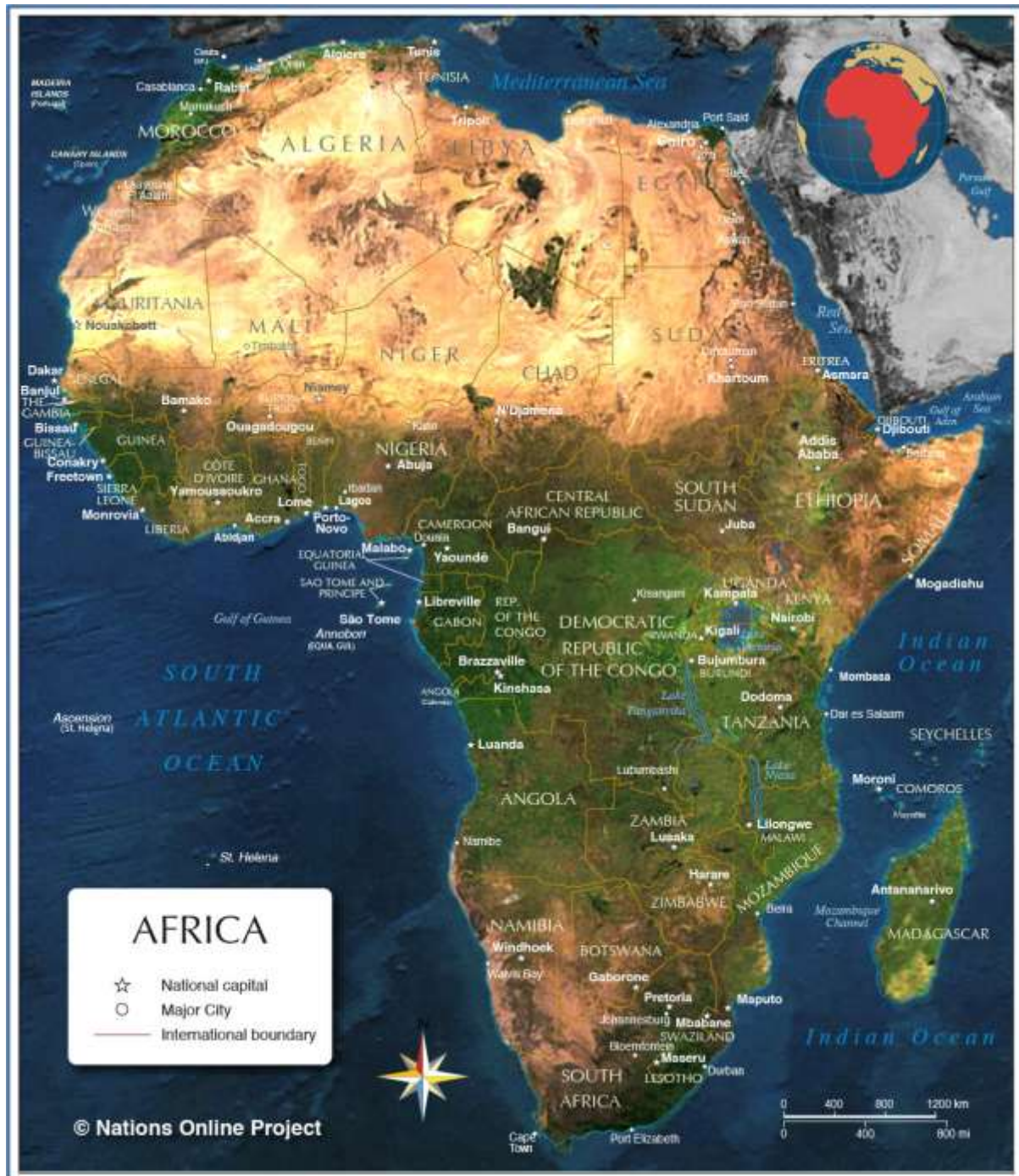


The Institute of Materials Handling



Presenting

CHALLENGES OF WORKING IN AFRICA



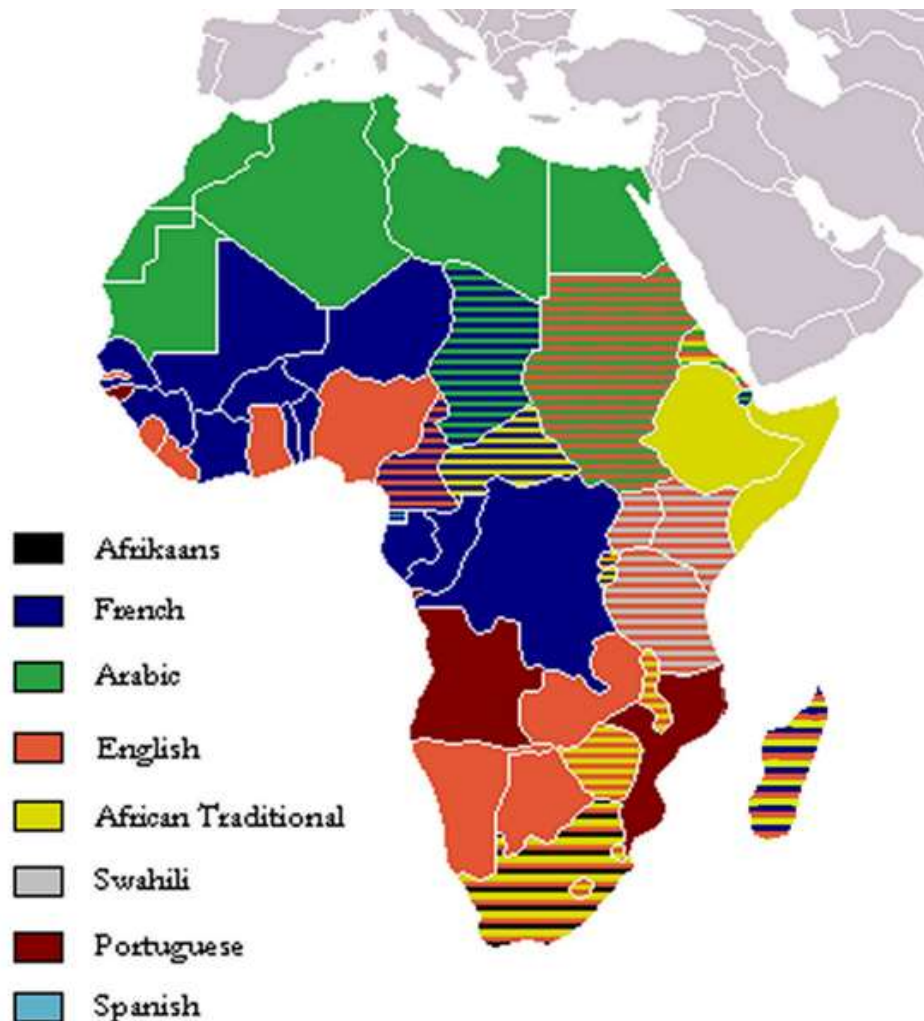
1) Overview

a) Sub-Saharan Africa:

- There are forty-seven countries in Sub-Saharan Africa
- Growth in Africa has averaged about 3 % in the last fiscal year, and well-managed countries which have implemented solid reform agendas and built a record of stability and good governance had an average growth of 4 %.
- Mozambique is one of Africa's fastest growers with investment backing coal and gas discoveries.

b) Languages:

- There are an estimated 2,000 languages spoken in Africa.



Official Languages



Business Languages



c) Site Conditions



A Gold Mine in the DRC





d) Local laws, Design codes & Existing facilities.

- Laws and design codes in Africa has been shaped primarily through different countries inheritance of laws and their previous exposure to engineering. Angola for example had a political and working alliance with both Portugal and the Soviet Union.

- Existing facilities which designers have to take cognisance of, can be such aspects as.
 - Electrical power



- Water supply
 - Sewerage
 - Emergency response (e.g., fire brigade)
- Nearly two-thirds of Sub-Saharan Africa countries experience an acute clean water and energy crisis with frequent and extended electricity outages. Although conflict and drought triggered several of these crises, in most cases the cause was electricity supplies failing to keep pace with growth in demand.

e) Local or on-site manufacturing

- Workshop and workforce capabilities



- Transport capabilities



- Steelwork availability



- Inspection capacities



f) Operating Philosophy (KISS)

g) Maintenance Philosophy

h) Spares Holding and Vendor Support

i) Construction Methodology and Schedule

j) Life of Mine

- Corrosion Protection
- Material of Construction

3) Logistics

a) Shipping

- Commercial shipping and charter routes








- Ports and handling
- Custom documentation
- Clearing agents

b) Road transport

HSE MANAGEMENT SYSTEM WD.538		
ROAD SURVEY REPORT		
Status: Applicable	Version N°: 01 – 17/07/2009	Page 1 of 69

