEL)

Mineral Development Agreement (MDA)

Trading Licenses :

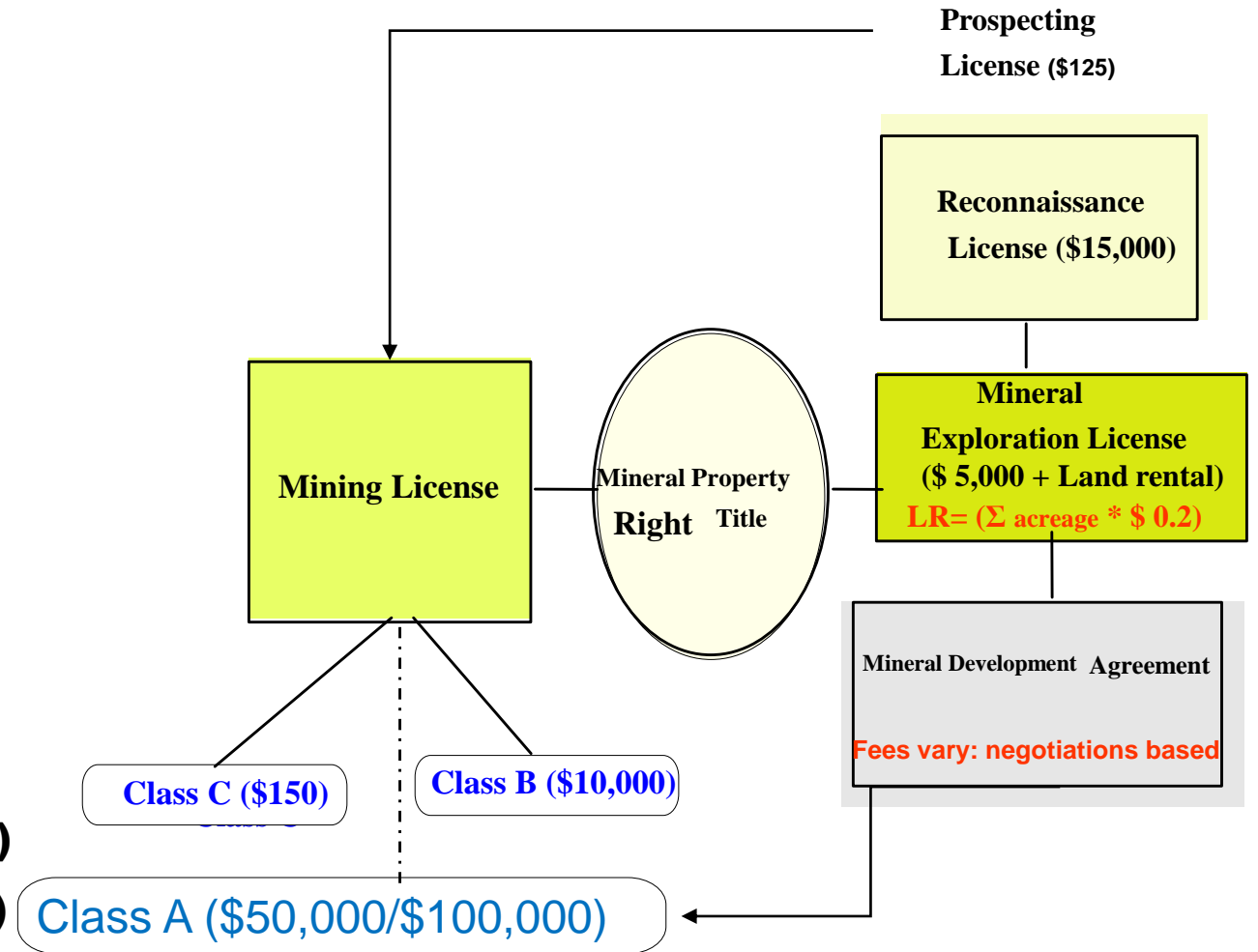
Brokership License (ASM Sector)

Dealership License (ASM Sector)

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Diamond Cut & Polished License

Jewelry License



FORMALIZATION OF THE ASM SECTOR

- **THE MINISTRY OF LANDS, MINES AND ENERGY HAS KICK-STARTED THE PROCESS OF FORMALIZING THE SECTOR.**
- **ARTISANAL MINING FORMALIZATION PROGRAM INTERVENTIONS WILL ADDRESS THE REAL NEEDS OF MINING STAKEHOLDERS.**
- **MLME ADOPTED A PARTICIPATORY AND DEMAND-DRIVEN APPROACH TO POLICY FORMULATION, MARKING THE BEGINNING OF AN INNOVATIVE AND TRANSPARENT DIALOGUE BETWEEN THE GOVERNMENT OF LIBERIA AND ARTISANAL MINING STAKEHOLDERS.**
- **GATHERED EXTENSIVE DATA FROM FIVE MINING PRE-ASSESSMENTS (SEMI-STRUCTURED BASELINE STUDIES) AND FOUR COUNTY-LEVEL CONSULTATIONS WITH OVER 500 ARTISANAL MINING STAKEHOLDERS IN 2015-2016**
- **ARTISANAL MINING STAKEHOLDERS PROVIDED DIRECT POLICY RECOMMENDATIONS TO THE GOVERNMENT TO IMPROVE THE SECTOR, AND THESE RECOMMENDATIONS WILL SERVE AS THE BASIS FOR THE PLANNED INTERVENTIONS/SECTOR FORMALIZATION.**

