

Project Success – A Community Perspective

Presented by:
Karl Cicanese

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COMPANY OVERVIEW

Lycopodium is an international engineering and project delivery organisation recognised globally for its experience and performance over three decades in the mineral processing area.

Lycopodium has an excellent track record for delivering projects within budget and on schedule to world class HSECR standards. We pride ourselves in leaving a positive legacy regardless of project location.



SERVICES

PROCESS

- Metallurgy
- Chemical
- Process Development
- Pilot Programmes
- Process Modelling
- Mass & Energy Balances
- HAZID / HAZOP

PROJECT DELIVERY

- Project Management
- Construction Management
- HSEC
- HR / IR
- Plant Commissioning
- Operator Training



ENGINEERING

- Civil
- Structural
- Mechanical
- Electrical
- Instrumentation
- Process Control

PROJECT SERVICES

- Procurement
- Capital & Operating Cost Estimating
- Scheduling
- Cost Control
- QA
- Inspection & Expediting
- Materials Management

MINERALS TRACK RECORD

REPEAT BUSINESS FROM KEY CLIENTS

 ENDEAVOUR
MINING



 FIRST QUANTUM
MINERALS LTD.



 Perseus
MINING LIMITED

nordgold 

DE BEERS



 ANGLOGOLD ASHANTI

 NEWMONT



RIO
TINTO

 INDEPENDENCE GROUP NL



KINROSS



 TERANGA
GOLD CORPORATION

GLENCORE



OZ
MINERALS

RED EAGLE
MINING

 DANAKALI

IAMGOLD

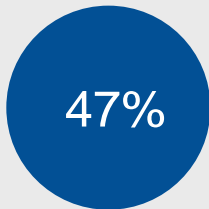
 BARRICK

OUR AFRICAN INVOLVEMENT

- ✓ Over 20 years experience in Africa
- ✓ 25+ countries
- ✓ Range of commodities and processes



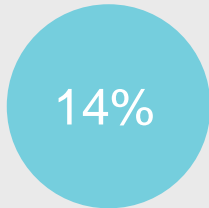
- ✓ Junior, mid-tier and major Clients
- ✓ Range of project delivery models



