

Uganda Country Handbook

This handbook provides basic reference information on Uganda, including its geography, history, government, military forces, and communications and transportation networks. This information is intended to familiarize military personnel with local customs and area knowledge to assist them during their assignment to Uganda.

The Marine Corps Intelligence Activity is the community coordinator for the Country Handbook Program. This product reflects the coordinated U.S. Defense Intelligence Community position on Uganda.

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CONTENTS

| | |
|----------------------------------|----|
| KEY FACTS | 1 |
| U.S. MISSION | 2 |
| U.S. Embassy | 2 |
| Travel Advisories | 2 |
| Entry Requirements | 3 |
| Passport/Visa Requirements | 3 |
| Immunization Requirements | 4 |
| Customs Restrictions | 4 |
| GEOGRAPHY AND CLIMATE | 5 |
| Geography | 5 |
| Land Statistics | 6 |
| Borders | 6 |
| Bodies of Water | 8 |
| Topography | 11 |
| Environment | 17 |
| Climate | 18 |
| Precipitation | 21 |
| INFRASTRUCTURE | 21 |
| Transportation | 21 |
| Roads | 21 |
| Rail | 25 |
| Air | 27 |
| Maritime | 28 |
| Communication | 29 |
| Radio | 29 |
| Television | 31 |

Contents (Continued)

| | |
|---|----|
| Telecommunication | 33 |
| Newspapers and Magazines | 34 |
| Postal Service | 35 |
| Satellites | 35 |
| Internet | 35 |
| CULTURE | 36 |
| Statistics | 36 |
| Population Patterns | 37 |
| Ethnic Density | 40 |
| Society | 42 |
| Ethnic Groups | 43 |
| Family | 45 |
| Roles of Men and Women | 46 |
| Education and Literacy | 47 |
| Language | 50 |
| Religion | 51 |
| Recreation | 53 |
| Customs and Courtesies | 54 |
| Cultural Considerations | 55 |
| MEDICAL ASSESSMENT | 57 |
| Disease Risks to Deployed Personnel | 57 |
| Medical Capabilities | 62 |
| Key Medical Facilities | 63 |
| HISTORY | 66 |
| Chronology of Key Events | 74 |
| GOVERNMENT AND POLITICS | 75 |
| Government | 75 |
| National Level | 76 |
| Local Level | 77 |
| Key Government Officials | 79 |

Contents (Continued)

| | |
|--------------------------------------|-----|
| Politics | 79 |
| Political Parties | 79 |
| Foreign Relations | 81 |
| International Organizations | 84 |
| Non-governmental Organizations | 84 |
| Corruption | 85 |
| ECONOMY | 86 |
| Economic Aid | 86 |
| Banking Services | 86 |
| Economic Statistics | 87 |
| Resources | 88 |
| Water | 89 |
| Industry | 91 |
| Agriculture | 92 |
| Utilities | 96 |
| Foreign Investment | 98 |
| Economic Outlook | 98 |
| THREAT | 99 |
| Crime | 99 |
| Travel Security | 99 |
| Terrorism | 101 |
| Drug Trafficking | 101 |
| Major Intelligence Services | 102 |
| ARMED FORCES | 102 |
| Army | 102 |
| Key Defense Personnel | 102 |
| Mission | 103 |
| Organization | 103 |
| Personnel | 104 |
| Training | 105 |

Contents (Continued)

| | |
|-----------------------------------|-----|
| Capabilities | 105 |
| Disposition | 106 |
| Uniforms | 107 |
| Equipment | 107 |
| Air Force | 109 |
| Naval Forces | 110 |
| Marine Forces | 110 |
| National Police | 110 |
| Mission | 111 |
| Organization | 111 |
| Personnel | 113 |
| Training | 113 |
| Capabilities | 113 |
| Disposition | 113 |
| Uniforms | 114 |
| Equipment | 114 |
| Weapons of Mass Destruction | 115 |

APPENDICES

| | |
|------------------------------------|-----|
| Equipment Recognition | A-1 |
| Holidays | B-1 |
| Language | C-1 |
| Dangerous Plants and Animals | D-1 |

Contents (Continued)

ILLUSTRATIONS

| | |
|--|----|
| Uganda | ix |
| National Flag | 1 |
| U.S. Embassy | 3 |
| Africa | 7 |
| Boats on Lake Victoria | 8 |
| Ssezibwa Falls | 10 |
| Topography | 12 |
| Orchid Growing in Kampala | 13 |
| View from Ssezibwa Falls | 14 |
| Termite Mound next to a Papaya Tree | 15 |
| Equator Marker in Uganda, South of Entebbe | 18 |
| Kampala and Arua Weather | 19 |
| Kabale and Soroti Weather | 20 |
| Transportation | 22 |
| Typical Road in Uganda | 24 |
| View of Kampala Skyline | 37 |
| Population Density | 38 |
| Ethnic Groups | 44 |
| Hut in Ugandan Village | 46 |
| Typical Kitchen Area | 47 |
| Schoolchildren Visiting Bujagali Falls | 48 |
| A University on Jinja Road | 50 |
| View of Kampala from the Kibuli Mosque Minerate | 51 |
| Bahai Temple | 52 |
| St. Paul's Cathedral at Namirembe Hill | 53 |
| Traditional Headdresses; National Museum at Kampala .. | 56 |
| Religious Art for Sale at Kasubi Tomb | 57 |
| Kasubi Tomb and Firestarter Surrounded by Huts | 58 |
| The Pavillion at Namugango Martyrs Shrine. | 68 |

Contents (Continued)

| | |
|---|-----|
| Burning of the Martyrs Reenactment at Namugango | 69 |
| Basilica of Namugango Martyrs | 70 |
| Districts | 78 |
| European Union Building in Kampala | 85 |
| Land Use | 92 |
| Home and Cow near Jinja, Uganda | 93 |
| Crocodile Farm | 94 |
| Man Taking Wood to Market | 95 |
| Bujagali Falls South of Owen Falls Dam | 97 |
| Chain of Command | 104 |
| Disposition | 106 |
| Army Rank Insignia | 109 |

KEY FACTS

Country Name. Uganda.

Official Name. Republic of Uganda.

Head of State. Yoweri Kaguta Museveni (since 1986).

Capital. Kampala.

National Flag. Six equal horizontal bands of alternating black, yellow, and red with a white disk centered on the flag; inside the disk is a red-crested crane facing the hoist side of the flag.

Time Zone. +3 hours UTC (formerly GMT).

Telephone Country Code. 256.

Internet Country Code. .ug.

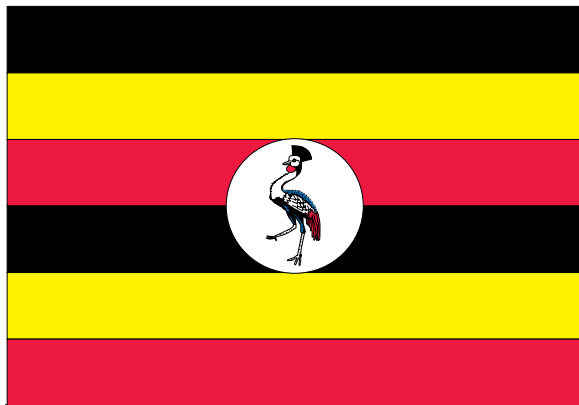
Population. 32,369,558 (July 2009 est.).

Languages: English (official), Luganda, Swahili, Bantu, Nilotic, and Arabic

Currency: Ugandan Shilling (UGX).

Exchange Rate: UGX 1,634 = US\$1 (as of 15 September 2008).

Calendar: Gregorian.



National Flag

U.S. MISSION

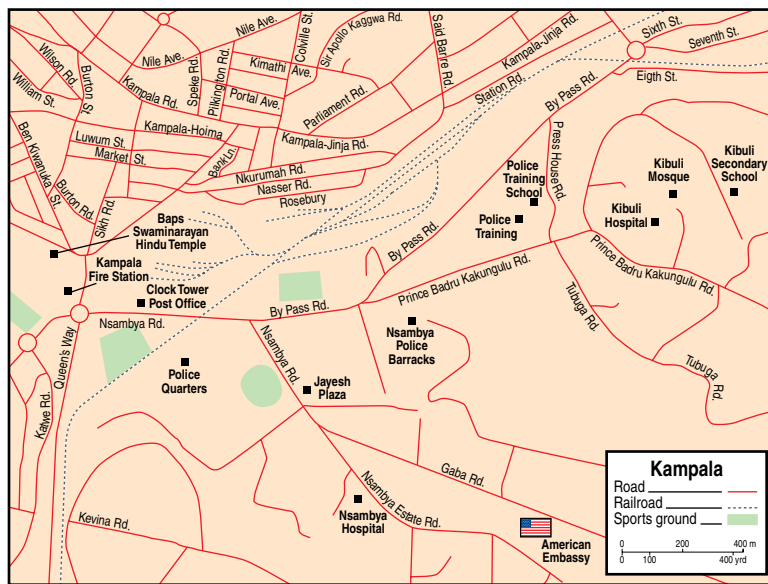
U.S. Embassy

| | |
|-------------------------|---|
| <i>Location</i> | Kampala, Uganda |
| <i>Mailing Address</i> | U.S. Embassy Kampala Plot 1577 Ggaba Road P.O. Box 7007 Kampala, Uganda |
| <i>Telephone</i> | (256) 0414 259-791, 259-792, 259-793, 259-795 |
| <i>Fax</i> | (256) 0414 258-451 |
| <i>E-mail</i> | Visa Inquiries: KampalaVisa@state.gov ACS: KampalaUSCitizen@state.gov |
| <i>Internet Address</i> | kampala.usembassy.gov |

Travel Advisories

Avoid riots and demonstrations, as these have the potential to turn violent and deadly. Avoid traveling at night. Petty crimes such as pocket picking and bag snatching are common. Vehicles have been targeted in stationary traffic and while moving along the highways. Never accept food or beverages from strangers onboard public transportation; travelers have been drugged and robbed after eating such items. Floods, earthquakes, mudslides, and volcanoes have the potential to disrupt travel in Uganda.

Travel advisories for Uganda are routinely updated and issued every 3 months or when circumstances dictate.



U.S. Embassy

Entry Requirements

Passport/Visa Requirements

A valid passport with a visa and a yellow fever certificate are required for entry into Uganda. Passports must be valid for up to 3 months beyond the entry date. Obtaining a visa for Uganda requires a visa application, inoculation certificate against yellow fever, two passport-sized photographs, valid passport, correct visa fee, letter of invitation or introduction, and any other supporting documentation that may be requested. Single-entry visas are US\$50 and are valid for 3 months from the date of arrival. Multiple-entry visas are US\$100 and are valid for 6 months from the date of arrival. Multiple-entry visas valid for up to 12 months from the date of

arrival are US\$200. Visas may be issued by the nearest Uganda Embassy or at the airport upon arrival. Visa fees may be paid by postal money order payable to the Uganda Embassy; no personal checks are accepted.

Uganda requires citizens from the member countries of the Common Market for Eastern and Southern Africa (COMESA) to have a valid passport, but they are exempt from visa requirements. Member countries are Angola, Comoros, Eritrea, Kenya, Malawi, Mauritius, Madagascar, Rwanda, Seychelles, Swaziland, Tanzania, Zambia, and Zimbabwe.

Immunization Requirements

Yellow fever immunization is required for travel to Uganda. Immunizations recommended for travel include routine vaccines such as measles, mumps, and rubella (MMR) and diphtheria, pertussis, tetanus (DPT). It is highly recommended for travelers to also receive immunization for hepatitis A and B, typhoid, meningitis, rabies, cholera, and polio. Before traveling to Uganda, travelers should start taking anti-malarial medicines and continue dosages as prescribed.

Customs Restrictions

Prohibited Imports:

- Firearms and explosives
- Postal equipment
- Pornographic materials in all medias
- Specialized electrical equipment
- Indecent or obscene paintings, printings, books, cards, lithographs, or other engravings

- Distilled beverages containing essential oils or chemical products
- Narcotic drugs
- Soaps and cosmetics containing mercury
- Meats and meat products
- Bird products or poultry from countries affected by bird flu

Prohibited Exports:

- Ugandan currency
- Fresh fish
- Coffee husks
- Wild game trophies

Import and Export Limits:

- 200 cigarettes or 225 grams (8 ounces) of tobacco or tobacco products
- One bottle of liquor or wine
- Perfume -- no more than 568 milliliters (19 ounces)
- One camera with reasonable amount of film for personal use

GEOGRAPHY AND CLIMATE

Geography

Uganda, located in Central East Africa, borders Sudan, Kenya, Tanzania, Rwanda, and the Democratic Republic of the Congo (DRC). Lake Victoria, the largest Lake in Africa, shares much of its western shoreline with Uganda, and it is the source of the Nile River. The terrain includes swamps, forests, lakes, rivers, mountains, volcanoes, grasslands, savanna, and some desert. Climate patterns are tropical and consistent throughout much of the year.

Land Statistics

| | |
|-----------------------------------|--|
| <i>Total Area</i> | 241,040 square kilometers (93,066 square miles) |
| <i>Water Area</i> | 36,330 square kilometers (14,027 square miles) |
| <i>Coastline</i> | None |
| <i>Area Comparative</i> | Slightly smaller than the state of Oregon |
| <i>Central Coordinates</i> | 0100N 03200E |
| <i>Cultivated Land</i> | 26 percent |

Borders

Uganda is a landlocked country in central eastern Africa. Its shoreline along Lake Victoria is 3,500 kilometers (2,175 miles) long.

| Direction | Country | Length: kilometers (miles) |
|------------------|----------------|-----------------------------------|
| North | Sudan | 435 (270) |
| East | Kenya | 933 (580) |
| South | Tanzania | 396 (246) |
| South | Rwanda | 169 (105) |
| West | DRC | 765 (475) |
| <i>Total</i> | | 2,698 (1,676) |

Border Dispute

Uganda and the Democratic Republic of the Congo (DRC) have a history of border disputes. In 1998, Uganda's military pursued Ugandan rebels across the DRC border, and DRC retaliated. Uganda accused the DRC of arming Ugandan rebels. Uganda occupied DRC cities in the eastern region of the country until 2003. The DRC took Uganda to the International Court of Justice in The



Africa

Hague, and Uganda was ordered to pay reparations. The United Nations responded by sending troops to the DRC to monitor the situation. Ituri refugees from the DRC continue to leave the country and cross over into Uganda.

Large oil deposits were discovered along Lake Albert's eastern shores near Uganda. The discovery has created tension between

Uganda and the DRC, as no official designation of a border for Lake Albert has ever been determined. In July 2007, oil workers from a Canadian oil company were attacked by DRC military personnel, and the Ugandan military retaliated. Clashes occurred along the lake again in August and September 2007. Both militaries deployed within their respective areas around the lake, and tensions have escalated. The Rukwanzi Island in the southern end of the lake is disputed as well.

Bodies of Water

Uganda is rich in water resources with lakes, rivers, and wetlands. The major lakes are Victoria, Kyoga, Kwanaia, Edward, Albert, and George. Lake Victoria is the world's second largest lake after Lake Superior. The major lakes and rivers in Uganda flow into the Nile River (Victoria Nile).

Lake Victoria

Lake Victoria is the largest lake in Africa and forms part of Uganda's southeastern border. The shoreline along the lake's north



Boats on Lake Victoria

and northwestern areas is jagged but straightens along the Masaka District. Archipelagos dot the north and northwestern areas of the lake. Lake Victoria is fed through a network of many rivers, and its only outlet is the Nile River, which begins in Jinja, a city on the northern shores. Once the Nile River leaves Lake Victoria, the water flows north into Lake Kyoga. Lake Victoria is responsible for supplying water to Lake Kyoga, Lake Kwania, and Lake Albert.

Lake Kyoga Basin

Lake Kyoga is formed by the slow-moving Kafu River. The lake merges with the waters of Lake Kwania, forming the Nile River. Lake Kyoga's greatest depth is 6 meters (20 feet), and it is encircled by a dense papyrus growth. The Lake Kyoga Basin includes Lake Kyoga, Lake Kwania, Lake Bugundo, and Lake Opet. These lakes are shallow. In 2007, the lakes began to be infested with water hyacinth.

Lake Edward

Lake Edward is in the south of Uganda bordering the DRC. The lake is positioned in a trough along the Western Rift Valley. Lake George feeds into Lake Edward from the northeast through the Kazinga Channel. Lake Edward empties from the northern shores into the Semliki River in the DRC, which then flows into Lake Albert back into Uganda. The lake is 77 kilometers (48 miles) long, 42 kilometers (26 miles) wide, and has an elevation of 912 meters (2,992 feet).

Lake Albert

Lake Albert is along the border between Uganda and the DRC in the Western Rift Valley. The lake is 160 kilometers (100 miles) long, 35 kilometers (22 miles) wide, and has a maximum depth of 60 meters (197 feet). The lake receives water from Lake Edward in the south through the Semliki River flowing in the DRC. Water



Ssezibwa Falls

from Lake Victoria flows north through the Nile River (Victoria Nile) into Lake Kyoga in the central region of Uganda and continues again as the Victoria Nile into Lake Albert along its northern shores. Lake Albert's waters leave through the Nile River (Albert Nile) north of the Victoria Nile.

Rivers

The major rivers are fed by waters originating from the major lakes in Uganda or drainage from mountains and plateaus. The Nile River (Victoria Nile) begins in the outlet of Lake Victoria near the city of Jinja. River systems are distributed evenly through most of Uganda's landscape, but most of the lakes and rivers are

seasonal. Major rivers according to geographical location include the following:

| | |
|------------------|---|
| <i>North</i> | Achwa River, Pager River, Okok River |
| <i>Northeast</i> | Okok River |
| <i>Northwest</i> | Albert Nile |
| <i>Southeast</i> | Mpologoma River |
| <i>Central</i> | Victoria Nile |
| <i>West</i> | Kafu River, Katonga River, Mpongo River |

Topography

Most of Uganda sits atop a plateau bordered by mountain ranges. The central and southeastern regions are characterized by swampy forests and lakes. The southern part of the country has a higher elevation than the north, and mountains mark the country's borders with Kenya, Tanzania, Rwanda, DRC, and Sudan. All of Uganda's mountains are of volcanic origin, except for the Ruwenzori Mountains. The Virunga mountain range in the south extends into Rwanda and the DRC. Two mountains in the DRC range, Mount Namuragira and Mount Nyiragongo, are active volcanoes, which last erupted in 2006 and 2008, respectively.

In the north, the land is flat with open savanna and some desert. The Imatong Mountains mark the northern border with Sudan, and the highest peak is Mount Langia with an elevation of 3,029 meters (9,938 feet). The eastern border with Kenya is marked by the Kenyan Highlands and Mount Elgon, an extinct volcano reaching 4,324 meters (14,186 feet) with ridges extending out 30 kilometers from its crater.

Uganda's borders with the DRC and Rwanda are marked by the Ruwenzori and Virunga mountain ranges. This region is along the

Highest Elevation: Margherita Peak on Mount Stanley — 5,110 meters (16,765 feet).

Lowest Elevation: Lake Albert — 621 meters (2,037 feet)

Vegetation

Forests cover 3.6 million hectares (8.9 million acres) of Uganda's total land area. Uganda's forests contain multiple species of plants supporting a diverse ecosystem. Vegetation ranges from dense forests in the south to open grasslands and plains in the north. The mountains along the DRC and Rwanda borders contain swamps, grasslands, scrubland, and high-elevation forests.

The central and southern regions around Lake Victoria are swampy and contain many species of plants. Papyrus grows densely in the



Orchid Growing in Kampala

central region wetlands and along Lake Kyoga and Lake Kwania. Water hyacinth is a problem in the lake region. It is a non-native plant first recorded in Lake Victoria in 1989. The vegetation can become so thick that fishermen cannot launch their boats and, even when able to launch, the propellers and fishing nets become entangled. The dense vegetation also blocks sunlight to native aquatic plants and destroys the native ecosystem.

Forests around Lake Victoria's shoreline have diminished with the increase of population around the lake. Elephant grass, a very tall and dense growing grass, has replaced most of the forest cover. Patches of forests remain scattered around the lake. In recent years there were many species of trees in this forest, which stretched south from Jinja on Lake Victoria toward Tanzania. In the southwest, Bwindi Impenetrable National Park stretches across



View from Ssezibwa Falls

331 square kilometers (128 square miles) and is broken into three forested zones. The park is a UNESCO World Heritage Site and contains more than 100 species of trees and animals because of its unique geography and climate.

Vegetation in the north is sparse and consists of acacia trees, cacti, and shrubs. Vegetation found in the north is on open grasslands and savanna. Bamboo can be found in dense clusters along the Ruwenzori Mountains, Virunga National Park, Echuya Reserve, and Ruchiga Mountains. Ruwenzori National Park has extensive grasslands and dense forest containing acacia, albizia, ficus, and balanite (fruit) trees.



Termite Mound next to a Papaya Tree

Uganda's soil is predominantly red clay. Most of the soil is rich in minerals and good for growing crops. There are soils of volcanic origin in the areas around Mount Elgon on the eastern border with Kenya. Peat bogs are located around the Ruwenzori and Virunga Mountains.

Cross-country Movement

Heavy-duty four-wheel-drive vehicles are best suited for traveling cross-country in Uganda. The ground has red sticky clay, and when wet, driving conditions can be hazardous. Outside larger cities, there are very few improved paved roads. Conditions that impede cross-country travel include torrential rainfall, flooding, mudslides, landslides, and earthquakes.

Rebel attacks may threaten cross-country movement in Uganda's northern border regions with the DRC, Sudan, and Kenya and along the southern border regions surrounding Rwanda. Clashes between the Uganda and DRC militaries in the Lake Albert area may also hinder travel.

Landmines and unexploded ordnance (UXO) are a danger in Uganda. Landmines have been used by rebel forces in the past. From 2005 through 2006, there were 90 casualties from landmines and UXO.

Districts Reporting Landmines and Unexploded Ordnance

| | |
|---------------------------------------|--|
| <i>Central and Northern Districts</i> | Soroti, Lira, Kitgum, Pader, Gulu, Amuru, Katakwi, Kaberamaido, Amuria |
| <i>Southern and Western Districts</i> | Kasese, Bundibugyo, Kabarole, Ruwenzori Mountains |

Urban Geography

Large urban centers are concentrated in central and southern Uganda. Kampala is the largest urban center in the country. Urban centers draw youth from rural areas who are seeking a higher wage and better standard of living. The most densely populated urban areas are around Lake Victoria.

The typical infrastructure in urban centers is industrial manufacturing such as sugar refining, soap production, textile production, food processing, beer brewing, cement making, smelting, and paint making. Kampala hosts numerous industrial factories, commercial buildings, government headquarters, and residential sectors. Kampala is spread out and built around a number of hills. Outside the city there are small farms. There is a mix of modern and old buildings across the city. Rural-to-urban migrations led to unplanned urban expansion, which resulted in an increase in the number of structures without access to improved services and infrastructure.

Environment

Environmental issues that Uganda faces are soil erosion, water pollution, air quality issues, deforestation, invasive species, overgrazing, destruction of wetlands, and poaching of endangered species. There are significant air quality concerns in the capital city of Kampala due to industrial and automobile pollution. Indoor air pollution is also a problem throughout the country due to wood-burning stoves used for cooking inside homes. Most houses lack proper exhaust ventilation and efficient cooking stoves, leading to an increase in child death rates and respiratory illnesses.

Wood and charcoal are used as fuel by most of the population. Illegal logging, charcoal making, and firewood gathering have contributed to deforestation. Deforestation caused by uncon-



Equator Marker in Uganda, South of Entebbe

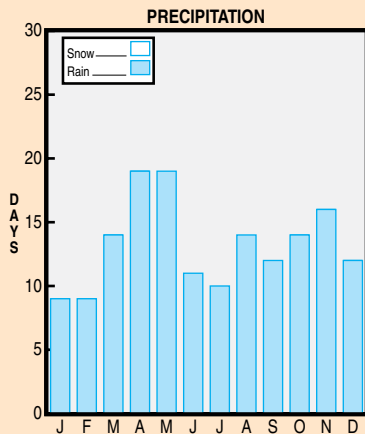
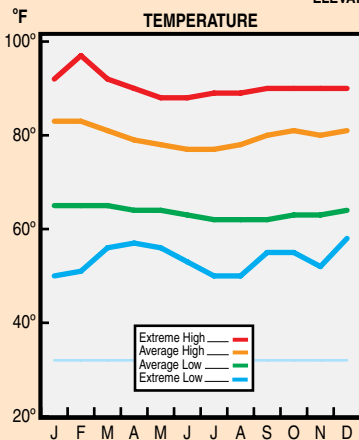
trolled wood cutting for fuel has increased the likelihood of flooding and landslides when it rains. Another concern is the clearing of forest for agriculture.

Uganda has signed international agreements on biodiversity, climate change, desertification, endangered species, hazardous waste, law of the sea, marine life conservation, ozone protection, and wetlands.

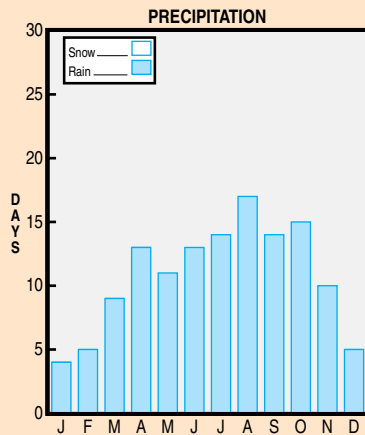
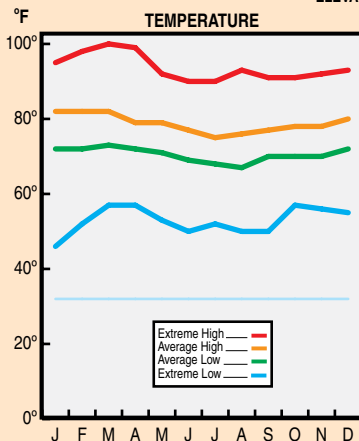
Climate

Climate patterns in Uganda are tropical. Due to the country's position along the equator, temperatures are fairly consistent throughout the year. The temperature does vary by altitude with slightly lower temperatures at higher altitudes.

