

PRESENTATION AT THE JAPAN - ZAMBIA BUSINESS FORUM



BY

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**MINISTRY OF MINES, ENERGY AND WATER
DEVELOPMENT
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INVESTMENT OPPORTUNITIES IN THE MINERAL SECTOR IN ZAMBIA

Presentation Outline



- **Investment Strategy in Zambia's Mining Sector**
- **Mineral Occurrences/Geological Mapping**
- **Major contributor's to Zambia's Copper Production**
- **Expansion Projects within existing Mining Companies and Green Field Projects**
- **Types of Mining Rights**
- **The Petroleum Sector**
- **Challenges in the Ministry**

GEOGRAPHICAL LOCATION OF ZAMBIA



ZAMBIA



- Located in Southern Africa
- Land linked & has eight neighbours
- Area of Zambia is approximately 752,000 Sq Km.
- Population is approximately 13.0million
- Main mode of transportation is by: air, road and rail.
- Main Source of Energy is largely Hydropower

INVESTMENT OPPORTUNITIES IN THE MINERAL SECTOR IN ZAMBIA

Zambia's Investment Strategy for the Mining Sector



- To intensify EXPLORATION for the development of new mines in order to increase and diversify mineral and mineral-based exports and maximize long term economic benefits to the investor and Zambia.
- To intensify exploration of energy minerals, in particular oil and gas for the development of the petroleum industry in Zambia.
- To add value on Zambia's amazingly wide spectrum of minerals resources so as to boost the manufacturing sector
- To create manufacturing industries that will produce mining industry consumables

MINERAL OCCURENCES IN ZAMBIA

▪ **Base/Precious metals:**

- **Copper**
- **Cobalt**
- **Manganese**
- **Iron**
- **Gold**
- **Silver**
- **Tin**
- **Nickel**

▪ **Gemstones:**

- **Emeralds**
- **Amethyst**
- **Aquamarine**
- **Red Garnets**
- **Tourmalines**

