

DARK NETWORKS

Shining a Light
on Shadowy
Criminal
Organizations

PLUS

A Conversation With the Executive Director
of AFRIPOL, Dr. Tarek Sharif

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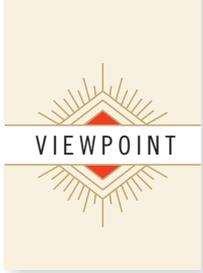
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ON THE COVER:
This illustration represents
the shadowy groups
trafficking narcotics,
weapons, humans and
precious natural resources.

ADF STAFF



As COVID-19 swept the globe in 2020, security professionals were called on to perform new duties. They enforced quarantines, patrolled streets, guarded hospitals and transported lifesaving medical gear.

While much of the world went into lockdown, Soldiers stepped up. And although the pandemic ignited a sense of shared purpose and a willingness to sacrifice, some have tried to take advantage of it.

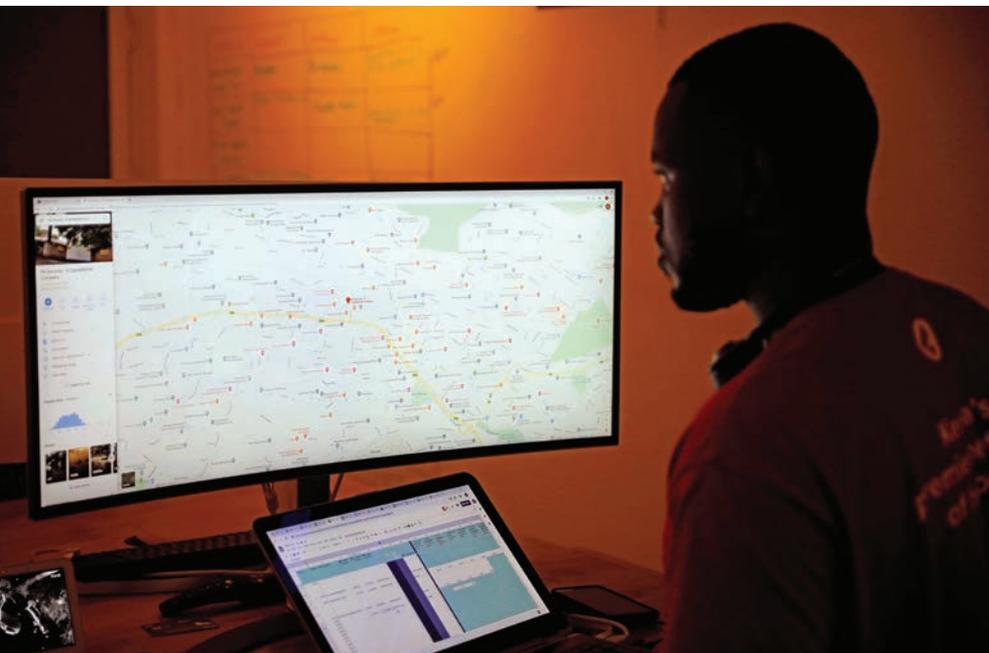
Traffickers, pirates, poachers and other criminals saw an opportunity to operate more freely while the attention of the world was elsewhere. In some of the most reprehensible cases, traffickers tried to profit by manufacturing fake medicine or unsafe protective gear. In other cases, criminals on the web promoted scams designed to prey on the fearful.

Like other security challenges, COVID-19 brought out the best in humanity and the worst.

As life slowly but steadily adjusts to a new normal, African security professionals continue a commitment to dismantling the criminal networks that operate in the shadows. Technology is a force multiplier in this mission. In the Gulf of Guinea, maritime domain awareness professionals are using surveillance tools to track illegal fishing and piracy. In Mauritius and many other African countries, cyber security experts are building digital structures to secure the web. In Nigeria and Kenya, digital initiatives are helping authorities track medication and spot fakes.

COVID-19 forced the world to change by practicing social distancing and working remotely. It also led to innovations and adaptations by those who keep us safe. By putting cutting-edge tools in the hands of determined and knowledgeable professionals, Africa's security forces can stay one step ahead of criminal networks.

U.S. Africa Command Staff



A dispatcher for the Rescue.co free ambulance service monitors an online map during the COVID-19 curfew in Nairobi, Kenya. REUTERS



Dark Networks

Volume 13, Quarter 4

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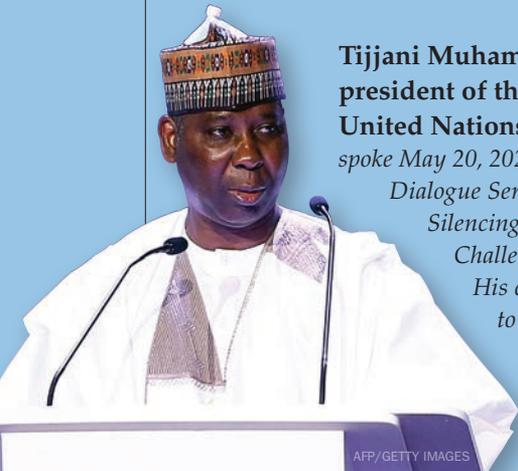
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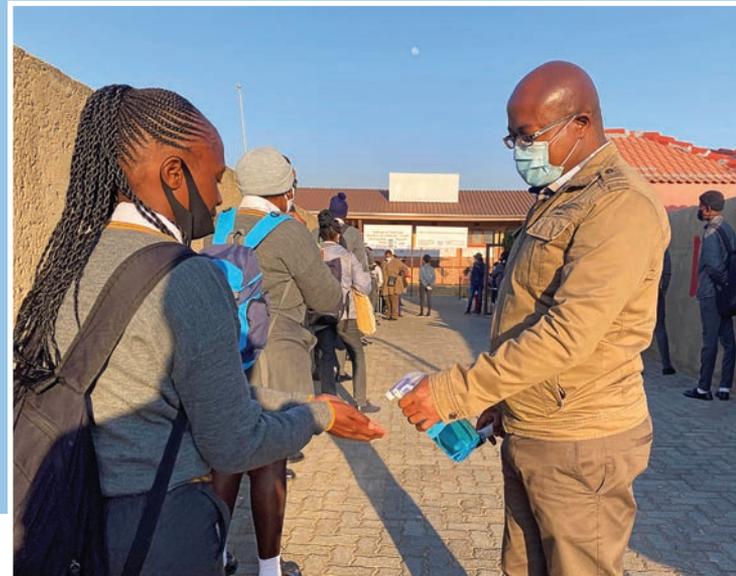
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Ensuring Security, Prosperity During a Time of Pandemic



Tijjani Muhammad Bande of Nigeria, president of the 74th Session of the United Nations General Assembly, spoke May 20, 2020, as part of the Africa Dialogue Series on “COVID-19 and Silencing the Guns in Africa: Challenges and Opportunities.” His comments have been edited to fit this format.

AFP/GETTY IMAGES



A staff member sanitizes students' hands as schools begin to reopen after the COVID-19 lockdown in Johannesburg, South Africa, in June 2020. REUTERS



COVID-19 has brought such disruption as never experienced since the creation of the United Nations.

I extend my deepest sympathies to those who have lost loved ones due to COVID-19 and wish those battling the virus a fast and full recovery.

The challenges posed by this disease are multidimensional and can only be effectively tackled by galvanizing multilateral action to collectively ensure the mitigation of its health and socio-economic impact. This can happen with active partnerships.

A firm and coordinated response is important to ensure that among other things, the pandemic does not negatively affect our plan to silence the guns in Africa.

It is, however, important that in our rapid response to the pandemic and in our long-term planning, we address the development-peace nexus and uphold human rights. As we experience socio-economic hardships due to COVID-19, we must continue to pay attention to the needs

of the most vulnerable because they often experience greater hardship during difficult times. As most families lose their income during this hardship, governments around the world must continue to prioritize the socioeconomic and mental well-being of their citizens, as these are key to silencing the guns anywhere, especially in Africa.

We cannot allow unemployment and exclusion to undermine our efforts for peace. We must also reverse the deepening inequalities that affect all minority groups, putting an immense strain on them and pushing them deeper into poverty and hunger.