KAMPALA ELEVATION: 3740 FT

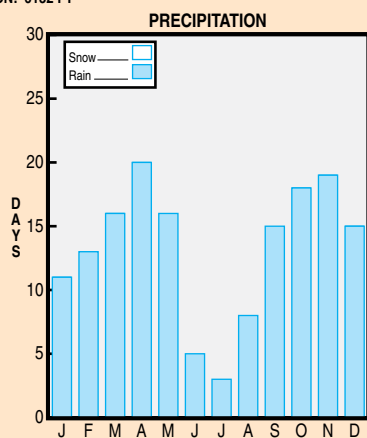
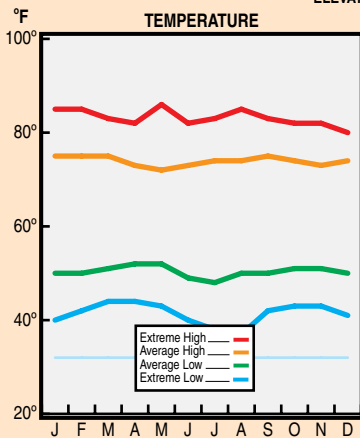


ARUA ELEVATION: 3973 FT

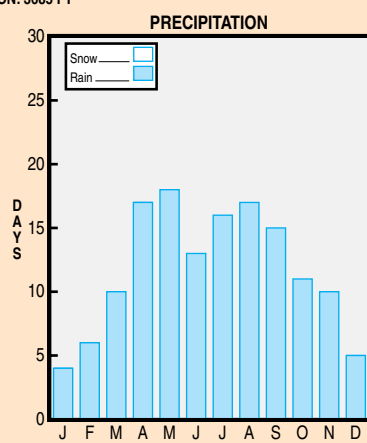
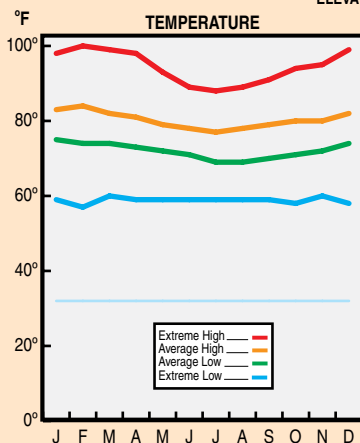


Kampala and Arua Weather

KABALE ELEVATION: 6132 FT



SOROTI ELEVATION: 3685 FT



Kabale and Soroti Weather

Precipitation

Annual rainfall averages 100 centimeters (40 inches) per year countrywide. At Entebbe, in the south near Lake Victoria, the average is higher with 162 centimeters (64 inches). In the northeast, it is only 69 centimeters (27 inches). There are two wet seasons (March to May and August to November) and two dry seasons in the south. In northern Uganda, the seasons are more pronounced, and there is only one wet season (April to October) and one dry season (November to March).

Fog banks may form over lakes and river valleys at night and may move over the shorelines with little warning, which can affect visibility for roads and airports.

INFRASTRUCTURE

Transportation

Uganda is landlocked and heavily dependent on its roads for freight and passenger travel. Many roads are in poor condition due to lack of maintenance and are extremely hazardous, resulting in many deaths each year. Rail service is minimal and used only for freight. Air travel is the primary means of leaving and entering the country from international destinations.

Roads

There is an estimated 72,000 kilometers (44,738 miles) of roads in Uganda — 16,000 kilometers (10,111 miles) of which are paved. National roads account for 15 percent of the national grid; community roads 41 percent; district roads 38 percent; urban roads 5 percent; and private roads less than 1 percent. Thirty percent of the national grid and 5 percent of urban roads are paved with

National roads connect larger towns and cities and are routes to Uganda's neighboring countries. Highways are two-lane. District



roads connect rural areas to trade centers and to the national roads. Community roads provide access to rural markets and trade centers.

The Ministry of Works, Housing, and Communications is responsible for building and maintenance of national roads. As there are no funds specifically dedicated to road maintenance, funds are taken from the general budget. Roads issues are often deferred. District and community roads are maintained by local authorities.

In 2005, 20 percent of national roads were rated in good condition and 60 to 70 percent were rated in fair condition. Only 10 percent of community roads were rated as good or fair. The road system has not been able to handle the country's rapid growth, road maintenance has backlogged, and roads have deteriorated. Many of Uganda's bridges were built in the 1930s to 1950s and cannot safely handle the volume or load. Traffic laws are not enforced. Freight trucks often exceed their axle limits and damage roads. Cities are badly congested at peak hours; poor road quality and ineffective traffic management aggravate the problem. As a result, Uganda has one of the highest accident fatality rates in Africa — 160 fatalities per 10,000 vehicles.

Roads are important to the economy because Uganda has no seaports. Freight travels either 1,200 kilometers (746 miles) to the port of Mombasa in Kenya, or 1,600 kilometers (994 miles) to the port of Dar es Salaam in Tanzania. More than 90 percent of passengers and freight use the road system. Ferry crossings are considered part of the road network; six are managed by the Ministry of Works and Transport at rivers and lakes where it is not cost-effective to build bridges.

Major roads are not normally affected by weather conditions; however, outlying roads and bridges may be washed out by heavy



Typical Road in Uganda

rains or flooding or become too muddy to use. Trucks often get stuck and block traffic. In some cases, roads are passable only with four-wheel-drive vehicles. Heavy rains may cause landslides or mudslides.

Vehicles travel on the left side of the road following the British colonial past. Drivers should be wary of stray livestock, people walking along the roadside, bicycles, and construction. Outlying roads do not have lanes or road markings. Speeding is a serious problem. Other hazards include sharp bends in the road, narrow bridges, heavily loaded trucks, slippery surfaces, and steep slopes.

Public transportation in Uganda consists of buses, mini bus taxis, pickup trucks, motorbikes, and private vehicles for hire. Large (70-seat) public buses are managed by commercial operators and travel between Kampala and larger towns. Bus schedules vary, but buses generally leave when full. Drivers rarely pay attention to speed limits. The Uganda Post Bus leaves from the main post office in Kampala and is considered reliable and safe. Mini bus taxis (*matatus*) are 14-seat mini buses that are usually white with

a blue-checked band. They go almost everywhere, and fares are more expensive than large buses. Vehicles travel fast and tend to be dangerously overloaded once outside Kampala. It is not unusual to see mini buses with more than 20 passengers.

Pickup trucks are used in rural areas where roads are too rough for other vehicles. Most pickups are used to haul produce to local markets. Passengers may also share a truck ride with livestock. Motorbike taxis (*boda-boda*) are popular and found in most places. Bike fares are cheap, but the ride is dangerous, as drivers ignore rules of the road, helmets are not worn, and the service is not regulated by police. Almost any vehicle can be privately hired as a “special hire taxi.”

Rail

Uganda has 1,244 kilometers (773 miles) of narrow gauge (1.0-meter) track, half of which is operational. Tracks, locomotives, and equipment are old and in poor condition, and there is a shortage of rolling stock. Uganda has 44 locomotives (25 of which are operational), 1,433 wagons, and 2 ferries.

The government-owned Uganda Railway Corporation (URC) managed the rail system until 2006, when it was taken over by the Rift Valley Railways Consortium (RVRC). RVRC is led by Sheltam Railway Company of South Africa and manages rail operations under a 25-year concession. The line includes Uganda and Kenya railways beginning in Mombasa and running 900 kilometers (580 miles) through Nairobi to Kisumu on Lake Victoria. Rail steamer services transport cargo to Uganda where RVRC also operates the 270-kilometer (168-mile) line between Malaba and Kampala.

In November 2006, there were 60 reported train derailments. This has dropped to 10 to 12 derailments per month. RVRC reported 67 train derailments in its first year of operation. The lines cover diverse terrain, starting at sea level and reaching 2,851 meters (9,353 feet) in some places. Rail lines are subject to earthquakes, flooding, and landslides.

Railroad is the most efficient means of hauling bulk loads — primarily coffee exports, imported goods, and petroleum products. Railways transport 30 to 40 percent of all bulk cargo to and from the ports of Mombasa and Dar es Salaam. There are no subways, light rail, or passenger services in Uganda

Rail Network

| Line | Length | Location |
|-------------|-------------------------------|---|
| Main | 251 kilometers (156 miles) | Kampala to Tororo |
| Spur lines | 15 kilometers (9.3 miles) | To the Jinja and Prot Bell ferry terminals on Lake Victoria ferry routes between Kisumu (Kenya) and Port Bell and between Mwanza (Tanzania), Port Bell and, occasionally, Jinja |
| Western | 333 kilometers (207 miles) | Kampala to Kasese (closed) |
| Northern | 502 kilometers (312 miles) | Tororo to Pakwach (closed) |
| Busoga loop | 163 kilometers (101 miles) | (closed) |

Air

Uganda has 32 airports. Entebbe, Gulu, and Soroti are the only airports with paved runways. Entebbe, the only international airport in Uganda, is 32 kilometers (20 miles) south of Kampala.

The aviation industry is regulated by the Civil Aviation Authority. As there is no direct commercial air service between the United States and Uganda, the U.S. Federal Aviation Administration has not assessed Uganda's Civil Aviation Authority for compliance with International Civil Aviation Organization (ICAO) aviation safety standards.

For security, passengers are limited to a carry-on bag and one personal item such as a handbag. All luggage is screened and x-rayed before check-in. Only ticketed passengers are allowed beyond the checkpoints. Electronic equipment such as cell phones and laptops may be subject to additional screening. Airport security personnel use dogs and bomb-detecting equipment. Closed-circuit television cameras supplement airport surveillance.

Primary Airfields

| Airport | Coord. | Elev. in meters (feet) | Runway Length x Width in meters (feet) | Remarks |
|------------------|-----------------|---------------------------------------|--|--|
| Entebbe Int'l | 0002N 03226E | 1,153 (3,782) | 2,408 x 46 (7,900 x 150); 3,658 x 46 (12,000 x 150) | Asphalt, Capacity: A-6 Intruder, C-2 Greyhound Cod Condition: Good |

| Airport | Coord. | Elev. in meters (feet) | Runway Length x Width in meters (feet) | Remarks |
|----------------|-----------------|-------------------------------|---|---|
| Gulu | 0248N 03216E | 1,070 (3,510) | 3,144 x 30(10,314 x 98) | Asphalt Condition: Good |
| Soroti | 0143N 03337E | 1,110 (3,641) | 1,857 x 30 (6,094 x 98) | Asphalt, Capacity: C-130 Condition: Fair |
| | | | 567 x 30 (1,860 x 98) | Graded or rolled earth Condition: Poor |

Maritime

Although Uganda has no seaports, Entebbe (0002N, 03226E), Jinja (0025N, 03312E), and Port Bell (0017N, 03239E) are ports on Lake Victoria used to transport goods to and from Kisumu, Kenya and Mwanza, Tanzania by way of ferry and rail. As of 2002, Uganda had a merchant fleet of three cargo ships totaling 5,091 gross tons. The ports handle bulk exports of coffee, and there are plans for an Indian company to build a coffee processing plant in Jinja. Declining lake levels have left some smaller dock facilities dry.

Until the 1960s, passenger steamers operated on Lakes Victoria, Albert, and Kyoga and on navigable sections of the Nile River. Severe flooding in 1961 destroyed most of the water transport infrastructure; in the absence of further investment, it has completely deteriorated. Safety continues to be a serious issue. Inland water transport is hampered by aging vessels, poor facilities, and lack of competent regulation.

Communication

Most of Uganda's newspapers and radio and television stations are in or near Kampala. Telephone coverage is also concentrated around Kampala. Rural areas have little or no access to telephone or internet, and mobile phone subscribers outnumber landline subscribers. Uganda has analog links to Kenya and Tanzania and access to two satellites — Intelsat (Atlantic Ocean) and Inmarsat.

The Uganda constitution provides for freedom of speech; however, there is legislation that allows the government to limit that freedom. Newspapers, radio and television stations, and internet service providers have been harassed or criminally charged for being critical of the government. Web sites have been blocked, and media offices have been shut down. Station KFM was jammed for independently reporting 2006 election results. Independent broadcasting is not likely as stations are reluctant to air anything that might impact profits, and the state has become less tolerant of criticism.

Radio

Radio is the most popular medium in Uganda. A 2005 survey indicated that 100 percent of the population listened to radio at least once in the previous year. The 2002 census reported that radio was the main source of information for 48 percent of households compared to less than 1 percent for newspapers and about one percent for television. By 2007, there were 40 radio stations (7 AM, 33 FM) around Kampala, with many smaller stations catering to ethnic or religious groups. The number of FM radio stations grew from 3 in 1996 to more than 162 in 2007. UBC Radio and Star FM are state-funded and are the only stations that broadcast nationally. BBC World Service, which is widely available,

and Radio France International, which broadcasts in Kampala, are the only international broadcasts.

At the local level, there are more than 70 private, commercial FM stations, most of which are within Kampala City. Throughout central Uganda, there are other stations that target specific towns, such as Buddu Broadcasting Service in Masaka and Radio Skynet in Mityana. Mbale in eastern Uganda has Top Radio, Impact, Open Gate, and Mbale FM. Jinja has Kiira FM and Nile Broadcasting Service. Radio West, in Mbarara, broadcasts to most of western Uganda. Northern Uganda has several stations, including Radio Lira, Radio Wa, Radio Paidha, Radio Apac, and Radio North. There are a few community stations mainly owned and operated by non-governmental organizations (NGOs) and a few religious organizations such as Kampala Pentecostal Church and the Church of Uganda. These stations broadcast in local languages such as Luo (Radio Paidha) and Luganda in the central region.

Music is the most popular programming for Uganda's radio stations. Live phone-in and talk shows (*ebimeeza*) were popular at one time, but the government attempted to ban the shows in 2002 due to criticism of government policies. Many stations survived the ban but have changed their programming.

| Major Stations | Language | Programming |
|--|---|-------------|
| UBC Radio public, run by Uganda Broadcasting Corporation, operates five stations | English, Lusoga, Lunyole, Lugwere, Samia, Ku-Sabiny, Ateso, and Karimojong among others | News |

| Major Stations | Language | Programming |
|--|---|--|
| Arua One FM (88.7 FM Kampala); Most programs are in English with 1- to 3-hour segments in other languages. | Lugbara, Madi, Kakwa, Swahili, English, French, and Lingala | Educational, music, talk, sports, religion |
| Radio Simba, private (97.3 FM Kampala) | English, Luganda | Comedy, music, news, sports, talk |
| Capital Radio, private (91.3 FM Kampala) | N/A | N/A |
| KFM (private) operated by Monitor Publications | N/A | N/A |
| Radio One, private (90.0 FM Kampala) | N/A | N/A |
| Sanyu FM–Uganda’s first private station (88.2 FM Kampala) | English | Music and entertainment |
| Radio Buganda (private) operated by Buganda Kingdom (87.7 FM Masaka; 88.8 FM Kampala) | English | Educational, entertainment, music |
| Impact FM (98.5 FM Kampala) | English, Luganda | Religion, Christian |
| BBC World Service 101.1 FM | English | News |

Television

UBC TV is the only state-owned television station in Uganda. There are several private stations, including Wavah Broadcasting Services (WBS) TV, which transmits to Kampala, Jinja, Masaka,

and Mbarara. Top TV is owned by Christian Life Ministries in Kampala. Lighthouse TV is part of the Global Trinity Network in Kampala. The MultiChoice Uganda pay-TV channels based in South Africa are available by means of satellite throughout the country, and the pan-African TV broadcaster East Africa TV (EATV) broadcasts from Tanzania.

UBC TV is the only free-to-air station with near-national coverage. It is based in Kampala but has booster transmitters in Mbale (eastern region), Mbarara (west), Kabale (southwest), Masaka (central), and Lira (north). Outside Kampala, the only other free-to-air station with transmitters is WBS TV with coverage in Jinja, Masaka, and Mbarara. WBS TV is a private, commercial station owned by a local businessman. All other stations have some foreign ownership. The Christian Life Church operates Top Radio and owns Top Television. Lighthouse Television is owned by U.S.-based Trinity Broadcasting. East Africa TV is Tanzania-based.

Television programming is mainly music and entertainment. WBS broadcasts national news, talk shows, soaps, movies, sports, and music. Pulse TV broadcasts mostly movies and music. East Africa TV broadcasts mostly music.

The 2002 census reported that 4.5 percent of the population owned a television set and that there were about 144,000 viewers across the country. Twenty percent of ownership is urban, and 2 percent is rural. Fourteen percent of the population watched television once a week and 8 percent watched every day. The television sector in Uganda is affected by unreliable power supplies, the inability of many households to afford a television set, and the huge capital needed to establish stations.

| Primary Stations | Type |
|---|--|
| <i>UBC TV</i> | Government/public, Uganda Broadcasting Corporation |
| <i>WBS TV</i> | Private, Wavamunno Broadcasting Services |
| <i>Pulse TV</i> | Private, IPP Media, Tanzania |
| <i>Nation TV (NTV)</i> | Private |
| <i>East Africa TV</i> | Private, Tanzania |
| <i>M-Net Satellite TV</i> | Private, MultiChoice South Africa |
| <i>Lighthouse TV</i> | Trinity Broadcasting, United States |
| <i>Christian Life Ministries (Top TV)</i> | Christian Life Church |

Telecommunication

Three businesses share the telecommunications market: Uganda Telecom Ltd. (UTL); Mobile Telephone Network (MTN); and Celtel Uganda. In 2000, the government sold 51 percent of its shares in UTL to UCOM, a consortium of Detecom, Telecel, and Orascom. MTN, a South African operator, entered the market in 1998 and now controls more than half of the mobile market, which covers 90 percent of the country. Celtel entered the market in 1995 and is the smallest of the companies. Its services cover eastern and northern Uganda.

More than 80 percent of all public-telephone switching systems are digital. Optical fiber links connect Kampala to Entebbe and Jinja. There are plans to connect Masaka and Mbarara. The infrastructure also uses microwave and VSAT (very small aperture terminal) technology. Less than 10 percent of Ugandans subscribe to land-line telephone services; however, more than 10 percent use mobile phones. Rural areas are less apt to have mobile phones due to the

high initial cost and lack of electricity to recharge batteries. The government has installed pay phones in 316 locations since 2004 to provide access in rural areas where usage is at 25 percent. By 2010, the goal is to provide 1 public telephone for every 1,200 people.

Uganda Telecommunication Statistics (2008)

| | |
|---|-------------|
| <i>Total telephone subscribers</i> | 5.1 million |
| <i>Main telephone lines</i> | 165,000 |
| <i>Main telephone lines per 100 inhabitants</i> | 0.4 |
| <i>Mobile users</i> | 5 million |

Newspapers and Magazines

Newspapers in Uganda are printed and distributed mainly in urban areas due to a market with higher income and investment opportunities. *New Vision* is the state-owned daily newspaper, which is printed in English and several indigenous languages. It has a daily circulation of 35,000. Standard coverage includes business, sports, politics, health, entertainment, people, places, and daily living. *The Monitor* is privately owned by the Nation Media Group of Kenya. Its daily circulation is estimated at 5,000. *The Weekly Observer* newspaper was formed, and is independently owned, by a cooperative of 11 people, 10 of whom were journalists formerly working for *The Monitor*. Its circulation is 16,000 copies. *The East African*, based in Kenya, and the daily *Red Pepper* are also available. Newspaper readership in Uganda is low with only 24 percent reading once a week.

| Publications | Owner | Type | Web Address |
|----------------------------|--------------|-------------|--|
| <i>New Vision</i> | State | Daily | www.newvision.co.ug |
| <i>The Monitor</i> | Private | Daily | www.monitor.co.ug |
| <i>The Weekly Observer</i> | Private | Weekly | www.ugandaobserver.com/new/index.php |

Postal Service

Uganda Post Ltd. (UPL) is the country's only major postal operator, although it does contract out courier services to 25 minor operators. UPL provides postbox rentals, courier services, money transfers, Internet cafes, post bus service, and letter and parcel delivery. As of 2006, there were 303 permanent post offices, where 85 percent of the population picked up mail. Five percent of the population has home delivery, and 10 percent has no postal services. In urban areas, mail deliveries are made once per day. In rural areas, deliveries are made an average of twice per week. DHL, FedEx, and UPS provide international delivery services.

Satellites

Uganda has independent access to Intelsat and Inmarsat satellite systems for voice communications, radio, television, and internet connections. Most of the country is rural and without landlines for telephone access or connections to submarine cables. Therefore, very small aperture terminals (VSATs) are used for many applications, including education, disaster relief, health, conservation, and meteorology.

Internet

Most internet access in Uganda is provided by dial-up with wireless, leased lines, and VSATs. The quality and speed of connections varies and is affected by network traffic. Other available technology includes ISDN, DSL, GPRS, WiFi, WiMAX and EDGE.

Uganda has 17 internet service providers (ISPs). The main ones are MTN, Africaonline, UTL, Infocom/Celtel, Spacenet, and One2net. There are Internet cafes in Kampala and most large towns. About 50 Internet cafes have been set up countrywide with

plans to cover all districts. The Uganda government subsidized installation of internet points of presence in 32 districts to make local access easier and reduce access costs. A 2005 survey showed that 80 percent of users accessed the internet through cafes. Most people use cafes because they do not require owning a PC, a fixed line, or an internet subscription.

The Information and Communication Ministry is spearheading development of the National Data Transmission Backbone Infrastructure (NBI) and the Electronic Government Infrastructure (EGI). These projects are being implemented in phases and will link all of Uganda's districts by 2010. Plans have been made to connect the backbone to the proposed East African Submarine Cable System. Only 2.6 percent (750,000 users) of the population have accessed the internet.

Uganda Internet Statistics

| | |
|---------------------------------------|----------------|
| <i>Total internet hosts</i> | 546 (2007) |
| <i>Hosts per 10,000 inhabitants</i> | N/A |
| <i>Users</i> | 750,000 (2006) |
| <i>Users per 100 inhabitants</i> | 2.5 |
| <i>Total Personal Computers (PCs)</i> | 261,000 (2005) |
| <i>PCs per 100 inhabitants</i> | 9 (2005) |

CULTURE

Statistics

| | |
|-------------------------------|--------------------------------|
| <i>Population (2009 est.)</i> | 32,369,558 |
| <i>Population Growth Rate</i> | 2.7% |
| <i>Birth Rate</i> | 48 births per 1,000 population |
| <i>Death Rate</i> | 12 deaths per 1,000 population |

| | |
|--|----------------------------------|
| <i>Net Migration Rate</i> | -9 migrants per 1,000 population |
| <i>Life Expectancy at Birth</i> | Total Population: 53 years |
| | Male: 52 years |
| | Female: 54 years |

Population Age Structure

| | |
|--------------------------|---------------------------------|
| 0–14 years: 50% | male 8,152,830/female 8,034,366 |
| 15–64 years: 47.9% | male 7,789,209/female 7,703,143 |
| 65 years and older: 2.1% | male 286,693/female 403,317 |

Population Patterns

As of the 2002 census, 88 percent of Uganda's population lived in rural areas, and 45.6 percent were involved in subsistence agriculture. Rural-to-urban migration occurred mostly from north to south. This increase in migration was mainly due to rebel violence in the northern rural areas. Ongoing rehabilitation and expansion of city centers has promoted urban growth.

Kampala has the greatest concentration of people within Uganda — 7,259 persons per square kilometer (18,800 per square mile). The



View of Kampala Skyline

kilometer (1,295 persons per square mile) in major urban areas such as Jinja, Wakiso, and Mbale.

Internal and external conflicts are factors in the country's changing population. The 20-year conflict inside Uganda with the Lord's Resistance Army (LRA) caused the displacement of about 2 million people. Some internally displaced persons (IDPs) have moved to IDP camps, which are guarded by the Uganda People's Defense Force. Refugees from Sudan, DRC, Rwanda, Burundi, and Somalia fled to Uganda to escape violence. Refugees from Sudan and DRC set up camps in Uganda's neighboring districts. Refugees from neighboring countries continually arrive and depart, creating a fluctuating population pattern.

In August 2007, refugees moved to Uganda when violence in the DRC rekindled. However, most Rwandan refugees have repatriated since the end of hostilities between the Tutsi and Hutu. Some Sudanese also have returned to their homeland. Uganda's IDP camps have seen a drop in population with the government awaiting a signed agreement with the LRA leader Joseph Kony.

Ten Largest Cities by Population

| City | Coordinates | Population |
|----------------|--------------------|-------------------|
| <i>Kampala</i> | 0019N 03234E | 1.3 million |
| <i>Gulu</i> | 0246N 03217E | 120,000 |
| <i>Lira</i> | 0214N 03253E | 113,000 |
| <i>Jinja</i> | 0026N 03312E | 92,000 |
| <i>Mbale</i> | 0104N 03410E | 77,000 |
| <i>Mbarara</i> | 0036S 03039E | 77,000 |
| <i>Masaka</i> | 0020S 03144E | 65,000 |
| <i>Entebbe</i> | 0038N 03217E | 61,000 |
| <i>Kasese</i> | 0059N 03056E | 57,000 |
| <i>Njeru</i> | 0025N 03313E | 56,000 |

Ethnic Density

Uganda's population is 99 percent African; Asians, Europeans, and Arabs comprise the remaining 1 percent. Though 99 percent of the population is African, an estimated 65 ethnic groups are represented. Most of these groups have a linguistic identity. The four main language families are Bantu, Central Sudanic, Kuliak, and Nilotic.

Partial List of Ethnic Groups

| Group | Population | Location |
|------------------|-------------------|--|
| <i>Acholi</i> | 1.1 million | Northern districts of Gulu, Pader, and Kitgum |
| <i>Alur</i> | 530,000 | Northwestern Uganda in the district of Nebbi |
| <i>Bafumbira</i> | 450,000 | Extreme southern Uganda near the Bakiga Banyarwanda, Bahororo, and Batwa ethnic groups in Kabale, Kisoro, Kanungu, Rukungiri, Bushenyi, Mbarara and Ntungamo districts |
| <i>Baganda</i> | 4.1 million | Kampala, Wakiso, Mukono, Kayunga, Luwero, Nakaseke, Kiboga, Mpigi districts in central Uganda |
| <i>Bagisu</i> | 1.1 million | Tororo, Butaleja, Pallisa, Kumi, Mbale, and Manafwa districts in eastern Uganda |
| <i>Bakhonzo</i> | 610,000 | N/A |

| Group | Population | Location |
|-------------------|-------------------|--|
| <i>Bakiga</i> | 1.7 million | Extreme southern Uganda near the Bafumbira, Banyarwanda, Bahororo, and Batwa ethnic groups in Kabale, Kisoro, Kanungu, Rukungiri, Bushenyi, Mbarara and Ntungamo districts |
| <i>Banyankole</i> | 2.3 million | Southeastern Uganda |
| <i>Banyoro</i> | 670,000 | Masindi, Kiboga, Nakaseke, Hoima, and Nakasongola districts in central Uganda |
| <i>Basoga</i> | 2.1 million | Kamuli, Iganga, and Jinja districts in central Uganda |
| <i>Batoro</i> | 610,000 | Mubende, Mpigi, Sembalule, Kyenjojo, Kibaale, Kiboga, Kamwenge districts in central and southern Uganda |
| <i>Batwa</i> | 6,705 | Extreme southern Uganda along the borders with Rwanda and the DRC |
| <i>Iteso</i> | 1.6 million | Moroto, Nakapiripirit, Katakwi, Amuria, Kaberamaido, Kumi, Sironko, Kapchorwa, Tororo, and Bukwo Districts in eastern Uganda near Kenya |
| <i>Langi</i> | 1.5 million | Apac, Lira, Kaberamaido, and Amolotar districts bordering Lake Kyoga and Lake Kwania |
| <i>Lugbara</i> | 1 million | Arua, Yumbe, Moyo, Adjumani districts in northwestern Uganda bordering the DRC and Sudan |

| Group | Population | Location |
|------------------|-------------------|---|
| <i>Jopadhola</i> | 360,000 | Eastern Uganda near Mt. Elgon in the Tororo district |
| <i>Nyangia</i> | 332 | Eastern Uganda near the Nyangetya Mountains along the Karamoja and Acholi districts |

Society

Most Ugandans are poor and aware of the economic and political difficulties that prevent the country from moving forward. They are strong believers in democracy, even though they view their own version of democracy as flawed by corruption and power struggles. Despite the internal conflict in the north, most Ugandans have a strong national identity and believe in national unity. They would rather have peace and prosperity than revenge, although most think that those who have committed crimes should be punished. The most important issues for most Ugandans are poverty, unemployment, corrupt leadership, education, and health.