WEST AFRICA
Studies & Projects



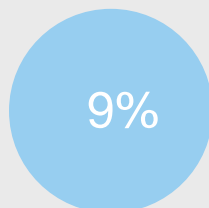
SOUTHERN AFRICA
Studies & Project



EAST AFRICA
Studies & Project

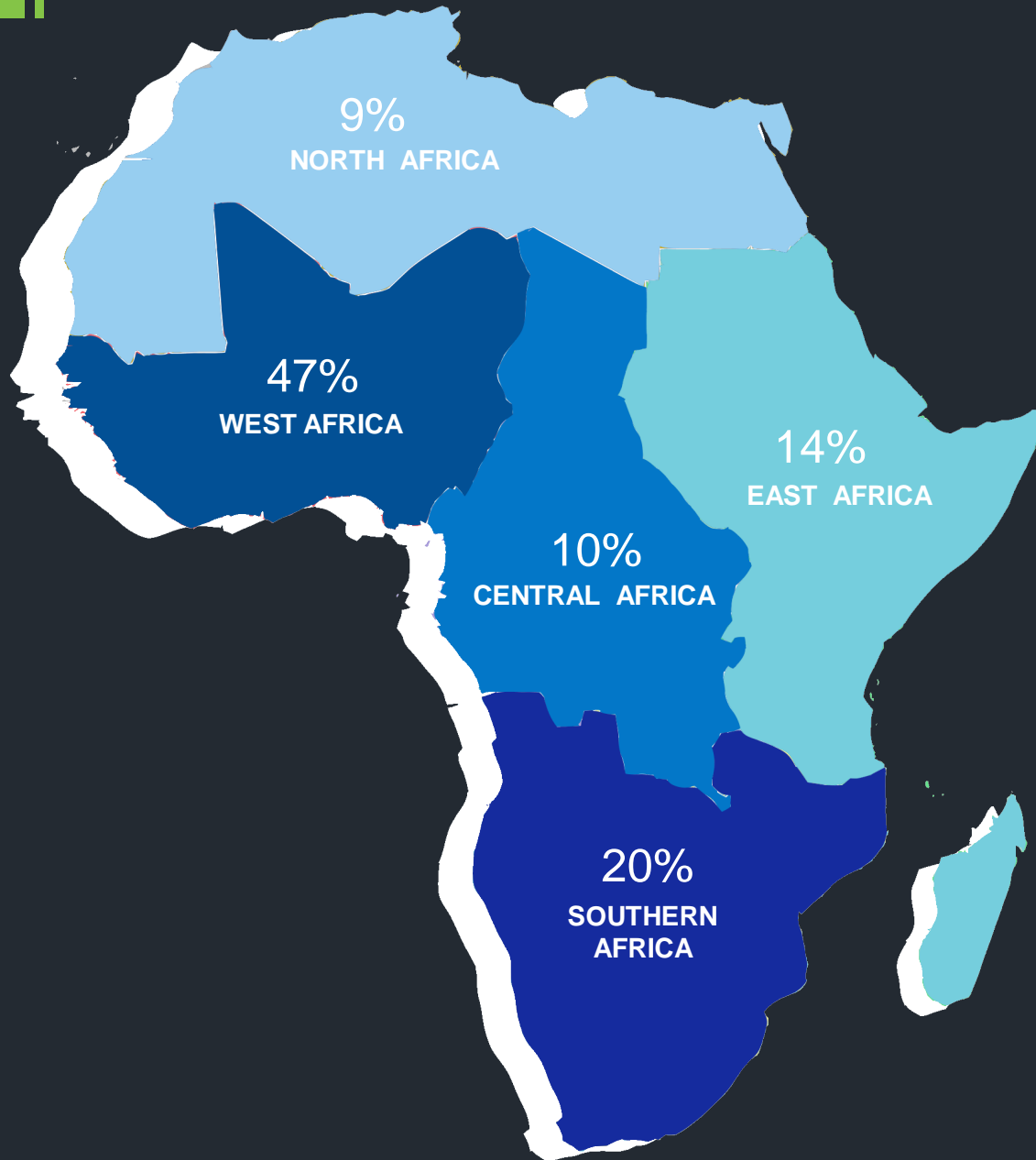


CENTRAL AFRICA
Studies & Project



NORTH AFRICA
Studies & Projects

AFRICAN EXPERIENCE



AFRICAN EXPERIENCE

NORTH AFRICA

- Mauritania
- Egypt

WEST AFRICA

- Senegal
- Gambia
- Guinea
- Sierra Leone
- Côte D'Ivoire
- Ghana
- Mali
- Burkina Faso