We must also prioritize food assistance programs and assistance to farmers and food producers to ensure food security for the people we serve. As millions of children in Africa depend on school feeding programs, there is need to ensure that we do not allow this pandemic to cut food supplies.

We also must ensure continuity of education for students in Africa and prioritize the integration of information and communications technology in education

when we are addressing infrastructure needs. People under the age of 25 represent the largest demographic group in most developing countries and are most vulnerable to radicalization, so we must take urgent action to ensure that the pandemic does not open the door to an increase in extremist recruitment.

Existing debt challenges paired with the economic and financial shock caused by COVID-19 undermine the public and external debt sustainability of a wide range of countries. Given these, preventing a series of disorderly defaults and widespread debt crises is of the utmost importance. It is in this regard that debt standstill and/or cancellation and other measures are put in place to address COVID-19 fallout.

We will be defined by our actions, and I urge you to act now to build a better future and a better world for all.



NIGERIA'S NOLLYWOOD CREATIVELY COPE WITH VIRUS CRISIS

AGENCE FRANCE-PRESSE

As COVID-19 closed businesses around the world and forced billions to stay home, Nigerian director Obi Emelonye came up with an innovative way to keep filming.

Inspired by his wife's teleconferencing calls from their isolation in Britain, he wrote and put together a short feature about a couple separated between London and Lagos.

There was just one day for rehearsals and two for filming. The actors recorded scenes on mobile phones in their homes on two continents.

"I wanted to show young people that despite the countless difficulties of our profession, despite the coronavirus, you can make a film without funding, without even a real camera," the director said.

In the face of the pandemic, the second-most prolific film industry on the planet needs its inventive spirit more than ever.

Moses Babatope watched as a government order to close saw income evaporate in spring 2020 at the Filmhouse, a cinema chain he co-founded in 2012. He estimated that losses for the sector reached more than \$9 million in that time.

Dozens of film shoots have been put on hold or scrapped, and workers are going unpaid.

Netflix suspended the filming of its first original series made in Nigeria, and French media giant Vivendi delayed the opening of its first cinema in the capital, Abuja.

Distributors estimate 50,000 jobs are under threat. "It's



Nigerian filmmakers are trying innovative ways to keep Nollywood alive in the age of COVID-19. AFP/GETTY IMAGES

going to take a while before it really starts up again," Babatope said.

To navigate the troubles, the industry began pushing its boundaries. Producer Charles Okpaleke teamed up with local cinema chains Genesis and Silverbird to launch open-air drive-in facilities.

A first screening in Abuja in late May 2020 sold out in just a few hours as viewers flocked to watch his film *Living in Bondage* from the comfort of their cars.

Producers and directors also are looking to release their films on streaming services such as Netflix and its local competitor Iroko TV.



Cassava Gets New Use in Zambia: Hand Sanitizer

THOMSON REUTERS FOUNDATION

To deal with drier conditions, Zambian farmer Pamela Nyirenda in 2019 shifted to growing drought-hardy cassava, among other new water-sipping crops such as groundnuts and cowpeas.

But in 2020 her cassava field has brought not just a secure harvest but also a financial windfall, as buyers snap up the tubers to produce ethanol for alcohol-based hand sanitizer.

As the COVID-19 pandemic hits Africa, cassava flour in Zambia is selling for up to 5,000 kwacha (\$270) a metric ton, a steep increase above the same time in 2019, according to the Zambia National Farmers Union.

"This is my second year cultivating [it], and I have managed 10 [metric] tons of cassava tubers," she said. She expects to earn nearly twice as much from her cassava in 2020 as she did in 2019.

Musika, a Zambian agricultural nonprofit, noted that more than 25,000 farmers in Zambia — many of them women — are now growing drought-tolerant varieties of cassava, up from 5,000 five years ago.

Pamela Hamasaka, head of corporate affairs for Musika, said demand for cassava ethanol has surged in Zambia as companies rush to churn out more hand sanitizer to control the spread of the deadly COVID-19 pandemic.

In May 2020, 250 metric tons of cassava flour a day were being turned into ethanol for hand sanitizer and other products sold locally or exported to neighboring countries, she said.

But some experts fear turning food crops like cassava into ethanol could damage the region's food security as a COVID-19 global economic slowdown leads to more export bans.

Zambia's Ministry of Agriculture projects the country will produce just over a million metric tons of cassava flour in 2020.

Senegalese Engineering Students Fight Virus With Inventions

AGENCE FRANCE-PRESSE

Senegalese engineering students are throwing themselves at the COVID-19 problem with inventions such as automatic sanitizer dispensers and medical robots.

Young innovators from a top engineering school in the capital, Dakar, have turned their technical skills toward easing pressure on the wards, and they are already in talks with hospitals over some of their new products.

One example is a small robot, dubbed "Dr. Car," which will measure patients' blood pressure and temperature, according to students from Dakar's Ecole Supérieure Polytechnique.

The university is one of West Africa's best for engineering and technology, and is highly selective, with 28 nationalities represented among its 4,000 students.

Lamine Mouhamed Kebe, one of the students who designed the robot, said the machine would reduce the exposure of doctors and nurses to infected patients and use of expensive protective gear.

Guided by a mounted camera and controlled by an app, doctors also will be able to communicate with patients through the robot, Kebe said, potentially allowing them to treat people in isolated rural areas.

Front-line Senegalese doctors are taking the young engineers seriously. An initial prototype designed by the students was essentially a small mobile trolley, designed to carry equipment or meals to patients.

But Abdoulaye Bousso, head of an emergency ward in a Dakar hospital, asked to redesign it to include mechanical arms capable of conducting medical tests — an upgrade the students are working on now.

"It's a whole process," Bousso said, adding that the robot could cut down on their use of expensive bibs and gowns, which must be thrown away.

Other students have devised simpler devices that they also hope will battle the disease in Senegal.

Gianna Andjembe, a master's student in electrical engineering, has designed an automatic hand-sanitizer dispenser that he said could reduce the need for staff in schools and hospitals to supervise hand-washing.

"As scientists, as engineers, we have to meet the challenges and really take our destiny into our own hands," Andjembe added.



Students at Dakar's Ecole Supérieure de Polytechnique work with a small robot in the school's lab.

AFP/GETTY IMAGES

A World of **CRIME**

**Africa Joins Global Struggle Against
Organized Criminal Enterprises**

ADF ILLUSTRATION

The movie version of organized crime typically depicts heavily armed Latin American drug cartels or Italian Mafia groups that run extortion rackets.

True organized crime is more sophisticated, diverse and widespread than any popular media or cultural stereotype. Criminals operate in different ways, large and small, with disparate interests in a variety of arenas.

This is equally true in Africa, and the continent has

gotten increased attention from the global community regarding the full range of crimes favored by organized criminal networks. From poaching to human trafficking, drug smuggling to maritime crime, Africa displays an array of organized criminal enterprises.

Africa also offers a lesson in the varying and sophisticated types of organized crime, with four major categories evident on the continent.

The Four Types of Organized Crime

An article by Mark Shaw, director of the Global Initiative Against Transnational Organized Crime, published by the Institute for Security Studies (ISS), lays out the four major types of organized crime in Africa. There is some overlap among them.

The first type is a **mafia-style organization**, and it is present where such criminal activity already is well-established and defined by violence. Cape Town, South Africa, is an example.

“The city’s gangs and criminal networks — including corrupt connections within the police — allow parallels to be drawn to the Italian mafia,” Shaw writes. “Gangs or mafia-style criminals in Cape Town kill, extort, traffic illicit substances and have connections to the state.”

This first type can look somewhat different elsewhere. In Nigeria, for instance, criminal groups have a mafia-like operation with more of a global reach but less control of domestic territory. Nigerian criminals have influence in Italy, especially as it regards human trafficking.

The International Organization for Migration (IOM) reported that an estimated 80% of young girls arriving in Italy from Nigeria are potentially trafficked for sexual exploitation, such as prostitution. IOM data from 2011 to 2016 shows an increase of women and unaccompanied girls originating in Nigeria and entering Italy reaching an almost industrial scale.

The trafficking sometimes is the work of criminal gangs often referred to as confraternities, such as the Confraternity of the Supreme Eiyé — also known as the Airlords — and the Black Axe, according to a report from InfoMigrants.