Despite Uganda's problems, many feel that the country is making progress, having returned to a multi-party political system and peaceful elections.

Much of what Ugandans know about the United States comes from U.S. movies and television, leading many Ugandans to think that all U.S. citizens are wealthy. A 2007 survey indicated that more than 50 percent of Ugandans like U.S. movies, music, and television. Seventy-five percent admire the United States' scientific and technical advances, and more than 60 percent of Ugandans have a favorable opinion of the United States and of U.S. citizens. They see the United States as a strong democracy and agree with

U.S. ideals. However, more than 50 percent believe that the United States only promotes democracy when it serves U.S. interests.

Ethnic Groups

Uganda has diverse ethnic and linguistic groups. According to the 2002 census, the largest ethnic groups are the Baganda (16.9 percent), Banyankole (9.5 percent), Basoga (8.4 percent), Bakiga (6.9 percent), Iteso (6.4 percent), and Langi (6.1 percent). Non-Ugandan residents, Sudanese and Rwandese, form a small minority. The largest groups of non-Ugandan residents in the central region are from Rwanda and Burundi; from Kenya in the eastern region; from Sudan in the northern region; and from DRC, Sudan, and Rwanda in the western region.

The estimated number of indigenous ethnic groups in Uganda varies but has been as high as 65. In addition, some migrant communities, such as the Asian community, have been integrated into society.

Uganda's 1995 constitution provides for the protection of cultural and minority rights (Articles 36 and 37). Its stated goal is to integrate all the peoples of Uganda while at the same time recognizing the existence of ethnic, religious, ideological, political, and cultural diversity. Every person has a right to belong to, practice, and promote any culture, cultural institution, language, tradition, creed or religion in community with others (Article 37). The constitution also provides protection against discrimination.

In reality, many small ethnic groups feel politically and economically excluded. A 2002 survey indicated that 20 percent of Ugandans feel that their group is never treated fairly and 32 percent feel that their group is often unfairly treated by government.



Ethnic Groups

Asians (Indians and Pakistanis)

In 1972, there were 80,000 Asians living in Uganda. They were expelled and had their lands and belongings confiscated by then President Amin, who accused them of sabotaging the economy.

President Museveni has since restored lands and businesses to former Asian residents and has encouraged the return of the Asian community. Twenty percent have returned, but they no longer work in retail trade. They are more likely to work in hospitality, technology, and farming industries.

The government's encouragement of Asian residents has been interpreted by some to be favoritism toward already wealthy Asian families and has resulted in ethnic tensions. An April 2007 protest against building a sugar cane plantation in a protected forest reserve by an Indian company resulted in the death of an Asian man and the fatal shooting of two protesters.

Karimojong

For hundreds of years, the Karimojong tribes have engaged in inter-ethnic cattle-raiding. What began as a long-standing and non-violent tradition has generated 30 years of ongoing violence among the Karimojong sub-groups of northeastern Uganda. Access to automatic weapons has escalated violence, and potential profit has drawn criminal elements. As a result, the Karimojong people are not well liked by other Ugandans.

Family

Ugandan families are organized by kinship groups made up of immediate and extended family members. Clan, lineage, and marriage form a social network that supports daily life and provides access to resources. Farming is family-based, and land and labor are available primarily through kin. Men may have more than one wife (polygamy). Men and women are not considered adults until they are married and have children. Parents are cared for by the oldest or wealthiest son.



Hut in Ugandan Village

Roles of Men and Women

Women have primary responsibility for child care and subsistence agriculture while contributing to cash crop agriculture. Women have fewer economic opportunities than men have. Men have authority in the family and are responsible for clothing, school fees, farming, and support. Household tasks are divided among women and older girls who also weed gardens, help with the harvest, and sell produce in the market. Women are economically dependent on male relatives (husband, father, or brother) and have little influence in family and community matters.

The administration, however, has encouraged women to participate in politics. Each of Uganda's districts has a female Member of Parliament, and one-third of all local council seats are reserved for women. As a result, women make up 24 percent of the legislature. Emancipation and suffrage occur at 18 years of age regardless of gender.



Typical Kitchen Area

Treatment of men and women under the law is uneven. However, the Uganda law regarding men and women committing adulterous acts was challenged in 2007. The former law allowed married men to have relationships with single women, but considered it illegal for married women to have relationships with single men. The law was changed, and extra-marital affairs are now legal for men and women. Women are considered subordinate to men despite their substantial economic and social responsibilities.

Education and Literacy

The education system is government-funded. Nationwide primary education is free for up to four children in each family, and secondary education is free for all students completing their primary education. The free education system is made available under the

Universal Primary Education (UPE) and Universal Secondary Education (USE) plans. USE was implemented in early 2007. Teacher absenteeism is a significant problem in rural areas in the north and east. As many as 30 percent of the teachers may be absent at any given time; delayed payment of salaries, long distances, and inadequate supervision all contribute to the problem. The absenteeism rates threaten the UPE.

The school year begins in February and ends in December. There are three school terms in a year. A term lasts about 3 months and is followed by a 3-week break. The third term has a longer break before the new school year begins.

The education system consists of pre-primary, primary, secondary, and tertiary education. Pre-primary attendance is low and unregulated by the government. The largest enrollment is in primary schools. Full completion of primary school takes at least 7 years; upon graduating, students have the opportunity to attend a secondary school. Secondary schools consist of lower- and higher-level educational classes and are required before advancing to university studies. Lower secondary school lasts for 3 or 4 years, followed by 2 years in upper secondary. University studies are 3 to 5 years long.



Schoolchildren Visiting Bujagali Falls

Primary education enrollment remained at 119 percent (students that are younger or older than primary age are included in the statistics, resulting in more than 100 percent) in 2006, following 2005's enrollment pattern. Primary school usually begins at age 6 for both males and females and lasts until age 12 or 13. Students attend secondary school from ages 13 to 18. The largest difference between male and female school attendees occurs in the secondary educational phase. Throughout all levels of schooling, males outnumber females.

Literacy rates for males and females differ in both the rich and poor populations. Males tend to stay in school longer and maintain a higher literacy rate than females, regardless of wealth and age. Uganda has an overall literacy rate of 72 percent.

Ugandans value education. Anyone who is educated, speaks English well, and has material possessions is highly respected. Children are sent to school even when times are difficult. Communities have supported schools in the past with up to 90 percent of their total funding. Society's view on education is reflected in the high enrollment rate of primary schools particularly since the government began providing free education. Reasons for children dropping out of school include lack of interest, family obligations, health, and employment. Problems affecting the educational sector are corruption, poor facilities, and the lack of teachers, supplies, and curricula.

Math, science, history, technology, and agricultural skills are the primary subjects taught in school. Students graduating primary school may attend a 4-year secondary school of choice, a 3-year technical training institution, or a 4-year teacher training college. Students completing their secondary education with good test scores may ap-



A University on Jinja Road

ply to universities. These tertiary institutions teach a range of subjects relating business, education, technology, and tourism.

Uganda has oral and written literature. Oral literature is mostly reserved for educating, instructing, and socializing. African oral tradition is rich in proverbs, riddles, legends, myths, taboos, poems, and songs. Written language came to Uganda through religious teachings of Islam and Christianity. Written language has replaced much of the oral literature.

Language

English is the official language. It is used in all government proceedings. It is also taught in grade school. Swahili is taught in high schools, colleges, and universities. Swahili is used by the

military and security personnel. Swahili is the official language of Tanzania and Kenya and is used throughout East Africa. Ganda (or Luganda) is the most widely used Bantu-based language. There is a small population of Hindi-speaking Asians in the country.

Ethnic groups in Uganda use different languages derived from the following language families: Nilotic, Bantu, Kuliak, and Central Sudanic. The ethnic groups speaking a Nilotic language are the Acholi, Alur, Iteso, Kakwa, Karimojong, Kumam, Langi, Padhola, Sebei, and Teso. Most of the south is made up of Southern Bantu speakers from ethnic groups such as the Ganda, Gwere, Gisu, Amba, Konjo, Nyole, Samia, Toro, Nyoro, Nyankole, Kiga, and Soga. The Central Sudanic speaking groups are the Lendu, Lugbara, and Madi, who reside mainly in the far northwestern districts along the border with Sudan. The Ik and Soo in the north-east speak derivatives of Kuliak.

Religion

Ugandans are 42 percent Roman Catholic, 42 percent Protestant (Anglican 35.9 percent, Pentecostal 4.6 percent, Seventh-day Adventist 1.5 percent), 12 percent Muslim, and 4 percent indig-



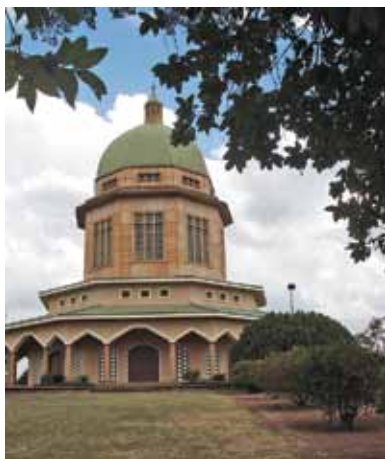
View of Kampala from the Kibuli Mosque Minaret

enous, syncretic (combined faiths), and nonbelievers. Catholics and Protestants are more prevalent in rural areas, while Muslims and Pentecostals tend to live in urban areas. The Muslim majority is of the Sunni sect. Christianity and Islam have sometimes been mixed with indigenous beliefs.

Judaism is found in eastern Uganda around Mount Elgon in the Mbale district, and those who practice Judaism are called Abayudaya Jews. Traditional indigenous beliefs and customs are more common in the north and west. Forty-nine percent of Pokots practice traditional indigenous beliefs. Sikhism and Hinduism are practiced by the small South Asian population. Islamic faith is strong within the Kakwa, Banyole, and Nubi ethnic groups. Nubians have the strongest Islamic following of all groups at 94 percent.

There are restrictions placed on some religious groups that are considered cults. Cults have used religion for the purpose of killing people, and some organizations are banned from meeting due to public safety. The effects on Ugandan society include mass murder, suicide, exploitation, and public disorder.

Religion has been influential since colonial times. Economic and political status has sometimes come from religious identity. During the reign of Amin, religion played a key factor in his support from strong Islamic ethnic groups such as the Kakwa and Nubians. Religion is associat-



Bahai Temple



St. Paul's Cathedral at Namirembe Hill

ed with ethnic groups; different groups are either strongly adherent to Islam, Christianity, indigenous or syncretic beliefs.

Tensions between the *bafaransa* (Catholics) and *bangerezza* (Protestants) are sharper than those between Christianity and Islam in Uganda. Tensions between the Catholics and Protestants have been ongoing since the colonial era. The British Protestant missionaries arrived in 1877, and the French Catholic missionaries arrived in 1879. The rival groups made the division in Christianity more acute, as each was vying for eventual colonial rule.

Recreation

Football (soccer) is the most popular sport in Uganda. Other favorites include basketball, cricket, and rugby. People enjoy playing cards and traditional games. Socializing is popular. Men often gather after work to drink and talk. Visiting friends, relatives, and

neighbors is the most common social activity. Many listen to international broadcasts via shortwave radio, and some larger towns have cinemas.

Customs and Courtesies

Ugandans eat, greet, and pass things with the right hand — never the left hand. Receiving things using both hands shows appreciation. Ugandans use their hands often while speaking. It is impolite to point using fingers; use the entire hand instead. It is considered impolite to sigh. Crossing the arms across the chest may be seen as defiant. Women's legs should always be covered when sitting.

Ugandans greet each other with a handshake and stand when an older person or someone of higher status enters a room. In rural areas, girls and women may kneel to greet elders or men. This is less common in urban areas, where more educated women may bend their knees. Greetings are a simple “hello” or “how are you?” Titles are used in formal settings, although friends use given names.

Ugandan dress is conservative by U.S. standards. Ugandans see appropriate dress as a sign of respect for others. It is important to be neat, clean, and conservative. Professional men wear jackets and ties; women wear dresses or skirts. Blue jeans, t-shirts, sandals, short skirts, low-cut tops or sleeveless tops are inappropriate in the workplace, even in rural areas. Men should wear their hair short and neat.

Ugandans enjoy visiting friends and relatives and may do so unannounced. Guests typically remove their shoes upon entering a home and are commonly offered food or drink. It is polite to at least taste what is offered. Etiquette is important at family meals. When a meal is ready, all the members of the household wash

their hands and sit on floor mats. Visitors and neighbors who drop in are expected to join the family at a meal. Normally, a short prayer is said before the family starts eating. During the meal, children talk only when asked a question. It is considered impolite to leave the room while others are eating. Leaning on the left hand or stretching one's legs at a meal is a sign of disrespect. When the meal is finished, everyone in turn gives a compliment to the mother. While not required, gifts for the host or hostess include knickknacks for the house, pictures, books, U.S. calendars, souvenirs, soap, and candy. Flowers are reserved for those recuperating from an illness or childbirth.

Drinking water during a meal is considered odd and should be avoided until the meal is finished. Bar staff, waiters, taxi drivers, and guides will expect a tip of 5 to 10 percent.

Shopping is available in malls and chain stores but is expensive. Haggling with local market vendors and street vendors often results in much lower prices. Normal shopping hours are 0830 to 1700 with lunch between 1300 and 1400.

English is the official language of government, business, and education; however, there are many local languages and dialects. Luganda is spoken in central and western Uganda; Kiswahili and Luo are spoken primarily in northern Uganda. While those who can speak English are respected, many choose to speak their native languages. Luganda and Swahili are other preferred languages besides English.

Cultural Considerations

Perception of time in Uganda is relaxed, and delays due to lack of basic infrastructure are expected. Many Ugandans have little or no knowledge of the United States and view U.S. citizens as a

homogeneous group based on what is presented by Western media and non-governmental organizations (NGOs).

Ugandans prefer group decisions and feel that it is important to discuss business issues with others before making decisions. Ugandans want to know and understand the people with whom they are dealing and begin most meetings with inquiries about family. Refreshments are served at business meetings. Appropriate gifts include business-related items such as a company product.

Ugandans dress conservatively. Women generally wear dresses; men wear business suits or slacks. Ugandan businesspeople are likewise conservative and formal, particularly when making speeches to a group. Greetings and acknowledgements precede all formal speeches in strict accordance with protocol. It is common



Traditional Headdresses; National Museum at Kampala



Religious Art for Sale at Kasubi Tomb

for Ugandans to arrive late for an event and for meetings to run over their scheduled time.

Business hours are typically 0900 to 1700, Monday through Friday, although these may vary. The government of Uganda does not celebrate a holiday on the workday before or after the actual holiday if it falls on a weekend. Businesses, however, may be closed and many businesspeople may be unavailable.

MEDICAL ASSESSMENT

Disease Risks to Deployed Personnel

The National Center for Medical Intelligence (NCMI, formerly AFMIC) assesses Uganda as **VERY HIGH RISK** for infectious diseases, with an overall disease risk among the worst in the world. Without force health protection measures, mission effectiveness



Kasubi Tomb (above). Firestarter Surrounded by Huts (below).

The firestarter is kept burning and is not allowed to go out. All Kasubi Tomb fires are started from here. The huts are the homes of sisters, wives, and mothers of the past kings of Buganda.

will be seriously jeopardized. Risk varies greatly depending on location, individual exposures, and other factors. More detailed information is available at NCMI 24-hr Operations at (301) 619-7574, or <http://www.ncmi.detrick.army.mil>. Below, infectious disease risks are summarized:

Food- or Waterborne Diseases

Sanitation is poor throughout the country, including major urban areas. Local food and water sources (including ice) are heavily contaminated with pathogenic bacteria, parasites, and viruses to which most U.S. service members have little or no natural immunity. Disease surveillance is unable to identify most outbreaks or significant disease occurrences, even in major urban areas. Diagnostic capability and disease-reporting infrastructure are rudimentary at best and may not cover major portions of the country. Surveillance data are not representative of overall disease occurrence and do not accurately reflect disease trends.

If local food, water, or ice is consumed, diarrheal diseases can be expected to temporarily incapacitate a very high percentage of personnel within days. Hepatitis A, typhoid fever, and hepatitis E can cause prolonged illness in a smaller percentage of personnel. In addition, significant outbreaks of viral gastroenteritis (e.g., norovirus) and food poisoning (e.g., *Bacillus cereus*, *Clostridium perfringens*, and *Staphylococcus*) may occur.

Vector-borne Diseases

Climate and habitat support large populations of arthropod vectors, including mosquitoes, ticks, tsetse flies, and sandflies. Significant disease transmission is sustained year-round and countrywide, including urban areas. Serious diseases may not be recognized or reported because of the lack of surveillance and diagnostic capa-

bility. Malaria, the major vector-borne risk in Uganda, is capable of debilitating a high percentage of personnel for up to a week or more. In addition, a variety of other vector-borne diseases occur at low or unknown levels; as a group, these diseases may constitute a potentially serious operational risk. Personnel exposed to mosquitoes, ticks, tsetse flies, sandflies, or other biting vectors are at high risk during day or night, in both urban and rural areas.

Sexually Transmitted and/or Blood-borne Diseases

Sub-Saharan Africa has the most widespread HIV/AIDS epidemic in the world. This affects all segments of the population, especially prostitutes, a high-risk group for sexually transmitted disease worldwide. Heterosexual contact is the predominant mode of transmission. Carrier rates for hepatitis B are also high. The long-term health impact of these diseases on individuals is substantial. A variety of other sexually transmitted diseases (including chlamydia, gonorrhea, chancroid, herpes, syphilis, and venereal warts) may cause symptomatic infection in a high percentage of personnel who have sexual contact.

Respiratory Diseases

Tuberculosis rates are high among the local population. Prolonged contact with the local population may result in high tuberculosis skin test conversion rates, well above the U.S. military baseline. Although Uganda is outside the meningitis belt, large meningococcal meningitis outbreaks occur. Rare cases could occur among unvaccinated personnel who have close contact with the local population. In addition to meningococcal meningitis, deployed U.S. forces may be exposed to common respiratory infections in the local population. These include influenza, pertussis, viral upper respiratory infections, and viral and bacterial pneumonia. U.S. military popu-

lations living in close-quarter conditions are at risk for substantial person-to-person spread of respiratory pathogens. Influenza is of particular concern since it could debilitate large numbers of unvaccinated personnel for several days.

Water-contact Diseases

Operations or activities that involve extensive freshwater contact (lakes, rivers, streams, or other surface water) may result in personnel being temporarily debilitated with leptospirosis and schistosomiasis. In addition, bodies of surface water are likely to be contaminated with human and animal waste. Activities such as wading or swimming may result in exposures to enteric diseases such as diarrhea and hepatitis via incidental ingestion of water. Prolonged water contact also may lead to the development of a variety of potentially debilitating skin conditions such as bacterial or fungal dermatitis.

Animal-associated Diseases

Rabies risk in Uganda is assessed as among the highest in the world because of ineffective control programs; dogs are the main rabies reservoir. Personnel bitten or scratched by animals are at high risk of developing rabies in the absence of appropriate treatment. Rare cases of anthrax could occur among personnel exposed to animals, animal products, or undercooked meat. Also, rare cases of Q fever could occur among personnel exposed to air breathed near infected animals. More cases are possible in situations where personnel have heavy exposure to barnyards or other areas where animals are housed.

Person-to-person Diseases

Outbreaks of Ebola hemorrhagic fever have occurred in Uganda. Risk to U.S. personnel is negligible; transmission of Ebola re-

quires direct contact with the blood or body of an infected person. Medical personnel caring for Ebola patients are at significant risk of infection in the absence of appropriate barrier precautions.

Medical Capabilities

The quality of public health care in Uganda falls well below U.S. standards. Although the national health system has undergone extensive reforms since 1986, the system is characterized by mismanagement as well as personnel, equipment, and drug shortages due to funding shortfalls. The national health system depends on financial and technical assistance from international organizations, non-governmental organizations, and foreign governments.

Although Uganda has upgraded its disaster response, it is unlikely this plan will be effective in the event of mass casualties. Famine, disease, mass migration, and an escalation in internal conflict would quickly overwhelm Uganda's health services. Lack of ambulance support and air evacuation capabilities will hamper disaster management efforts. The International Hospital (Tel: 256 041 340531) and Surgery Clinic (Tel: 075-756003) in Kampala each have at least one ambulance, as do some regional referral hospitals. Air and ground ambulance services are also provided by the International Medical Group (IMG; Tel: 077-200400/1), the African Medical & Research Foundation (AMREF), AAR Health Services (Tel: 258527), and Kim's Medical Center (Tel: 075-722000). Emergency services — including fire, police, and ambulance — may be contacted at 112 for mobile phone users and 999 for land lines.

Access to health care is poor, particularly in rural areas. Severe shortages of medical personnel exist nationwide, with one doctor for every 15,000 patients, compared to Western standards of 1.5

doctors for every 10 patients. Higher salaries and better working conditions internationally threaten to deplete the Ugandan health system of its professional health staff.

The best facilities in the country are located in Kampala, with only a few approaching Western standards of care. Hospital equipment may be old or out of service, and nearly all wards are overcrowded. Hospitals in and out of Kampala may lack essential supplies and adequate sanitation procedures. At the best hospitals in Kampala, capabilities include general surgery and internal medicine, obstetrics/gynecology, pediatric care, laboratory services, and emergency care. X-ray equipment is available. Surgical specialties such as cardiothoracic surgery and orthopedic surgery are only available at the New Mulago and International Hospitals in Kampala.

Up to 38.3 percent of the health centers do not have an adequate supply of pharmaceuticals. The lack of accountability for drugs throughout the health system invites corruption and theft — up to 76 percent at the lowest-level health centers. Funding shortfalls delay the procurement of drugs and contribute to shortages.

Uganda's Blood Transfusion Service (UBTS) is an effective tool for supplying blood to hospitals throughout Uganda. However, updates to the UBTS need to be made at the cost of US\$5 million in order to improve services. Blood is tested at the regional blood banks and some hospitals for HIV/AIDS, hepatitis B and C, and syphilis.

Key Medical Facilities

International Hospital

Coordinates: 00-18-19N 032-36-39E

Location: 11 Old Kampala Road; main entry is from St. Barnabas Road

City: Kampala
Telephone: +256 041 344 373/4, 340 531
Type: Non-Government Civilian
Beds: 200
Capabilities: **Medical** – cardiology, general medicine, infectious diseases, neurology, pediatric, psychiatry
Surgical – anesthesia, cardiothoracic, general, neurosurgery, obstetrics/gynecology, ophthalmology, orthopedic, otorhinolaryngology (head and neck), plastic surgery
Ancillary – ambulance, emergency room, helipad, neonatal intensive care unit (ICU), laboratory, operating room, trauma unit, X-ray
Comments: ISO certified. Recommended by the U.S. Embassy for life-threatening emergencies and emergency stabilization.

New Mulago Hospital

Coordinates: 00-20-15N 032-34-33E
Location: Mulago Hill
City: Kampala
Telephone: +256 041 700 000, 554 001
Type: Government Civilian
Beds: 1500
Capabilities: **Medical** – cardiology, general medicine, infectious diseases, neurology, pediatrics, psychiatry, radiology
Surgical – cardiothoracic, general, neurosurgery, obstetrics/gynecology, orthopedic, pediatric, plastic surgery, urology, vascular, otorhinolaryngology (head and neck)

Capabilities: **Ancillary** – blood bank, burn unit, emergency room, helipad, ICU, laboratory, operating room, pharmacy, physical therapy
(cont.)

Comments: Uganda's largest national referral, teaching, and research hospital.

Saint Francis Nsambya Hospital

Coordinates: 00-17-59N 032-35-12E

Location: Located on Nsambya Road off Gaba Road (4 km from Embassy).
5- to 10-minute ride from helipad at Nile Hotel;
45-minute drive, 32 kilometers (20 miles) from Entebbe Airport

City: Kampala

Telephone: +256 041 267 012/3/1, 266 998

Type: Non-Government Civilian

Beds: 361

Capabilities: **Medical** – general medicine, pediatrics
Surgical – general, obstetrics/gynecology, orthopedic
Ancillary – blood bank, emergency room, helipad, ICU, laboratory, operating room, pharmacy, physical therapy, X-ray

Comments: Large missionary hospital. Can handle most specialties. If specialty lacking, patients referred to New Mulago Hospital. Training school for nurses. Nursing care degraded due to severe overcrowding of facility and lack of medical supplies. Ten emergency room beds and four operating rooms.

The Surgery Clinic

Coordinates: 00-19-39N 032-35-15E

Location: 2 Acacia Avenue

City: Kampala

Telephone: +256 041 256 003

Type: Non-Government Civilian

Beds: 6

Capabilities: **Medical** – general medicine, family medicine
Surgical – general, obstetrics/gynecology
Ancillary – ambulance, ICU, laboratory, operating room, pharmacy

Comments: 24-hour medical facility. Recommended by the U.S. Embassy for life-threatening emergencies and emergency stabilization. Many medical personnel are from the United Kingdom with Western training. Approaches Western standards. Suitable helicopter landing zone 200 meters away from facility, on site of Kololo Airstrip (inactive airfield). Can organize medical evacuation to Nairobi, Johannesburg, or Europe. Limited intensive care capability.

HISTORY

The Bantu people inhabited Uganda in the 5th and 4th centuries B.C. The Bantu were proficient at iron smelting, providing them with better tools with which to clear forests and produce agriculture. The Bantu displaced many indigenous herders in Uganda's southern valleys, most of whom migrated to the mountainous region. The Bantu still hold control of the best resources.