ASM OPERATIONS IN LIBERIA

- **ASM IS WIDE SPREAD THROUGHOUT THE FIFTEEN (15) POLITICAL SUBDIVISIONS OF LIBERIA**
- **THE ARTISANAL MINING SECTOR HAS IMMENSE POTENTIAL TO:**
 - **GENERATE NATIONAL REVENUE AND**
 - **PROVIDE A SUSTAINED SOURCE OF LIVELIHOOD FOR OVER 100,000 GOLD AND DIAMOND MINE WORKERS IN LIBERIA WHO DEPEND ON THE SECTOR FOR INCOME.**
- **HOWEVER, CURRENT PRACTICES ARE YET TO MAKE THE EXPECTED CONTRIBUTION TO:**
 - **NATIONAL REVENUE INTAKE**
 - **COMMUNITY DEVELOPMENT AND**
 - **FAIR COMPENSATION AND POVERTY REDUCTION**

TYPES OF ASM MINING IN LIBERIA

CLASS C MINING_ASM



CLASS B MINING_ASM



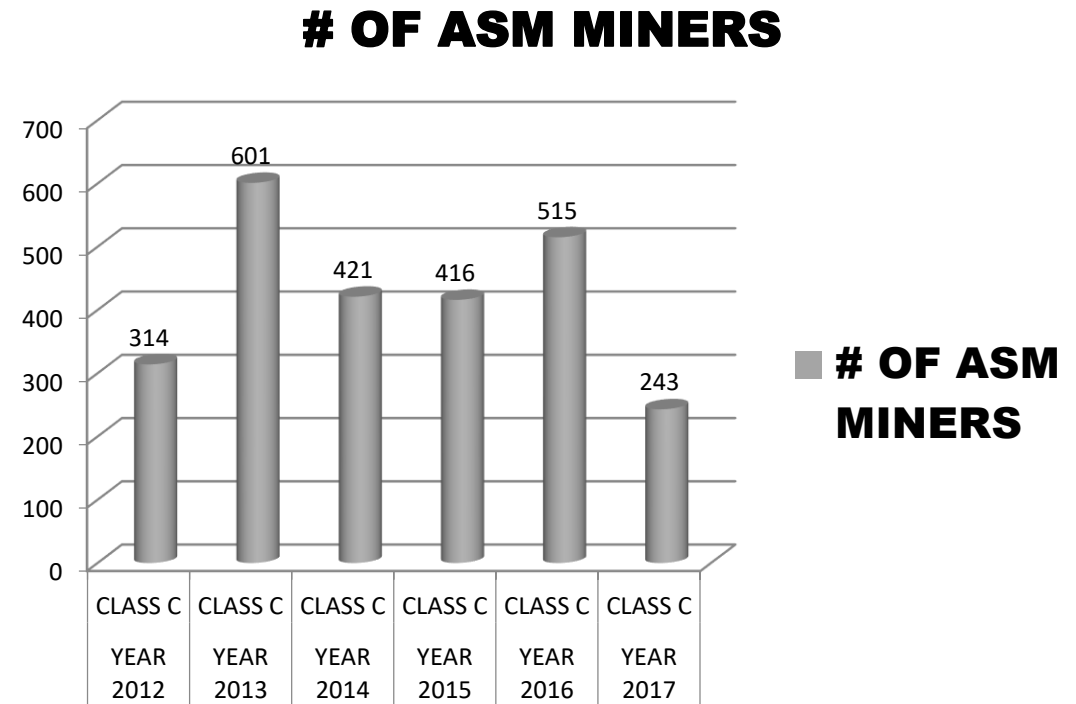
ASM IN LIBERIA



THE TOTAL NUMBER OF LICENSED ASM MINERS IN THE SECTOR BETWEEN 2012-2017 SUM TO 5028.

STATISTICS ON CLASS C GOLD MINERS (LICENSE HOLDERS) 2012–2017

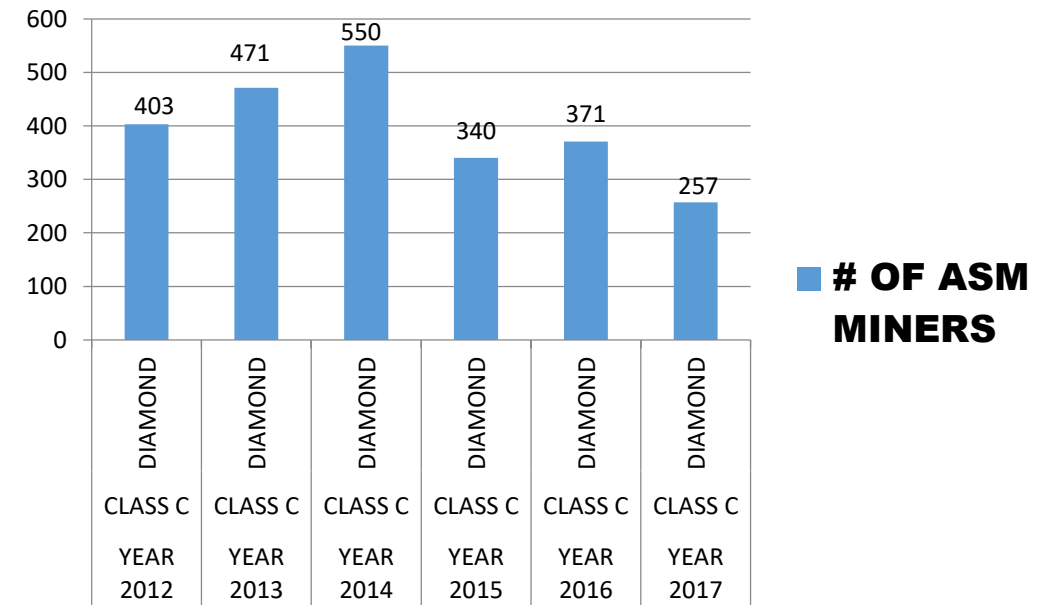
	CLASS C GOLD	
YEAR	LICENSE TYPE	# OF ASM MINERS
YEAR 2012	CLASS C	314
YEAR 2013	CLASS C	601
YEAR 2014	CLASS C	421
YEAR 2015	CLASS C	416
YEAR 2016	CLASS C	515
YEAR 2017	CLASS C	243