EAST AFRICA

- Tanzania
- Eritrea

CENTRAL AFRICA

- Cameroon
- DRC
- Republic of Congo

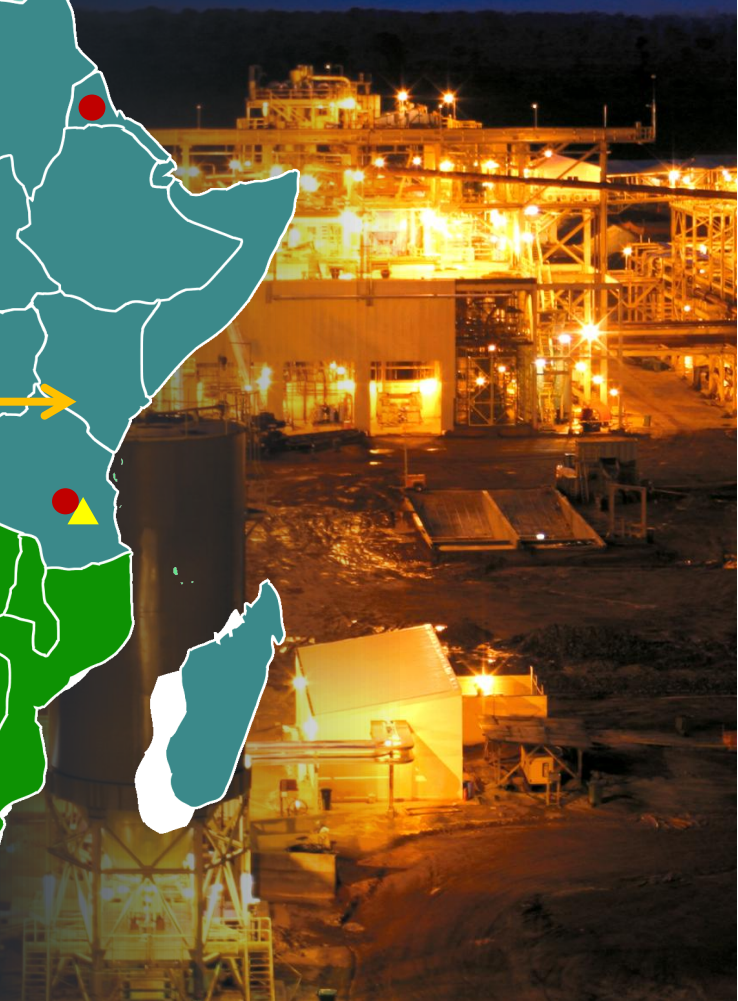
SOUTHERN AFRICA

- Angola
- Namibia
- Botswana
- Lesotho
- South Africa
- Zimbabwe
- Zambia

LEGEND

Projects - ▲

Studies - ●





PROJECT
EXPERIENCE

PROJECT ACHIEVEMENTS

40+ PROJECTS IN AFRICA

World class safety and quality

Projects under budget
and within schedule

100% ramp-up to
nameplate of all projects

Delivered in logistically
challenging locations

Fit for purpose project
systems and procedures

Strong repeat business
with Clients



PROJECT ACHIEVEMENTS

BISSA – GOLD PROJECT

Completed under budget and on schedule with over 1 million LTI free.



SENTINEL – COPPER PROJECT

The 55 Mtpa complete stand alone plant, and the mills installed are some of the largest in the world.



TARKWA – GOLD PROJECT

At the time, it was the worlds largest single stage SAG Mill.



BIBIANI – GOLD PROJECT

The project was completed on time and below budget with a +10% throughput.



AHAFO – GOLD PROJECT

Awarded the WA Engineering Excellence Award for the Project.



GOLDEN PRIDE – GOLD PROJECT

This was the first modern gold plant in Tanzania.



CURRENT AFRICAN PROJECTS

*Bouly Gold Heap Leach Project,
Côte d'Ivoire
Client: Nordgold*

EPCM 7 Mtpa, Greenfield



*Agbaou Gold Project - Brownfield
Upgrade, Côte d'Ivoire
Client: Endeavour*

EPCM Secondary Crushing and
Screening



*Fekola Gold Project
Mali
Client: B2Gold*

EP 4 Mtpa, Greenfield



*Sentinel Project
Zambia*

Client: First Quantum Minerals Ltd

EP Copper Concentrator





COMMUNITY ENGAGEMENT

COMMUNITY RELATIONS

Strong focus on community awareness and education

Lycopodium staff members routinely provide support to local community initiatives. These have included:

- Support to local schools
- Support local businesses
- Support local training and employment



Establishment of sustainable industries with indigenous groups

- Farmers, cooperative to supply fruit & vegetables during construction
- Tailors for all work shirts
- Block making facilities



Project-specific community relations plans

- Workforce training
- Helping support local communities
- Strict code of ethics for interaction with local communities