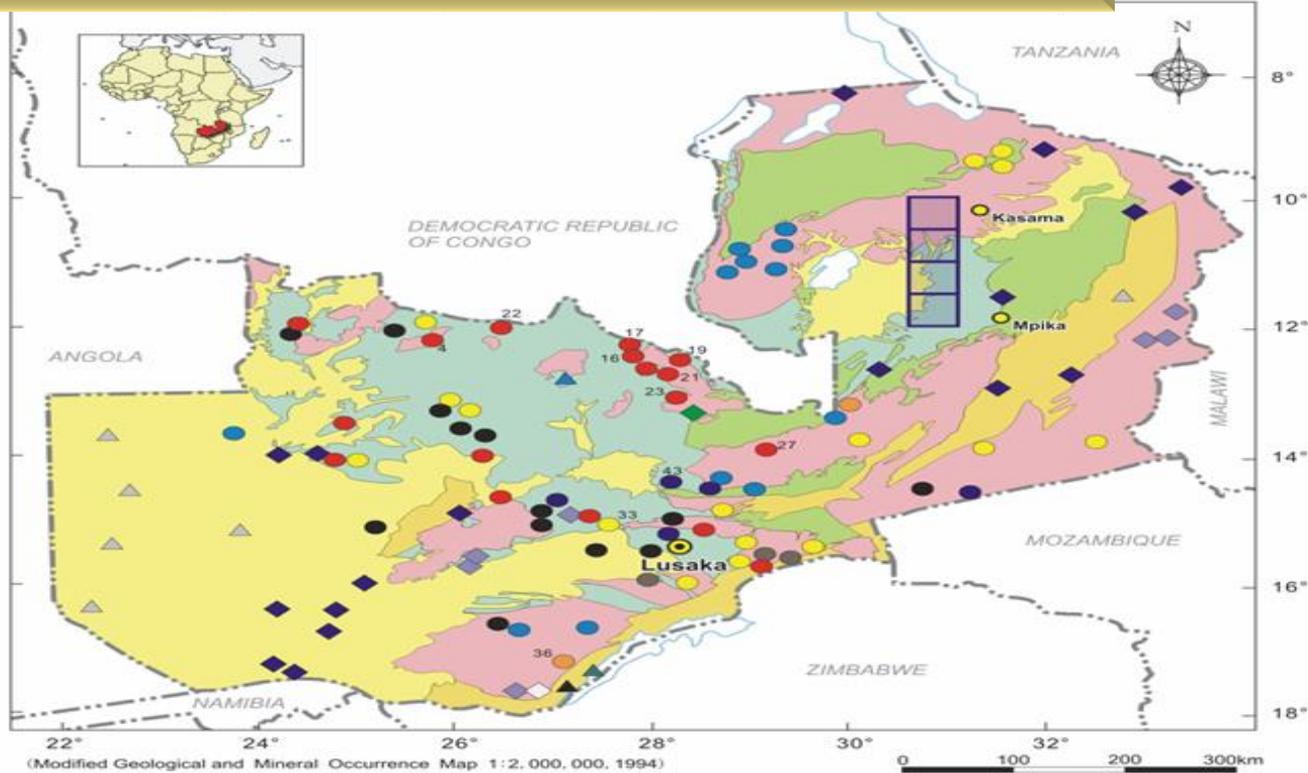
▪ **Industrial Minerals:**

- **Limestone/Dolomite**
- **Phosphates**
- **Clays**
- **Talc**
- **Feldspar**

INVESTMENT OPPORTUNITIES IN ZAMBIA'S MINING INDUSTRY



Diversity of Minerals in Zambia



- | | |
|--|--|
| ● Copper/Cobalt | ◆ Aquamarine |
| ● Gold | ◆ Emerald |
| ● Lead Zinc | ◆ Diamond |
| ● Nickel | ▲ Coal |
| ● Tin | ▲ Oil, Gas |
| ● Manganese | ▲ Uranium |
| ● Iron | ◇ Amethyst |