STATISTICS ON CLASS C DIAMOND MINERS (LICENSE HOLDERS) 2012--2017

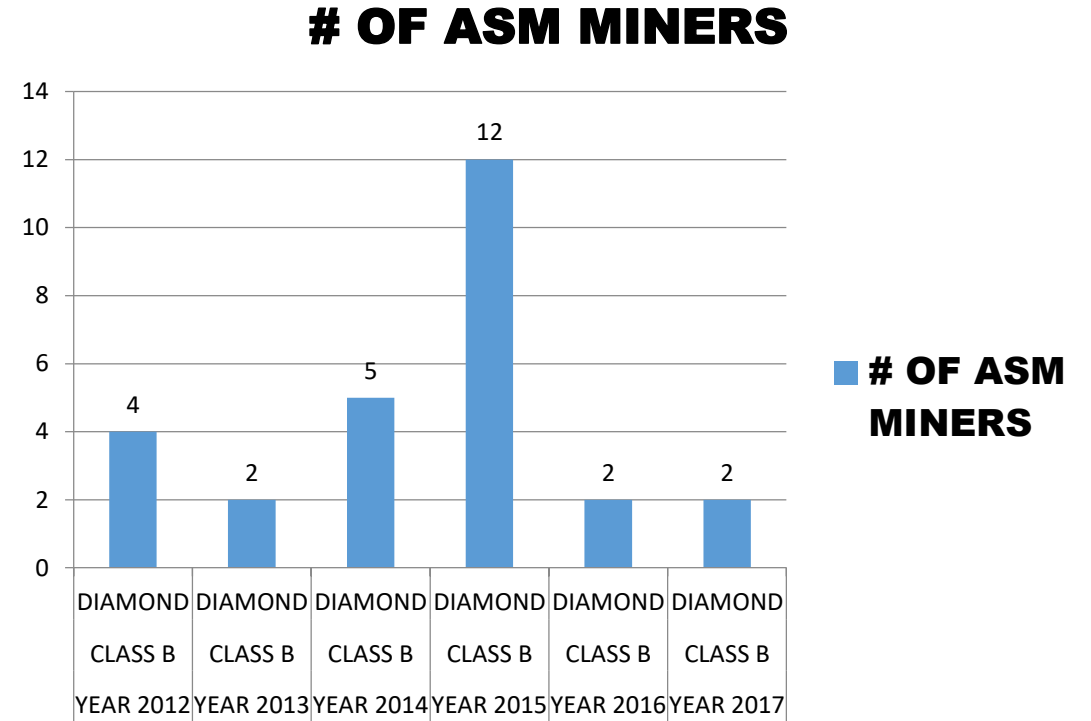
		CLASS C DIAMOND	
YEAR	LICENSE TYPE	COMMODITY	# OF ASM MINERS
YEAR 2012	CLASS C	DIAMOND	403
YEAR 2013	CLASS C	DIAMOND	471
YEAR 2014	CLASS C	DIAMOND	550
YEAR 2015	CLASS C	DIAMOND	340
YEAR 2016	CLASS C	DIAMOND	371
YEAR 2017	CLASS C	DIAMOND	257

OF ASM MINERS CLASS C DIAMOND



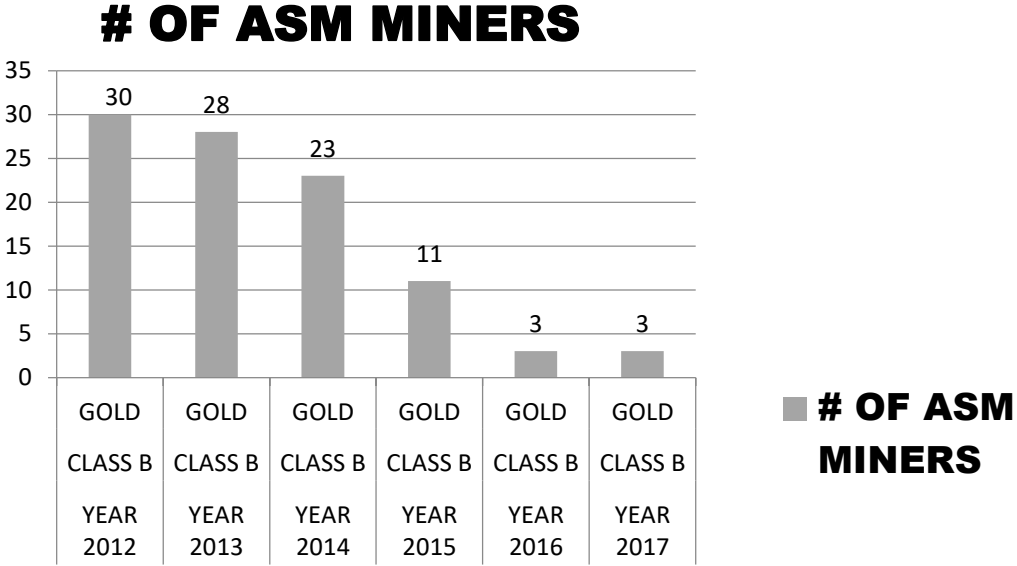
STATISTICS ON CLASS B DIAMOND MINERS (LICENSE HOLDERS) 2012--2017

		CLASS B DIAMOND	
YEAR	LICENSE TYPE	COMMODITY	# OF ASM MINERS
YEAR 2012	CLASS B	DIAMOND	4
YEAR 2013	CLASS B	DIAMOND	2
YEAR 2014	CLASS B	DIAMOND	5
YEAR 2015	CLASS B	DIAMOND	12
YEAR 2016	CLASS B	DIAMOND	2
YEAR 2017	CLASS B	DIAMOND	2