The second classification involves **networks that “link outsiders and insiders on the continent”** to move illicit materials, according to Shaw’s article. These networks tend to look less like typical organized criminal interests and can include East and West African drug traffickers.

Shaw cites Guinea-Bissau as an example. Long labeled a narcostate by the international community because of the high flow of drugs through the nation and the high-level officials involved in that commerce, the reality may be somewhat different. “On closer examination it resembles more a set of interlocking criminal networks protecting a transit trade,” he writes.

The East African drug trade prioritizes heroin over cocaine, but similar conditions exist. The opiate, typically sourced from Afghanistan, makes its way down the East Coast of Africa in small, motorized dhows, each capable of hiding 100 kilograms to 1,000 kilograms of the drug. This journey constitutes the “southern route” laid out in “The heroin coast: a political economy along the eastern African seaboard,” written by Simone Haysom, Peter Gastrow and Shaw for the European Union’s Enhancing Africa’s response to transnational organized crime (ENACT) program.

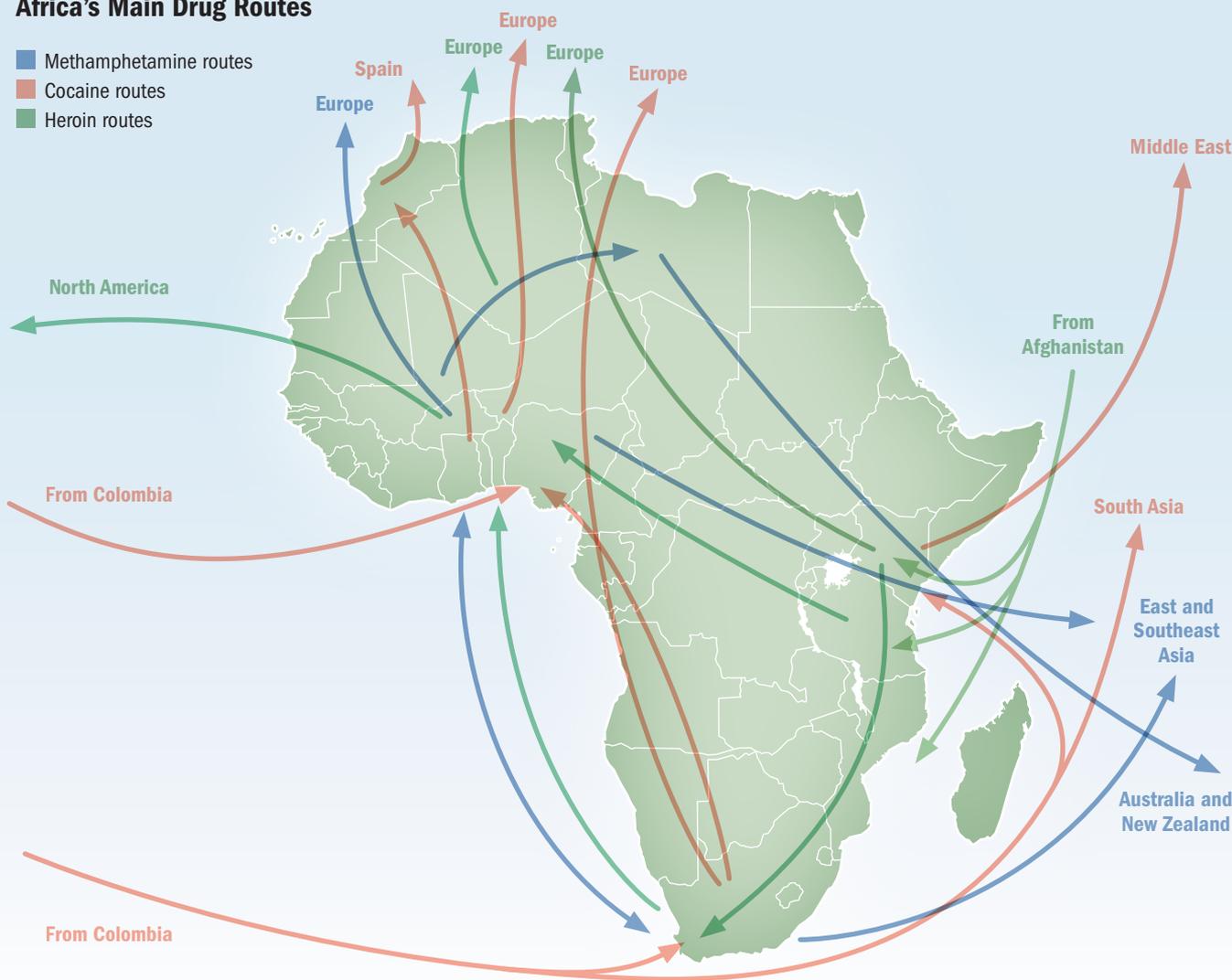
The dhows are able to avoid satellite and patrol boat detection, and they stop offshore so that small craft can come and offload the drugs and take them back to small islands, beaches and harbors. This process repeats up and down the coast from Somalia to Mozambique, according to the ENACT paper. Then, the drugs make their way inland and on to other markets.

Heroin transiting this route often is bound for Europe and island nations, but the ENACT paper explores the route’s effects on the African transit nations. It is here that the links between insiders and outsiders can be seen.

Opiates move from Afghanistan to Pakistan, where African drug networks are said to have connections. From there, the drug makes its way into the route and countries such as Somalia, Kenya, Tanzania and Mozambique. The Port of Mombasa, East Africa’s largest, is used by several Kenyan drug traffickers, according to the ENACT paper.

Africa's Main Drug Routes

- █ Methamphetamine routes
- █ Cocaine routes
- █ Heroin routes



Source: ENACT, as adapted from United Nations Office on Drugs and Crime "World Drug Report 2018"

Shaw's ISS paper lists the third type of major organized crime as being a cross between what he calls **"loose political organizations,"** such as **militias and other armed groups, and traffickers.**

States can be an influence on this category, either directly or indirectly, by helping or hindering groups through political protection. Shaw writes about three examples of where this type of crime thrives: Libya, which has spent years in lawlessness since the fall of Moammar Gadhafi; the Sahel, which has been racked with extremist violence for years; and East Africa, which has seen extremist violence metastasize outward from Somalia.

"The third category is directly linked to weak states and zones of conflict in different parts of Africa," Shaw writes. "For the most part, it cannot exist without the instability brought about in such conditions. Its practitioners are often weak proto-states with some form of geographic control, but this is limited and continually challenged, particularly when criminal groups offer alternative forms of governance."

The Sahel and surrounding region are a prime example of this type. Instability that started in 2012 with a Tuareg rebellion in northern Mali has grown to encompass much of the region, and weapons and militants from Libya poured in after Gadhafi's fall. Porous borders and ungoverned spaces have exacerbated the problem in a region historically connected to a range of trafficking crimes, including drugs, cigarettes and people.

A 2019 paper for the Global Initiative Against Transnational Organized Crime titled "After the Storm: Organized crime across the Sahel-Sahara following upheaval in Libya and Mali" indicates that crime in this region has changed due to an influx of security responses in recent years. Instability along borders in Mali, Niger and Libya actually has disrupted drug trafficking, the report says, and arms flowing out of a collapsing Libya have slowed over time with supply failing to meet increasing demand.

Human trafficking and smuggling exploded in the past 10 years but have since been reduced or driven

Incidents by Drug Type in East Africa (KENYA, TANZANIA AND UGANDA), 2008-2017

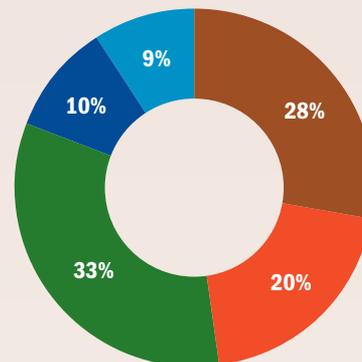
Busy East African ports, particularly those in Mombasa, Kenya, and Zanzibar and Dar es Salaam, Tanzania, are entry points for Asian heroin. Corruption, freight volumes and well-known traffickers keep drugs and contraband flowing in and out of the region, according to ENACT.