ROAD SURVEY: Freetown Port to Baomahun mine site route B

1. SUMMARY REPORT

Date of survey	14.04.2011	Time for completing survey:	9 hours
Starting point	Freetown Port	Number of villages	95
End / Destination	<u>Baomahun</u>	Number of market places :	2
Total distance	305.1 Km	Number of <u>schools/hospitals</u> :	12
Number of police checkpoints :	2	Number of electrical wires	9
<u>Number of moutain passes</u>	hours	Average speed	50-80 Km/h
Number of bridges :	39	Number of safe parking area	19
Number of rail crossing	0	Name of <u>survey manager</u>	Jerôme Vitris

1.1 CONVOY / CARGO CHARACTERISTICS :

Maximum height : 5.49 M

Maximum weight : 32T

Maximum width : 4.27 M

Condition of Bridges



Condition of roads





Damage to steelwork during transport



Transport limitations



c) Air transports

- Quality of airports



- Quality and limitation of planes and runways



d) Customs and border post



Nigeria - Niger border post at Birnin Kuka, Katsina state

e) Insurances, e.g., marine and transport

4) Construction

a) Workforce skill limitations





b) Adopt different construction methods





c) In-country equipment and facilities

- Quality





- Availability of Spares
- Testing/laboratories
- Medical Facilities and Medi-vac



d) Accommodation (Local and site)







e) Consumables

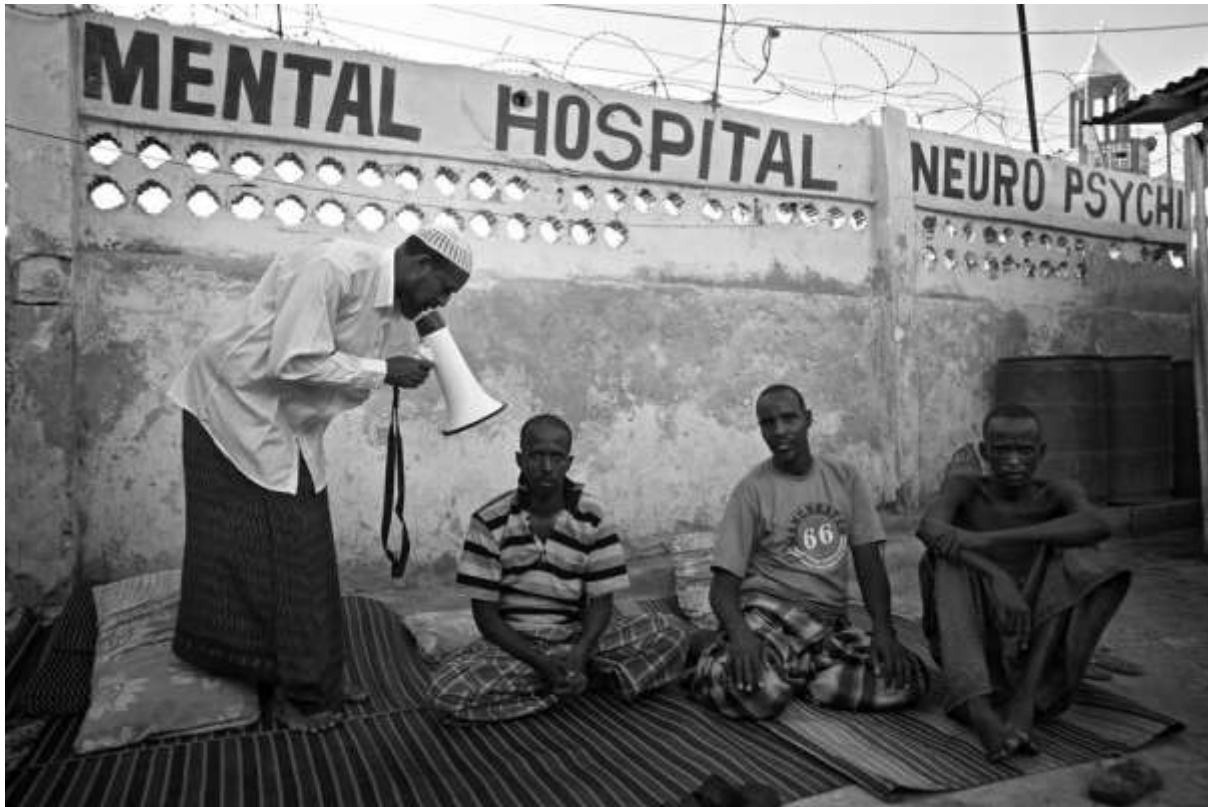
- Cement
- Sand
- Paint

5) Legislation and Taxes

- a) Local Laws
- b) VAT
- c) With-holding tax

6) HSE

- a) World Bank requirements
- b) Local medical facilities



c) Diseases

The following vaccinations are highly recommended for traveling to every African country:

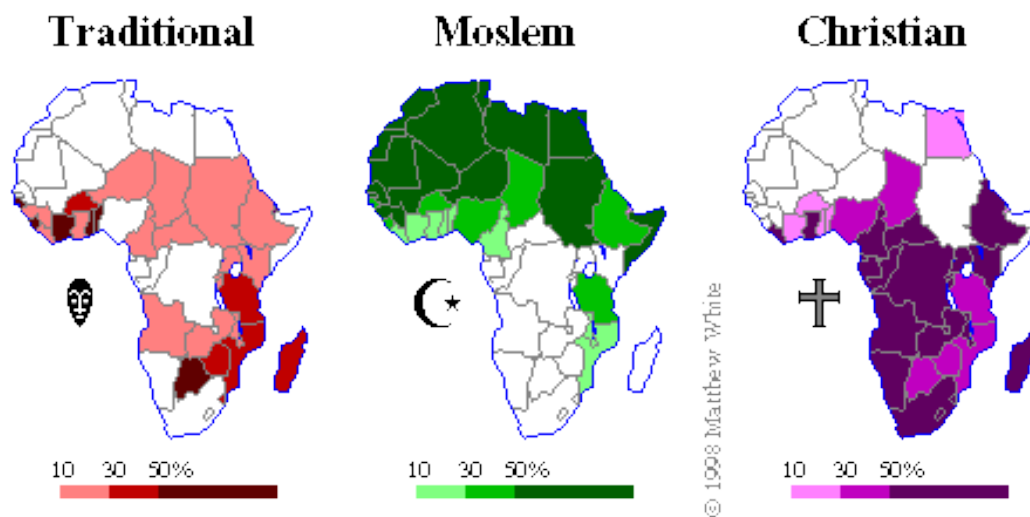
- Hepatitis A
- Meningococcal meningitis
- Rabies
- Typhoid

Some African countries have actual entry requirements and won't let you in unless you have proof you've been vaccinated against a specific disease. The most common is yellow fever.

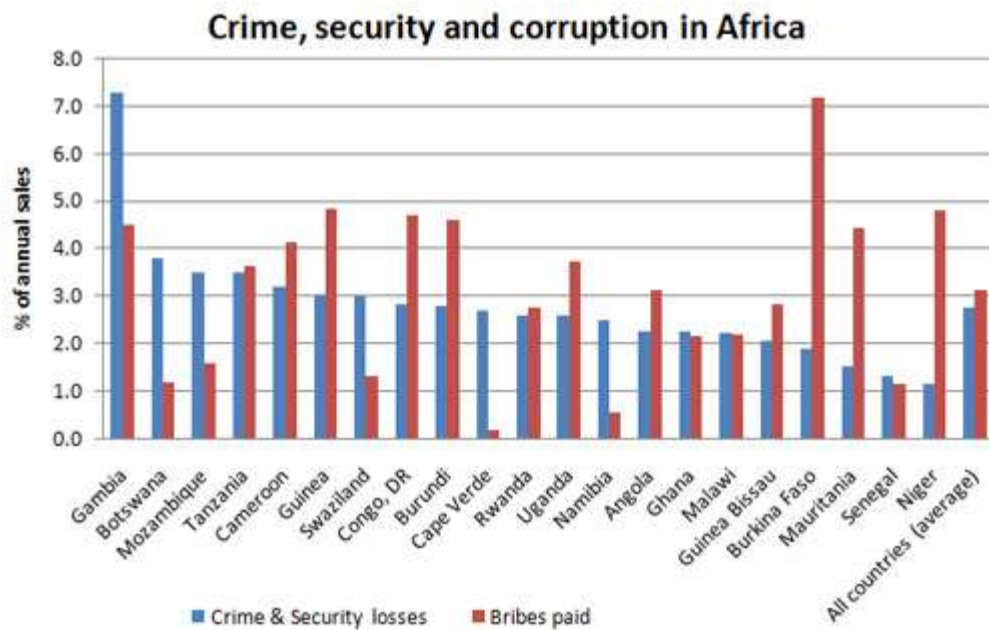
Malaria

- There is no vaccine for malaria. If you are traveling anywhere in sub-Saharan Africa you should probably take anti-malaria prophylactics

d) Religion



e) Security, Crime and Corruption



f) Local mining activities

7) Political Unrest