STATISTICS ON CLASS B GOLD MINERS (LICENSE HOLDERS) 2012–2017

		CLASS B GOLD	
YEAR	LICENSE TYPE	COMMODITY	# OF ASM MINERS
YEAR 2012	CLASS B	GOLD	30
YEAR 2013	CLASS B	GOLD	28
YEAR 2014	CLASS B	GOLD	23
YEAR 2015	CLASS B	GOLD	11
YEAR 2016	CLASS B	GOLD	3
YEAR 2017	CLASS B	GOLD	3



STATISTICS ON RESEARCH & TRADING LICENSES 2015-2017

YEAR	LICENSE TYPE	# of LICENCEES
2015	PROSPECTING	31
2015	GOLD BROKERSHIP	12
2015	GOLD DEALERSHIP	--
2015	DIAMOND BROKERSHIP	6
2015	DIAMOND DEALERSHIP	3
2016	PROSPECTING	32
2016	GOLD BROKERSHIP	27
2016	GOLD DEALERSHIP	6
2016	DIAMOND BROKERSHIP	12
2016	DIAMOND DEALERSHIP	1
2017	PROSPECTING	17

STATISTICS ON RESEARCH & TRADING LICENSES 2015-2017

YEAR	LICENSE TYPE	# of LICENCEES
2017	GOLD BROKERSHIP	4
2017	GOLD DEALERSHIP	9
2017	DIAMOND BROKERSHIP	5
2017	DIAMOND DEALERSHIP	3

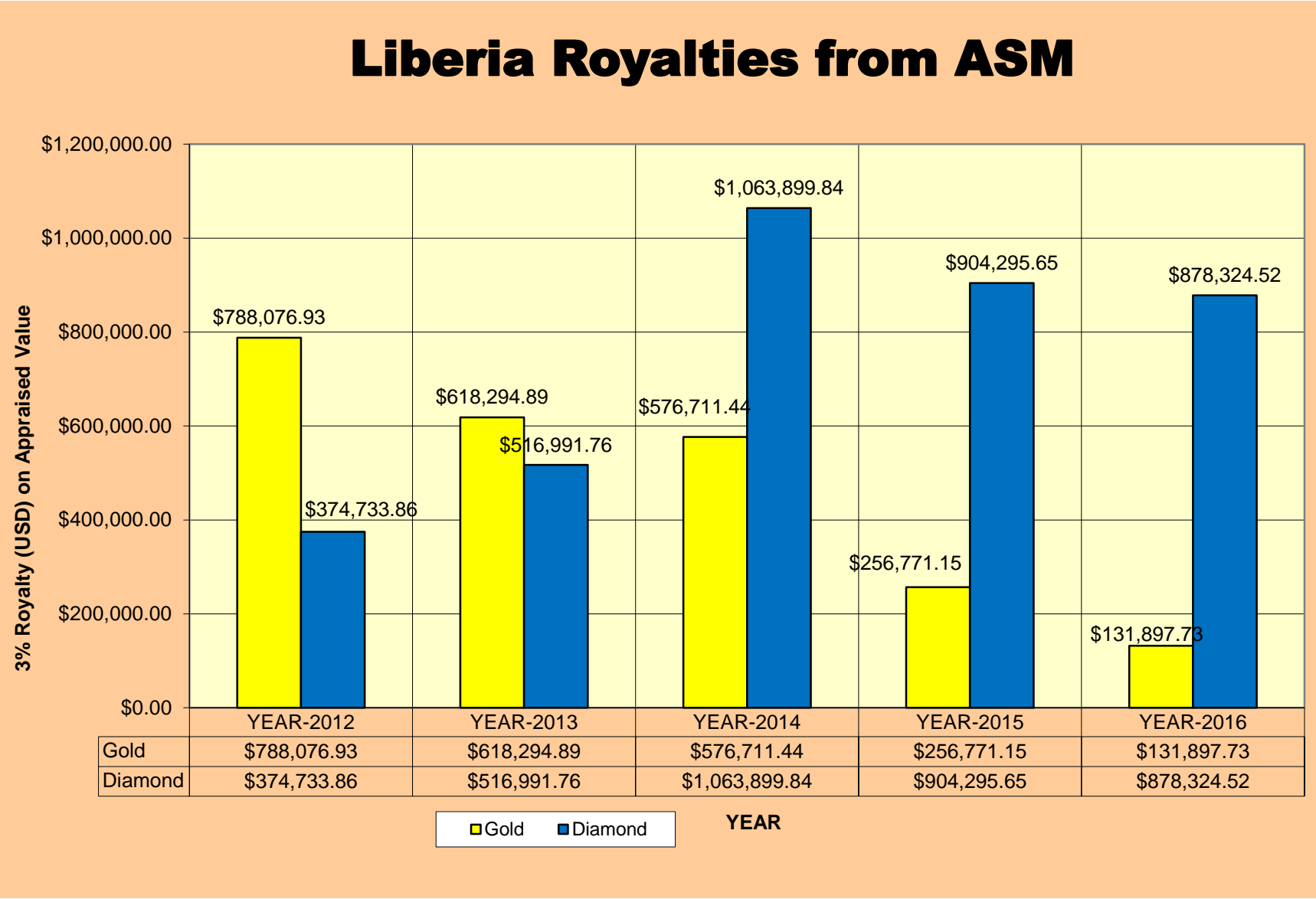
GOLD & DIAMOND SHIPMENT RECORDS FROM OFFICE OF PRECIOUS MINERALS 2012—2016

**BETWEEN 2008 –2012 ASM GOLD PRODUCTION WAS AVERAGED AT 20,000 OZ PER ANNUM
& DIAMOND PRODUCTION WAS AVERAGED AT 30,000 CARATS PER ANNUM.**

