





# Introducing AGJEC/AGJC in Freetown, Sierra Leone

By: Engr. Clever Sithole
Career Gemologist
Accredited Jewelry Professional
MSc(AEBM), BEng(Hons), GIA





#### **About the Presenter**

With nearly two decades of experience in the mining industry, Clever has forged an exceptional career specializing in the evaluation & certification of precious gemstones and minerals. Beginning his journey in Zimbabwe, he served as a Mineral Evaluator, expertly appraising colored stones and diamonds. He managed the establishment of the Silk Road Heart Lapidary & Gemology Centre in Afghanistan where he was the Head Gemologist for DAI Global LLC, USA on a USAID Invest project.

#### He trained at the:

- Gemological Institute of America (GIA)
- HRD Antwerp Institute of Gemmology (Belgium)
- Indian Diamond Institute, Surat (India)
- Gemmological Association of Great Britain (Gem-A), UK
- Swiss Scientific Gemmological Institute, SSEF (Switzerland)
- EGL College of Gemmology (South Africa)
- World Gem Foundation (Spain)
- Gem Color Academy (Israel)

He is the lead committee Chairperson of the AGJEC/ AGJC team for AMDC. He is also a qualified Mining & Mineral Processing Engineer with a BEng(Hons) & an MSc in Applied Entrepreneurship & Business Management.





## Introduction

- Africa Gem Jewellery Exhibition & Conference (AGJEC): It is an AMDC initiative to enrich skills development, foster innovation, entrepreneurship, promote trade, facilitate certification, value addition and beneficiation of coloured stones & diamonds. The goal is to bring economic benefits whilst enriching lives of African gemstones producers (countries).
- AMV linkages: The African Minerals Development Center (AMDC) works to ensure that Africa's mineral resources contribute to sustainable development. AMDC accreditation signifies that a gemmology course meets highest standards of training and practice, ensuring graduates are well-equipped to impart skills in the gemstone industry.

# Potential of Gemmology Courses in Africa

- **Economic Growth:** Gemmology courses can drive economic growth by creating jobs and fostering local expertise.
- Resource Utilization: Africa's rich gemstone resources can be better utilized through skilled gemmologists.
- Global Market: Positioning Africa as a key player in the global gemstone market by enhancing the quality and value of its gemstones.



# **Opportunities**

- **Employment:** Creating jobs in mining, cutting, polishing, and trading gemstones.
- **Skill Development:** Enhancing local expertise and creating a skilled workforce.
- Entrepreneurship: Encouraging the growth of small and medium enterprises in the gemstone industry.
- **Tourism:** Promoting gem tourism and related activities, attracting international visitors.

# Implementation Strategy

- Curriculum Development: Designing comprehensive gemmology courses that cover theoretical and practical aspects.
- **Partnerships:** Collaborating with local and international institutions for resource sharing and expertise.
- Training and Certification: Ensuring high standards of education and certification to produce qualified gemmologists. Also, Gemmological Reports will be produced.
- Monitoring and Evaluation: Regular assessment of course effectiveness and impact to ensure continuous improvement.



# **Traceability and Blockchain**

- **Traceability:** Consumers increasingly demand to know the origins of the gemstones they purchase. Implementing traceability systems ensures that gemstones can be tracked from mine to market, enhancing transparency and consumer trust.
- Blockchain Technology: Blockchain can provide a secure and immutable record of a gemstone's journey, ensuring authenticity and ethical sourcing. For example, Authentia uses blockchain to track diamonds, providing a digital ledger that records each transaction and ownership change.
- **System of Warranty:** A blockchain-based system of warranty can certify that gemstones are responsibly sourced, conflict-free, and ethically traded. This not only builds consumer confidence but also promotes responsible practices in the industry.

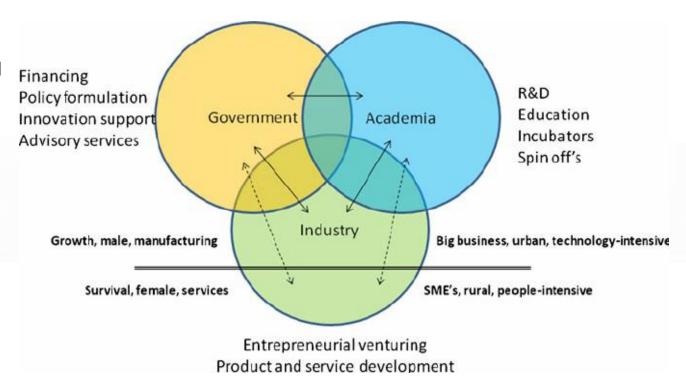
# Innovation, Research & Development

- **Technological Advancements:** Incorporating advanced gemmological techniques and technologies in training can drive innovation in the gemstone industry. For example, the use of spectroscopy and microscopy can lead to new discoveries and improved processing methods.
- Research Opportunities: Gemmology courses can foster research in gemstone science, leading to new insights and developments. Collaborations with universities and research institutions can further enhance the knowledge base and contribute to the advancement of the field.
   The Triple Helix Model of Innovation developed by Henry Etzkowitz and Loet Leydesdorff.



# The Triple Helix Model of Innovation

- **Academia's Role:** Universities and AGJEC research institutions can contribute by studying gemstones and jewellery supply chains, offering innovative solutions for local value addition, and training professionals for the sector.
- **Government's Role**: Policymakers can create favorable regulations and incentives, enabling sustainable growth and ethical practices in sourcing gemstones and jewellery.
- **Industry's Role:** Businesses can actively collaborate with academia and government to address market needs, invest in technological advancements, and implement responsible sourcing practices.



5/6/2025



#### Value Addition and Beneficiation

Adding value to our gemstones through local processing is crucial:

- Value Addition: By cutting, polishing, and setting gemstones locally, we can significantly increase their value. This not only boosts local economies but also creates skilled jobs.
- Social responsibility: Ensuring that the benefits of gemstone mining and processing are shared with local communities is essential. This includes investing in local infrastructure, education, and healthcare. Environmental Stewardship, ESG



## **Market Value**

- Quality Enhancement: Skilled gemmologists can enhance the quality of gemstones through precise cutting and polishing, increasing their market value. For instance, high-quality Zambian emeralds command premium prices in the global market.
- **Brand Recognition:** Establishing a reputation for producing high-quality gemstones can enhance the brand recognition of African gemstones, attracting international buyers and investors. The Tanzanite Foundation has successfully promoted Tanzanite as a unique and valuable gemstone, boosting its global demand.
- **Certification and Trust:** AMDC accreditation ensures that gemmology courses meet high standards, building trust among buyers and stakeholders. Certified gemmologists can provide reliable assessments and valuations, enhancing the credibility of the gemstone industry.



## Conclusion

- *In conclusion*, the development of AMDC accredited gemmology curricula presents a unique opportunity to harness Africa's rich gemstone resources for sustainable development. By addressing the challenges and leveraging the opportunities, we can create a skilled workforce, boost local economies, and position Africa as a key player in the global gemstone market.
- <u>Call to Action</u>: I urge all stakeholders, including governments, educational institutions, and private investors, to support and participate in this initiative. Ratification the AMDC statutes is now an urgent priority for Africa.

Thank you, Asante Sana, Merci, Tenki!!!