By 1000 A.D., herders had begun moving southward down the Nile River searching for better pastures. This group of Nilotic-speaking herders moved into the short grass area to the northwest of Lake Victoria, where they came into contact with the Bantu of the south. Economic and social exchanges between the two peoples evolved into military cooperation and the establishment of kingdoms. The Bunyoro kingdom was formed to the north, and the Buganda clan-based state was formed in the south on the north shores of Lake Victoria. The Bunyoro kingdom was a dominating political power, but its instability and civil wars often caused refugees or displaced royalty to flee to nearby Buganda. By the 1800s, Buganda was emerging as a more powerful kingdom. The people of Buganda are known as Baganda.

When Arab and European traders arrived in the mid-1800s, they found Buganda and Bunyoro in a burgeoning power struggle and arms race. Bunyoro had additional contact with Egypt and the British, who were rebuilding the Nile region as a small empire. Armed resistance to the attempts of a British explorer to raise an Egyptian flag over Bunyoro was successful, but when the British empire took hold in Uganda, the Bunyoro were disfavored, which led to the loss of land to Buganda.

Outside contact brought Catholic and Protestant missionaries and Muslim traders, who succeeded in converting many Bagandans to their respective religions. In 1888, the king attempted to halt the growing religions but was deposed by armed religious groups. A 4-year civil war ensued in which the Muslims gained the upper hand and declared an Islamic state. However, Protestant and Catholic converts soon defeated Muslim forces and divided Buganda into a French Catholic and British Protestant state.



The Pavillion at Namugango Martyrs Shrine. *At this pavillion, the president and all the bishops of Uganda gather on Martyrs' Day 3 June to commemorate the 26 martyrs killed at this site in 1886.*

Without clear superiority in the region, the British began enlarging their claim to the Nile's headwaters. Five years of war concluded with British domination of Bunyoro and Acholi, forming a new British protectorate named Uganda. Because Protestant chiefs of Buganda assisted the British, Buganda gained the reward of a separate treaty with Britain that gave them more autonomy within the new protectorate, offered them jobs in colonial administration, and awarded half of Bunyoro territory to Buganda. These lost colonies would remain a contentious issue until they were given back in the 1960s. From 1900 to 1907, Buganda administrators increased their grip over neighboring kingdoms.



Burning of the Martyrs Reenactment at Namugango

The Young Buganda Association was formed as a political organization that represented popular discontent with the old order. Changes in British management of Uganda after WWI found many colonial officers agreeing with the young dissenters who disliked the self-governing tendencies of the older generation. In 1926, the Buganda chief elder resigned, and a new generation of administrators took office. In 1927, a law passed that reduced rents and forced labor that landlords could levy on tenants, which shifted land ownership and production from the hands of a few chiefs to independent individuals with small plots of land. However, Asian businessmen as intermediaries of trade continued to be supported by British colonial administrators, leaving them in position to influence regulation of cash crops and prices.

Uganda's independence was guaranteed by the British. Thus, all internal politics focused on how independence would look. One of the leading political organizations sought to align several factions within a loose framework known as the Uganda People's Congress (UPC). In 1962, Uganda was granted independence. The government took the character of several kingdoms united under a federal governing structure. Sir Edward Mutesa, the king of Buganda, became president with the powers of head of state, while Milton Obote of the UPC became the prime minister with the powers of government.

Obote was not content as prime minister and wanted to see a more powerful, centralized government. He selected a junior officer, Idi Amin Dada, as his right hand and promoted him through the ranks.



Basilica of Namugango Martyrs. *There are 26 columns, which represent the 26 martyrs. The center of the church is where the actual burning took place.*

The army became a key source of power for Obote. Within 4 years of independence, he had gained enough power to take over the government. In 1964, Obote took an offer of political support from Bunyoro members of parliament in exchange for the return of the lost colonies that Buganda had received from the British. The king, a Bagandan, opposed the move, but Obote was able to use the military and hold a referendum of people in the lost colonies, most of whom wished to return allegiance to Bunyoro. When the allegiance of the colonies was returned, Obote's strength was solidified.

An incident in 1966 resulted in constitutional reorganization of the government. Amin was wrapped up in a scandal involving the use of Uganda's military in the Congo crisis in return for gold. Obote's defense of Amin climaxed in the UPC turning on Obote and parliament passing a vote of no confidence in the prime minister. Instead of resigning, Obote turned to General Amin and carried out a coup against his own government, suspending the constitution, arresting UPC ministers, and seizing control of the state. He forced a new secret constitution through parliament and placed a ban on reading its contents.

The new order abolished internal autonomy of the kingdoms, removed Buganda's special privileges, united head-of-state and head-of-government powers into a single office, exiled the king, banned all parties but the UPC, and established martial law throughout Uganda. Obote ruled Uganda militarily until 1971. He planned to place Amin and his generals under arrest. When this plan was leaked, Amin struck first, seizing control of the government. Obote was attending the Commonwealth's Prime Minister Conference in Singapore at the time of the coup; he resettled in Tanzania.

Amin dissolved the government and gave himself absolute powers. Eight years of military rule caused rapid economic and social de-

cline in Uganda. There was a language gulf between the Bantu-speaking south and the Nilotic-speaking north. There was a cultural divide between southern agriculturalists and northern pastoralists. Tensions arose between the old kinship-politics and new centralized African kingdom. The grudge between Bunyoro and Buganda continued to fester when Buganda was stripped of its privileges. More than 80,000 Asian businessmen were expelled from the country, and their property was given to the army. Amin ruled harshly, killing between 100,000 and 300,000 Ugandans by 1978.

In 1978, hoping to divert attention from internal problems, Amin accused Tanzania's president of waging war against Uganda and attempted to rally Uganda against the foreign threat. Amin invaded Tanzania and annexed land up to the Kagera River. Tanzania's counterattack was composed of Tanzania's army and Ugandan exiles. With these combined forces, Uganda's army was forced to retreat. Libya sent 3,000 troops to aid Amin, but they were unable to prevent defeat. Amin fled to Libya and then to Saudi Arabia. An interim government was formed, led by a commission and a series of presidents. Meanwhile, local warlords amassed troops loyal to them, far outnumbering federal forces. In 1980, a coup by several generals loyal to former president Obote staged national elections, and Obote once again became president.

A military leader, Yoweri Museveni, and his soldiers declared themselves the National Resistance Army and vowed to overthrow Obote, whom they believed had rigged the election. For 5 years, Obote resisted the military effort to overthrow him, involving the nation in a war that resulted in more dead than in Amin's entire rule. Farms were looted, civilians were abused and killed, and the economy suffered. North Korean military advisers were brought in by Obote, but ethnic rivalry and poor training within the army kept Obote from quelling Museveni's

rebellion. When some of Obote's officers rebelled in 1985, Obote fled to Zambia, taking most of the treasury with him. The rebelling officers ruled for 6 months, but they were unable to restore military order. Finally, Museveni moved against the capital and claimed the presidency in 1986.

Museveni was faced with a political and national situation badly in need of governmental reforms. In 1993, he restored some degree of self-rule with traditional kings, including the king of Buganda, but he gave them little real political power. By involving all ethnic groups in the government, most feuding factions ended their violence, with the exception of rebels in the northern area on the border of Sudan. Asian businessmen were invited back. Economic programs were introduced to control the budget, encourage agriculture, attract foreign investment, and liberalize the economy. Debate on a new constitution began in 1994. Museveni constitutionally was elected president in 1996, though a pre-existing ban on political activity assisted his victory. A 2000 referendum, thought to be fraudulent, approved a continuing ban of a multi-party system, and Museveni was elected again in 2002.

The Museveni government had armed struggles against the Lord's Resistance Army (LRA) beginning in 1986. The LRA aims to overthrow the government and replace it with one that will rule according to the Ten Commandments. The group is known for attacking civilians — kidnapping, torturing, raping—and enslaving children. The LRA also forces children to become soldiers and commit atrocities. LRA operated in southern Sudan and eastern Congo. In 2002, Uganda and Sudan signed an agreement to work together to contain LRA activity along common borders. In 2004, the Uganda government and LRA began holding face-to-face talks that culminated in a peace agreement. The peace agreement was scheduled to be signed in April 2009. However, Joseph Kony,

the leader of the LRA, did not show up to sign the peace agreement. Kony feared his arrest on an indictment issued in 2005 from the International Criminal Court. LRA no longer operates within Uganda, but is being pursued in the Democratic Republic of Congo (DRoC) and the Central African Republic.

In 2005, parliament approved a constitutional amendment that overturned presidential term limits. The same year, voters in a referendum abolished the Movement System and returned to the multi-party system. The Movement System was a non-party all-inclusive political system created in 1995 by Uganda's constitution. In 2006, Museveni was re-elected in Uganda's first multi-party elections in 25 years, and the government of Uganda and LRA signed a truce and declared a cease-fire.

Chronology of Key Events

- 1958** Uganda given internal self-government.
- 1962** Uganda becomes independent; Milton Obote is prime minister.
- 1967** New constitution vests power in the president.
- 1971** Milton Obote toppled in coup by Idi Amin.
- 1972** Amin orders Asians who are not Ugandan citizens to leave the country.
- 1978** Uganda invades Tanzania.
- 1979** Tanzania invades Uganda; Amin flees the country.
- 1980** Milton Obote becomes president after elections.
- 1985** Obote deposed in military coup.
- 1986** National Resistance Army rebels take Kampala and install Yoweri Museveni as president.

- 1995** New constitution legalizes political parties but bans political activity.
- 1996** Museveni returned to office in Uganda's first direct presidential election.
- 2000** Ugandans vote to reject multi-party politics in favor of Museveni's "no-party" system.
- 2001** Museveni wins another term in office.
- 2002** Sudan, Uganda sign agreement aimed at containing Ugandan rebel group, Lord's Resistance Army (LRA), active along common border.
- 2003** Uganda removes last of its troops from eastern DRoC. Tens of thousands of DRoC civilians seek asylum in Uganda.
- 2004** Government and LRA rebels hold their first face-to-face talks.
- 2005** Parliament scraps presidential term limits; voter referendum returns to multi-party politics.
- 2006** President Museveni wins multi-party elections; the government and the LRA sign a truce.
- 2007** Protests over a prized rain forest explode into racial violence in Kampala; an Asian man and two other people are killed. Uganda and DRoC agree to defuse border dispute. State of emergency imposed after severe floods cause widespread devastation.

GOVERNMENT AND POLITICS

Government

Uganda is a republic. The 1995 constitution established executive, legislative, and judicial branches. The president is elected every 5 years. Parliamentary elections are held 5 years from the date of the

first sitting after a general election. The judiciary is independent and consists of magistrate's courts, high courts, courts of appeals, and the Supreme Court. Uganda was ruled by various dictators since it gained independence from Britain in 1962 to 2006 when multi-party elections were held.

National Level

Uganda has three branches of government: executive, legislative, and judicial. Each branch is independent and derives its authority from the 1995 constitution.

Executive Branch

The president is in charge of the executive branch. He functions as the head of state, head of government, and commander in chief. The vice president is the second in command and deputizes the president. Below the vice president is the prime minister, who is co-coordinator of government and head of cabinet in parliament. The president selects cabinet members from elected legislators.

Legislative Branch

Uganda has a unicameral parliament called the National Assembly. It consists of 332 members: 215 are elected through popular vote; 104 are nominated by legally established special interest groups—women (79), army (10), disabled (5), youth (5), and labor (5); and 13 are ex-officio members.

Parliament's functions include passing laws, funding the government, and vetting presidential nominees. The speaker presides over parliament, and the deputy speaker presides in his absence. Both are elected by members of parliament.

Judicial Branch

The role of the Ugandan judiciary includes, but is not limited to, hearing, considering, judging, and disposing of cases; interpreting and applying constitutional and other laws of Uganda; protecting the rights of individuals; and operating and managing the courts. Judicial offices include lord chief justice, lord deputy chief justice, lord principle judge, judges, registrars, and magistrates. The lord chief justice presides over the judiciary and is responsible for the administration and supervision of the courts. The lord deputy chief justice heads the Court of Appeals and assists the chief justice supervising the courts. The lord principle judge heads the High Court and subordinate courts. Judges decide cases. Registrars are responsible for general administration of courts and arranging trial of cases. Magistrates are professional lawyers or, in some cases, laypeople undergoing training to carry out certain responsibilities. Judges and registrars are appointed by the president on the recommendation of the Judicial Service Commission and hold office until retirement. Magistrates are appointed by the Judicial Service Commission. Registrars and magistrates can retire at age 60.

Local Level

The local government is divided into 79 districts; however, parliament has the authority to create lower level local and administrative units. The highest political authority within the local government is the council, which has executive and legislative powers. Local government officials are directly elected every 4 years by the people within their jurisdictions. Parliament has the constitutional authority to regulate the local government electoral process, with the exception of the district chairperson, who is elected by fel-

low members of the council. The Ministry of Local Government Affairs is part of the executive branch. One of its objectives is to promote democratic governance, advocacy, transparency, and accountability in the local government sector.



Districts

Key Government Officials

- President, Yoweri Kaguta Museveni
- Vice President, Gilbert Balibaseka Bukenya
- Prime Minister, Apollo Nsibambi
- Minister of Agriculture, Animal Industry & Fisheries, Hillary Onek
- Minister of Defense, Crispus Kiyonga
- Minister of Relief & Disaster Preparedness, Tarsis Kabwegyere
- Minister of Finance & Economic Planning, Ezra Suruma
- Minister of Works & Transport, John Nasasira
- Minister of Justice/Constitutional Affairs and Attorney General, Kiddu-Makubuya
- Minister of Trade & Industry, Janat Mukwaya
- Minister of Foreign Affairs, Sam Kuteesa
- Minister of Communication & Information Technology, Ham Mulira

Politics

Every Ugandan 18 years of age and older has the right to vote. It is the duty of every eligible voter to register to participate in public elections and referenda. The president is elected every 5 years. Parliament is elected every 5 years from the date of the first sitting after a general election. Local government officials are elected every 4 years. The last presidential and parliamentary elections took place 23 February 2006. Complaints of irregularities, political violence, and voter intimidation occurred during the 2001 and 2006 elections. However, observers judged them to be generally free and fair. The next elections should take place in 2011.

Political Parties

Uganda's 1995 constitution created a non-party all-inclusive political system called the Movement System. However, in July 2005, the

people voted by means of national referendum to end the Movement System and return to a multi-party system. During national elections in February 2006, candidates from the National Resistance Movement (NRM) won the presidency with 60 percent of the vote and the majority of seats in parliament, 211. The Forum for Democratic Change (FDC) won 39 seats; Uganda People's Congress (UPC) won 10; Democratic Party (DP) won 8; Justice Forum won 1; Conservative Party (CP) won 1 ; National Democrats Forum won 0. It was the first multi-party election in 25 years.

| Party Name | Description/Political Platform |
|-------------------------------------|---|
| <i>National Resistance Movement</i> | Decentralization, protecting human rights, and fighting corruption; improvements in health care, housing, education, employment, energy, environment, transportation and infrastructure |
| <i>Forum for Democratic Change</i> | Protecting basic rights, social and economic justice, equality of opportunity, constitutionalism, peace, security, the rule of law, economic development, and zero tolerance for corruption |
| <i>Uganda People's Congress</i> | Good governance, economic prosperity, developing infrastructure, security, law and order, environmental stewardship, improving health, caring for children and elderly, opportunities for women, improving role in world affairs, and fighting corruption |
| <i>Democratic Party</i> | Good governance and rule of law, protection of human rights, equality for all, peace, stability, national unity, fighting corruption |
| <i>Justice Forum or JEEMA</i> | Opposition party in favor of democracy and African unity; proposes to divide Uganda into semi-autonomous units of various sizes and |

| Party Name | Description/Political Platform |
|---------------------------------------|--|
| <i>Justice Forum or JEEMA (cont.)</i> | degree of autonomy, which will federate to make the whole |
| <i>Conservative Party</i> | Founded in 1979, led by Jehoash Mayanja-Nkangi; has adopted many of the royalists who previously supported the Kabaka Yekka. |

Foreign Relations

Uganda generally seeks good relations with other nations regardless of political views and systems of government. However, because of economic and security concerns, sometimes Uganda has strained relations with some of its neighbors. During the 1950s, closer relations with the other East African nations became an important foreign policy objective. Uganda attempted to form a union with Kenya and Tanzania in 1961 called East African Common Services Organization (EACSO) that would provide services, including transportation, communication, tax collection, scientific research, social services, and university education. After gaining independence in 1962, political issues within Uganda or its neighbors often became violent and involved rebels, refugees, and even military incursions. In 1967 the East African Community (EAC) formed, but it collapsed by 1977. The EAC was restarted in 2001.

United States

Uganda's relations with the United States have been good since Yoweri Kaguta Museveni assumed power, due to his efforts to end human rights abuses, reform the economy, and support the Global War on Terrorism. The United States provides economic assistance through the African Growth and Opportunities Act; the goal is to help Uganda achieve export-led economic growth. Other programs and development assistance through the U.S. Agency

for International Development, Centers for Disease Control, Peace Corps, and U.S. State Department focus on poverty, health, HIV/AIDS, education, agriculture, environment, cultural exchanges, trade and investment, conflict resolution, and good governance.

Kenya

Because Uganda is landlocked, it depends on foreign imports for receiving most of its consumer goods and energy needs. Relations with Kenya are the government's most significant foreign policy concern, so that an open trade route to the Indian Ocean can be maintained using the railroad system from Mombasa to Kampala. Recent relations with Kenya have improved as the two countries work for mutual economic benefit through the East African Community (EAC) Treaty signed in 1999.

Uganda has upheld the EAC's Court of Justice ruling on rejection of Kenyan nominees to the East African Legislative Assembly (EALA) claiming that they were not properly elected as required by the treaty, which angered Kenya's government. Recent violence in Kenya caused a 30-percent drop in tourism in Uganda.

Tanzania

Uganda maintains good relations with Tanzania. In 1999, the EAC treaty was signed, and in 2000, the treaty was in force. The EAC paved the way for an economic and political union of Tanzania, Uganda, and Kenya. Tanzania hosted a meeting between Uganda and DRC in late 2007.

Sudan

In 1987, the Museveni government became a mediator between Sudan's warring factions and stated that it would neither support rebels nor give them sanctuary in Uganda. The two countries signed a nonaggression pact in 1990. In 1999, both countries

signed a peace accord agreeing to restore diplomatic ties and vowing to stop supporting rebel groups trying to topple governments. In 2006, the Government of Southern Sudan became a mediator between the Museveni government and the LRA in an effort to end the 20-year conflict.

Rwanda

In 1998, disputes with DRC led Uganda and Rwanda to become allies, but the alliance split in 1999. The two clashed on the streets of Congo over who would control territory gained from the war. A peace agreement signed in South Africa in 2002 ended the Congo conflict, and by 2003 all foreign troops withdrew from Congo. The two countries have worked to strengthen ties. Uganda supported Rwanda's entry into the East African Community. Tensions rose again in 2005, however, when President Museveni's convoy was prevented from entering Rwanda.

Democratic Republic of the Congo

Uganda and DRoC have restored diplomatic relations in July 2009. The military cooperation in pursuing the LRA has enhanced their relationship. A late 2007 meeting between governments resulted in a commitment to enter a joint venture for mineral exploration, establish cross-border security, and refuse sanctuary to rebel groups; a resolution to repatriate and resettle refugees; an agreement to re-mark the international boundary and jointly administer Rukwanzi Island; and a commitment to resolve the Hague case in which DRC is claiming reparations.

Great Britain

The UK has a strong bilateral relationship and a significant development partnership with Uganda. British dignitaries and members of the royal family visited Uganda throughout 2007.

President Museveni visited the UK in October 2005, January 2004, May 2003, three times in 2002, and twice in 2001.

The UK is a significant investor in Uganda, with more than US\$500 million invested since 1996. It is the seventh largest source of imports. UK exports to Uganda were worth US\$72.4 million in 2004 and US\$74 million in 2005.

International Organizations

Uganda participates in the following select list of international organizations:

- Africa, Caribbean, and Pacific
- African Development Bank
- African Union
- Common Market for Eastern and Southern Africa
- East African Community
- East African Development Bank
- United Nations
- World Bank
- World Trade Organization

Non-governmental Organizations

Since the late 1980s, Uganda has seen much growth in the number of NGOs operating in the country, particularly in the areas of health, education, micro-finance, road construction, water and sanitation, and agriculture.

Thousands of NGOs operate in Uganda. A few examples of the international NGOs include the following:

- International Budget Project
- African Forum and Network on Debt and Development

- European Network on Debt and Development
- Oxford Committee for Famine Relief International
- Save the Children
- Christian Aid

Corruption

While Uganda has made progress, corruption remains rampant throughout the country. Reports of bribery extend from parliament to the courts, police force, religion, and healthcare. The Uganda Debt Network estimates the amount lost to corruption at US\$108 million annually. In addition, fake work-permits, passports, and visas can be had for the right pay-off. Influence peddling and favoritism often lead to mismanagement and misappropriation of funds.

In 2004, the Geneva-based Global Fund awarded Uganda US\$367 million in grants to fight AIDS, tuberculosis, and malaria. A 2005 audit forced Global Fund to suspend the grants when it was found that the health minister had used funds for personal gain. The 2005 Auditor General's Report estimated that 20 percent of the value of public procurement, which accounts for 70 percent of public expenditure, was lost through corruption.



**European Union Building
in Kampala**

ECONOMY

Economic development and modernization have been impeded by political instability, poor infrastructure, and lack of investments within Uganda. The economy relies on agricultural export earnings and foreign aid. Much of Uganda's economic gains have come from support provided by the World Bank and the International Monetary Fund (IMF). The country imports more than it exports; the 2006 trade deficit was US\$1.2 billion. The economy has been boosted by transferring government-owned businesses to private investors and providing incentives to foreign and private investors. The country lacks an efficient utilities infrastructure, which hinders economic possibilities despite rich resources.

Economic Aid

The total amount of received aid in 2005 was US\$1.2 billion. The country receives continual aid from the United States, United Kingdom, World Bank, European Union, International Monetary Fund, and some small independent organizations. The United States, the largest bilateral donor, gave US\$450 million. International donors such as the World Bank gave US\$688 million, along with European Union's US\$103 million.

In 2005, 100 percent of Uganda's debt with the World Bank was forgiven, totaling about US\$109 million.

Banking Services

Uganda has national and international banking institutions operating in the country. In 2002, Uganda Commercial Bank, the largest government-owned bank in Uganda, converted to a private bank, selling most of its shares to South African Stanbic. The state-owned Bank of Uganda is now the nation's central bank. Foreign

ownership in the banking sector is high. Citibank, Stanbic Bank, Cairo International Bank, and Barclays Bank operate personal and business banking services. Western Union and MoneyGram International cooperate with Uganda's banks to facilitate the flow of remittances.

Economic Statistics

| | |
|-------------------------------|--|
| <i>Gross Domestic Product</i> | US\$35.9 billion (2008 est.) |
| <i>GDP Growth Rate</i> | 6.9% |
| <i>Per Capita GDP</i> | US\$1,100 |
| <i>Inflation Rate</i> | 10.5% |
| <i>Budget Revenues</i> | US\$2.72 billion |
| <i>Budget Expenditures</i> | US\$3.05 billion |
| <i>National Debt</i> | 19.5% of GDP |
| <i>Unemployment Rate</i> | N/A |
| <i>Total Value of Imports</i> | US\$3.58 billion |
| <i>Import Commodities</i> | Agricultural products: 15.3% Fuels and mining products: 22.7% Manufacturing: 62% |
| <i>Import Partners</i> | Kenya: 31.8% China: 7.8% United Arab Emirates: 7.7% South Africa: 5.9% India: 5.2% Japan: 4.8% (2007) |
| <i>Total Value of Exports</i> | US\$2.03 billion |
| <i>Export Commodities</i> | Agricultural products: 59.6% Fuels and mining products: 6.2% Manufacturing: 17.8% |

Export Partners

Netherlands: 10.2%
Belgium: 9.8%
Germany: 7.9%
France: 7.2%
Rwanda: 5.6% (2007)

Labor Force Composition

Agriculture: 82%
Industry: 5%
Services: 13% (1999 est.)

Resources

Natural resources contributing to Uganda's economy include gold, tin, tungsten, timber, copper, cobalt, limestone, clay, silica, marble, phosphate, and petroleum. Rare earth minerals and metals, such as platinum and diamonds, have potential to become contributing resources to the economy if enough investment is made and border disputes are settled.

The mining and quarrying sector grew 16.9 percent in 2005 and contributed 1 percent to the country's GDP. Uganda has sizeable mineral deposits of copper and cobalt. Copper and cobalt are mined from Kilembe. Gold may soon be mined from the same area around the Kilembe mine. Gold is currently mined from Busia and Ibanda around southeastern Uganda near Lake Victoria. Gold accounted for 9 percent of Uganda's total exports in 2005, amounting to US\$73 million. There are other proven gold fields, but they have yet to be mined. Tungsten is mined from the Kabale District. Thirty-six tons of tungsten were removed from the Nyamuliro mine during 2005. Other metal deposits exist, but many have not been exploited.

Air and water pollution are problematic in and around populated areas in Uganda. Poor environmental, sanitation, and municipal

and industrial practices have increased water pollution. Water sources in Uganda are polluted by surrounding farm areas, leaking sewers and open pit latrines, wastewater, and other hazardous materials. Mining has released contaminants such as mercury into the river system. The water pollution has created an increase in algae and hyacinth growth, leading to low oxygen levels in some bodies of water.

Air pollution is caused by factories and automobiles. Indoor air pollution is a problem throughout the country and is caused by not only industrial and automobile sources, but also by wood-burning stoves. The use of charcoal and wood fuel increases the air pollution in populated areas. This use of wood as a major fuel source leads to dramatic land degradation. Areas most severely affected by this are around the major lakes in central and southern Uganda.

Water

Uganda has a large water source that, along with average annual rainfall, provides an abundant supply of water. Uganda has limited private support in its water sector, and the biggest obstacle to water access is service delivery. The National Water and Sewerage Corporation (NWSC) provides services for 50 percent of the urban population. The Directorate of Water Development (DWD) provides services for 90 percent of the population residing outside NWSC's area of responsibility.

In Kampala, 67 percent of the population has access to the public water supply, but only 7 percent is connected to the sewage system. Eighty-seven percent of the urban population and 56 percent of the rural population have access to safe drinking water. Fifty-four percent of the urban population and 41 percent of the rural population

have access to improved sanitation facilities. Open pit latrines are widely used in rural and semi-urban areas. Rural sanitation and urban sanitation have slightly improved over time.

Water sources are plentiful, but many are infected with bacteria and polluted with human, agricultural, or industrial waste. Lake Victoria, a major source of water, is heavily polluted. Water flowing from Lake Victoria into the Nile River (Victoria Nile) spreads the pollution.

In rural areas, drinking water is provided by springs, aquifers, deep boreholes, and shallow wells. Water quality is poor. Rural water supply services in June 2005 covered 57 percent of the central regions, 53 percent of the eastern regions, 54 percent of the northern regions, and 78 percent of the western regions.