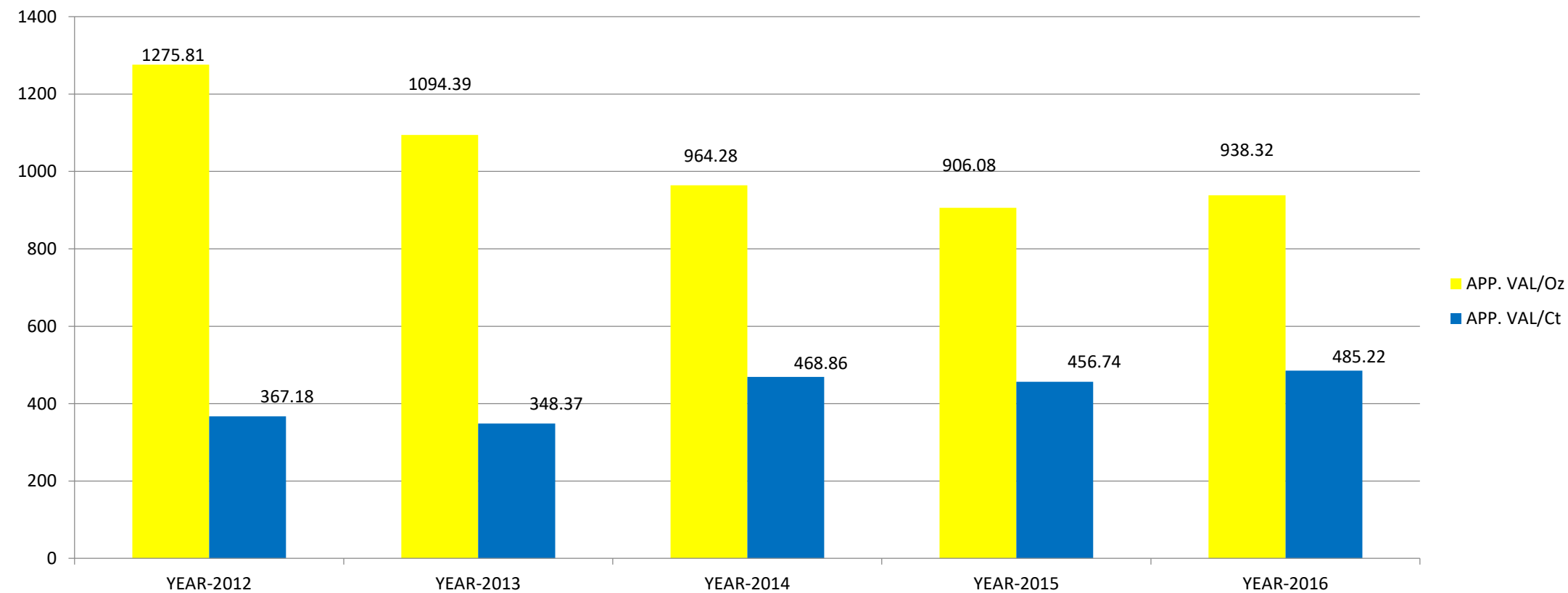
YEARS	WT. IN OZ (GOLD)	APPRAISED VALUE (USD)	ROYALTY 3% (USD)
YEAR-- 2012	20,590.18	26,269,230.92	788,076.93
YEAR-- 2013	18,832.11	20,609,829.82	618,294.89
YEAR-- 2014	19,935.75	19,223,714.72	576,711.44
YEAR-- 2015	9,446.25	8,559,038.37	256,771.15
YEAR-- 2016	4,685.58	4,396,591	131,897.73

YEARS	CARAT (DIAMOND)	APPRAISED VALUE (US\$)	ROYALTY 3% (USD)
YEAR-- 2012	34,018.96	12,491,128.76	374,733.86
YEAR-- 2013	49,468.11	17,233,058.60	516,991.76
YEAR-- 2014	75,637.44	35,463,327.98	1,063,899.84
YEAR-- 2015	65,996.67	30,143,188.38	904,295.65
YEAR-- 2016	60,339.15	29,277,484	878,324.52

LIBERIA: 2012-2016 ASM CONTRIBUTION TO EXPORT EARNINGS



APPRAISED VALUES OF GOLD & DIAMOND PER OUNCE & CARAT RESPECTIVELY.



CHALLENGES OF OF THE ASM SECTOR IN LIBERIA

- ❖ **THE ASM SECTOR IN LIBERIA NEEDS QUALIFIED TECHNICAL PERSONNEL NAMELY GEOLOGISTS, MINING ENGINEERS, MINING AGENTS & MINE INSPECTORS TO MANAGE THE SECTOR & PROVIDE TRAINING FOR ASM OPERATORS.**
- ❖ **AVAILABILITY OF FAVORABLE GEOLOGY DATA TO DEFINE A POTENTIAL ALLUVIAL (ELUVIAL) RESOURCE FOR ASM EXPLOITATION.**
- ❖ **THERE IS A SERIOUS PUBLIC HEALTH & SAFETY CONCERNS IN ASM OPERATIONS IN LIBERIA.**
- ❖ **NEGATIVE ENVIROMENTAL IMPACTS TO LAND, WATER & AQUATIC SPECIES.**
- ❖ **THE ISSUE OF MINE FATALITIES STILL REMAIN A MAJOR CONCERN DESPITE TREMENDOUS PROGRESS IN THE LAST THREE (3) YEARS.**
- ❖ **ILLICIT ASM OPERATIONS, SMUGGLING & POOR MINERAL PROCESSING EQUIPMENTS STILL REMAIN A CHALLENGE.**
- ❖ **ASM OPERATION SITES SERVED AS CORRIDORS FOR CHILD LABOUR, ILLICIT DRUG TRAFFICKING, PROSTITUTION, GHETTOS & RESCUE SITE FOR CRIMINALS.**
- ❖ **POLITICAL INTERFERENCES & CONSTRAINED BUREACRACY IN LICENSE ACQUISITION.**
- ❖ **SPIRITUAL PRACTICES AMONG INDEGINOUS MINERS.**