INVEST IN ZAMBIA'S MINING INDUSTRY

INVESTMENT OPPORTUNITIES IN ZAMBIA'S MINING INDUSTRY



AVAILABLE GEMSTONES INCLUDE:

- Emeralds
- Aquamarine
- Tourmalines
- Amethyst
- Red Garnets
- Citrine



MAJOR CONTRIBUTORS TO ZAMBIA'S COPPER PRODUCTION

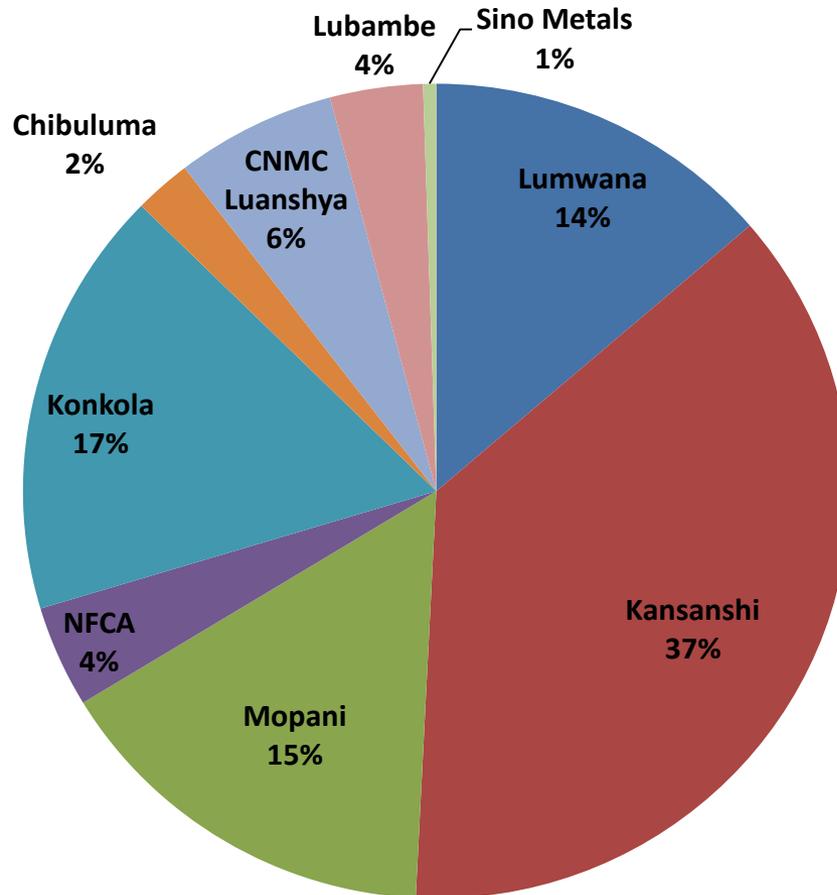
- It is interesting to note that the major contributors to Zambia's copper production are four (4) large mining companies namely:
 - Mopani copper Mines Plc
 - Konkola Copper Mines Plc