Among Uganda's rural areas, the region with the least amount of water service availability is Kotido, in the north; only 24.5 percent of this area had water supply services as of June 2005. The most available rural water supply is in the southwestern region of Rukungiri. Groundwater is the main source of the rural population's water supply.

Government Regulation of Water and Sanitation

The Department of Farm Development (DFD), a subordinate to the Ministry of Agriculture, Animal Industry and Fisheries, is in charge of agricultural water involving irrigation and drainage, water conservation, and aquaculture. The Ministry of Water, Lands, and Environment (MWLE) initiates national policies and regulates water resources.

The NWSC is responsible for all provisions pertaining to water and sanitation services in large urban centers. The DWD, sub-

ordinate to MWLE, is responsible for managing water resources, water production, rural and urban water supply and sanitation; coordinating and regulating all sector activities; and providing support services to local governments and other water service and sanitation providers.

The DWD is responsible for development and maintenance of dams and reservoirs. The National Environment Management Authority is responsible for all environmental management issues in the country and requires quarterly reports from the industries' self-monitoring programs.

The government conducts regular inspections on water treatment and sanitation facilities to ensure water and environmental regulations are being followed. Monitoring stations have been set up around water sources to monitor pollution levels. Before any land development is carried out, an Environmental Impact Assessment must be conducted.

Industry

Manufacturing and mining contribute to Uganda's economy, but most industries are supported by agriculture, which represents 31.4 percent of GDP and employs 82 percent of the labor force. Soap, sugar, cork, tobacco, textiles, beer, and beverages are a few of Uganda's agriculture-based industries.

Uganda's services sector represents 44 percent of its GDP and employs 13 percent of the nation's labor force. The manufacturing sector is largely based around urban areas such as Kampala where there are sugar refineries, soap and textile producers, food processing facilities, breweries, foundries, and paint manufacturing. Industry represents 24.6 percent of GDP and employs 5 percent of the labor force.

perch and tilapia are aquaculture products raised in Uganda. Coffee is the top agricultural export, followed by cotton, tea, and fish.

The organic farming sector is more developed in Uganda than anywhere else in Africa. Some organic farming is practiced by farmers who have not been certified to do so, but these farmers have been using organic methods before organic food crops became a significant export to the United States and Europe. Exports of organic crops such as coffee, cotton, bananas, pawpaw, pineapple, passion fruit, peppers, ginger, sesame, and vanilla have become a major focus in Uganda.

Farming techniques using heavy machinery are not widely practiced because most farm crops average 1 hectare (2 acres), thus modern machinery is not necessary. Manual labor using hand



Home and Cow near Jinja



Crocodile Farm. *Crocodiles are raised for meat and leather.*

tools such as garden hoses, machetes, and pickaxes is common. On average, there is 1 tractor and no harvesters for every 1,000 hectares of cropland.

Coffee is a major export commodity, accounting for 20 to 30 percent of foreign exchange earnings. The average farm size ranges from 0.4 hectare (1 acre) to 4 hectares (10 acres). Coffee is planted alongside other crops such as bananas, cocoa, and beans. Farmers rely on manual labor to harvest the coffee crops.

Uganda has prime geographical locations where coffee can be grown. The Robusta coffee plant thrives in lower altitudes of the central, eastern, western, and southeastern areas of Uganda. arabica coffee is grown in the cooler highlands near Mount Elgon, in



Man Taking Wood to Market

the east along the Ruwenzori Mountains, and in the southern areas along Mount Muhabura. The areas surrounding Lake Victoria practice intensive coffee farming mixed with banana trees.

Aquaculture is a major industry, which takes place along Lake Victoria, Lake Kyoga, Lake Kwanaia, Lake Albert, Lake Edward, and the Nile River. Sixty percent of the commercial catch is Nile perch. Lake Victoria has the most fisheries.

Major fish processing facilities near Lake Victoria are in the cities of Entebbe, Jinja, and Kampala. Export earnings from Uganda's fisheries exceed US\$100 million per year. Lake Victoria accounted for 58 percent or 279,215 tons of the total fish catch in 2004. Infestation of Uganda's water resources by aquatic plants, along

with water pollution and poor fishing practices, pose potential problems to Uganda's aquaculture if not managed properly.

Beef and milk production occurs mostly in the southern and central regions of Uganda as well as around Lake Victoria. Poultry farming is practiced more heavily in the northern and central regions. The pig farming industry remains quite small; regions dense in this industry are positioned near Lake Kyoga, Lake Kwanja, and along the northern and southern borders with the DRC.

Utilities

Uganda's primary power source is fuel wood, but hydroelectricity is the most energy-efficient. The largest power plant in Uganda is the Nalubaale Dam (Owen Falls Dam) built near Jinja in 1954. The dam controls water entering the Nile River from Lake Victoria. It is 831 meters (2,726 feet) long and 31 meters (102 feet) high. In 2000, Uganda added the Kiira power station to the Nalubaale Dam to increase its power generation to 380 megawatts. The dam maintained water levels in Lake Victoria until 2005 when the water level dropped below normal capacity due to the lack of rain, increased population, and the rising demand for electricity. The power generated from Uganda's power plants scattered throughout the country is shared with Kenya, Rwanda, and Tanzania. Uganda also imports electricity from Kenya and Rwanda.

The Bujagali Dam is a 250-megawatt hydro power plant that is being constructed 8 kilometers (5 miles) downstream from the Nalubaale Dam on Dumbbell Island. Construction began in August 2007 and is expected to be completed in 2011. Bujagali's estimated capacity is 750,000 cubic meters (26,486,000 cubic feet). A project to build mini-hydro power plants in northern

Uganda has yet to materialize, and the government is trying to persuade investors through special incentives.

The government uses thermal power to meet short-term energy needs while developing the country's long-term energy infrastructure. Thermal plants are not seen as good sources of energy due to their heavy operational costs. Two thermal power plants were built at Namanve and Mutundwe in Kampala. Together, the power plants generate 100 megawatts. The supply of heavy fuel oil to operate Namanve is estimated to be 93,500 tons per year.

Fuel wood is widely used as a source of energy because 91.4 percent of households do not have access to electricity. The grid system is inefficient, unreliable, and outdated. The electrical current in Uganda is 240 volts, 50 cycles, but fluctuates between 100 volts and 400 volts. Having an electrical protection device such as an uninter-



Bujagali Falls South of Owen Falls Dam

ruptible power supply may help protect equipment from electrical damage. The electrical plugs are a British Type G. The plug has two or three square metal pins. Two pins sit beside each other with a single pin below, which acts as the ground for the wire.

Alternative energy sources for providing electricity include diesel generators, solar power, and biomass. Biomass resources are important for individual households and small-scale industries. Ninety percent of the national total energy needs are met by biomass, and 60 percent of timber cut is used for that fuel source. Industrial plants that process food, chemicals, equipment, and textiles operate at a fraction of their operating capacity due to the disruption of the electricity supply.

Foreign Investment

Uganda is considered by the United Nations Conference on Trade and Development to be a country with low foreign direct investment (FDI) potential, although Asian and Middle Eastern countries have increased the amount of FDI into Uganda. FDI rose 16 percent in 2005, totaling US\$258 million. Areas of FDI include transportation and storage, communications, finance, real estate, and tourism.

The World Bank, African Development Bank, Deutsche Entwicklungsgesellschaft, as well as institutions from Sweden, Switzerland, Italy, and Finland have provided funding for development in the energy sector. Twenty-five percent of Uganda's 2006 GDP was from foreign direct investments.

Economic Outlook

Uganda has great potential for foreign investment, and the growth of its energy infrastructure will allow businesses to operate at full

capacity. Uganda has launched a new strategy to attract investors, and economic reforms have shown some positive results. Uganda's dependence on agricultural exports, which are affected by quickly changing prices and natural disasters, leaves Uganda's economy vulnerable. Opportunities for economic growth remain largely dependent on international market factors. Developing Uganda's natural resources, specifically its mineral and oil resources, could provide a much needed source of economic growth with less reliance on foreign aid.

THREAT

Crime

Crimes occurring throughout the country are banditry, inter-tribal clashes, petty theft, carjacking, pocket picking, purse and jewelry snatching, burglary, and robbery.

Financial crimes involving wire transfers, credit cards, checks, counterfeit color-changing money, and e-mail communications are common commercial fraud most reported in Uganda. The U.S. government recommends using money orders for all fund transfers to Uganda because money orders provide identity protection.

In Uganda, money laundering is not considered a criminal offense by itself, but it is a crime tied to drug trafficking. Uganda laws regarding banking information protect against accessing financial records.

Travel Security

There is the potential risk of terrorist attacks, civil unrest, ambushes, and criminal activity throughout Uganda. Warnings advise against travel in Uganda's northern border regions with Democratic Republic of the Congo (DRoC), Sudan, and Kenya and along the southern border regions surrounding Rwanda. These

regions have the potential for violence. U.S. citizens have been targeted in the past. There is little or no warning preceding attacks. Small groups of rebel fighters from the Lord's Resistance Army (LRA) have been known to kidnap, attack, and kill foreign citizens. Cross-border clashes do occur and have resulted in many deaths.

There is a constant risk of inter-tribal clashes around the districts of Kotido, Moroto, Nakapiripirit, Katakwi, and Kate Kyoga in the northeastern region. Travel should also be avoided in the Arua, Moyo, Nebbi, and Yumbe districts in the northwest due to rebel attacks and banditry.

Bwindi Impenetrable National Park, Kidepo National Park, Mgahinga Gorilla Park, and Murchison Falls National Park are not safe tourist destinations. Attacks by LRA rebels, inter-tribal warfare, and banditry commonly occur in these areas. Travel to Lake Albert along the western border is dangerous due to military and rebel clashes. Avoid riots and demonstrations, as these have the potential to turn violent and deadly. Avoid traveling at night. Small petty crimes such as pocket picking and bag snatching are common. Vehicles have been targeted in stationary traffic and while moving along the highways. Never accept food or beverages from anyone. Travelers have been drugged and robbed after eating such items. Floods, earthquakes, mudslides, and volcanoes have the potential to disrupt travel in Uganda.

U.S. government employees must have prior authorization from the U.S. Chief of Mission in Uganda to visit the following districts: Abim, Adjumani, Amolatar, Amuria, Amuru, (Amuru District includes the segment of Murchison Falls National Park that is north of the Victoria Nile River), Apac, Arua, Bundibugyo, Dokolo, Gulu, Kaabong, Kaberamaido, Kitakwi, Kitgum, Koboko, Kotido, Lira, Maracha-Terego, Moroto, Moyo, Nakapiripirit, Nebbi, Oyam, Pader, and Yumbe.

Terrorism

Uganda's porous borders make it accessible to terrorist organizations. The LRA and the Allied Democratic Front (ADF) are two groups that cross into Uganda to commit acts of terrorism. The LRA is a Christian-associated terrorist organization operating on the border with Sudan and the western border of DRC. The LRA is in ongoing peace talks with the Uganda government. The ADF is a Muslim-based terrorist group operating along the Uganda-DRC border. The ADF initiated numerous attacks in the 1990s against Ugandan military targets as well as civilians in restaurants, parks, and other public areas.

Drug Trafficking

Heroin, cannabis, and cocaine trade is prevalent in Uganda. Outside sources and organized crime smuggle the drugs to Uganda from many countries. Drugs are sold locally but mainly trafficked through Uganda to other countries. Trafficked heroin through East and West Africa is destined for Europe and North America. Heroin found in Uganda comes from southwest and southeast Asia. Cocaine shipments arrive in West Africa by way of South America, and the drugs are then trafficked through to East Africa and Europe. Cannabis may come from South Africa, Nigeria, Tanzania, Ethiopia, Kenya, Madagascar, or Western Asia, but it is also grown locally. West Africa and Western Europe are the primary markets for cannabis. Khat, a habituating stimulant from chewed staff-tree leaves, is also used in Uganda.

Uganda's ability to fight drug abuse and narcotics trafficking is hindered by corruption within its own government and by the growing abuse of drugs such as cannabis and heroin. The Anti-Narcotics Unit and Criminal Investigative Department (CID) are responsible for enforcing drug laws. The ANU is subordinate

to CID. Drug enforcement laws and penalties under Uganda's National Drug Policy and Authority Act are not strict enough to deter drug traffickers. The fine for drug trafficking is US\$578 or a one-year prison sentence. Airports are supplied with narcotic canine units.

Major Intelligence Services

Intelligence and security services originally were designed to help in the fight against rebels. The Chief of Military Intelligence (CMI) leads the Joint Anti-Terrorist Task Force (JAT) and works with other agencies such as the Internal Security Organization (ISO) and Rapid Response Unit (RRU). The ISO is a national intelligence organization in Uganda that deals with both internal and external security issues. Under direct authority of the president, the ISO has district offices under the District ISO working on internal security matters. Subordinate to the ISO is the External Security Organization (ESO). The ESO is responsible for all external intelligence. The JAT was initiated after the signing of the 2002 Anti-Terrorism Act. Elements from CMI, ISO, and the police make up the JAT. The main objective of this task force is to eliminate the threat posed by the LRA.

The RRU augments law enforcement as necessary. It is an effective force, but it has used heavy-handed tactics.

ARMED FORCES

Army

Key Defense Personnel

- Chief of Defense Forces: Gen. Aronda Nyakairima
- Deputy Chief of Defense Forces: Lt. Gen. Ivan Koreta
- Joint Chief of Staff: Brig. Robert Rusoke

- Land Forces Commander: Lt. Gen. Katumba Wamala
- Land Forces Chief of Staff: Brig. Geoffrey Muheesi

Mission

Uganda's Land Forces preserve the sovereignty and territorial integrity of Uganda, assist civilian authorities in maintaining internal security and responding to natural disasters and other domestic emergencies, and engage in productive activities for the development of Uganda. They also participate in international peacekeeping operations under the auspices of the United Nations and African Union.

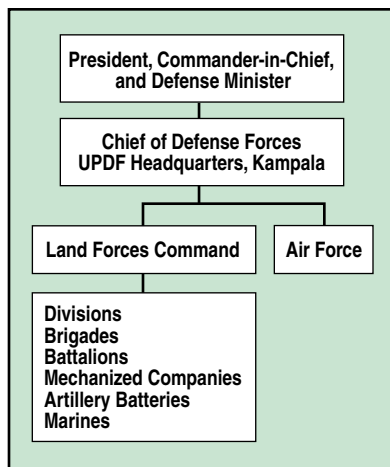
Uganda will provide forces for the African Union's (AU) African Standby Force East Brigade. The brigade will participate in peacekeeping operations and provide the AU a rapid-intervention capability as one of five regional brigades on the continent. It is scheduled to reach initial operational capability by 2010.

Organization

Land Forces Command comprises the following major units:

- 1st Infantry Division
- 2^d Infantry Division
- 3^d Infantry Division
- 4th Infantry Division
- 5th Infantry Division
- Artillery Division
- Air Defense Division
- Armored Brigade
- Motorized Infantry Brigade
- Presidential Guard Brigade
- Services Brigade
- Field Engineering Regiment

Infantry divisions do not have a standard structure, but they usually have armor, artillery, air defense, and service support units assigned or attached. Local defense units and local militias are activated to augment the divisions as necessary. Local defense units are organized into battalions subordinate to each division. Personnel are trained, armed, and controlled by the Uganda People's Defense Force (UPDF). While ostensibly formed to protect local villages, they have participated in cross-border operations with the UPDF.



Chain of Command

Personnel

Land Forces comprise most of the 45,000-strong armed forces. UPDF conducts general recruiting drives at least biennially and recruits separately for special services such as medical and engineering. Recruits must be Ugandans between the ages of 18 and 26. Officer candidates must be between the ages of 18 and 30. The period of service is 9 years, after which soldiers may apply for retirement.

There are no formal reserve units, but a number of auxiliary forces augment the regular army, including local defense units and militias that have been formed at the district level. The reserve mobilization base includes an estimated 2.5 million former members of the UPDF and auxiliary forces.

Training

Recruits complete 9 months of basic training. Officer candidates receive 12–14 months of instruction at the military academy prior to commissioning. Officers and soldiers continue their professional military education at foreign and domestic schools during their careers. The UPDF maintains training centers for most military branches and the Presidential Guard.

Officers have attended military courses in Ghana, Greece, Kenya, Nigeria, the United Kingdom, and Zimbabwe. The United States, France, Israel, North Korea, and Russia have also provided military instruction.

Training centers are in the following areas:

- Bombo (Military Academy)
- Butiaba (Artillery and Air Defense Training Center)
- Jinja (Command and Staff College, NCO Academy)
- Kabamba (Armor Training Center)
- Kasenyi (Presidential Guards Training Center)
- Kaweweta (Recruit Training Center)
- Singo (General Military Training Center)

Capabilities

The UPDF consists mostly of infantry with little heavy artillery or mobile armor. Most of the UPDF would benefit from additional training, even though they are among the most powerful armed forces in central Africa. The UPDF has deployed troops to African Union UN Missions in Darfur (UNAMID) and in Somalia (AMISOM). The UPDF has had problems with corruption. “Ghost” soldiers have been listed on payrolls, and there have been recent crackdowns on the UPDF to stop this and other illegal practices.

- Kakiri (1st Division)
- Mbarara (2^d Division)
- Moroto (3^d Division)
- Gulu (4th Division)
- Pader (5th Division)
- Masaka (Armored Brigade, Field Engineering Regiment)
- Nakasongola (Motorized Infantry Brigade)
- Entebbe (Presidential Guards Brigade)
- Makindye (Military Police Barracks and Prison)

Uniforms

UPDF wears a variety of olive, khaki, and camouflage uniforms. Enlisted personnel wear rank on the upper right arm; officers wear rank on the lapel or shoulder boards. Most soldiers wear a camouflage baseball cap; others wear a beret in green, red, or tan. Footwear ranges from green rubber boots (Wellies), to U.S., Chinese, or Korean jungle-boots, to flip-flops, or to no shoes.

Equipment

Tanks

T-55AM2

T-55

Armored Personnel Carriers

BMP-2

Mamba/RG-31

Buffel

Ferret

Artillery

76-mm M1942 Field Gun (ZIS-3)

122-mm D-30 Howitzer
130-mm M-46 Howitzer
155-mm M46S Howitzer
155-mm ATMOS
107-mm Type-63 Multiple Rocket Launcher
122-mm BM-11 Multiple Rocket Launcher
122-mm RM-70 Multiple Rocket Launcher
155-mm M46/84 Howitzer

Mortars

60-mm MO-60-L
81-mm L16
82-mm M-43
120-mm Soltam K-6

Air Defense

14.5-mm ZPU-1/2/4
23-mm ZU-23
37-mm M1939

Recoilless Rifles




106-mm M-40
73-mm SPG-9

Small Arms

9-mm FN35 High Power Pistol
9-mm Sterling Submachinegun
7.62-mm M60 Machinegun
7.62-mm M.A.G. 58 Machinegun
7.62-mm Bren L4 Machinegun

Helicopters

Mi-35
Mi-8/17 HIP

| | | | | | | |
|------------------------|---|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| Enlisted |  | | | | | |
| | Lance Corporal | Corporal | Sergeant | Staff Sergeant | Warrant Officer Class II | Warrant Officer Class I |
| <i>U.S. Equivalent</i> | <i>Private 1st Class</i> | <i>Corporal</i> | <i>Sergeant</i> | <i>Sergeant 1st Class</i> | <i>Warrant Officer I</i> | <i>Chief Warrant Officer II</i> |
| Officers |  | | | | | |
| | 2nd Lieutenant | Lieutenant | Captain | Major | Lieutenant Colonel | Colonel |
| <i>U.S. Equivalent</i> | <i>2nd Lieutenant</i> | <i>1st Lieutenant</i> | <i>Captain</i> | <i>Major</i> | <i>Lieutenant Colonel</i> | <i>Colonel</i> |
| Officers |  | | | | | |
| | Brigadier | Major General | Lieutenant General | General | | |
| <i>U.S. Equivalent</i> | <i>Brigadier General</i> | <i>Major General</i> | <i>Lieutenant General</i> | <i>General</i> | | |

Army Rank Insignia

Bell 206B

Bell 212

Bell 412

Air Force

Uganda's air assets and personnel are part of the UPDF, under the control of the Air Force Command. Air power consists of a few MiGs and helicopters. UPDF lacks funds to modernize equipment.

Naval Forces

Though Uganda has no navy, a maritime presence is critical for protection of their interests and borders, since they have significant territorial boundaries that run through lakes. Uganda shares a border with Tanzania and Kenya in Lake Victoria and a border with the DRoC in Lake Edward. Uganda has a Lake Patrol Force and 400 Marines that are part of the UPDF. This force comes under Army command. Equipment includes eight river patrol craft and an unspecified number of boats.

Marine Forces

Subordinate to the Presidential Guard Brigade, the Marine Force reports to the commander of the Land Forces headquartered in Bombo, north of Kampala. There are approximately 400 Marines. The Marine Force functions as a coast guard-type unit on Lake Victoria. They provide border control and smuggling interdiction. They possess 17 patrol craft; however, the number of working craft is unknown.

National Police

The Ugandan Police Force (UPF) is led by an inspector general (IG), who is appointed by the president on advice of the Public Service Commission. The IG reports directly to the president and the Minister of Internal Affairs. The IG is exempt from judicial inquiry or review. Overall, the police force is inadequately trained, poorly paid, and lacks necessary equipment and vehicles. Corruption and human rights abuse are frequent. There are approximately 15,000 police officers.

Mission

The mission statement of the UPF is “To safeguard the lives and property of the people we serve, to reduce the incidence and fear of crime, and to enhance public safety while working with the diverse communities to improve their quality of life.” The police force has been accused of human rights violations. In 2007, Human Rights Watch reported that there were 81 counts of alleged torture by the police department. The IG stated that “the police are not formed by angels” and that the professional standards unit would investigate all allegations. The police force has arrested Members of Parliament and stopped rallies of political parties in opposition to the government.

Organization

The UPF is led by the IG. The public relations officer reports directly to the IG. The deputy IG reports to the IG. There are three commissioners who report to the deputy IG: the commissioners of police legal, police inspectorate, and research and planning. The five assistant IGs include:

- Administration
- Local Administration Police
- Operations
- Special Branch
- Criminal Investigations Directorate

Each of these assistant IGs commands subordinate offices.

The assistant IG of police administration subordinates include:

- Commissioner of Police Human Resource Management
- Commissioner of Police Human Resource Development
- Commissioner of Police Non-Human Resources

- Commissioner of Police Medical Services
- Undersecretary of Police (finance),
 - Assistant Commissioner of Police Finance

The assistant IG of Police Local Administration Police has one subordinate, the commissioner of Police Local Administration Police. This commissioner has two subordinates who are assistant commissioners of Police Local Administration Police.

The five subordinates to the assistant IG of police operations are the commissioners of the following:

- Police Operations

Regional Police Commander

- Community Affairs
- Private Security and Firearms
- Traffic and Road Safety
- Mobile Police Patrol Unit

The assistant IG of Police Special Branch has four subordinates:

- Deputy Director

Regional Special Branch

- Detective Commissioner of Police Production
- Detective Commissioner of Police Collation
- Detective Commissioner of Police Protective Security

The assistant IG of Police Criminal Investigations Directorate has four subordinates:

- Deputy Director

Regional CID

- Detective Commissioner Administration
- Detective Commissioner Criminal Investigations
- Commissioner Police Identification Bureau

Personnel

Personnel strength varies by region and is approximately 15,000, which is a ratio of 1 police officer to 1,948 citizens. The international standard is 1 officer per 400–500 people.

Training

Officer basic training takes place at the Police Training School at Kibuli. Enlisted recruits attend the Recruit Training Center at Misindi. There are also promotional courses offered at Misindi for police constable to corporal and for corporal to sergeant. There are a few training opportunities abroad in Australia, Israel, the United Kingdom, and the United States.

Capabilities

The police force has several special units, such as maritime, air wing, and riot control. All of the special units lack equipment and funding.

The maritime unit patrols Lake Victoria. The police force received four 12.2-meter (40-foot) Elettra Commander Interceptors (high-speed surveillance boats) from Italy in November 2007. The boats are powered by 820-horsepower twin engines. They have a top cruising speed of 80–85 knots. State-of-the-art maritime communication systems are on board. The interceptors joined four fast patrol boats and canoes.

The air wing has light aircraft and 1 helicopter, an AW119 Koala, which carries 6 passengers and has a patrol time of 5 hours.

Disposition

The police force is present in all regions of the country; urban areas have a higher ratio of police presence per capita. The capital

region of Kampala has a 1 to 100 ratio; in outlying districts, the ratios are as high as 1 to 8,000.

Uniforms

The formal dress uniform is a dark-blue jacket and slacks with a white shirt and blue tie. The slacks have a red strip down the leg. The hat is a service cover with a silver pendant on the front with a crane encircled in a wreath.

The semi-formal dress uniform is similar to the formal dress uniform, only it has no jacket, and the service cover is replaced with a dark navy-blue beret that has a patch of a crane inside a wreath. The white shirt can be either short-sleeved or long-sleeved.

The utility uniform is usually tan, olive green, or camouflage. The headgear can be either a camouflage cover similar to those worn by the U.S. military or a red beret.

Equipment

Police maritime units have four 12.2-meter (40-foot) high-speed surveillance boats, four fast patrol boats, and an unknown quantity of canoes.

The air wing unit has one DHC-6 Twin Otter and two Bell 212 utility helicopters. It is believed that no more than one element is serviceable due to lack of funding and maintenance.

The UPF generally purchases new vehicles rather than trying to maintain older vehicles. Inventory includes small pickup trucks and armored vehicles for riot control.

Each officer carries either a pistol or an AK-47, depending on assigned position.

Weapons of Mass Destruction

Uganda has no weapons of mass destruction. Uganda is a signatory to the 1972 Biological Weapons Convention, the 1993 Chemical Weapons Convention, as well as the Comprehensive Nuclear Test Ban Treaty in 2001.