**AN ARTISANAL GOLD MINE LOCATED IN COMPOUND 2 GRAND BASSA,CENTRAL LIBERIA
WITH PUBLIC HEALTH & SAFETY CONCERNS.**

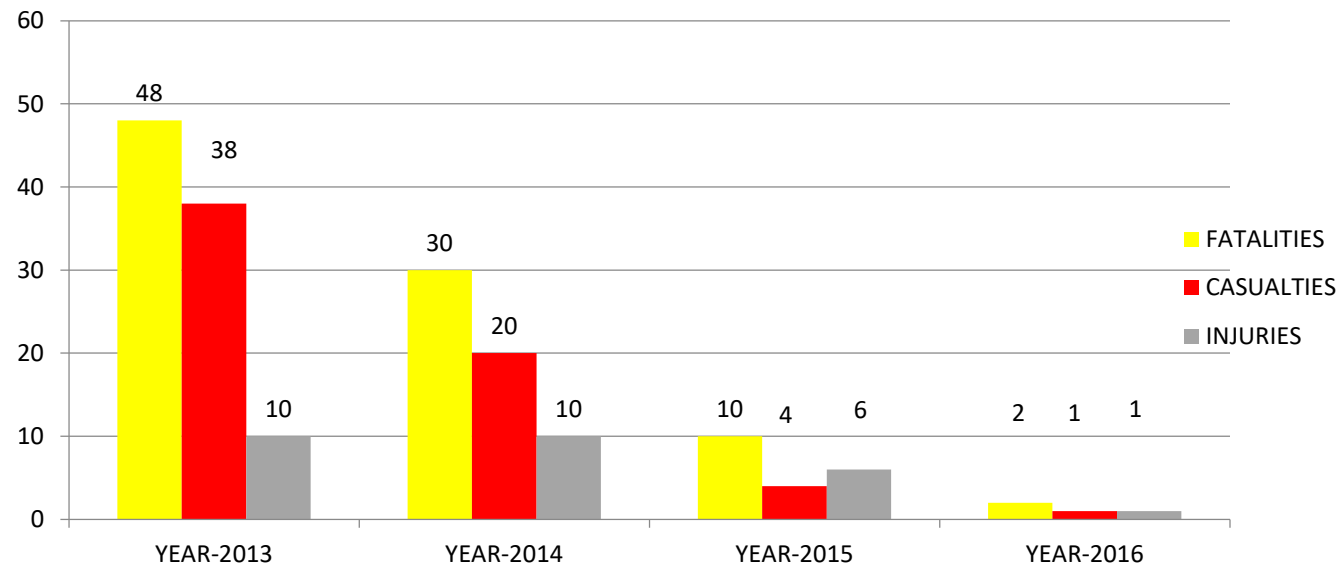


CONTAMINATED WATER BODY & POOR LAND MANAGEMENT DUE TO MINING & PROCESSING OF ALLUVIAL GRAVELS



STATISTICS ON MINE FATALITIES RECORDED FROM 2013-2016

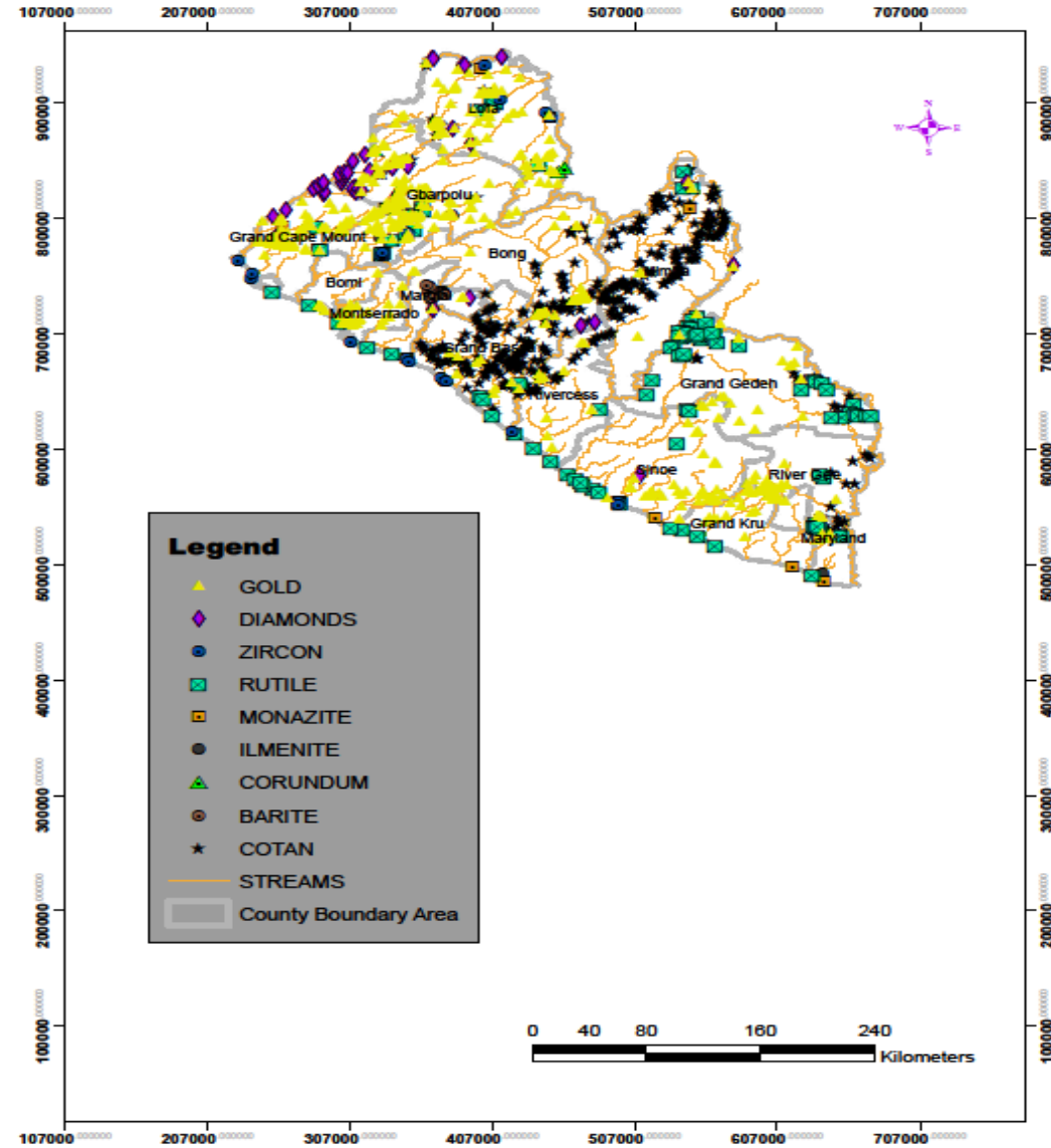
YEAR	# of FATALITIES	CASUALTIES	INJURIES
2013	48	38	10
2014	30	20	10
2015	10	4	6
2016	2	1	1