Copperbelt Province

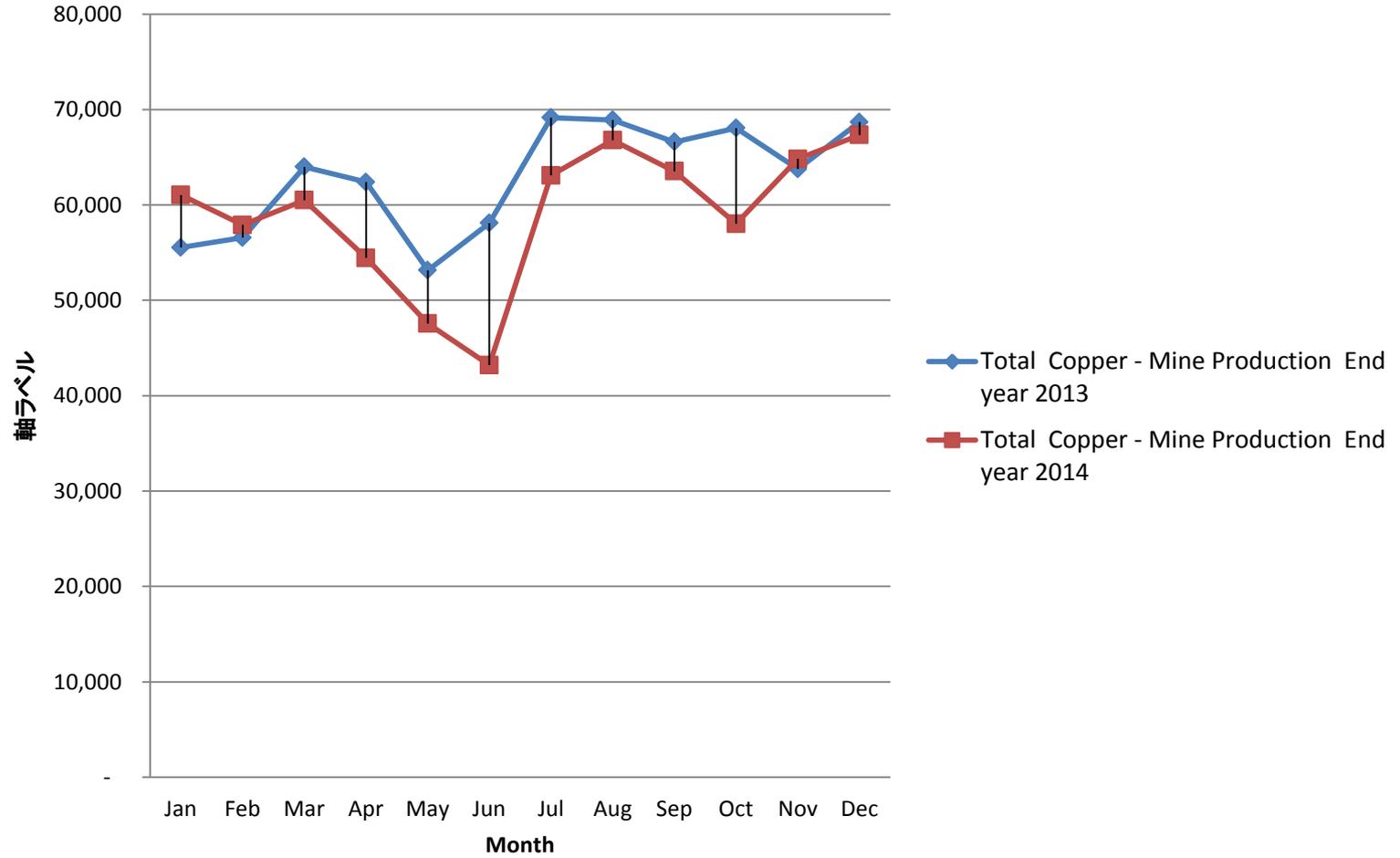
 - Kansanshi Mining Limited
 - Lumwana Mining Company