APPENDIX A: EQUIPMENT RECOGNITION

INFANTRY WEAPONS

7.62-mm Tokarev



| | |
|------------------------|-----------------------------|
| Cartridge | 7.62 x 25 mm |
| Effective Range | 50 m |
| Operation | Short recoil, semiautomatic |
| Feed Device | 8-round box magazine |
| Weight Empty | 853 g |
| Overall Length | 196 mm |

5.56-mm Assault Rifle M16A1



| | |
|----------------------------|------------------------------------|
| Cartridge | 5.56 x 45 mm |
| Effective Range | 800 m |
| Maximum Range | 3,600 m |
| Cyclic Rate of Fire | 700 rounds/minute |
| Method of Operation | Gas, direct action, selective fire |
| Feed Device | 20- or 30-round box magazine |
| Weight Unloaded | 3.40 kg |
| Length | 990 mm |

7.62-mm Rifle Model FN FAL



| | |
|----------------------------|-----------------------|
| Caliber | 7.62 x 51 mm |
| Effective Range | 600 m |
| Maximum Range | 3,700 m |
| Cyclic Rate of Fire | 650 rounds per minute |
| Operation | Gas, selective fire |
| Feed Device | 20-round box magazine |
| Weight Unloaded | 4.3 kg |
| Length Overall | 1,100 mm |

7.62-mm Carbine Simonov SKS



| | |
|----------------------------|----------------------------------|
| Cartridge | 7.62 x 39 mm |
| Effective Range | 400 m |
| Maximum Range | 1,500 m |
| Cyclic Rate of Fire | 650 rounds per minute |
| Operation | Gas blowback, semiautomatic fire |
| Feed Device | 10-round box magazine |
| Weight Unloaded | 3.9 kg |
| Length Overall | 1,021 mm |

7.62-mm Automatic Rifle Heckler & Koch G3



| | |
|----------------------------|--|
| Cartridge | 7.62 x 51-mm |
| Effective Range | 400 m |
| Cyclic Rate of Fire | 500 to 600 rounds per minute |
| Operation | Delayed blowback, selective fire |
| Length | 1.025 m |
| Feed | 20-rd detachable, staggered-row box magazine |
| Weight Empty | 4.4 kg |
| Overall Length | 1,025 mm (fixed butt); 840 mm (retracted butt) |

Using the G3: (1) Put selector switch, located on the left side of pistol grip, to the top position: **SAFE**. (2) Pull operating handle to the rear. (3) Insert loaded 20-round magazine into magazine well at bottom of receiver. (4) Allow bolt to go home chambering a round. **G3 IS READY TO FIRE**. (5) Put selector switch to middle position: **SEMI** or bottom position: **AUTO**.

7.65 mm Machinepistol Model 61 Skorpion



| | |
|---------------------------------------|---|
| Cartridge | 7.65 x 17 mm |
| Effective Range | 150 m |
| Cyclic Rate of Fire | 850 to 900 rounds per minute |
| Operation | Blowback, selective fire (semi- or automatic) |
| Feed Device | 10- or 20-round box magazine |
| Weight Empty | 1.28 kg |
| Length, Butt Extended (Folded) | 517.0 (270.0) mm |

9-mm Submachinegun Uzi



| | |
|----------------------------|------------------------------------|
| Cartridge | 9 x 19.0 mm |
| Effective Range | 200 m (in semiautomatic mode) |
| Cyclic Rate of Fire | 550 to 600 rounds per minute |
| Operation | Blowback, selective fire |
| Feed Device | 25-, 32-, or 40-round box magazine |
| Weight Unloaded | 3.49 kg |
| Overall Length | 640 mm |

7.62-mm Light Machinegun RPD (1st and 3rd Versions)



| | |
|---|---|
| Cartridge | 7.62 x 39 mm |
| Range (both versions) | |
| Effective | 800 m |
| Maximum | 2,500 m |
| Cyclic Rate of Fire | |
| 1st Version | 700 to 800 rounds per minute |
| 3rd Version | 650 to 750 rounds per minute |
| Operation | Gas, automatic |
| Feed Device | 2x 50-round metallic-link belts in drum container |
| Weight Unloaded | 7.1 kg |
| Overall Length | 1,036.0 mm |
| NOTE: 3rd version incorporates changes to improve power and reliability over the 1st version. Belts do not feed properly unless fed from the drum container. | |

7.62-mm Light Machinegun RPK



| | |
|------------------------|--|
| Cartridge | 7.62 x 39 mm |
| Maximum Range | 2,500 m |
| Effective Range | 800 m |
| Rate of Fire | |
| Cyclic | 650 rounds per minute |
| Automatic | 120 to 150 rounds per minute |
| Single-Shot | 40 to 60 rounds per minute |
| Operation | Gas, selective fire |
| Feed Device | 40-round box magazine, 30-round box magazine (from AK-47/AKM), or 75-round drum magazine |
| Weight Unloaded | 4.90 kg |
| Overall Length | 1,035 mm |

7.62-mm General Purpose Machinegun PK Series



| | |
|----------------------------|---|
| Caliber | 7.62 x 54R mm |
| Effective Range | 1,000 m |
| Cyclic Rate of Fire | 650 to 720 rounds/minute |
| Operation | Gas, automatic |
| Feed Device | 25-round metallic-link belts, joined, in 100- or 250-round box |
| Weight Unloaded | 8.4 kg |
| Length Overall | 1,173 mm |

NOTE: PK and PKM light machinegun, with bipod, are the basic models. The PKS and PKMS, mounted on a tripod, are heavy machineguns. PKT is a PK modified for use as a coaxial machinegun. PKB is a PKT modified for pintle mounting.

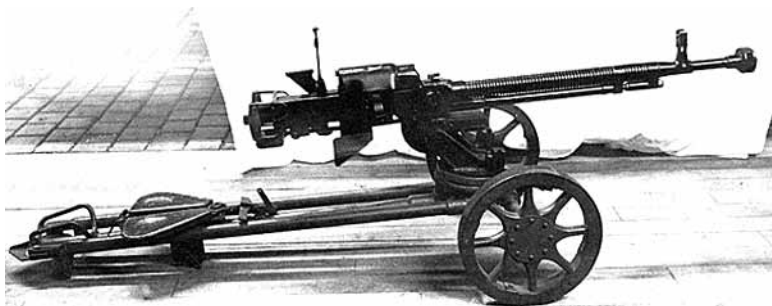
7.62-mm General Purpose Machinegun HK 21



| | |
|----------------------------|--|
| Cartridge | 7.62 x 51 mm NATO (can be converted to fire 39- and 45-mm-long rounds) |
| Effective Range | 650 m |
| Cyclic Rate of Fire | 650 rounds/minute |
| Method of Operation | Delayed blowback, automatic |
| Feed Device | 100-round disintegrating metallic-link belt |
| Weight Empty | 8.31 kg |
| Overall Length | 1,030 mm |

NOTE: the 7.62-mm light machinegun HK 11 is based on the HK 21. Both machineguns can accept a 20-round box magazine; however, the HK 21 requires an adapter.

12.7-mm Heavy Machinegun DShK



| | |
|----------------------------|-------------------------------------|
| Cartridge | 12.7 x 107 mm (API, API-T, HEI) |
| Effective Range | 1,500 m |
| Cyclic Rate of Fire | 575 to 500 rounds/minute |
| Operation | Gas blowback, air cooled, automatic |
| Feed Device | Belt |
| Weight Empty | 35.7 kg |
| Length Overall | 1.59 m |

ARMOR

Main Battle Tank T-55A, T-55AM2



| | |
|---|---|
| Crew | 4 |
| Weapons | |
| Main | 100-mm rifled gun |
| Turret | 12.7-mm machinegun |
| Coaxial | 7.62-mm machinegun |
| Maximum Speed | 50 km/h |
| Range | 500 km (715 km using auxiliary tanks) |
| Gradient | 60 percent |
| Vertical Step | 0.9 m |
| Trench | 2.7 m |
| Fording | 1.4 m |
| Combat Weight | T-55A 36,000 kg; T-55AM2 38,500 kg |
| Overall Length x Width x Height | 9.0 x 3.3 x 2.4 m |
| Fuel Capacity | 960 liters plus 2x 200-liter external drums |
| NOTE: The T-55AM2 is an upgraded variant of the T-55; upgrades were performed in the Czech Republic. Upgrades focus on improved main gun performance, engine output, suspension, and armor protection. | |

Amphibious Infantry Fighting Vehicle BMP-2



| | |
|--------------------------------|---------------------------|
| Crew; Passengers | 3; 7 |
| Armament | |
| Main | 30-mm rifled cannon |
| Coaxial | 7.62-mm machinegun |
| Other | AT-5 ATGMs |
| Maximum Speed | 65 km/h (on water 7 km/h) |
| Road Range | 600 km |
| Gradient/Side Slope | 75/12 percent |
| Vertical Step | 0.8 m |
| Trench | 2.5 m |
| Fording | Amphibious |
| Combat Weight | 13,500 kg |
| Length x Width x Height | 6.7 x 3.2 x 2.9 m |
| Fuel Capacity | 460 liters |

Armored Personnel Carrier Buffel



| | |
|--------------------------------|---|
| Crew; Passengers | 1/10 |
| Weapons | Light machinegun |
| Maximum Speed | 96 km/h |
| Range | 1,000 km |
| Combat Weight | 6,140 kg |
| Length x Width x Height | 5.1 x 2.1 x 3.0 m |
| Fuel Capacity | 200 liters (limited multifuel capability) |

Armored Reconnaissance Vehicle Ferret Mk II



| | |
|--------------------------------|----------------------------------|
| Crew | 2 |
| Weapons | 7.62-mm machinegun |
| Maximum Speed | 93 km/h |
| Range | 306 km |
| Gradient/Side Slope | 46/30 percent |
| Vertical Step | 0.34 m |
| Trench | 1.22 m (with channels) |
| Fording | 0.91 m (1.52 m with preparation) |
| Combat Weight | 4,400 kg |
| Length x Width x Height | 3.84 x 1.91 x 1.88 m |
| Fuel Capacity | 96 liters of gasoline |

Mine-Resistant Armored Personnel Carrier Mamba Mk II



| | |
|--|--|
| Crew; Passengers | 2; 9 |
| Armament | Optional roof-mounted machinegun and firing ports |
| Ballistic Protection | STANAG 4569 Level 1 (Level 3 available) |
| Mine Protection | STANAG 4569 Level 4b (add-on for EFP mines available) |
| Maximum Speed | 102 km/h |
| Range | 900 km |
| Gradient/Side Slope | 70/40 percent |
| Vertical Step | 0.4 m |
| Trench | 0.9 m |
| Fording | 1.0 m |
| Combat Weight | 6,800 kg |
| Overall Length x Width x Height | 5.5 x 2.2 x 2.5 m |
| Fuel Capacity | 200 liters, multifuel capability |

NOTE: The Mamba has been designed to withstand two TM-57 antitank mines detonated under each wheel, as well as a single 12-kg blast mine under the body with no significant injuries to the crew.

Mine Protected Vehicle RG-31 Nyala Mk III, Mk 5



| | |
|--|--|
| Crew; Passengers | 2; 10 |
| Armament | 7.62- or 12.7-mm machinegun |
| Ballistic Protection | STANAG 4569 Level 1 (Level 2 available) |
| Mine Protection | STANAG 4569 Level 2b/4a (Mk III); 3b/4a (Mk 5) |
| Maximum Speed | 105 km/h |
| Gradient/Side Slope | 60/35 percent |
| Combat Weight, Mk III; Mk 5 | 10,200 kg; 14,200 kg |
| Overall Length x Width x Height | |
| Mk III | 6.0 x 2.5 x 2.7 m |
| Mk 5 | 6.6 x 2.5 x 2.7 m |

ARTILLERY

122-mm Multiple Rocket Launcher RM-70



| | |
|---------------------------------------|--|
| Caliber | 122.4 mm |
| Crew/Section | 4/6 |
| Ammunition | 122.4 x 2,870 mm HE-CF; possibly DPICM |
| Launch Tube Configuration | 4 rows of 10 (40 total) |
| Firing Range | 20,380 m |
| Rate of Fire | 40 rockets in 18 to 22 seconds |
| Reload Time | 2 minutes |
| Emplacement/Displacement Time | 2/3 minutes |
| Traverse Limits | 123 degrees left, 70 degrees right |
| Elevation Limits | 0 to +55 degrees |
| Road Range | 1,100 km |
| Maximum Road Speed | 85 km/h |
| Gradient | 60 percent |
| Vertical Obstacle | 0.6 m |
| Fording | 1.4 m |
| Combat Weight | 25,400 kg |
| Travel Length x Width x Height | 8.7 x 2.6 x 3.0 m |

122-mm Rocket Launcher BM-11 (North Korea)



| | |
|--------------------------------|--|
| Caliber | 122.4 mm |
| Tube Configuration | 30 (3 rows of 10 tubes) |
| Modes of Fire | Individual rocket, selective ripple, and salvo |
| Traverse Limits | Left 90 degrees, right 60 degrees |
| Elevation Limits | +10 to +45 degrees |
| Maximum Vehicle Speed | 75 km/h |
| Travel Weight | 9,885 kg |
| Length x Width x Height | 7.01 x 2.21 x 2.90 m |
| Emplacement Time | 3 minutes |

107-mm Towed Multiple Rocket Launcher System Type 63



| | |
|--|--------------------------------------|
| Crew | 2 |
| Tube Configuration | 12 rocket launch tubes (3 rows of 4) |
| Range, Indirect Fire | 3,000 to 8,500 m |
| Rate of Fire | 12 rounds in 7 to 9 seconds |
| Traverse Limits | 15 degrees left and right |
| Elevation Limits | 0 to +60 degrees |
| Reload Time | 5 minutes |
| Emplacement/Displacement Time | 3/2 minutes |
| Travel Weight | 613 kg |
| Travel Length x Width x Height | 2.60 x 1.40 x 1.19 m |
| NOTE: The Type 63 is NOT in LAF inventory, but may be in Hizballah hands. | |

155-mm Self-propelled Howitzer ATMOS



| | |
|--|---|
| Caliber | 155.0 mm x 52.0 (x 39 and x 45 cal. possible) |
| Crew | 6 |
| Firing Range | 41,000 m (less with shorter barrels) |
| Rate of Fire | |
| Burst | 9 rounds per minute |
| Sustained | 4 rounds per minute |
| Emplacement/Displacement Time | 1 minute |
| Traverse Limits | 25.0 degrees left or right |
| Elevation Limits | -3.0 to +70.0 degrees |
| Road Range | 1,000 km |
| Maximum Road Speed | 80 km/h |
| Vertical Obstacle | 0.6 m |
| Trench | 0.9 m |
| Fording | 1.4 m |
| Weight Empty | 21,000 kg |
| Travel Length x Width x Height | 9.5 x 2.5 x 2.5 m |
| NOTE: Gun traverse is unlimited, but firing is limited to within 25 degrees of either side of the cab probably due to tipping hazard. | |

155-mm Howitzer M46/84



| | |
|---------------------------------------|--------------------------|
| Crew; Section Size | 9; 10 |
| Gun Caliber | 155.0 mm x 45 |
| Range | |
| Conventional | 30,300 m |
| Extended | 39,600 m |
| Rate of Fire | |
| Burst | 6 rounds per minute |
| Normal | 4 rounds per minute |
| Sustained | 2 rounds per minute |
| Traverse Limits | 25 degrees left or right |
| Elevation Limits | -2.5 to +45.0 degrees |
| Travel Weight | 8,428 kg |
| Travel Length x Width x Height | 11.2 x 2.4 x 2.7 m |

155-mm Towed Gun-Howitzer M46S



| | |
|---------------------------------------|--------------------------------------|
| Crew | 6 |
| Gun Caliber | 155.0 mm x 39 or 45 |
| Ammunition | HE-frag., DPICM, smoke, illumination |
| Range | |
| Direct Fire | 1,500 m |
| Conventional | 25,800 m |
| Extended | 39,000 m |
| Rate of Fire | |
| Burst | 8 rounds per minute |
| Normal | 6 rounds per minute |
| Sustained | 5 rounds per minute |
| Traverse Limits | 25 degrees left or right |
| Elevation Limits | -2.5 to +45.0 degrees |
| Travel Weight | 8,850 kg |
| Travel Length x Width x Height | 11.7 x 2.5 x 2.6 m |

130-mm Towed Gun M-46



| | |
|---------------------------------------|--------------------------|
| Crew | 7 |
| Gun Caliber | 130.0 mm x 58.5 |
| Range | |
| Direct Fire | 1,170 m |
| Conventional | 5,400 to 27,150 m |
| Extended | 31,000 m |
| Rate of Fire | |
| Burst | 8 rounds per minute |
| Normal | 6 rounds per minute |
| Sustained | 5 rounds per minute |
| Traverse Limits | 25 degrees left or right |
| Elevation Limits | -2 to +45 degrees |
| Travel Weight | 8,450 kg |
| Travel Length x Width x Height | 11.7 x 2.5 x 2.6 m |

122-mm Towed Gun-Howitzer D-30 Lyagushka



| | |
|---------------------------------------|--|
| Crew | 5 |
| Gun Caliber | 122-mm x 38 |
| Ammunition Types | HE-frag.; HEAT; flechette; illumination; smoke |
| Range | |
| Direct Fire | 1,000 m |
| Indirect Fire | 4,000 to 15,300 m |
| Rate of Fire | |
| Burst | 8 rounds per minute |
| Normal | 6 rounds per minute |
| Sustained | 4 rounds per minute |
| Traverse Limits | 360 degrees |
| Elevation Limits | -7 to 70 degrees |
| Travel Weight | 3,210 kg |
| Travel Length x Width x Height | 5.40 x 1.95 x 1.7 m |

76-mm Field Gun ZIS-3 (M1942)



| | |
|---------------------------------------|--------------------------|
| Crew; Section Size | 5; 6 |
| Caliber | 76.2 mm x 41.6 |
| Range | |
| Direct Fire | 820 m |
| Indirect Fire | 1,500 to 13,290 m |
| Rate of Fire | |
| Burst | 25 rounds/minute |
| Normal | 15 rounds/minute |
| Sustained | 8 rounds/minute |
| Traverse Limits | 27 degrees left or right |
| Elevation Limits | -5 to +37 degrees |
| Travel Weight | 1,116 kg |
| Travel Length x Width x Height | 6.1 x 1.6 x 1.4 m |
| Emplacement/Displacement Time | 1 minute |

120-mm Towed Mortar K-6



| | |
|--------------------------------------|--|
| Crew | 4 |
| Range | 7,200 m |
| Sustained Rate of Fire | 15 rounds/minute |
| Emplacement/Displacement Time | 5/3 minutes |
| Elevation Limits | 40.0 to 85.0 degrees |
| Travel Weight | 415 kg (mortar, trailer, and associated equipment) |
| Travel Length x Width | 2 x 1.5 m |
| Prime Mover | Light vehicle |

82-mm Mortar M-43



Rate of Fire

Burst

25 rounds/minute

Normal

15 rounds/minute

Traverse Limits

5.0 degrees left or right

Elevation Limits

+45.0 to +85.0 degrees

Emplacement; Displacement Time

2 to 3 minutes; 1 to 2 minutes

Empty Weight

58 kg

81-mm Mortar L16A1, L16A2



| | |
|-----------------------------|---|
| Crew; Section Size | 3; 5 |
| Range | 5,650 m |
| Rate of Fire | |
| Burst | 20 rounds/minute |
| Normal | 15 rounds/minute |
| Sustained | 10 rounds/minute |
| Traverse Left, Right | 5.5 to 18.0 degrees left or right (increases with elevation) |
| Elevation Limits | +45 to +85 degrees |
| Weight Empty | 38.3 kg |
| Tube Length | 1,280.0 mm |

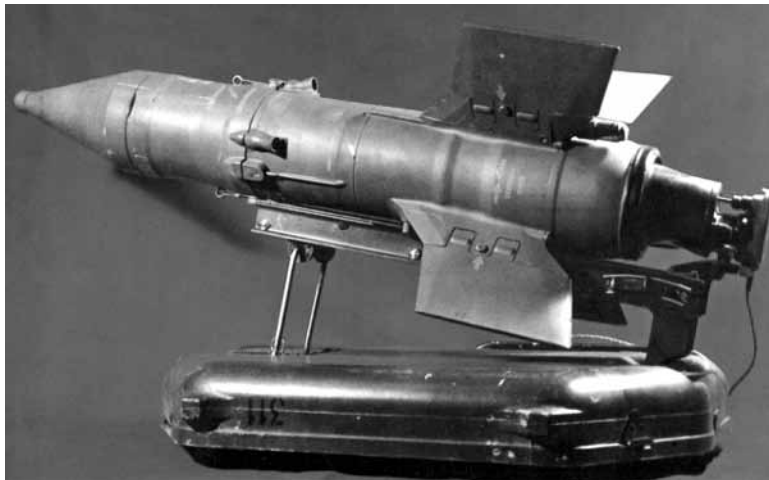
81-mm Mortar MO-81-LC



| | |
|---------------------------|-------------------------|
| Crew; Section Size | 2; 3 |
| Range | 100 to 2,060 m |
| Rate of Fire | |
| Burst | 30 rounds/minute |
| Sustained | 20 rounds/minute |
| Ammunition Types | HE, smoke, illumination |
| Elevation Limits | +45 to +85 degrees |
| Weight Empty | 15 kg |

ANTIARMOR

Antitank Guided Missile System 9K11 Malyutka (AT-3 SAGGER)



Warhead Types

HEAT; HE-frag; tandem HEAT

Range

3,000 m

Operation

Wire guided, manual line-of-sight command

Launch Weight

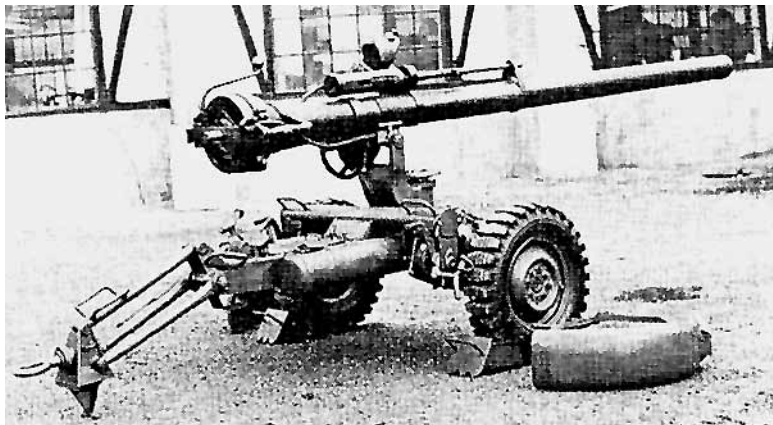
10.9 to 13.5 kg (depending on variant)

Missile Length x Diameter

860 x 125 mm

NOTE: many series-production and post-series-production upgrades exist to increase accuracy, range, and effectiveness.

106-mm Recoilless Rifle M40A1



| | |
|-------------------------|-------------------------|
| Caliber | 105 mm |
| Range | 6,900 m (indirect fire) |
| Rate of Fire | 5 rounds/minute |
| Traverse Limits | 360 degrees |
| Elevation Limits | -17 to +22 degrees |
| Rifle Weight | 113.9 kg in firing mode |

73-mm Recoilless Rifle SPG-9



| | |
|---------------------------------------|-------------------------------------|
| Ammunition | HE, HEAT, |
| Effective Range | 800 m |
| Maximum Range | 4,500 m |
| Rate of Fire | Up to 6 rounds/minute |
| Armor Penetration | Up to 400 mm |
| System Weight | 78 kg (rifle, mount, and trailer) |
| System Length x Width x Height | 2.1 x 1.1 x 0.8 m (rifle on tripod) |

AIR DEFENSE

37-mm Towed Air Defense Artillery Gun M1939



| | |
|--------------------------------------|---|
| Crew | 8 |
| Caliber | 37 X 253R mm |
| Ammunition | FRAG-T, AP-T |
| Range | |
| Tactical Antiaircraft | 2,500 m |
| Maximum Vertical | 6,700 m |
| Maximum Horizontal | 8,500 m |
| Rate of Fire | 160 to 180 rounds/minute |
| Reload Time | 4 to 8 seconds (loading 2 clips into gun) |
| Reaction Time | 4.5 seconds |
| Emplacement/Displacement Time | 25/30 seconds |
| Traverse Limit; Rate | Unlimited; 67 degrees per second |
| Elevation Limits; Rate | -5 to +85; 34 degrees per second |
| Weight | 2,353 kg |
| Length x Width x Height | 5.94 x 1.90 x 2.08 m |
| Platform | 2-axle, 4-wheel, towed cruciform carriage |

23-mm Twin Anti-aircraft Gun ZU-23



| | |
|--------------------------------|--|
| Crew | 5 |
| Caliber | 23.0 x 152B mm |
| Ammunition | API-T, HEI, HEI-T |
| Ranges | |
| Tactical Antiaircraft | 2,500 m |
| Maximum Vertical | 5,100 m |
| Maximum Horizontal | 7,000 m |
| Rate of Fire | 800 to 1,000 rounds/minute per barrel |
| Traverse Limit; Rate | 360 degrees; 74 degrees/second |
| Elevation Limit; Rate | -10 to +90 degrees; 54 degrees/second |
| Weight | 950 kg |
| Length x Width x Height | 4.60 x 1.86 x 2.07 m |
| Platform | 2-wheel towed 2A13 carriage or various vehicles. |

NOTE: The Skywiper is a retrofit package that adds an electric servosystem, ballistic computer, sight system, and onboard power supply.