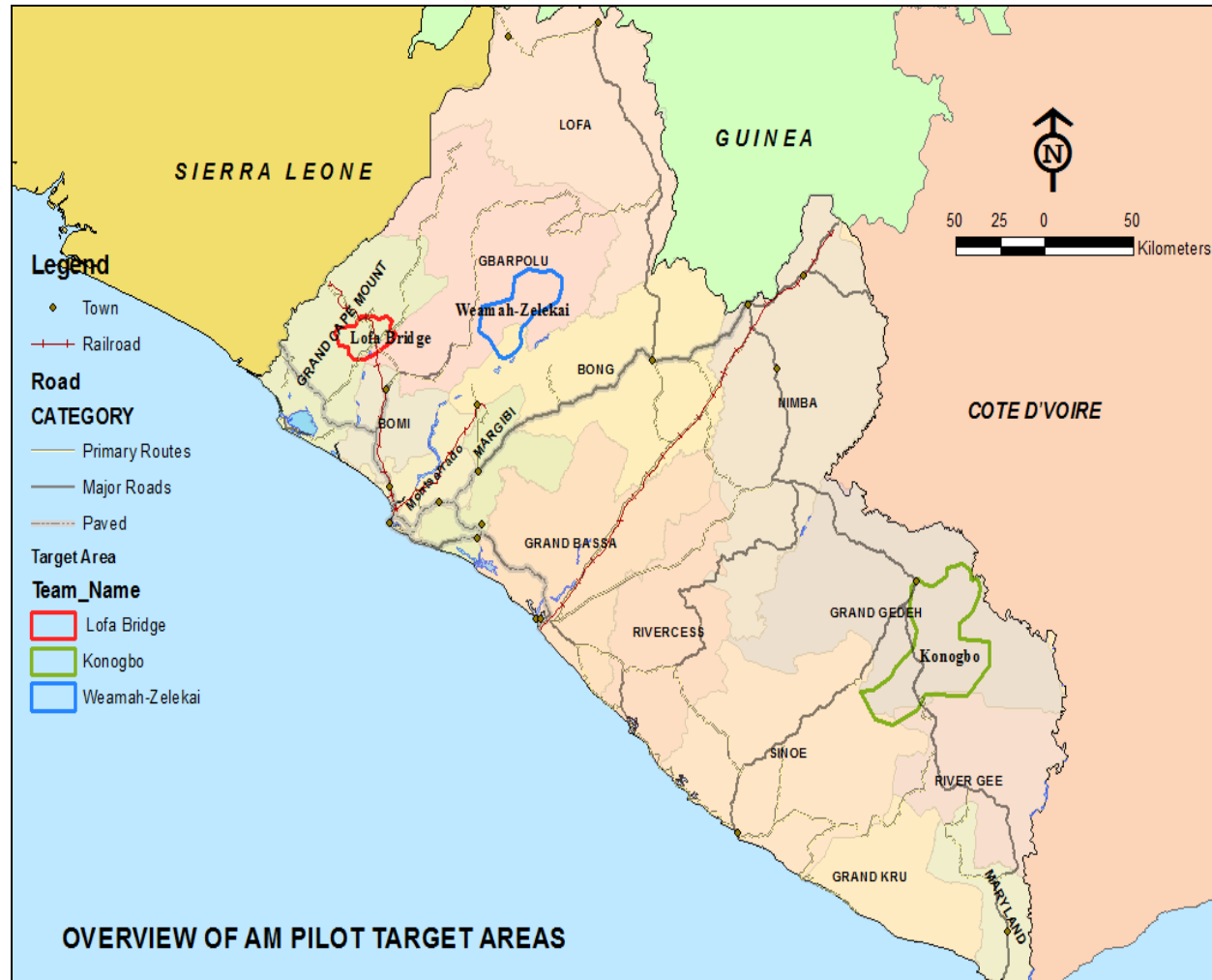
THE ROLE OF THE LIBERIAN GEOLOGICAL SURVEY IN THE ASM SECTOR INCLUDES

- ❖ **THE LIBERIAN GEOLOGICAL SURVEY IS INVOLVE WITH MAPPING OF ALL ARTISANAL WORKINGS & ALLUVIAL PROSPECTS AROUND THE COUNTRY.**
- ❖ **THE INSTITUTION IS INVOLVE WITH PROGRAMS THAT PROMOTE THE MINERAL POTENTIAL OF THE COUNTRY & RESEARCH SUCH AS EVALUATING THE PROSPECT OF NEW MINERAL COMMODITIES IN LIBERIA.**
- ❖ **IDENTIFYING & EVALUATING THE POTENTIAL THREATS OF GEOHARZARDS SUCH AS FLOODING & COASTAL EROSION & OTHER ENVIROMENTAL ISSUES RESULTING FROM ASM OPERATIONS & BEACH SAND MINING.**
- ❖ **THE INSTITUTION IS INVOLVE IN VETTING & COMPLIANCE MONITORING OF ALL RESEARCH LICENSES WHICH INCLUDE PROSPECTING LICENSE.**
- ❖ **AN ADVISORY ROLE TO CENTRAL GOVERNMENT IN CRAFTING EXPLORATION REGULATIONS, MINERAL & MINING LAWS.**
- ❖ **PROVIDING TECHNICAL ASSISTANCE TO LIBERIAN & FOREIGN NATIONALS IN MAKING KEY INVESTMENT DECISIONS IN THE MINERAL SECTOR.**