North Western Province
- These mines alone account for 83% of copper production in Zambia
- The Mining Sector in Zambia accounts for 70% of the exports revenue
- Zambia is one of the largest producers and exporters of copper in Africa

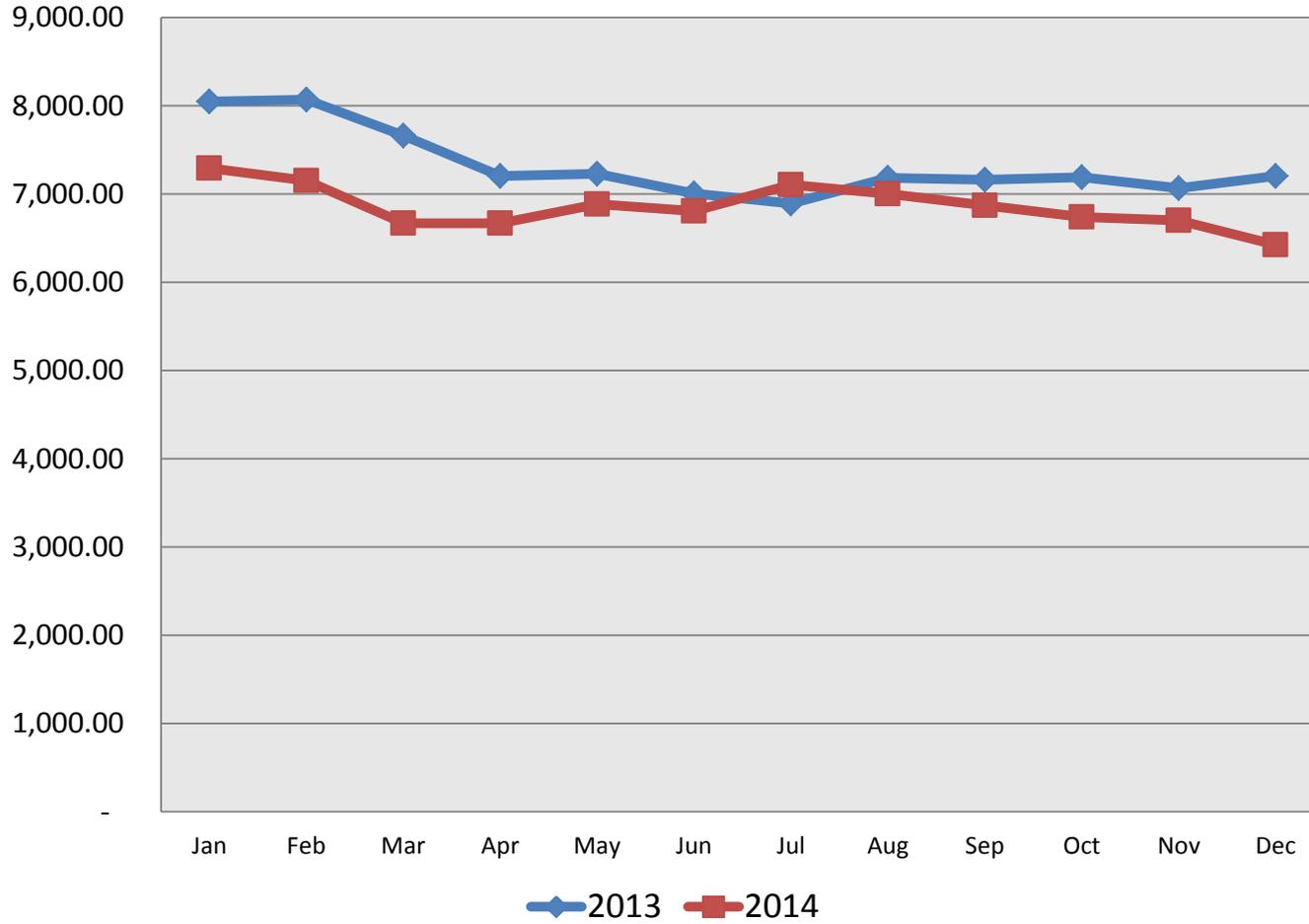
2014 Mine share of Copper production



2013 vs 2014 Copper production comparisons



LME Copper Prices (US\$/T)



EXPANSION PROJECTS WITHIN THE EXISTING MINES AND NEW PROJECTS IN ZAMBIA

- **EXPANSION PROJECTS**

- Construction of New Smelter and Sulphide Circuit (S3) at Kansanshi Mining Plc. in Solwezi
- The Nkana Synclinorium Project at Mopani Copper Mines Plc. Increases the L.O.M by more than 25 years. Commissioning of the shaft is expected in February 2016. Investment US\$323 million.
- Smelter upgrades in Mufulira at Mopani Copper Mines Plc with the expansion of the Acid Plant. Investment US\$450million.
- The development of the South East Ore Body (SEOB) at NFC Africa Mining Limited at Chambishi at a total investment of US\$500m. This adds 20 years to L.O.M.
- Development of the Nchanga Upper Ore Body by Konkola Copper Mines Plc
- Lubambe Copper Mine, Phase II to ramp up production to more than 45,000T with the development of the South East Limb. Total investment of US\$380m
- The Chifupu Copper Project at Chibuluma Mine Plc. The Chifupu ore body is planned to be accessed by first quarter of 2016

EXPANSION PROJECTS WITHIN EXISTING MINES AND NEW PROJECTS IN ZAMBIA

▪ **NEW PROJECTS (Green Field)**

- Kalumbila Copper Project in North Western Province by FQM Ltd. This is a US\$2Bn project now in the final stage of construction.
- Dangote Cement Project in Ndola, currently under construction