14.5-mm Quad. Heavy Anti-aircraft Machinegun ZPU-4



| | |
|--------------------------------------|---|
| Crew | 5 |
| Ammunition | 14.5 x 114 mm HEI, I-T, API, API-T |
| Ranges | |
| Tactical Antiaircraft | 1,400 m |
| Maximum Vertical | 4,600 m |
| Maximum Horizontal | 6,300 m |
| Rate of Fire | 550 to 600 rounds/minute per barrel |
| Reload Time | 15 seconds |
| Reaction Time | 8 seconds |
| Emplacement/Displacement Time | 1.5 minutes |
| Traverse Limit; Rate | 360 degrees; 48 degrees per second |
| Elevation Limits; Rate | -8.5 to +90 degrees; 29 degrees per second |
| Fire Control | Optical-mechanical computing sight (AA), telescope (ground) |
| Weight | 1,810 kg |
| Length x Width x Height | 4.53 x 1.72 x 2.18 m |
| Emplacement/Displacement Time | 1.5 minutes |

14.5-mm Towed Antiaircraft Machinegun ZPU-2



| | |
|---|--|
| Ammunition | 14.5 x 114 mm API, API-T, HEI, I-T |
| Range | |
| Tactical Antiaircraft | 1,400 m |
| Maximum Vertical | 4,600 m |
| Maximum Horizontal | 6,300 m |
| Rate of Fire per Barrel | 550 to 600 rounds/minute |
| Traverse Limits; Rate | 360 degrees; up to 56 degrees/second |
| Elevation Limits; Rate | -15 to +90 degrees; up to 36 degrees/second |
| Fire Control | Optical mechanical computing sight (AA), telescope (ground) |
| Weight | Original variant 994 kg; light variant 621 kg |
| Length x Width x Height | |
| Original Variant | 3.5 x 1.9 x 1.8 m |
| Light Variant | 3.9 x 1.4 x 1.1 m |
| NOTE: A newer, lighter variant with a simplified towed mount exists; original variant shown. | |

14.5-mm Towed Antiaircraft Machinegun ZPU-1



| | |
|--------------------------------|--|
| Caliber | 14.5 x 114 mm |
| Ammunition | API, API-T, HEI, I-T, APT |
| Ranges | |
| Tactical Antiaircraft | 1,400 m |
| Maximum Vertical | 4,600 m |
| Maximum Horizontal | 6,300 m |
| Rate of Fire | 550 to 600 rounds/minute per barrel |
| Traverse Limit; Rate | Unlimited; up to 48 degrees/second |
| Elevation Limits; Rate | -8.5 to +88 degrees; up to 28 degrees/second |
| Method of Operation | |
| Feed Device | 150-round nondisintegrating-link belt |
| Reload Time | 15 seconds |
| Weight | 413 kg |
| Length x Width x Height | 3.44 x 1.62 x 1.34 m |

12.7-mm Antiaircraft Machinegun DShK M38/46



| | |
|-----------------------------|---|
| Cartridge | 12.7 x 108 mm |
| Ammunition | API, API-T, HEI |
| Ranges | |
| Tactical Range | 1,000 m |
| Maximum Vertical | 5,300 m |
| Maximum Horizontal | 8,000 m |
| Maximum Rate of Fire | 540 to 600 rounds/minute |
| Method of Operation | Gas, air-cooled, automatic |
| Traverse Limit | 360 degrees |
| Elevation Limits | -10 to +85 degrees |
| Weight | 157.5 kg (gun, towed mount, and shield) |

Manportable Surface-to-Air Missile System 9K32/9K32M Strela-2, -2M (SA-7a, -7b GRAIL)



| | |
|---|--|
| Type | 2-stage, low-altitude manportable SAM system |
| Missile | |
| Payload | 1.17-kg HE-frag. warhead with contact fuze |
| Guidance | Infrared passive homing |
| Effective Range | |
| Strela-2 | 800 to 3,200 m |
| Strela-2M | 800 to 4,200 m |
| Effective Altitude | |
| Strela-2 | 50 to 1,500 m |
| Strela-2M | 50 to 2,300 m |
| Maximum Target Speed | |
| Outbound | 800 km/h |
| Inbound | 540 km/h |
| Number of Reloads | 5 per launcher |
| Combat Weight | 9.15 kg (9.6 for Strela-2M) |
| Launcher Length | 1.49 m |
| NOTE: Launcher may be reused up to five times. | |

AIRCRAFT

MiG-21bis (FISHBED L); MiG-21UM (MONGOL B)



Type

MiG-21bis

Multirole fighter

MiG-21UM

Trainer

Crew

1 (2 for trainer)

Range on Internal Fuel

493 nmi

Ferry Range

971 nmi using 3 external tanks

Maximum Level Speed

1,159 kn above 12,000 m

Design/Practical Ceiling

18,000/15,250 m

Weapons

MiG-21bis

Twin 23-mm gun, AAMs, radar-homing missiles, 57-mm rocket packs, bombs, 240-mm air-to-surface rockets

MiG-21UM

Single 23-mm gun, 2x AAMs, and 2x radar-homing missiles or 2x drop fuel tanks

Weight Empty

5,843 kg (MiG-21bis 6,000 kg)

Maximum Takeoff Weight

9,800 kg (MiG-21bis 9,500 kg)

Length x Wingspan x Height

15.76 x 7.15 x 4.10 m

L-39ZA Albatros



| | |
|-----------------------------------|---|
| Type | Armed Trainer |
| Crew | 2 |
| Maximum Level Speed | 630 km/h |
| Service Ceiling | 7,500 m |
| Weapons | Centerline pod for 23-mm twin gun; various bombs, rocket launchers, and AAMs attached to 4 underwing hardpoints |
| Maximum Underwing Stores | 1,000 kg |
| Maximum Takeoff Weight | 5,600 kg |
| Basic Weight Empty | 3,460 kg |
| Length x Wingspan x Height | 12.13 x 9.46 x 4.77 m |

HAIY-12(II)



| | |
|-----------------------------------|---|
| Type | STOL general purpose transport |
| Crew; Passengers | 2; 19 |
| Maximum Cruising Speed | 157 kn |
| Range with Maximum Fuel | 723 nmi at 135 kn with 45-min. reserves |
| Endurance | 5 hr 12 min |
| Maximum Operating Altitude | 7,000 m |
| Takeoff Run | Normal 340 m , STOL 230 m |
| Maximum Payload | 1,700 kg |
| Maximum Takeoff Weight | 5,300 kg |
| Length x Wingspan x Height | 14.86 x 17.24 x 5.68 m |

Mi-24D (HIND D)



| | |
|-----------------------------------|---|
| Type | Attack helicopter |
| Crew/Passengers | 2; 8 |
| Armament | Turret-mounted 4-barrel 12.7-mm Gatling gun; and 57-mm rockets, up to 500-kg bombs, ATGMs |
| Dash Speed | 173 kn |
| Range | 320 nmi |
| Maximum Endurance | 1.9 hours |
| Basic Empty Weight | 8,500 kg |
| Maximum Payload | 2,400 kg |
| Sling Load | 2,000 kg |
| Maximum Takeoff Weight | 11,500 kg |
| Main Rotor | |
| Number of Blades | 5 |
| Diameter | 17.3 m |
| Length x Wingspan x Height | 17.5 x 6.5 x 4.5 m |

Mi-24V/-35V; Mi-24P/-35P, Mi-24PN (HIND E; F)



| | |
|--|--|
| Type | Attack helicopter |
| Crew; Passengers | 2; 8 |
| Gun | |
| HIND E | Turret-mounted 4-barrel 12.7-mm Gatling gun |
| HIND F, including Mi-24PN | Fixed twin 30-mm cannon |
| Armament | 57-mm rockets, 80-mm rockets, 240-mm rockets, up to 500-kg bombs, ATGMs; AAMs, mine dispensers, and gun and grenade pods |
| Dash Speed | 173 kn |
| Range | 320 nmi or greater |
| Maximum Endurance | 1.9 hours |
| Basic Empty Weight | 8,500 kg |
| Maximum Payload | 2,400 kg |
| Sling Load | 2,400 kg |
| Maximum Takeoff Weight | 11,500 kg |
| Main Rotor (HIND E) | |
| Number of Blades | 5 |
| Diameter | 17.3 m |
| Tail Rotor (HIND E) | |
| Number of Blades | 3 |
| Diameter | 3.9 m |
| Length x Wingspan x Height | 17.5 x 6.5 x 4.5 m |
| NOTE: Mi-35 is the export version of the Mi-24. HIND E shown above. . | |

Mi-17, Mi-8MT (HIP H)



| | |
|---|--|
| Type | Medium-lift assault, transport, VIP transport, communications |
| Crew; Passengers | 3; up to 30 |
| Possible Armament | 12.7-mm machinegun in the nose; 12.7-mm machinegun or grenade launcher in cabin door, gun pods, bombs, unguided rockets, mounts for personal weapons |
| Maximum Dash Speed | 135 kn |
| Range | 313 nmi |
| Service Ceiling | 5,000 m |
| Maximum Payload | |
| Internal | 4,000 kg |
| External (sling load) | 3,000 kg |
| Maximum Design Takeoff Weight | 13,000 kg |
| Weight Empty, Equipped | 7,000 kg |
| Main Rotor | |
| Number of Blades | 5 |
| Diameter | 21.3 m |
| Tail Rotor | |
| Number of Blades | 3 |
| Diameter | 3.8 m |
| Fuselage Length x Width x Height | 18.4 x 2.5 x 4.7 m |

Bell 412



| | |
|---|--|
| Type | Medium-lift utility |
| Crew; Maximum Passengers | 1 or 2; 14 or 13 |
| Armament | Provisions for door-mounted weapons; unguided rockets |
| Maximum Speed | 140 kn |
| Range with Typical Load | 355 nmi |
| Basic Empty Weight | 3,090.7 kg |
| Cargo Handling or Sling Load | 2,268.0 kg |
| Maximum Design Takeoff Weight | 5,261.8 kg |
| Main Rotor | |
| Number of Blades | 4 |
| Diameter | 14.0 m |
| Tail Rotor | |
| Number of Blades | 2 |
| Diameter | 2.6 m |
| Fuselage Length x Width x Height | 12.7 x 2.8 x 3.5 m |

Bell 212



| | |
|---|--------------------------------------|
| Crew; Passengers | 1; up to 14 |
| Armament | 2x torpedoes, 2x antiradar missiles |
| Maximum Speed | 130 kn |
| Range | 270 nmi |
| Maximum Takeoff Weight | 5,080 kg |
| Rotor Diameter (No. Blades) | |
| Main Rotor | |
| Number of Blades | 2 |
| Diameter | 14.6 m |
| Tail Rotor | |
| Number of Blades | 2 |
| Diameter | 2.6 m |
| Fuselage Length x Width x Height | 12.9 x 2.9 x 4.0 m (including skids) |

Bell 206B



| | |
|---|--------------------------------------|
| Role | Light-lift transport |
| Crew; Passengers | 2; 3 |
| Armament | 70-mm rockets possible |
| Maximum Dash Speed | 133 kn |
| Range at Maximum TOW | 300 nmi at 118 kn |
| Service Ceiling | 6,100 m |
| Maximum Design Takeoff Weight | 1,451.5 kg |
| Empty Weight | Approximately 1,000 kg |
| Main Rotor | |
| Number of Blades | 2 |
| Diameter | 10.2 m |
| Tail Rotor | |
| Number of Blades | 2 |
| Diameter | 1.7 m |
| Fuselage Length x Width x Height | 9.6 x 1.96 x 2.9 m (including skids) |

SHIPS

AL8K Type PBR



| | |
|------------------------------------|-----------------------|
| LOA x Draft x Beam | 11.2 x 3.7 x 0.5 m |
| Displacement, Full Load | 6.3 tons |
| Complement | 3 |
| Speed | 35 kn |
| Armament | 1x 12.7-mm machinegun |
| Surface-Search Radar System | Furuno I-band |

APPENDIX D: HOLIDAYS

| Holiday | Description | Traditional Date(s) |
|----------------------------------|---|---|
| <i>New Year's Day</i> | | 1 January |
| <i>Liberation Day</i> | Celebration of the overthrow of Idi Amin in 1979 | 26 January |
| <i>International Women's Day</i> | A day to honor women | 8 March |
| <i>Good Friday</i> | | 10 April 2009 2 April 2010 22 April 2011 6 April 2012 (varies) |
| <i>Easter</i> | | 12 April 2009 4 April 2010 22 April 2011 8 April 2012 31 March 2013 |
| <i>Easter Monday</i> | Monday after Easter | Varies |
| <i>Labor Day</i> | Honors the working class | 1 May |
| <i>Martyrs' Day</i> | Christian holiday honoring martyrs from the 1800s | 3 June |

| Holiday | Description | Traditional Date(s) |
|------------------------------|---|---|
| <i>National Heroes Day</i> | Honors the lives and contributions of those who fought in the guer-rilla war from 1981 to 1986 that brought President Museveni to power | 9 June |
| <i>Independence Day</i> | | 9 October |
| <i>Christmas Day</i> | | 25 December |
| <i>Boxing Day</i> | Day after Christmas | 26 December |
| <i>Eid al-Adha</i> | 3-day Islamic Feast of the Sacrifice at the end of the Haij; commemorates Abraham's willingness to sacrifice his son. | 27 November 2009 12 November 2010 6 November 2011 26 October 2012 15 October 2013 |
| <i>First Day of Ramadan</i> | Begins 29- to 30-day fast from food and water during daylight hours; Muslims believe that during this month, the first verses of the Qur'an were revealed | 22 August 2009 11 August 2010 1 August 2011 21 July 2012 10 July 2013 |
| <i>Eid al-Fitr (Ramadan)</i> | Celebrates the end of the Ramadan feast | 21 September 2009 10 September 2010 31 August 2011 19 August 2012 8 August 2013 |

APPENDIX E: LANGUAGE

Swahili

Swahili is a derivative of the Bantu language and maintains Bantu grammar; however, Arabic influenced its vocabulary through culture and trade and, more recently, English influenced it through technology. The word “Swahili” comes from the Arabic word for coast; the language developed along the East African coast where several distinct dialects still remain. Swahili is spoken by millions of people in Central and Eastern Africa.

Pronunciation is straightforward. The alphabet is simple and has no accented characters. However, the construction of Swahili words can be complex since it heavily uses morphemes (the smallest meaning-bearing parts of a word) rather than the periphrastic approach (using more words and relying on sentence syntax) of English. For example, the word *nimekisoma* is translated into English as the following sentence: I have read it.

The Swahili alphabet lacks the letters c, q, and x, but contains some unique letters. The letter dh is pronounced like the “th” of “this” (e.g., *dhoruba* – hurricane); “gh” is pronounced like the German “ch” (*ghali* – expensive); and “ng” is pronounced like the “ng” in “thing” but not as in “finger” (*ng’ombe* – cow).

Whereas English grammatical inflections occur at the end of the word, in Swahili they occur at the beginning. *Kitabu* means book, while *vitabu* means books. This word falls into the KI/VI class of words, one of the eight classes of nouns. Furthermore, these prefixes are carried over to verbs of which the noun is the subject, as well as to numerals and modifying adjectives. Thus, “one big book” in Swahili is “*kitabu kikiubwa kimoja*” (book - big - one), but “two big books” is “*vitabu vikubwa viwili*”.

Nouns

There are eight classes of noun, named after their most common prefixes, which can be grouped as follows: M/WA for people (*mtu* = man, *watu* = men, *mjinga* = fool, *wajinga* = fools); M/MI for things, including trees and plants (e.g., *mkono* = hand, *mikono* = hands, *mji* = town, *miji* = towns, *mgomba* = banana plant); N for animals, fruit, and foreign words (*ndege* = bird); KI/VI for objects (*kisu* = knife); MA for things, including pluralized nouns (*maziwa* = milk); U for abstract and uncountable nouns (*ukubwa* = size and *unga* = flour); KU for infinitives (*kusoma* = to read); and PA for place (*mahali* = place).

N class nouns often have the same singular and plural prefix (usually *n-* but sometimes *m-* if followed by a *-b* or *-v*). MA class nouns only take their prefix (*ma-*) in plural. Some MA class nouns take a *j/ji-* prefix in the singular if they are only one syllable or begin with a vowel. Some U class nouns may change when pluralized, depending on their origin.

Many words change their spelling depending on the presence of certain letters. The M/WA class word *mwezi* = thief (really an *mw-* rather than *m-* prefix and hence the true noun stem *-ezi* begins with a vowel) loses the *a* of *wa-* to have the plural *wezi* = thieves. KI/VI class words use CH/VY prefixes for noun stems starting with a vowel, hence *chumba* = room and *vyumba* = rooms.

The PA class contains the single word *mahali*, however agreement takes one of three forms depending on whether the place is specific (takes *pa-* prefix), indefinite or moving (takes *ku-* prefix) or inside something (takes *mu-* prefix).

The same noun can appear in different classes and have different meanings. For example *-mtu* becomes *mtu* = man, *jitu* = giant, and

umtu = manhood. Nouns can be forced into other classes to provide “diminutives” and “augmentatives.” The KI/VI class makes them diminutive (*mto* = river becomes *kijito* = stream) and the MA class makes them augmentative (*watu* = men becomes *majitu* = giants). There are also techniques to make a noun diminutive even if it already belongs to the KI/VI class.

Adjectives

Adjectives generally agree (concord) with their noun (e.g., *kisu kikali* = sharp knife (-kali = sharp) and *mtu mdogo* = small man (-dogo = small). However, one important rule is that people and animals should concord with the M/WA class even if they belong to another class (e.g., *paka* = cat is an N class noun, yet *paka wadogo* = small cats).

Adjectives follow their noun so “one big knife” is “*kisu kikubgwa kimoja*” (knife big one). Swahili uses “prefixation” to cause agreement by adding to the beginning of the adjective stem (ki-kubwa and ki-moja). The presence of certain letters can change spelling (as seen with nouns), so for M/WA agreement the adjective *mwe-ma* = good (sing.) becomes *wema* = good (pl.) rather than *waema*.

Possessive adjectives take the stems -angu (my), -ako (your sing.), -ake (his/her/its), -etu (our), -enu (your pl.), -ao (their). For example, my book is *kitabu changu* (note ch-angu rather than ki-angu because of the leading vowel).

Verbs

Verbs are built by taking the verb stem and adding prefixes to indicate the subject, tense, and sometimes an object. Some prefixes will themselves be prefixed so we refer to “infixes” (essentially prefixes in the middle of a word). The subject prefixes (for persons) are ni- (I), u- (you sing.), a- (she/he), tu- (we), m- (you pl.),

wa- (they). The basic tense infixes are -me- (perfect), -li- (past), -a- and -na- (simple present and present), -ta- (future). The object infixes (for persons) are -ni- (me), -ku- (you sing.), -m- (him/her), -tu- (us), -wa- (you pl.), -wa- (them). The object infixes meaning it/them for other non-person classes are: M/MI = -u/i-, KI/VI = -ki/vi-, N = -i/zi-. Personal pronouns are *mimi* (I), *wewe* (you sing.), *yeye* (she/he), *sisi* (we), *ninyi* (you pl.), and *wao* (they). For example, “I have read it” translates as *nimekisoma* (ni-me-ki-soma where - some = read).

Negative tenses (often based around a ha- prefix) have subject prefixes (for persons) of si- (I), hu- (you sing.), ha- (he/she sing.), hatu- (we), ham- (you plur.), hawa- (they). One negative tense is called the “not yet” (haja-) tense which allows for expressions such as *ndizi hazijatosha* for “there are not yet enough bananas.”

Conditional and present participle tenses use a -ki- infix, and a form of narrative tense uses the -ka- infix. Imperatives are usually the plain verb stem. For example, “*soma!*” means “read!” Reflexives may be built using the -ji- infix and reciprocals use an -ana suffix.

Miscellaneous

The simple -a suffix can take a prefix to make the common word of (agreeing with the object, not the possessor). For example, “*watu wa Kenya*” means “the people of Kenya.” The verb *kuwa* = to have can be used with the PA class prefixes to indicate something exists (*kuna wanyama* = there are animals). Add the ha- prefix for negation (*kakuna pesa* = there is no money). Hence the word *hapana* = no.

Useful Phrases

English

Hello

How are you?

I am well (good, fine, etc.)

Thank you (very much)

Good-bye

Good morning

Good afternoon

Good evening

Please

Where is the hotel?

Where does this road lead to?

Please help me push this car

Please change this wheel

Please come in

Please sit down

May I take your picture?

You're welcome

Where do you come from?

I come from ____

What is your name?

My name is ____

Can you speak Swahili?

Yes

Swahili

Jambo

Habari?

Mzuri

Asante (sana)

Kwaheri

Habari ya asubuhi

Habari ya mehana

Habari ya jioni

Tafadhali

Hoteli iko wapi?

Nija hii ina-enda wapi?

Tafadhali nisaidie kusukuma gari

Tafadhali badilisha gurudumu hili

Karibu ndani tafadhali

Keti tafadhali

Mikupige picha?

Una karibishwa

Ume kuja kutoka wapi?

Nime toka ____

Jina lako nani?

Jina langu ni ____

Waweza kuongea kiswahili?

Ndiyo

English

No

Call the police

Only a little

I want to learn more

Come in, near

May I come in?

Where is ___?

How do you find ___?

There is ___

There is not ___

No problem

I like it here

The weather is hot, isn't it?

Yes, a little

What time is it?

Where are you going?

I am going to ___

Turn right

Turn left

Go straight

Please stop here

How much?

Wait a minute

I have to get change

Excuse me

Where is the toilet?

Swahili

Hapana

Ita polisi

Kidogo tu

Nataka kujifunza zaidi

Karibu

Hodi?

Iko wapi ___?

Waonaje ___?

Kuna

Hakuna

Hakuna matata

Hapa napenda

Hewa hapa in joto sivyo?

Ndiyo kidogo

Saa ngapi?

Una kwenda wapi?

Nakwenda ___

Geuka kulia

Geuka kushoto

Enda moja kwa moja

Simama hapa tafadhali

Ngapi?

Ngoja kidogo

Ni badilishe pesa kwanza

Samahani

Wapi choo?

English**Swahili***In the back*

Upande wa nyuma

Where may I get something to drink?

Naweza kupata wapi kinywaji?

One cup of coffee

Kikombe kimoja cha kahawa

How much/many?

Ngapi?

I'm just looking

Mimi na angalia tu

I don't want

Sitaki

That's quite expensive

Waweza kupunguz

Fine

Sawa

I will buy it

Nita nuna

Bring me hot water, please

Lete maji moto, tafadhali

I'm sick

Mimimgonjwa

I have a fever

Nina homa

I have diarrhea

Nina hara

I am vomiting

Nina tapika

I am coughing

Nina kohoa

I am pregnant

Nina mimba

I need a doctor

Nataka daktari

Fetch a doctor

Ita dactari

I'm lost

Nimepotea

Watch out!

Angalia

Leave me alone!

Niache

Go away!

Nenda zako

It is sunny

Kuna jua

It is cold

Kuna baridi

It is hot

Kuna joto

English*It is windy***Swahili**

Kuna upepo

Useful Words**English****Swahili**

Airplane

Ndege (Eropleni)

Airport

Uwanja wa Ndege

Baboon

Nyani

Bad

Mbaya

Banana

Ndizi

Bathe (verb)

Kuoga

Bed

Kitanda

Beer

Tembo (Pombe)

Behind

Nyumba

Big

Kubwa

Bird(s)

Ndege

Blanket

Blanketi

Boat

Mashua

Bread

Mkate

Butter

Siagi

Buy (verb)

Kununua

Car

Gari

Cent

Senti

Cheetah

Duma

Chicken

Kuku

Child or infant

Toto

Closed

Funga

Coast or beach

Pwani

Coffee

Kahawa

| English | Swahili |
|---------------------|------------------------|
| <i>Cold</i> | Baridi |
| <i>Comb</i> | Kitana |
| <i>Come (verb)</i> | Ijayo |
| <i>Cup</i> | Kikombe |
| <i>Danger!</i> | Hatari! |
| <i>Day</i> | Siku |
| <i>Doctor</i> | Daktari |
| <i>Down</i> | Chini |
| <i>Drink (verb)</i> | Kukunywa |
| <i>Eat (verb)</i> | Kukula |
| <i>Eggs</i> | Mayai |
| <i>Elder</i> | Mzee (one with wisdom) |
| <i>Elephant</i> | Tembo or Ndovu |
| <i>Empty</i> | Tupu |
| <i>Far</i> | Mbali |
| <i>Finished</i> | Quisha |
| <i>Fire</i> | Moto |
| <i>Fish</i> | Samaki |
| <i>Flour</i> | Unga |
| <i>Food</i> | Chakula |
| <i>Fork</i> | Uma |
| <i>Front</i> | Mbele |
| <i>Fruit</i> | Matunda |
| <i>Full</i> | Kujaa |
| <i>Gasoline</i> | Petroli |
| <i>Giraffe</i> | Twiga |
| <i>Glass</i> | Glasi |
| <i>Go (verb)</i> | Ku-enda |

| English | Swahili |
|-----------------------------------|----------------|
| <i>Good</i> | Mzuri |
| <i>He, She</i> | Yeye |
| <i>Help!</i> | Nisaidia! |
| <i>Hippo</i> | Kiboko |
| <i>Hospital</i> | Hospitali |
| <i>Hot (object)</i> | Moto |
| <i>Hot (spicy food)</i> | Kali |
| <i>Hotel</i> | Hoteli |
| <i>How?</i> | Vipi? |
| <i>I</i> | Mimi |
| <i>In</i> | Ndani |
| <i>Lion</i> | Simba |
| <i>Ice</i> | Barafu |
| <i>Insect</i> | Dudu |
| <i>Insect repellent</i> | Dawa ya wadudu |
| <i>Knife</i> | Kisu |
| <i>Left</i> | Kwa kushoto |
| <i>Lamb</i> | Kondoo |
| <i>Laundry</i> | Kufuliwa |
| <i>Maize with beans</i> | Irio |
| <i>Marinated and roasted</i> | Kuchoma |
| <i>Market</i> | Soko |
| <i>Meat, usually beef or goat</i> | Nyama |
| <i>Medicine</i> | Dawa |
| <i>Milk</i> | Maziwa |
| <i>Mister</i> | Bwana |
| <i>Misses</i> | Bibi |

| English | Swahili |
|-------------------------------|----------------|
| <i>Miss</i> | Bi |
| <i>Money</i> | Fedha or Pesa |
| <i>Monkey</i> | Kima Month |
| <i>Near</i> | Karibu |
| <i>Night</i> | Usiku |
| <i>Now</i> | Sasa |
| <i>Open</i> | Fungua |
| <i>Ocean</i> | Bahari |
| <i>Orange</i> | Machungwa |
| <i>Out</i> | Nje |
| <i>Pants</i> | Suruali |
| <i>Petrol</i> | Petroli |
| <i>Plantains, fried green</i> | Matoke |
| <i>Police</i> | Polici |
| <i>Porridge</i> | Ugali |
| <i>Python</i> | Chatu |
| <i>Quick</i> | Upesi |
| <i>Quickly</i> | Haraka |
| <i>Razor</i> | Wembe |
| <i>Rhinoceros</i> | Kifaru |
| <i>Rice</i> | Wali |
| <i>Right (directional)</i> | Kwa kulia |
| <i>Road or street</i> | Barabara |
| <i>Room</i> | Chumba |
| <i>Salt</i> | Chumvi |
| <i>Sell (verb)</i> | Kuuza |
| <i>Shark</i> | Papa |
| <i>Shirt</i> | Shali |

| English | Swahili |
|---------------------|------------------------------------|
| <i>Shoes</i> | Viatu |
| <i>Shop</i> | Duka |
| <i>Sir (polite)</i> | Bwana |
| <i>Sleep (verb)</i> | Kulala |
| <i>Slowly</i> | Pole-pole (pronounced pol-I-pol-I) |
| <i>Small</i> | Kidogo |
| <i>Snake</i> | Nyoka Soap |
| <i>Sorry</i> | Samahani or Pole |
| <i>Spoon</i> | Kijiko |
| <i>Stop (verb)</i> | Kusimama |
| <i>Stop</i> | Simama |
| <i>Straight</i> | Moja kwa moja |
| <i>Sugar</i> | Sukari |
| <i>Tea</i> | Chai |
| <i>They</i> | Wao |
| <i>Today</i> | Leo |
| <i>Together</i> | Pamoja |
| <i>Toilet</i> | Choo |
| <i>Tomorrow</i> | Kesho |
| <i>Tonight</i> | Leo usik |
| <i>Train</i> | Gari la moshi |
| <i>Up</i> | Juu |
| <i>Vegetables</i> | Mboga |
| <i>Wait</i> | Ngojea |
| <i>Warthog</i> | Ngiri |
| <i>Water</i> | Maji |
| <i>We</i> | Sisi |
| <i>Week</i> | Wiki |

| English | Swahili |
|---------------------------|--------------------|
| <i>What?</i> | Nini? |
| <i>Where? (place)</i> | Mahali gani? |
| <i>Where? (direction)</i> | Wapi (Upande gani) |
| <i>When?</i> | Hini? |
| <i>Which?</i> | Ipi?(gani) |
| <i>Who?</i> | Nani? |
| <i>Why?</i> | Kwanini? |
| <i>Wild dog</i> | Mbwa |
| <i>Year</i> | Mwaka |
| <i>Yesterday</i> | Jana |
| <i>You</i> | Wewe |
| <i>Zebra</i> | Punda miliia |