COMMUNITY FARMING INITIATIVES



Lycopodium Community
Farming Initiative

COMMUNITY EDUCATION INITIATIVES

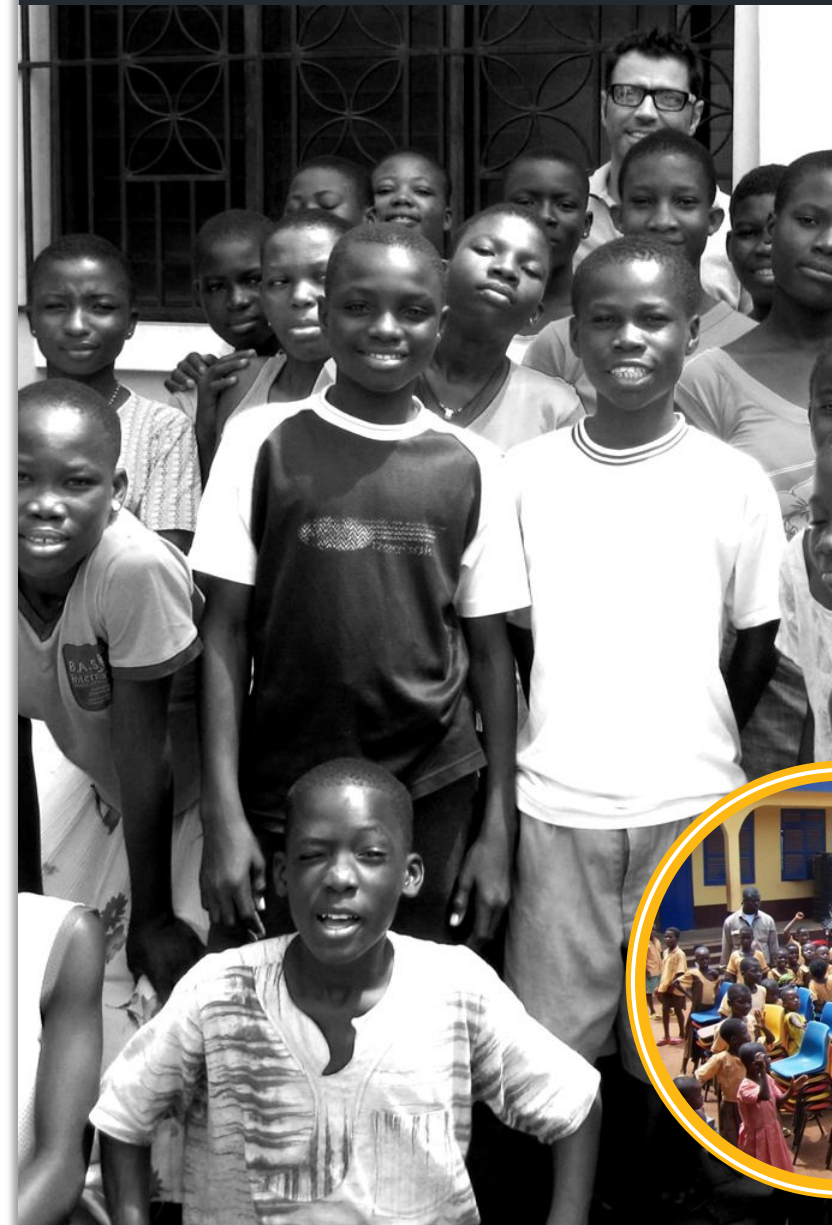
Supporting volunteer services and employee fund raising efforts.

Organise, coordinate and distribute educational supplies amongst schools in the vicinity of our Projects.

Supplies included tables and chairs sourced from Perth, books, sporting equipment and various stationery items.

B.A.S.I.C.S. International

Lycopodium has funded, designed and constructed a new school which provides a fundamental learning centre. The facility incorporates renewable energy to educate children in sustainability concepts.





EMPLOYMENT & TRAINING

EMPLOYMENT OPPORTUNITY

Commitment to Local Employment and Local Contractors



Promote and mandate “local ” employment.