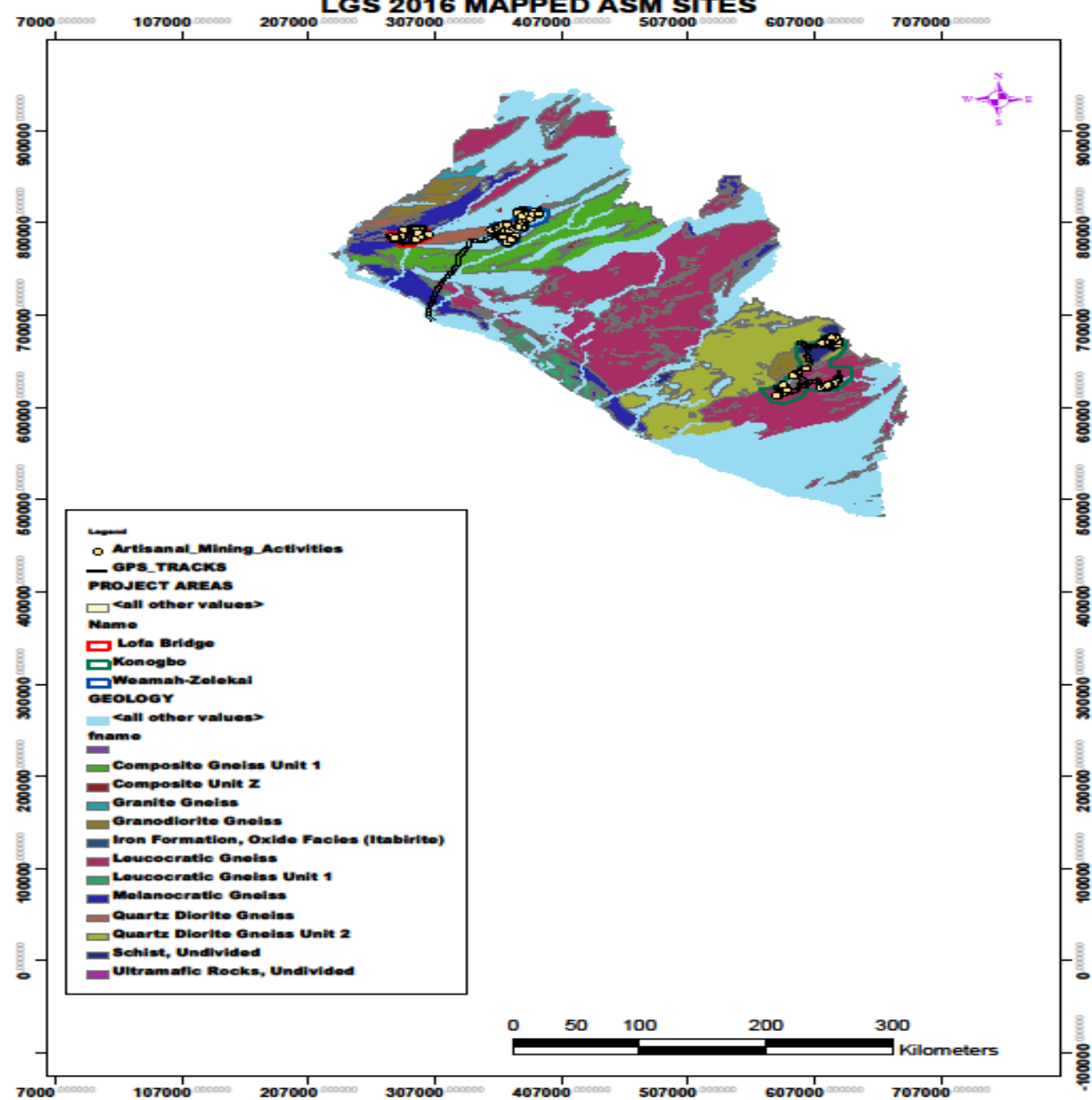
MINERAL OCCURENCE MAP OF ALLUVIAL & INDUSTRIAL MINERALS IN LIBERIA



2016_Mapping of ASM Sites in 3 Target Areas



LGS 2016 MAPPED ASM SITES



RECOMMENDATIONS / WAY FORWARD

- ❖ THE ADMINISTRATIVE & TECHNICAL STAFFS OF THE LIBERIAN GEOLOGICAL SURVEY NEED CAPACITY BUILDING PROGRAMS IN RESEARCH & COMPLIANCE MONITORING.**
- ❖ THERE ARE CHALLENGES IN ACQUIRING LOGISTICS SUCH AS FIELD BASED & LABORATORY TOOLS FOR THE INSTITUTION TO EXECUTE IT STATUTORY MANDATE.**
- ❖ THERE IS A NEED FOR AN EXCLUSIVE LAW & REGULATIONS ON ARTISANAL & SMALL SCALE MINING RIGHTS IN LIBERIA.**
- ❖ THE MINERAL SECTOR IN LIBERIA NEEDS TO BE AUTONOMOUS & SUPPORTED BY AN INDEPENDENT BUDGET IN ORDER TO FUNCTION EFFECTIVELY & EFFICIENTLY.**
- ❖ THE ESTABLISHMENT OF A MINERAL COURT IN LIBERIA TO HANDLE MINERAL RELATED CRIMES AGAINST THE STATE, MINERAL PROPERTY ENCROACHMENT, FALSE DECLARATION OF ASSETS & BLIND TRUST.**

THANKS