► 513 Media-Reported Instances of Drug-Related Activity

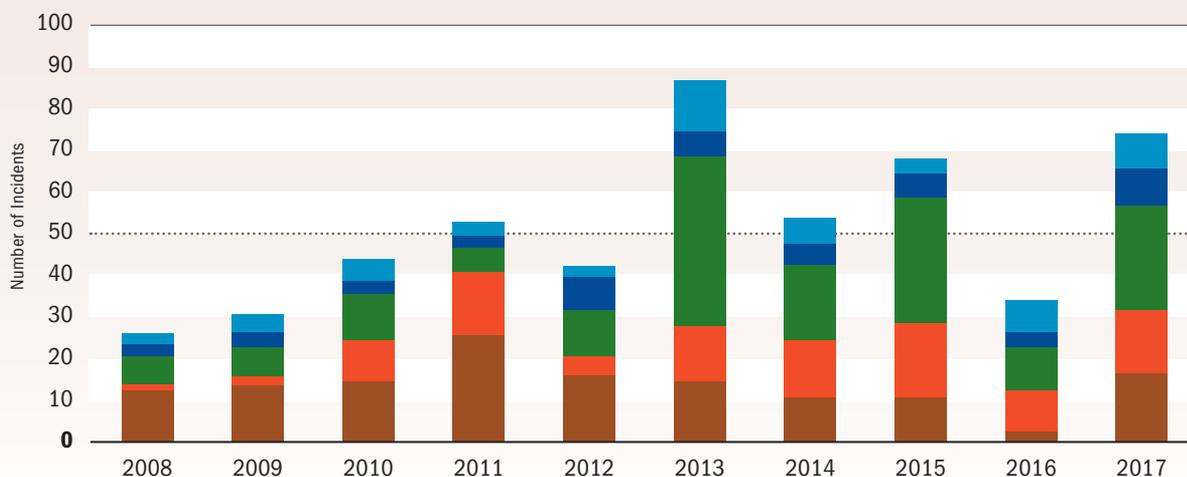
Activities fall into one or more of the following categories:

- Conspiracy and planning
- Harvesting
- Possession
- Transportation/smuggling
- Mixing and processing
- Retail

- Cannabis
- Cocaine
- Heroin
- Other
- Unnamed



► The 513 Drug-Related Incidents by Drug Type



Source: ENACT Transnational Organized Crime Incident Monitoring Database 2018

underground by partnerships between European and Sahel-Saharan states, the report shows. Meanwhile, trafficking in counterfeit drugs — mainly the narcotic painkiller tramadol — is on the rise, as are mercenaries, protection rackets and other banditry.

“High-level traffickers convert profits into political capital to obtain state protection or gain social legitimacy among local populations, or both,” the report states. It goes on to say that the “lack of economic opportunity, the pervasiveness of corruption, instability and insecurity, weak law-enforcement capacity, and the regional integration of West Africa and the Maghreb into the global economy combine to make the Sahel fertile ground for criminal economies.”

The fourth and final type of organized crime prevalent in Africa is **cyber crime**, Shaw writes. It is likely to increase as technology and internet access grow on the continent. According to Symantec’s “2019 Internet Security Threat Report,” one out of every 131 emails in South Africa the previous year was malicious, the

fourth-highest rate in the world. Over the same span, one out of 1,318 emails in South Africa were part of a phishing scam, the fifth-highest global rate.

Karen Allen, senior research advisor with ISS in Pretoria, South Africa, wrote that African nations must be prepared for cyber-dependent crimes and cyber-enabled crimes. The first uses computer technology to create new crimes. The second uses new technology to commit more traditional crimes such as laundering money.

In January 2018 some within the African Union accused the Chinese government of hacking computers in the Addis Ababa, Ethiopia, headquarters and downloading confidential information, *Financial Times* reported. The hacking, which China denied, reportedly occurred nightly between January 2012 to January 2017 from midnight to 2 a.m. China funded the AU headquarters, and one of its state-owned companies built it.

It’s clear that cyber crime will be an African concern for many years to come.

WILDLIFE CRIME

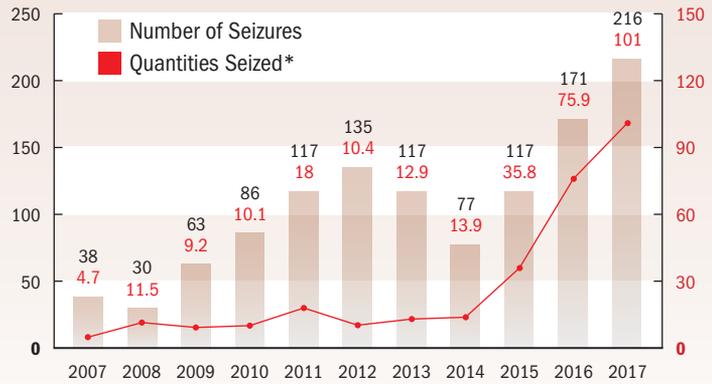
Africa has some of the world’s most regal and iconic wildlife. But although those treasures attract millions of tourists through safaris, they also attract criminals intent on profiting from animal body parts.

Pangolins

Pangolins are the most trafficked animal on earth for their scales, which are used in traditional Chinese medicine. Seizures and the quantities seized have soared in recent years. Most are trafficked from Africa and Asia.

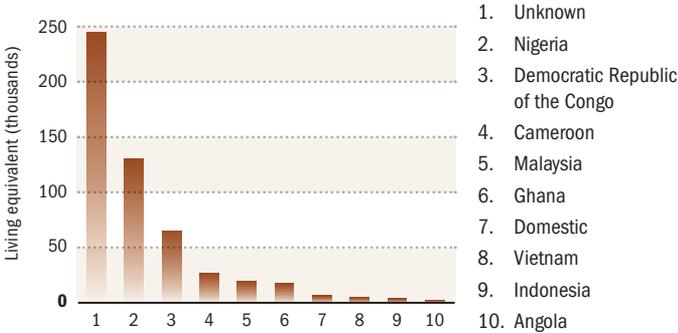


Weight Equivalent of Pangolins and Number of Pangolin Seizures



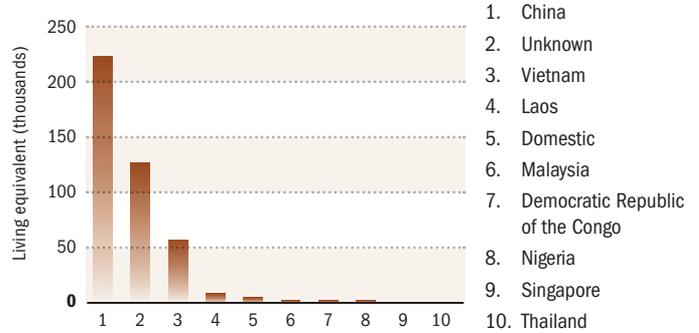
*Note: The quantity seized is measured in thousands of whole equivalents, which consists of live animals, dead animals, meat and scales.
Source: United Nations Office on Drugs and Crime World WISE Database

Quantities by Country of Origin



Source: United Nations Office on Drugs and Crime

Quantities by Country of Destination



Source: United Nations Office on Drugs and Crime

Notable Pangolin Seizures in 2019

Date	Volume of Pangolin Scales Seized (tons)	Origin	Seizing Country	Destination
January	1.4 (with 100 kg ivory)	Nigeria	Vietnam	—
January	8.3 (with 2.1 tons ivory)	Nigeria	China (Hong Kong SAR)	Vietnam
March	8.3	Nigeria	Vietnam	—
April	12.9 (with 175 kg ivory)	Nigeria	Singapore	Vietnam
April	12.8	Nigeria	Singapore	Vietnam
April	4 (with 3.4 tons ivory)	Democratic Republic of the Congo	Vietnam	—
May	5.3	Nigeria	Vietnam	—
July	11.9 (with 8.8 tons ivory)	Democratic Republic of the Congo	Singapore	Vietnam
July	1.2	Democratic Republic of the Congo	Turkey	—
October	1.5	—	Nigeria	Malaysia
December	1.7 (with 330 kg ivory)	Nigeria	Vietnam	—