Numbers

| English | Swahili |
|---------|---------|
| 0 | Sifuri |
| ° | Robo |
| — | Nusu |
| 1 | Moja |
| 2 | Mbili |
| 3 | Tatu |
| 4 | Nne |
| 5 | Tano |
| 6 | Sita |
| 7 | Saba |
| 8 | Nane |
| 9 | Tisa |

| English | Swahili |
|---------|-------------------|
| 10 | Kumi |
| 11 | Kumi na moja |
| 12 | Kumi na mbili |
| 13 | Kumi na tatu |
| 20 | Ishirini |
| 21 | Ishirini na moja |
| 22 | Ishinini na mbili |
| 23 | Ishirini na tatu |
| 30 | Thelathini |
| 40 | Arobaini |
| 50 | Hamsini |
| 60 | Sitini |
| 70 | Sabini |
| 80 | Themanini |
| 90 | Tisini |
| 100 | Mia moja |
| 101 | Mia na moja |
| 200 | Mia mbili |
| 1000 | Elfu moja |

Days of the Week

Days are numbered from Friday (based on the Mohammedan calendar) with Monday being *jumatatu* (*juma* = week and *tatu* = three).

| English | Swahili |
|------------------|----------|
| <i>Sunday</i> | Jumapili |
| <i>Monday</i> | Jumatatu |
| <i>Tuesday</i> | Jumanne |
| <i>Wednesday</i> | Jumatano |

Thursday

Alhamisi

Friday

Ijumaa

Saturday

Jumamosi

Time

The Swahili day (*siku*) is two 12-hour slots starting at sunrise and again at sunset, so 0800 is *saa mbili* (the second hour)—add *ya mchana* or *ya usiku* to express daytime or nighttime. Since Kenya is at the equator, sunrise occurs at approximately 0600, thus 0600 is 0000 in Swahili time, i.e., the time as spoken in Swahili. Therefore, the hands of a clock meant to read Swahili time would always point to a number opposite to the number for the actual time as spoken in English, or the Swahili time anywhere in the world is delayed by 6 hours. For example, 0700 is 0100 (*saa moja asubuhi*) Swahili time; midnight is 1800 (*saa sita usiku*) Swahili time; and 0500 is 2300 (*saa kumi na moja alfajiri*) Swahili time.

| English | Swahili |
|-----------------------|-------------------------|
| <i>Time/hour</i> | <i>Saa</i> |
| <i>Minute</i> | <i>Kakika</i> |
| <i>Watch/clock</i> | <i>Saa</i> |
| <i>Morning</i> | <i>Asubuhi</i> |
| <i>Evening</i> | <i>Jioni or Usiku</i> |
| <i>Afternoon</i> | <i>Mchana</i> |
| <i>Late afternoon</i> | <i>Alasiri or Jioni</i> |
| <i>Dusk</i> | <i>Magharibi</i> |
| <i>Night</i> | <i>Usiku</i> |
| <i>Late night</i> | <i>Usiku wa manane</i> |
| <i>Early morning</i> | <i>Alfajiri</i> |
| <i>Noon</i> | <i>Saa sita mchana</i> |

APPENDIX I: DANGEROUS PLANTS AND ANIMALS

Snakes

Puff Adder

Description:

Adult length usually 0.6 to 1 meter (2-3 feet), maximum of 1.5 meters (5 feet); thick, heavily built snake. Background color varies from bright to light yellow, yellow-brown, orange-brown, light brown, or gray. Belly yellowish white to gray with black blotches. Rough-scaled appearance and alternating pattern of dark and light chevron-shaped markings.



Habitat:

Most widely distributed venomous snake in Africa; encountered almost anywhere, at both low and high elevations, except in rain forests and extreme desert conditions.

Activity and behavioral patterns:

Both diurnal and nocturnal; known to bask in early mornings or late afternoons. Comparatively slow-moving and sluggish; relies on immobility and camouflage to escape detection. Bad tempered and excitable; when disturbed, makes long deep hissing noise and may lash out viciously.

Venom's effects:

Many serious bites reported; only a small portion prove fatal. Venom is potent cytotoxin, attacking tissue and blood cells.

Symptoms include extreme pain with swelling and large blisters in region of the bite.

Green Bush Viper

Description:

Adult length usually 0.4 to 0.6 meter, maximum of 0.8 meter. Background color varies from dusky pale green to olive, to olive brown to red-brown. Belly is pale yellow; sometimes pale green, and often thickly spotted with black. Some specimens have pale yellow crossbands.

Habitat:

Rain forests, open woodland bordering forests and swamps. Often persist in hedge rows and other bushes long after deforestation.

Activity and behavioral patterns:

Arboreal, often ascending to heights of 6 meters or more. Usually nocturnal; may bask in sun during the day.

Venom characteristics:

Venom likely hemotoxic. Bites rare, but at least one fatality reported.



Great Lakes Bush Viper

Description:

Adult length usually 0.4 to 0.7 meter. Background color is usually bright or olive green; occasionally almost uniform black with lighter tail. Belly is yellow or very pale green; distinctly lighter

than dorsal surface. Has irregular black markings on body and a black V-shaped mark on top of head.

Habitat:

Sometimes found on ground, but usually in reeds or papyrus of lake margins or upland swamps. Can also be found up to 3 meters above ground in elephant grass or humid valleys.

Activity and behavioral patterns:

Arboreal.

Venom characteristics:

Venom likely hemotoxic. Not considered lethal to humans.



Burrowing Asp

Description:

Adult length is usually less than 0.9 meter; relatively slender snake. Background color varies; usually uniform dark purplish-brown to black above. Short, conical head, not distinct from the neck; snout broad, flattened, often pointed. Its fangs are well-developed and comparatively large in relation to the size of its head. Small eyes with round pupils. Tail short, ending in distinct spine.



Habitat:

Rain forests and savanna. Commonly lives under stones or in burrows.

Activity and behavioral patterns:

May emerge at night, particularly after rain. Likely to bite as soon as it is touched.

Venom's effects:

Venom primarily hemotoxic. Victims may experience intense local pain, swelling, and, in some instances, necrosis.

Gaboon Viper**Description:**

Adult length usually 1.2 to 1.5 meters, maximum of 2 meters; thick, heavy snake. Color pattern resembles an oriental carpet; complex pattern of cream, purple, brown, and pink.



Head distinctive; white or cream above, with dark brown or black triangles on sides. Usually has pair of triangular nasal “horns.”

Habitat:

Generally found in tropical rain forests and immediate environs. Sometimes found in deforested areas. Well camouflaged; blends in with leaf litter of forest floor.

Activity and behavioral patterns:

Nocturnal. May be found basking in patch of sunlight on forest floor, but more likely to be half buried in leaf litter. Slow-moving and does not flee when approached. Makes very loud hissing noise when disturbed. Strikes only as last resort or if trodden on.

Venom's effects:

Longest fangs (up to 50 millimeters) of any snake in world enable viper to inject massive amounts of potent cytotoxic venom deep into victim. Venom contains cardiotoxins that possess neurotoxin-

like properties, which may be more dangerous than cytotoxins. Immediate severe pain is felt at site, followed by rapid painful swelling of bitten area as early as 5 minutes after bite. Bite usually lethal without prompt treatment.

Rhinoceros Viper

Alternate names:

Horned-nose viper,
River Jack

Description:

Adult length usually 0.8 to 1 meter, maximum of 1.5 meters; thick-bodied snake. Background color

varies; patterned with various geometric shapes in pale blue, red, yellow, green, purple, white, and jet black. Has distinctive black, triangular-shaped mark on head and enlarged, horn-like scales on snout.

Habitat:

Found in rain forests, swamps, marshes, and floodplains; river, stream, and lake shores. Well camouflaged among fallen leaves of forest floor.

Activity and behavioral patterns:

Mainly nocturnal and partially aquatic. Good climber; often basks in shrubs and trees. Lethargic and slow to strike even in self-defense. Makes loud hissing noise if provoked, but usually reluctant to strike.

Venom's effects:

Few bites recorded, however, venom highly cytotoxic. Tissue necrosis resulting in amputation reported.



Forest Night Adder

Description:

Adult length usually 0.4 to 0.6 meter (1.3-2 feet); lightly built snake. Background color generally olive green with indistinct bar or chevron markings along body.



Habitat:

Rain forests.

Activity and behavioral patterns:

Terrestrial; often active in daytime.

Venom's effects:

Not considered lethal to humans.

Green Night Adder

Description:

Adult length usually 0.4 to 0.6 meter, maximum of 0.75 meter; moderately stocky snake. Background color generally vivid green with indistinct bars or chevrons along the back. Usually velvet-like sheen.



Habitat:

Moist, warm, low-lying areas at elevations up to 2,000 meters.

Activity and behavioral patterns:

Mainly nocturnal but sometimes seen in daytime. Terrestrial.

Venom's effects:

Bite usually results only in local pain, swelling, and lymphadenopathy. Not considered lethal to humans.

***Eastern Rhombic
Night Adder*****Description:**

Adult length usually 0.4 to 0.6 meter, maximum of 1.0 meter; moderately stocky snake. Background color varies from gray to olive to pinkish brown; patterned with gray, black, or brown chevrons or spots. Belly usually gray, but may be cream or yellow. Solid dark "V" marking on head.

**Habitat:**

Open woodland, grassland, and savanna near streams, marshes, or other damp areas.

Activity and behavioral patterns:

Nocturnal, but spends much time basking during day and/or sheltered in trash piles, rock crevices, and other hiding places. Generally non aggressive and docile, seldom attempting to bite except under extreme provocation. When threatened, will either flatten head and body or inflate itself with air, make several frantic strikes, and then glide away quickly.

Venom's effects:

Venom mildly cytotoxic and generally not dangerous, but may cause acute discomfort. Bite usually results only in local pain, swelling, and lymphadenopathy. No reliable reports of fatalities.

Jameson's Mamba

Adult length is usually 2 to 2.4 meters. Reaches a maximum of 3.6 meters. It is a relatively slender snake with a narrow head. Its background color is usually bright green to yellowish green; scales are edged with black. Overall coloration becomes darker posteriorly; tail entirely black in some individuals.



Habitat:

Resides in tropical rain forest regions and sometimes in isolated patches of thick vegetation with one or more trees.

Activity and behavioral patterns:

Mainly arboreal, but quite often descends to ground if disturbed. In defense, spreads hood or inflates throat.

Venom's effects:

Venom is primarily neurotoxic.

Black Mamba

Description:

Adult length usually 2.5 to 3 meters (8 to 10 feet); maximum of 4.3 meters (14 feet); relatively slender snake. Background color may be brown, olive brown, dark olive, greenish brown or dark blackish gray. Interior of mouth blue-gray to blackish.



Habitat:

Dry, open woodland and scrub land, especially in area of rocky outcroppings, but not in rain forest or desert. Also found in aban-

doned termite mounds and mammal burrows. Generally found below 1,500 meters (4,920 feet) elevation.

Activity and behavioral patterns:

Essentially terrestrial, but climbs trees in search of prey or to seek shelter. Generally moves off rapidly at the first sign of danger. When threatened, raises forepart of body from ground and spreads narrow hood. However, if intruder does not move, it will soon drop to the ground and seek cover. Uncertain temper and ready to attack if suddenly disturbed or molested; particularly irritable during mating season (spring or early summer). Very fast snake.

Venom's effects:

Most dreaded African venomous snake; few people survive its bite unless antivenin administered promptly. Venom very potent neurotoxin.

Boomslang

Description:

Adult length usually 1.2 to 1.5 meters (3-5 feet); relatively slender snake. Background color varies from almost black to almost uniform green; no blotches or distinct spots.

Short, stubby head and enormous emerald eyes. Scales strongly keeled and overlapping.

Habitat:

Most common in dry woodland, thorn scrub, savannahs, and swamps bordering or close to streams, rivers, and lakes. Not found in rain forest regions or true desert.



Activity and behavioral patterns:

Diurnal; spends most of time in trees and shrubs. Notably non aggressive; quickly retreats if surprised. If cornered or restrained, inflates neck to more than twice usual size.

Venom's effects:

Potently hemotoxic; can cause severe bleeding internally and from mucous surfaces. Deaths reported.

African Garter Snake**Description:**

Adult length usually 0.4 to 0.6 meter; moderately slender snake. Background color generally uniform black or gray-black. Head not distinct from the neck. Tail short.

**Habitat:**

Generally found in coastal forests, high-level grasslands, or arid savannas.

Activity and behavioral patterns:

Non aggressive, nocturnal snake that spends its days hiding under stones or in burrows. Sluggish, but will bite in self-defense.

Venom's effects:

Venom likely neurotoxic. Not considered lethal to humans.

***White-lipped
or Forest Cobra*****Description:**

Adult length usually 1.5 to 2 meters, maximum of 2.7 meters; relatively slender snake. Background color usually glossy black,

dark gray or dark brown dorsal area; belly creamy white to yellow, often with darker blotches.

Habitat:

Found in tropical rain forest and subtropical forest areas; seldom far from water.

Activity and behavioral patterns:

Very active snake that climbs and swims well. Nocturnal but may forage on overcast days. Equally at home in trees, on ground, or swimming in lakes or rivers. When disturbed, can rear to a great height; usually more than two-thirds of body raises from ground. Spreads narrow hood.

Venom's effects:

Bites reported infrequently, venom highly neurotoxic; fatalities recorded.



Black-necked Spitting Cobra

Description:

Adult length usually 1.2 to 2.2 meters, maximum of 2.8 meters. Body color highly variable, ranging from pinkish tan in some geographical areas to uniform black in others.



Habitat:

Found in moist savanna; shelters in abandoned termite mounds, rodent burrows, or hollow tree trunks.

Activity and behavioral patterns:

Generally nocturnal, although juveniles active during day. Although terrestrial and fairly aquatic, good climber. Inoffensive, will usually take off if disturbed. When provoked, raises up, spreads hood, and may “spit” at intruder’s face.

Venom’s effects:

Venom primarily cytotoxic, causing serious local tissue damage. Large specimens can “spit” venom as far as 3 meters, aiming at the eyes. The venom does not affect unbroken skin, but can cause great pain and possible tissue destruction in the eyes. Venom has caused permanent blindness in humans.

Vine Snake**Other names:**

Bird snake, Twig snake

Description:

Adult length usually 1.0 meter to 1.5 meters; extremely slender snake. Body ashy gray to pink-brown above; uniform or with poorly distinguished blotches and crossbands. Long, flat head and horizontally elongated pupils.

**Habitat:**

Commonly found in trees and shrubbery of rain forests.

Activity and behavioral patterns:

Arboreal; intricate coloration and pattern make it almost invisible when in trees or shrubbery. Timid; seldom bites unless strongly provoked, then makes spectacular display with greatly inflated neck.

Venom’s effects:

Venom hemotoxic; few deaths reported.

Egyptian Cobra

Description:

Adult length usually 1.5 to 2 meters (5-6.5 feet), maximum of 3 meters (10 feet). Background color usually yellow-gray to brown or blue-black, but extremely variable. Belly yellowish with dark blotches. Most specimens have dark brown or black band across the throat.



Habitat:

Various habitats include flat land, scrubby bushes, grass clumps, irrigated fields, rocky hillsides, old ruins, and in vicinity of villages. Sea level to 1,600 meters (5,250 feet) elevation. Not found in rain forests or extreme desert conditions.

Activity and behavioral patterns:

Nocturnal; emerges at dusk, but often seen basking in sun near its retreat in early morning. Often occupies abandoned rodent burrows or termite mounds. While not overtly aggressive, when molested, will rear and spread an impressive hood up to 12 centimeters (4.7 inches) across.

Venom's effects:

Venom primarily neurotoxic, acting largely on nerves controlling respiratory muscles. Untreated cases may culminate in respiratory failure and death.

Dangerous Invertebrates

Scorpions

Although scorpions in the region are capable of inflicting a painful sting, none are known to be life-threatening.

Spiders

Although there are several spider species found in the region that are capable of inflicting a painful bite, including some very large and physically imposing tarantulas, none are known to be life-threatening.



Insects

There is little specific information of medical importance regarding insects. However, nearly all countries have at least one species of moth having venomous/urticating hairs and/or whose larva (caterpillar) has venomous spines. Some caterpillars are very hairy (such as puss moths and flannel moths) and almost unrecognizable as caterpillars, with long silky hairs completely covering the shorter venomous spines. Others bear prominent clumps of still, venomous spines on an otherwise smooth body. Contact with these caterpillars can be very painful. Some are brightly colored.

Paederus are small (usually 4 to 7 millimeters), slender rove beetles that do not look like typical beetles and have very short wing covers that expose most of their flexible abdomens. When crushed, their body fluid contains an agent that will blister skin on contact. The lesions take about a week to heal, and the area remains painful for several weeks. The substance is extremely irritating if it gets into the eyes; temporary blindness has been reported.

Centipedes

Although area centipedes are capable of inflicting a painful bite, none are known to be life-threatening.

Millipedes

Millipedes do not bite and in general are harmless to humans. However, when handled, some larger millipedes (may be more than 50 centimeters long) secrete a very noxious fluid that can cause severe blistering upon contact; some can squirt this fluid at least 2 feet.

Dangerous Plants

Bushman's Poison

Other name:

Poison tree, wintersweet.

Mechanisms of toxicity:

Seeds have a high concentration of toxin (cardiac glycosides); fruit pulp contains only traces. Wood extract is easily absorbed through the skin;



can be mixed with latex from one of the Euphorbia family and gum from Acacia to make arrow poison; also used as an ordeal poison. Extracts applied to prickly fruits and laid in paths of bare-foot enemy to kill. Symptoms of toxicity include pain, nausea/vomiting, abdominal pain, diarrhea. Variable latent period (interval between exposure and symptoms) with cardiac conduction defects and sinus bradycardia; hyperkalemia. Some species cause dermatitis, but this is not a common problem.

Comments:

Dense evergreen shrubs or small trees with a milky sap found in Arabia and tropical eastern and southern Africa. Fruit resembles an olive or small ellipsoidal plum and turns reddish to purple-black

at maturity (one to two seeds). Fruit exudes a milky sap when cut. Aromatic flowers are tubular, white/pink, in dense clusters in the forks of the leaves.

African Teak

Other names:

Osage Orange, fustic, bow wood.

Mechanisms of toxicity:

Benzophenones, xanthones, stilbenes, flavonoids, and tannins known to the genus. Has a milky, bitter sap; yields orange dye that causes skin inflammation.



Comments:

Includes 12 species found in tropical America, South Africa, and Madagascar.

Nettle Tree

Other names:

Ortiga brava, pringamoza.

Mechanisms of toxicity:

Trees and shrubs with powerful stinging hairs. The intensity of sting delivered by these plants is



species-variable. The bushy, tree-like varieties tend to be more irritating. Any contact between leaves or branches and skin can result in profound burning pain that can last for more than 24 hours. There is no permanent damage.

Comments:

Thirty-five native species in tropical and southern Africa, and tropical America. Often used as hedges or local medicinals.

Modikka**No photograph available****Mechanisms of toxicity:**

The root is reported to contain prussic acid and a cyanogenic glycoside, which is destroyed by drying. It also contains a toxalbumin called modeccin, which is a protein-synthesis inhibitor. The usual poisoning scenario is that of the root being mistaken for an edible tuber, especially in situations of scarce food. Death has occurred after ingestion of the fruit. Symptoms within one day are mainly due to the hydrocyanic acid; the toxalbumin results in illness a few days later. Used in India as a “worming” medicine; sap is very irritating. Has been used in Africa to murder.

Comments:

Some species have been used in Africa as medicinals (e.g., for malaria and leprosy).

Desert Rose**Other names:**

Monkey poison, mock azalea, impala lily.

Mechanisms of toxicity:

Cardiac glycosides; used for ordeals, arrow poison, and as a fish stupifier.

**Comments:**

Five species; shrubs or trees; tropical and subtropical African and Arabian distribution. Thrive best in dry areas; have thick stems.

Freshwater Mangrove

No Photograph Available

Other names:

Putat, bitung, laut.

Mechanisms of toxicity:

Saponins and hydrocyanide have been isolated from fruit and seeds. Used as fish poisons in many Pacific islands. Fruit contains a triterpenoid saponin, and the seeds are emetic and have been shown to induce hypoglycemia in rodents.

Comments:

Large tree found growing along shorelines; have large (20-38 centimeters-long, 10-15 centimeters-wide) non-toothed leaves, white to pink flowers (on individual stalks; square in cross section), and one-seeded fruits (9-13 centimeters-long; square in cross-section) Seeds are crushed and used as fish poison by Australian troops and aborigines.

Rattlepod

Other names:

Rattlebox, rattleweed, chilla-goe, horse poison.

Mechanisms of toxicity:

Contains pyrrolizidine alkaloids (monocrotaline, heliotrine, retosine); can kill. Low-level ingestions can cause lung damage; high levels will damage the liver. Some species have caused toxicity through the contamination of flour or when incorporated in teas.



Comments:

The fruits are inflated dehiscent legumes (pods) with parchment-like walls; the ripe seeds come loose within the pods and rattle when shaken. The flowers are pea-like. Found in open woods, roadsides, margins, sandy soils, and fields.

Balogna Sausage Tree**No Photograph Available****Mechanisms of toxicity:**

Common in South Africa. The powdered fruit is used as medicine for numerous ailments (frequently applied externally). The ripe fruit is a purgative. The fruit can be 12 to 20 inches long and weigh up to 8 pounds. The fruit is regarded as highly poisonous; however, the toxic principles are not clear. Used by various African groups as a sexual excitant and in wound treatment. Often the fruit is added to beer to add intoxicating effect, but this tends to cause headache.

Comments:

A large tree pollinated by bats; the tree has adapted by developing long stalks from which the flowers are suspended, hanging in open air so the bats have easy access.

Bulb Yam**Other Name:**

Air potato, wild yam.

Mechanisms of Toxicity:

Bulb yam, air potato, and wild yam have tubers that contain diosgenin, a steroidal saponin, the alkaloid dioscorine, and a nor-diterpene lactone (diosbul-



bine). They and some other yams are poisonous when eaten raw. Causes gastroenteritis (nausea, bloody diarrhea). Some individuals eat them after special preparation. Has been used to commit murder. Found mainly in the lowlands.

Comments:

A prickly climber with a cluster of tubers just below the soil surface. Considered the chief “famine-food” of the tropical East. Poisonous unless properly prepared. Other species of this genus are good to eat with no special preparation, such as goa yam and buck yam.

Heliotrope

Other names:

Cherry pie, scorpion’s tail, Indian heliotrope.

Mechanisms of toxicity:

Contains pyrrolizidine alkaloids. Cause of large epidemics (Afghanistan, India) of illness following ingestion of bread made with flour contaminated with members of this genus. The pathologic effects (Budd-Chiari syndrome) take weeks to months, and death comes slowly over years. Chronic copper poisoning has occurred associated with this plant.



Comments:

A large genus of worldwide distribution (250 tropical and temperate trees and shrubs).

Sasswood

No Photograph Available.

Other names:

Ordealtree, mancona bark, ironwood, camel poison, black bean, Cooktown ironwood.

Mechanisms of toxicity:

Extremely poisonous; the two main species have similar toxicities. Alkaloids of esters and amides of cinnamic acid have been isolated. Most of the alkaloids are esters of diterpenoid carboxylic acids including cardiotoxic alkaloids. Powerful analgesic to the mucous membranes.

Comments:

A fish poison.

Coca

Mechanisms of toxicity:

Natives of the Peru-Bolivia region chew the leaf for its stimulating effect. The source of cocaine.

Comments:

Growth is markedly affected by the environment, especially temperature. Fruit is bright red, pointed, succulent. Found in the upland soils of tropical South America, cultivated in the lowlands of various tropical areas.



Tapioca

Other names:

Manioc, cassava, yuca

Mechanisms of toxicity:

Several varieties contain a toxin that breaks down in heat. Bitter or sweet cassava cannot be distinguished other than by taste. Bitter casava is poisonous when eaten raw. Cooking (with several changes of water) eliminates the toxic principle (requires special preparation).



Comments:

Genus includes almost 100 species (trees, shrubs, and herbs) of tropical and warm Americas; some varieties are very important as a food source. Same subfamily as Croton. Shrubby tree 3-5 feet high. Widely cultivated. Large tuberous roots rich in starch.

Strychnine

Other names:

Nuxvomica tree,
Snakewood tree

Mechanisms of toxicity:

The entire plant, including the seeds, contains the powerfully acting indole alkaloid strychnine, which can kill.



Comments:

Genus of 190 different species of trees, shrubs and vines with berry-like fruits, found in most tropical regions. Some have the

reputation of having edible fruit despite dangerous seeds. It is a source of curare obtained by stripping and macerating its bark. Curare, now used as a muscle relaxant, was formerly used as an arrow poison by South American Indians.

Pokeweed

Other names:

Pokeberry, poke salet.

Mechanisms of toxicity:

Mature stems, roots, and berries are poison (saponins mostly in foliage and roots). Death possible when not prepared properly.



Comments:

Young shoot tips, less than 6 inches, are eaten in many cultures, including Canada; requires proper preparation (boiled with water changes; water contains toxic substances — kills snails that carry bilharzia). Dye from berries used to color ink, wine, sweets.

Oleander

Other name:

Rosebay.

Mechanism of toxicity:

All parts are extremely toxic (two cardiac glycosides have been identified). Quickly fatal potential; a single leaf can kill. Toxicity has occurred by cooking fish or meat on oleander branches or from eating honey made from oleander nectar. Symptoms include severe gastroen-



teritis beginning several hours after ingestion; petechiae occur in various organs. Eventually coma and digitalis-like toxic signs precede death.

Comments:

Ornamental, evergreen shrub native to Europe or Asia. Leaves are stiff or leathery and the funnel-shaped flowers are pink or white in clusters. Fruit are in pods about 15 centimeters long.

Velvet Bean

Other names:

Cowitch, cowhage, pica-pica, ox eye bean, horse-eye bean.

Mechanisms of toxicity:

Many of the species' pods and flowers are covered with irritant hairs (proteolytic enzymes). Can be dangerous if they become embedded in the eye. Beans tend to be foul tasting, even after thorough boiling, so little danger of ingestion exists.

Comments:

Many species are widely naturalized.



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