Award work to local and national contractors where capability exists.

Engage with and develop local service providers.

Provide training in the “basics” – safety, hazard identification, environmental, basic equipment use, hand tools, trade assistance, traffic management, stone pitching, landscaping, etc.

Equitable wage rates, benefits and allowances.

Fair division of employment opportunities between local communities.

Encourage client to offer long term employment to outstanding “local local” employees.

Promote transfer of employees from project to operations duties where the latter offers long term opportunities.



SAFE WORKPLACE

THE SAFE WAY
IS THE ONLY
WAY



Training and instruction on wider health and safety issues (malaria, aids).

Training in the use of PPE and safety equipment.



Ongoing communication and training as projects develop through various stages of construction and commissioning, i.e. Shifting hazards.

Best practice safety standards and procedures everywhere we work.

Skilled safety professionals to train and mentor, local employees.



Appropriate inductions and ongoing safety training.

Local supervisor training program.





GHANA CASE STUDY

Ahafo Project, Ghana

AHAFO PROJECT - GHANA

COMMUNITY RELATION



Fund raisers for class room equipment for local schools & providing second hand books and school equipment.

Local area tailoring of site uniforms.

Mentoring to contractors – bus operating (51), earthworks, etc.

Daily meals provided on site.

TRAINING



Local labour pool was utilised for employment of all unskilled and semi-skilled where available.

Provided structured training in basic construction skills.

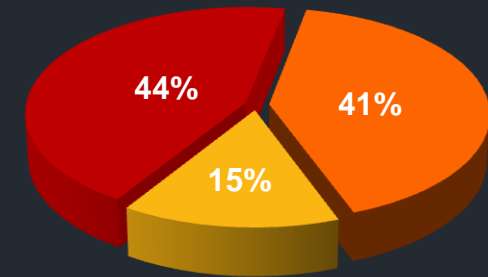
LOCAL EMPLOYMENT



The Lycopodium Community Relations ensured that there was equitable employment numbers on the Project from all the surrounding villages, as agreed with the village leaders in the early phases of the Project.

Hire of local staff for clerical and secretarial duties.

STATISTICS



- Local Area Employment
- Expatriate Employment
- Ghana Nationals Employment

At Project Peak (3000+) – Local Area workforce (1280 skilled and unskilled), Ghana Nationals (1366 skilled and unskilled), Expatriate workforce (452 Skilled).

AHAFO PROJECT - MINE VEGETABLE FARM



Lycopodium and client worked with the community to develop a local farming business.



Developed a sustainable local business providing employment opportunities and income prospects for the community.



Long term supplier to meet the catering requirements of the Project site.



CÔTE D'IVOIRE CASE STUDY

Agbaou Project, Côte d'Ivoire

AGBAOU PROJECT - CÔTE D'IVOIRE

COMMUNITY RELATION



A number of community projects were undertaken by the Client with support from Lycopodium.

TRAINING



LYCOPODIUM APPRENTICESHIP SCHEME

Local area people were trained under the Apprenticeship Scheme in order to make them employable on the Project.

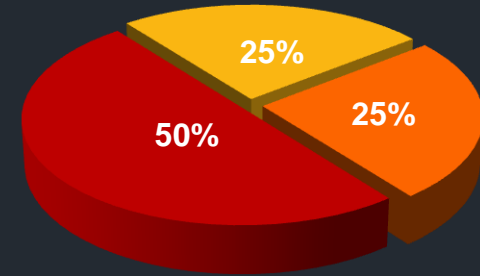
LOCAL EMPLOYMENT



Contracts were awarded to a number of locally based contractors.

Some local contractors were used for other small works outside their contract.

STATISTICS



■ National Employment
■ Other
■ Local Area Employment

Total workforce at peak construction – 470

- 25% local area employment*
- 50% national employment*
- 25% expats*

Lycopodium

Delivering engineering excellence, value and innovation