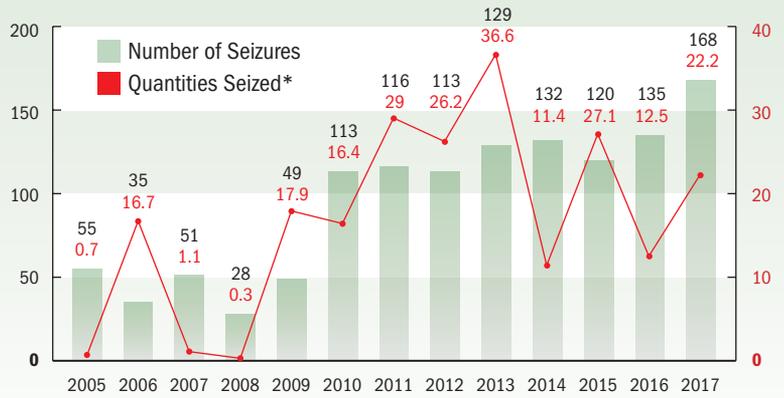
Source: Convention on International Trade in Endangered Species of Wild Fauna and Flora

Elephants

Elephants have seen a decline in poaching in recent years, but the number of incidents remains high. Ivory from their tusks is used to make a variety of ornaments and objects.



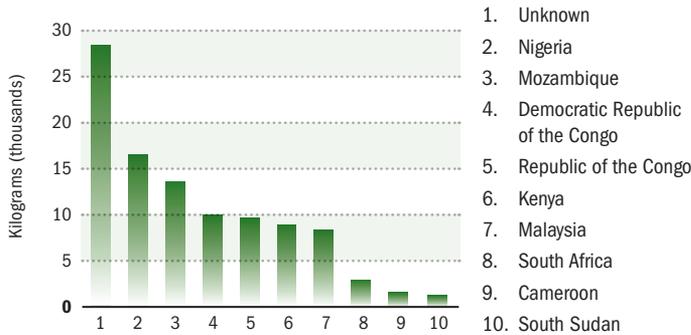
Weight Equivalent of Elephant Tusks and Number of Seizures



*Note: Quantity denotes weight of whole tusks in metric tons.

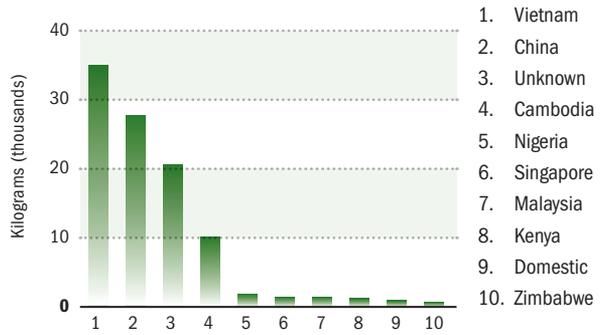
Source: United Nations Office on Drugs and Crime World WISE Database

Quantities by Country of Origin



Source: United Nations Office on Drugs and Crime

Quantities by Country of Destination



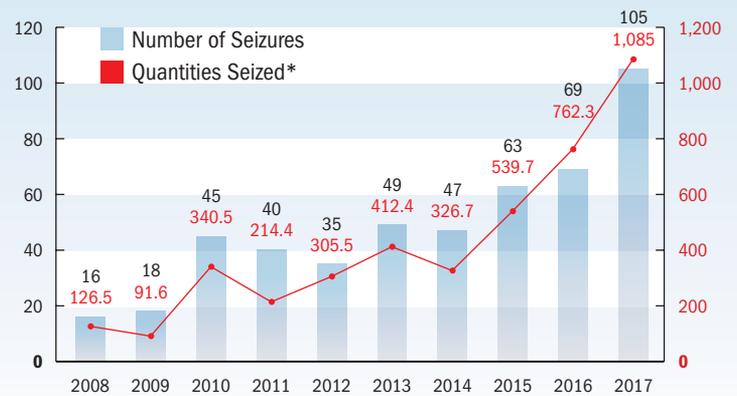
Source: United Nations Office on Drugs and Crime

Rhinos

Rhinos also are heavily trafficked. Their horns, like pangolin scales, are used in traditional Chinese medicine. The horns and scales both consist of nothing more than keratin, a substance found in human fingernails and hair. Keratin has no medicinal or curative value.



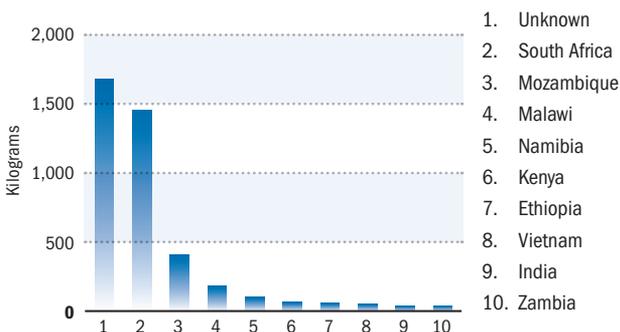
Weight Equivalent of Rhino Horns and Number of Seizures



*Note: Quantity refers to weight of whole rhino horns in kilograms.

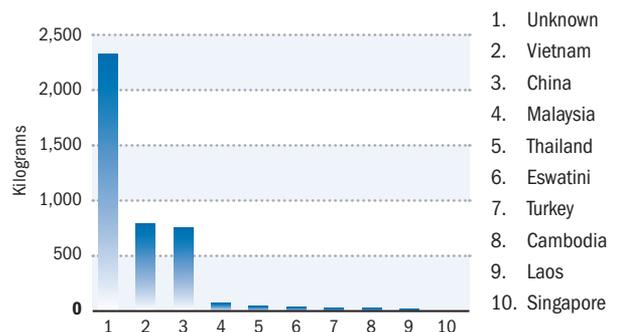
Source: United Nations Office on Drugs and Crime World WISE Database

Quantities by Country of Origin



Source: United Nations Office on Drugs and Crime

Quantities by Country of Destination



Source: United Nations Office on Drugs and Crime



JOINING HANDS TO POLICE A CONTINENT

AFRIPOL's Director Says Fighting Criminal Networks Will Require Cooperation in Africa and Abroad



Dr. Tarek A. Sharif was appointed executive director of the African Union Mechanism for Police Cooperation (AFRIPOL) in May 2017. Before that he served as head of the Defence and Security Division in the Peace and Security Department of the African Union Commission in Addis Ababa, Ethiopia, from 2010 to 2017. He also served as senior policy officer in the African Union office in Lilongwe, Malawi, from 2006 to 2009. Before joining the African Union, Sharif was a lecturer at American University in Madrid from 2004 to 2006. He also was head of the International Cooperation Division of the Islamic Committee of the International Crescent, one of the specialized agencies of the Organization of the Islamic Conference, from 1999 to 2003. Sharif has a Ph.D. in international relations from the University of Reading, United Kingdom. He is Libyan and responded to *ADF's* questions by email. This interview has been edited to fit this format.

ADF: What is AFRIPOL, and when was it formed?

DR. SHARIF: The Heads of State and Governments of the African Union (AU), at the 28th Ordinary Session held in Addis Ababa, Ethiopia, in January 2017, adopted the African Union Mechanism for Police Cooperation (AFRIPOL) statute. This effectively launched AFRIPOL as a specialized technical institution of the AU for police cooperation. In May 2017, AFRIPOL held its first General Assembly and adopted its first work plan.

AFRIPOL headquarters is in Algiers, Algeria, and the institution was established to strengthen cooperation

among African law enforcement agencies and with international police organizations to combat transnational organized crime and terrorism by sharing information, intelligence and data on criminals, their groups and their activities.

ADF: In what way is AFRIPOL connected to the international police organization Interpol?

DR. SHARIF: Interpol is an important partner, and the signing of a cooperation agreement between Interpol and the African Union in relation to AFRIPOL in January 2019 is a clear illustration of this partnership.

In April 2020, the two organizations also launched a three-year joint program. The program will enable the two institutions to work together to strengthen the capacities of the police agencies of the AU member states in fighting crime on the African continent. It also will help enhance the technical and analytic capabilities of AFRIPOL at institutional and operational levels.