- Ichimpe Copper Project in Chambishi by Zhonghui Mining Group
- Kitumba Copper Project in Mumbwa by Blackthorn Resources Limited. This project will contribute 58,000 tonnes per annum to copper production. L.O.M 11 years.
- Mwambashi Copper Project in Kalulushi by Sino Metals Leach (Z) Limited. This project will contribute 35,000 tonnes of finished copper per annum
- Mwekera Copper Project in Ndola by Macro Link Resources Zambia Limited
- Mokambo copper/cobalt Project in Mufulira by Changfa Resources Limited
- Cheowa/Kangaluwi Copper Project in the Lower Zambezi by Zambezi Resources Limited

INVESTMENT OPPORTUNITIES IN THE MINERAL SECTOR IN ZAMBIA

Types of Mining Rights granted under the Mines & Minerals Development Act of 2008



- Large Scale Mining Licence
- Large Scale Gemstone Licence
- Large Scale Prospecting Licence
- Small Scale Prospecting Permit
- Small Scale Mining Licence
- Small Scale Gemstone Licence
- Artisan's Mining Right

Also granted is:

- Mineral Processing Licence (Non-mining right)

OVERVIEW OF ZAMBIA'S MINING LEGAL FRAMEWORK

TYPES OF MINING RIGHTS



LARGE SCALE PROSPECTING LICENCE

- THIS LICENCE CONFERS UPON THE HOLDER EXCLUSIVE RIGHTS TO PROSPECT FOR ANY MINERALS.
- LICENCE IS GRANTED FOR TWO YEARS AND RENEWABLE. 50% RELINQUISHMENT OF THE PROSPECTING AREA IS MANDATORY ON RENEWAL. LARGE SCALE PROSPECTING LICENSE IS LIMITED TO 1,000 KM². COMPANIES ARE ALLOWED UPTO A MAXIMUM CUMULATIVE TOTAL OF 5,000KM² FOR PROSPECTING LICENSES.
- DURATION: MAXIMUM OF 7 YEARS
- THERE ARE NO LIMITATIONS TO THE NUMBER OF MINERALS THAT ONE CAN PROSPECT FOR.
- THE CENTRAL MINING CADASTRE OFFICE IN LUSAKA RECEIVES AND PROCESSES APPLICATIONS FOR MINING RIGHTS.