ADF: Was there any particular event or criminal enterprise in Africa that made it clear that an organization such as AFRIPOL would be necessary to effectively address crime on the continent? If so, what was it?

DR. SHARIF: The African continent is faced with complex security challenges that have profound implications to its peace, security and stability because of their transnational nature, with criminal groups engaging in various crimes like trafficking of drugs, weapons, humans, wildlife and



Tons of cocaine like this are trafficked into Africa each year. AFP/GETTY IMAGES

protected species; money laundering and other financial crimes; and people smuggling. It is these realities that propelled the member states to establish AFRIPOL as a continental institution to support cooperation among police agencies.

ADF: Although still relatively new, what specific operational successes can you point to in which AFRIPOL played a vital role in combating transnational organized crime on the African continent?

DR. SHARIF: AFRIPOL is relatively new, and we have developed our structures to move gradually toward its full operation. In fact, since 2017 AFRIPOL was working to create the AFRIPOL National Liaison Offices (NLOs) within AU member states and the AFRIPOL Police Communication System (AFSECOM). All the AU member states have opened AFRIPOL NLOs and received the AFSECOM equipment. Subsequently, AFRIPOL will be conducting specific operations within the different African regions during the course of 2021.

ADF: Counterfeit medicine is a major challenge for much of the continent. According to the World Health Organization, African nations account for 42% of all counterfeit medicines in circulation. This leads to thousands of deaths every year. What needs to be done to stop this?

DR. SHARIF: The threat that counterfeit medicine poses

is not only to the health of innocent people because of the resultant medical complications, but it also is a threat to state security. This is because smugglers often belong to criminal networks for which smuggling counterfeit medicine is only part of the illicit activities that they engage in. Currently, AFRIPOL is supporting member states to strengthen their capacities to combat this crime. AFRIPOL also is operationalizing its Working Group on Transnational Organized Crime, which will provide technical guidance on priority areas for capacity building, and legislative and technical support.

ADF: Criminal syndicates with international connections are operating in many African countries to traffic endangered animal parts. In many cases, this illegal trade is connected to traditional Chinese medicine. What can AFRIPOL do to help African law enforcement agencies partner with one another and with global law enforcement agencies to stop this trade?

DR. SHARIF: Wildlife trafficking (flora and fauna) in general, including trafficking of animal parts, is one of the crimes that AFRIPOL has singled out as a major concern on the African continent. Indeed, reports indicate an increase in poaching in this COVID-19 period. AFRIPOL is focused on enhanced cooperation, not only for AU law enforcement agencies: police, border guards and customs. In fact, AFRIPOL's cooperation agreement with Interpol and with other international police organizations, which



A Kenyan wildlife ranger guards stockpiles of burning elephant tusks, ivory figurines and rhinoceros horns in Nairobi. AFP/GETTY IMAGES



A police officer in Côte d'Ivoire shows counterfeit tramadol tablets seized in a raid of Abidjan shops that sold fake medicine.

AFP/GETTY IMAGES



Ivoirian police officers with the anti-transnational crime unit guard weapons, cash, ivory and other items confiscated when they dismantled a drug trafficking network in 2019.

AFP/GETTY IMAGES

we will soon sign, will help to disrupt criminal networks' operations, which are increasingly international. Global cooperation enables sharing of experiences with law enforcement agencies beyond the continent, something that is beneficial to African law enforcement agencies.

ADF: Although African nations have made major strides in combating the narcotics trade, the continent continues to be both a transit point for illegal drugs and a destination for drug traffickers. According to the United Nations Office on Drugs and Crime, about 18 metric tons of cocaine are trafficked through West Africa each year, and about 70,000 kilograms of heroin are trafficked through East Africa. Where is AFRIPOL focusing its efforts to slow the drug trade?

DR. SHARIF: Narcotrafficking remains a challenge. It is in this regard that AFRIPOL continues to work toward supporting the efforts of all the member states. AFRIPOL also is identifying strategies and projects with our partners at the global level, and with other international police organizations. All this is intended to enhance coordination and facilitate the exchange of information to identify various routes used by traffickers.

ADF: In what specific ways has the global COVID-19 pandemic affected AFRIPOL? Has it prompted changes in the ways operations are conducted? If so, how?

DR. SHARIF: The effects of COVID-19 are far-reaching and have caused unprecedented change to the whole world. The pandemic caused many businesses and organizations to move into virtual and remote working. On one hand, this situation led to a relative drop in crimes that had dominated law enforcement, ranging from petty thefts to break-ins and violent robberies. Cross-border smuggling and trafficking have also reduced. This is as a result

of the lockdowns and curfews that have virtually halted movements of persons — except for the security agencies charged with enforcing the new measures. On the other hand, many criminals and their networks are adopting new methods of crime. A surge in cyber crimes is one of the effects. Indeed, AFRIPOL is working toward adopting new operational strategies to address the challenges posed by COVID-19.

ADF: As executive director of AFRIPOL, what are your short-term and long-term visions for where AFRIPOL should be in the future?

DR. SHARIF: As a technical institution of the AU with the mandate to support the police agencies of AU member states to prevent and respond to threats posed by organized crime through structured cooperation, the vision for AFRIPOL is to become the leading structure for the AU in combating transnational organized crime. And that all other actors on the continent in fighting organized crime will be secondary to AFRIPOL and will seek guidance on what to do to buttress what AFRIPOL is doing.

ADF: Is there anything else you think is important to add about AFRIPOL?

DR. SHARIF: I wish to emphasize that transnational organized crime, by definition, cannot be effectively addressed by any single country. Efforts to fight it should draw on cooperation of all states globally. This “chain” of fighting transnational organized crime is only as strong as its weakest link. AFRIPOL will not only continue to work to strengthen cooperation among the police agencies in the continent, but also with other similar organizations for police cooperation globally. It is our hope that this is a shared vision internationally. □



ISLAND NATION TACKLES CYBER SECURITY



Mauritius emerges as a global leader in computer security innovation

ADF STAFF

For nearly two decades, the island country of Mauritius has aspired to be a technical and financial force on the world stage. The country's ambition to become an "information society" dates to 2001, when it established the Business Parks of Mauritius Ltd as a government-owned company to develop information and communications technology. That led to the Cyber City Project in 2003. The goal of the project was to make Mauritius a preferred destination for business and professionals and "to create wealth and employment through the use of information technology," reported *The New Economy* of the United Kingdom. Today, the project takes up 62 hectares with five distinct zones: Cyber and Multimedia, Business and Finance, Knowledge, Commercial, and Residential.

Mauritius is now viewed as the country most committed to cyber security in Africa and is ranked sixth in the world by the Global Cybersecurity Index. It is no coincidence that Mauritius is considered Africa's most successful democracy and one of only 20 countries worldwide to be classified as a "full democracy."

Grove Applied Intelligence of South Africa says that Mauritius' standing as an information and communications technology (ICT) leader comes as a result of the country's "good policymaking and foresight on behalf of the business sector."

In May 2018, the European Union enacted the General Data Protection Regulation, which affects every organization and country doing business with the EU. The regulation requires wide-ranging cyber security and privacy practices. In anticipation of the EU regulations, Mauritius adopted the Data Protection Act of 2017.

In announcing the act, Mauritian officials said it was the "right balance" between privacy rights and government and business security concerns.

"The key principle underpinning data protection is to ensure that people know to control how personal information about them is used or, at the very least, to know how others use that information," the Mauritius Data Protection Office noted. "Data controllers are people or organizations holding information about individuals, and they must comply with the data protection principles in handling personal data, and 'data subjects' are individuals who have corresponding rights.

"The object of the act is to provide for the protection of the privacy rights of individuals in view of the developments in the techniques used to capture, transmit, manipulate, record or store data relating to individuals."

Kaleem Ahmed Usmani heads the Computer Emergency Response Team (CERT) of Mauritius and is the current Mauritian representative to the United Nations Group of Governmental Experts on Cyber. In an email interview with *ADF*, Kaleem said his country felt it had to keep up with the times in addressing cyber security.

"The rapid expansion of ICT across the African continent over the past decade has led to increased reliance on internet and mobile technology," he wrote. "The increase in the internet penetration has also made the countries vulnerable to cyber attacks. Legislations, policies and capacity building regarding cyber security have not been the main focus for many countries due to lack of awareness and political will."