INVESTMENT OPPORTUNITIES IN THE MINERAL SECTOR IN ZAMBIA



LARGE SCALE MINING LICENCES

- **DESCRIPTION: A LARGE SCALE MINING LICENCE CONFERS UPON THE HOLDER EXCLUSIVE RIGHTS TO CARRY OUT MINING OPERATIONS AND OTHER ACTS REASONABLY INCIDENTAL THERETO IN THE AREA.**
- **DURATION: MAXIMUM OF TWENTY FIVE (25) YEARS, RENEWABLE.**
- **SIZE OF AREA: MINING LICENCE AREA OR SUCH RE-ORIENTED AREA BY THE HOLDER; 250 SQ KM**
- **NO LIMIT TO THE NUMBER OF MINING LICENCES**
- **MINERALS COVERED: ECONOMIC MINERALS IN THE AREA**

MINING TAX REGIME FOR FY 2015

Mineral Royalty on Underground Mining Operations:	8%
Mineral Royalty on Open Cast Mining Operations:	20%
Corporate Income Tax on income earned from Tolling:	30%

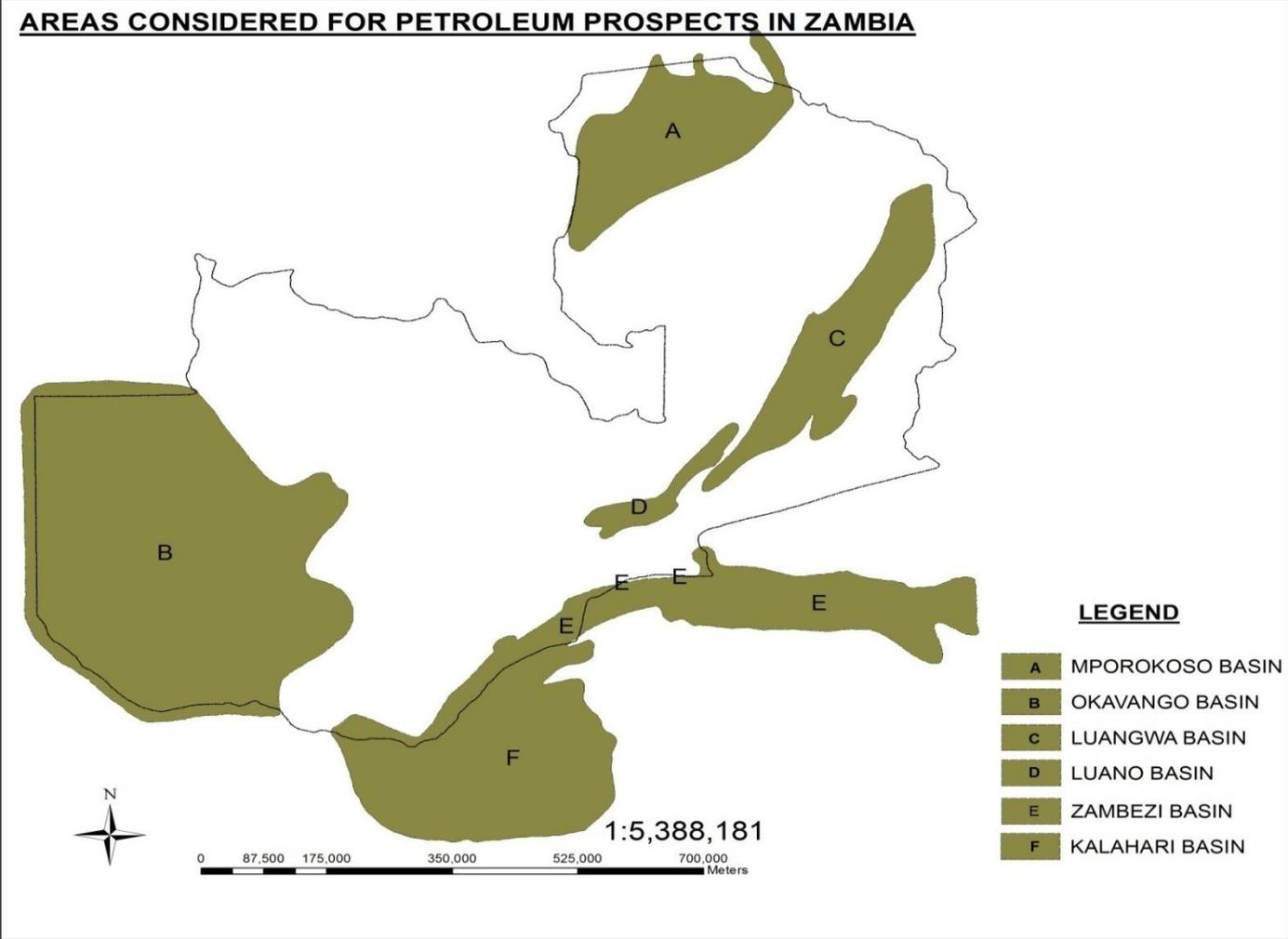
INVESTMENT OPPORTUNITIES IN THE PETROLEUM SECTOR IN ZAMBIA