Kaleem said that from the start, the Mauritian government's vision "was to make the country a 'cyber island' in which ICT would become the fifth pillar of the economy after sugar, textiles, tourism and financial services."

Emergency Response Team

A major aspect of the country's cyber security is the CERT of Mauritius, a division of the National

The banking industry in Mauritius relies on the country's attention to cyber security.





About MAURITIUS

ADF STAFF

The Republic of Mauritius is an island nation in the Indian Ocean about 2,000 kilometers southeast of the African continent. It includes the main island of Mauritius and the islands of Agaléga, Rodrigues and St. Brandon.



It was uninhabited until about 975, when Arab Sailors are believed to have discovered it.



It became an independent nation in 1968. Most of its citizens speak a French-based creole language.



Its small size – 2,040 square kilometers – ranks it **52nd out of 54** African countries.



It is **47th** in population on the continent, with 1.26 million people. In a normal year, tourists outnumber citizens.



In terms of gross domestic product per capita, a measure of a country's economic output per person, **Mauritius ranks third in Africa**, trailing only Equatorial Guinea and the Seychelles. **Worldwide, it ranks 61st.**



Mauritius is the only country in Africa where **Hinduism is the largest religion.**



It was the only known home to the infamous dodo birds, which had no natural enemies and lost their ability to fly. Westerners visiting the islands found that the dodos, weighing up to 22 kilograms, were an excellent source of food. By 1700, the birds were extinct.

Computer Board. The response team operates a national computer portal aimed at educating the public on the technical and social issues facing internet users, particularly online dangers. Response team members say the goal is to provide information for targeted groups as they “continuously study, analyze, research and innovate to stay ahead and maintain a technological edge over cybercrime actors.”

The portal team's responsibilities include:

- Encouraging organizations and individuals to report cyber security incidents.
- Advising internet users on how to cope with cyber threats.
- Assessing the security of organizations' information technology (IT) infrastructure.
- Conducting third-party information security audits for organizations.
- Helping organizations set up security management best practices.
- Educating and training in cyber security.
- Organizing training for cyber security professionals.

Sylvain Martinez, founder of ElysiumSecurity, told the Mauritian news site Defimedia that as Mauritian homes and businesses continue to rely on technology and connect to the internet, the country is as vulnerable to cyber attacks as any other developed country.

“As the modern world is becoming more and more digitalized, it will also increasingly rely on IT systems, which means the cyber attack surface is growing,” he said. “In parallel, there is more and more money for cyber criminals to gain from cyber attacks as well as an increasingly high potential geopolitical impact, which means the hackers are becoming more and more sophisticated professionals and with more resources.”

User-Friendly Portal

Mauritius' national cyber security portal is intended to be user-friendly and valuable to almost anyone who goes online. It includes an explanation and video about phishing scams; a video about protecting children from cyber bullying; information and a video on how to keep children safe online; tips on protecting yourself, your family and your devices; and information on the country's computer security hotline for reporting dangerous websites. The website is useful even to those not in Mauritius.

The portal has eight web links just for children. The “parents” section of the portal includes information on gambling, indecent content, social networking, online safety, internet addiction, junk email, chatting online safely, online

predators and a separate section dealing with Facebook use.

The “home users” section offers information on smartphones, malware, online shopping and investing, hate speech, wireless access, spam and scams, your digital footprint, and safe computing.

The portal offers organizations and businesses information on backing up data, fighting threats, access controls, dealing with malware, identifying theft and privacy, wireless access, and security policies.

Free tools available for download include antivirus programs, a website-blocking tool, spam filters and blockers, and a program to block phishing websites.

“The Mauritian Cybercrime Online Reporting System (MAUCORS) was also set up as an online platform for reporting cyber crimes,” noted Kaleem. “MAUCORS also provides information with regards to various forms of cyber crimes and how can citizens better protect themselves.”

Ebene Cybercity, just outside Port Louis, was built in 2001 as a high-tech hub to create a modern working environment.

WIKIPEDIA

Smart Countries Still At Risk

Kaleem said that the lessons learned in his country can be applied elsewhere.

“Other countries, especially in Africa, can follow the steps of Mauritius to strengthen their cyber resilience,” he said. “These include measures such as the development of national cyber security legislation, strategy, setting up of CERTs and technical systems, cyber security capacity building, and promotion of international cooperation. Mauritius will be very much willing to share the expertise within the region.”

Security experts say that even cyber-savvy countries such as Mauritius face security risks, and as the country moves more public and private business online, the risks will continue to grow. The most common types include phishing, malware and threats to infrastructure, Loganaden Velvindron of the African Peering & Interconnection Forum told Defimedia.

“Phishing is common in emails that claim to be someone different,” he said. “Many people are unable to identify phishing attacks against them.”

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Kaleem Ahmed Usmani



Security Must Remain Open And ACCOUNTABLE



ADF STAFF



Dr. Nathaniel Allen is an assistant professor for security studies at the Africa Center for Strategic Studies. He is responsible for overseeing the center's academic programming on cyber security and peace support operations and integrating these considerations into the center's research and outreach. He spoke by phone with ADF about Mauritius and its work on cyber crime.

ADF: Why is Mauritius one of the world's leading countries in dealing with cyber attacks?

ALLEN: Mauritius has a couple of advantages that most African countries don't: It's a small, well-governed, upper-middle-income country. It is positioning itself as a regional and global business and financial hub, has a high rate of internet penetration, and a robust ICT (information and communications technology) sector. These factors make cyber security a very important issue for Mauritian policymakers and industry stakeholders. They have both invested a lot in making sure that Mauritius has the infrastructure, human resources, legal frameworks, and multistakeholder relationships and institutions needed to effectively prevent and recover from cyber attacks.

ADF: Mauritius has established a way for people — public and private — to go online and report cyber attacks. Is this something new? Are other countries doing it?

ALLEN: It's a best practice in dealing with cyber attacks. Mauritius' online reporting system is managed by its national computer emergency

response team (CERT). CERTs are becoming increasingly common vehicles for countries and sectors to monitor prevent, respond to and manage cyber attacks. It is not yet a standard practice in Africa, where more than half the region's countries lack a CERT. The CERT of Mauritius was established in 2008, so it's been ahead of the pack.

ADF: Could other countries emulate what Mauritius is doing? Should they try?

ALLEN: Absolutely. I think other countries in Africa should take a strong look at how Mauritius is managing its cyber security challenges, and it's only going to be a matter of time before they have to. Internet penetration across the continent is still relatively low — between about 30% and 40% — but is expected to rise to 75% by the end of the decade. As more countries become connected to the internet, and as more individuals get broadband, vulnerabilities will increase, and so will the importance of cyber security. The countries in Africa that already have a high level of internet penetration tend to have the best cyber security policies. As the number of people with internet access rises, the use of cyber security will have to follow.

ADF: Do you think Mauritius' status as a well-established democracy has anything to do with its cyber crime efforts?

ALLEN: Yes. Mauritius has found a way to prevent and respond to cyber crime while maintaining its status as a democracy that is respectful of its citizens' civil and political liberties. I think it is crucially important to give the security sector a role that enables it to effectively address and manage the threat from cyber crime, but also remain committed to open, transparent and accountable security-sector governance principles. This is one of the central challenges many governments across the world — including in Africa — face going forward.

ADF: Mauritius is working closely with banks in dealing with cyber crime. What other aspects of society, or businesses, do you see the country working with to stop cyber crime?

ALLEN: Because it is a nerve center for the rest of the economy, the financial sector has always been a key partner for governments when it comes to responding to cyber crime. Banks tend to devote significant resources to managing threats from things such as illegal wire transfers for credit card fraud. This makes them a natural partner for any government. Given Mauritius' attempts to position itself as a financial center for much of Africa and Asia, the relationship is all the more crucial. ICT is also increasingly becoming embedded in our daily lives and across many different sectors; most business and sectors are dependent on ICT or ICT infrastructure in some way, which makes cyber security all the more crucial.

ADF: Where does Mauritius go next in fighting cyber crime?