THE OIL AND GAS SECTOR IN ZAMBIA

- **ZAMBIA STARTED EMBRACING THIS VISION IN EARLY 1970'S WHEN THE INTERNATIONAL PRICES OF CRUDE OIL WAS ON THE RISE.**
- **BETWEEN 1986 AND 1991 TWO MAJOR EXPLORATION COMPANIES; MOBIL & PLACID OIL SHOWED INTEREST IN ZAMBIA IN THE LUANGWA RIFT VALLEY.**
- **RECENT EXPLORATION WORK FOR PETROLEUM COVERING PARTS OF NORTH WESTERN, WESTERN AND EASTERN PROVINCES OF ZAMBIA USING MICROBIAL PROSPECTING TECHNIQUE REVEALED THAT THE OKAVANGO AND NORTH LUANGWA BASINS HAVE POTENTIAL FOR OIL AND GAS.**
- **GOVERNING LAW FOR ALL UPSTREAM ACTIVITIES IS THE PETROLEUM (Exploration and Production) ACT OF 2008.**
- **THE KEY REGULATORS FOR THE PETROLEUM SECTOR ARE; The Minister of Mines, Petroleum Committee, Petroleum Technical Committee and the Hydrocarbon Unit.**

Sedimentary basins with potential Oil and Gas

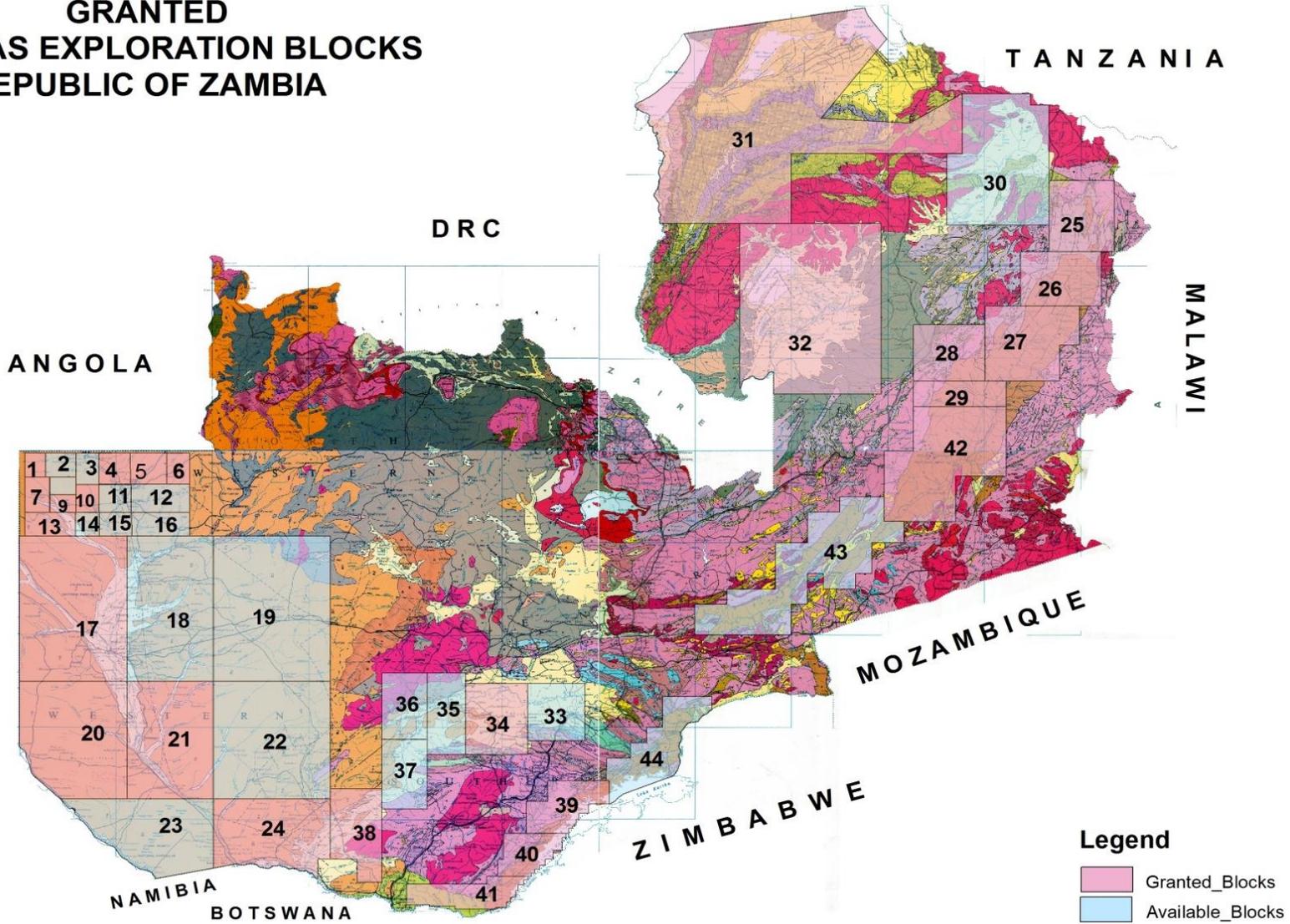


LICENSED COMPANIES IN THE OIL AND GAS SECTOR



Petroleum Companies	Block Nos.
Barotse Petroleum Company Ltd	20, 21
Exile Resources Inc.	26
Metprosol / Frontier	34
Petrodel Resources Limited	17
MAJETU	13
Rapid African Energy Holdings	31
Terralinna (Z) Limited	24, 38
Mafula Energy Limited	32
Gapex Resources Limited	7
ZCCM – IH Plc	1, 4, 6 & 10
Mineks Zambia International	27
Chat Milling	5
Rift Petroleum	40, 41
Troisade Energy	8
SOGECO	39, 43

GRANTED OIL & GAS EXPLORATION BLOCKS REPUBLIC OF ZAMBIA



Legend

- Granted_Blocks
- Available_Blocks

INVESTMENT OPPORTUNITIES IN THE MINERAL SECTOR IN ZAMBIA

Challenges experienced in the Ministry of Mines



The implementation of the mining cadastre system as a tool for mining rights administration has not been without challenges and continues to be work-in-progress until such a time when it is fully operationalised.

What will be achieved in the immediate term is efficiency in the handling of applications for mining rights, transparency and eventually the elimination of conflicts arising from overlaps. Government is determined in improving this system further, and is currently in the process of developing an online mining rights application and evaluation system .

THE END

I THANK YOU FOR YOUR ATTENTION !



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