ALLEN: Hopefully, only upward. However, the COVID-19 pandemic is already proving challenging, as cyber threat actors in Mauritius and across the world are increasingly exploiting the pandemic to conduct spam, phishing and other kinds of social engineering. Fake news and disinformation related to the pandemic is also a problem. But I think the biggest danger of the pandemic is that it has already affected the country's economy. But the pandemic is also in many ways speeding up moves toward ICT-driven development. So we're in a period of great uncertainty now.

Continued from page 21

Malware is common on smartphones, tablets and also PCs that have been infected. Lastly, vulnerable infrastructure which is exploited is quite common: Servers are often left running for years without provision for security updates. Many websites have been defaced due to lack of security audits to identify vulnerable code running."

Mauritius also has taken steps to stop fake news, Kaleem said, with a penalty of up to 10 years in prison for those who knowingly post false information. He added that his country had dedicated portals and websites on which citizens can find "authentic information."

Kaleem said the stakes in cyber security are higher than ever.

"The increasing reliance on the cyberspace brings new opportunities, but at the same time new threats," he said. "As new crimes are developing at an exponential rate, the government recognizes the serious threats posed by cyber criminals and the impacts on the critical infrastructure of the country."

Kaleem and other experts say that there are some basic security controls that all organizations should have, including up-to-date antivirus software, a firewall and strong application-specific passwords. Then there is the matter of using common sense: Think before you click.

The ongoing COVID-19 crisis has caused an increase in cyber crimes, experts said.

"During this crisis, which prompted more reliance on computer systems, mobile devices and the internet to work, communicate, shop, share and receive information, a sudden surge in cyber incidents was noted," Kaleem said. "A change in the cyber threat landscape in Mauritius was observed. Phishing campaigns, online scams, including extortion, posting of offensive content, were the ongoing trend, compared to other traditional types of incidents such as identity theft, cyber bullying, hacking, amongst others."

As digitalization advances, so do the risks, experts say. Subheer Ramnoruth, director of the Whitefield Business School in Curepipe, Mauritius, said people are "vaguely aware" of cyber security risks, which only makes them more prone to online threats.

"For instance, when one downloads a mobile phone app, have we ever questioned ourselves why does the app ask us for permission to view our pictures or call logs?" he told Defimedia. "Or do we venture to see if these are genuine apps or fraudulent ones? Why would a company invest hundreds of thousands of [Mauritian] rupees in developing an app and then give it online for free to everyone? Surely there is another motive." □



ADF PHOTO ILLUSTRATION

BEYOND THE CALL OF DUTY

THE WOMEN OF THE LESOTHO DEFENCE FORCE TAKE CARE OF THEIR COMMUNITIES

CAPT. NOLUKHANYO NDLELENI, LESOTHO DEFENCE FORCE

Women are a crucial part of the Lesotho Defence Force (LDF). They make up about 16% of uniformed personnel, and they populate the ranks from junior levels to brigadier. But the women do not work only in military “support services.” They also are deployed in combat arms, and a majority work in infantry battalions. In addition to their many LDF duties, they show selfless service beyond the military by improving the lives of those in the community, especially children.

The country of 30,000 square kilometers and about 2 million inhabitants has few global security concerns, but the LDF deals with plenty of domestic security issues. Its chief duty is to protect the territorial integrity and sovereignty of the nation, while also upholding the Constitution. Day-to-day duties of the LDF include patrolling the border with South Africa. Soldiers keep an eye out at certain hot spots to prevent illegal cattle crossings and livestock thefts, and firearms and cannabis smuggling. The force also provides security at public facilities such as dams.

The LDF has secondary roles of assisting other government ministries. During natural disasters such as heavy snowstorms, the LDF works with the nation’s Disaster Management Authority to help vulnerable citizens. Also, those over age 70 are entitled to a monthly Old Age Pension, which is disbursed at about 300 payment points across

the country. The LDF delivers the money to the payment points by air and provides security.

In recent months, LDF personnel have participated in COVID-19 efforts by screening Basotho nationals returning from South Africa and other parts of the world, most of whom use unofficial border crossings. Soldiers also provide security at quarantine facilities.

Lesotho’s gross national income per capita is estimated at U.S. \$3,319, which is relatively high for a developing country. But the distribution of wealth is highly unequal. One of the main repercussions of this inequality is the high prevalence of poverty in the country. About 57% of the population lives below the national poverty line.

Because of those demographic realities, Lesotho needs people who can think outside the box, people who are willing to serve rather than just be served. The women of the LDF have decided to harness their fighting spirit to work beyond the borders of their regular duties.

INSPIRED TO ACTION

A tragic incident served as the inspiration for those women to take on a new duty: that of helping the nation’s most vulnerable people — its orphaned children.



Lesotho, a tiny landlocked kingdom in Southern Africa, is distinguished by its high elevations and mountainous terrain. It's one of only three nations whose territory is surrounded by another single country, and it is the only such nation on the African continent. ADF ILLUSTRATION

All the women, except for those who are undergoing recruitment training, participate in caring for orphans and underprivileged children in the country. They do so by raising money and donating it to the children, as well as by donating personal commodities such as sanitary pads, clothing, school supplies and other items.

It was 2010 when a female private in the LDF, who was a mother to one young son, was murdered by her male companion. After her death, her son had no other family members to take care of him, but he soon was adopted. As the female Soldiers contemplated the tragedy of this event, they came up with ways to support families that were raising orphans. They set up a system to prevent a recurrence of the event by giving female Soldiers a way to seek counseling when abused. The female Soldiers looked beyond the one case in 2010 to find similar cases and brought social workers on board to help women who served.

Through these monthly contributions, the female Soldiers and officers are determined to address community social issues such as poverty, illiteracy and the high incidence of children orphaned by HIV/AIDS, to mention but a few. One of the ways the women raise money to support children is through activities known as Mokhibo, a traditional female group dance performed in a kneeling position during celebrations. The women perform this dance and charge admission to raise money. They also accept clothing and other donations at the events.

The women perform another Basotho traditional



An all-female quarter guard of the LDF marches at Moshoeshoe 1 International Airport in Maseru in August 2019. LDF PUBLIC AFFAIRS OFFICE



The women of the LDF perform the traditional Basotho dance known as Mokhibo on a day when they gave containers of clothes and supplies to orphans they support. LDF PUBLIC AFFAIRS OFFICE

dance called litolobonya, a form of song and dance exclusively for girls and married women. The girls' version of litolobonya can be performed in the open and watched by anyone. The version for women, however, is highly secretive and is performed only by those who have given live birth and only in front of other women in a presentation known as pitiki.

The women of the LDF accept donations of cash and commodities. Orphans receive necessities each year such as school supplies, clothing, food and other donations. Orphans of military personnel can access health services through Makoanyane Military Hospital. So far, all the aid has come from the salaries of female LDF Soldiers and dance performance admission fees. No outside funding has been used yet.

How long will these efforts continue if it's something that is done out of kindness and not within the parameters of normal duty? These women have shown selfless service, discipline, commitment and dedication toward positivity. They also have set up a way to ensure that their efforts are properly managed. Their initiative has a solid structure and a 14-member committee to oversee its efforts composed of female LDF Soldiers and one civilian from the accounts section. There is a chairwoman, her deputy, a secretary, two treasurers, a public relations officer and eight members who represent various LDF units.

The women have had unwavering support from the LDF's higher command. The nature of their

humanitarian work requires them to step away from regular duties from time to time, and commanders have supported them by allowing that flexibility. In 2019, the commander of the Lesotho Defence Force, Lt. Gen. Mojalefa Letsoela, handed out gifts on behalf of the women during the celebration of African Women's Month, demonstrating his support for the female Soldiers' efforts.

These women have shown not just love, but sacrificial love, for their country and its most vulnerable people. A true Soldier puts the safety of others first. The efforts of these Soldiers go unnoticed most of the time. The fact that they have dedicated their lives to the betterment of others is inspiring. They should be applauded for going the extra mile by sacrificing their finances and time to address these important social issues.

Although it started small, this effort has grown into something of which the women of the LDF — and all of Lesotho — can be proud. □



About the author: Capt. Nolukhanyo Ndleleni has been a member of the Lesotho Defence Force since 2003. She took her cadet training in 2009-2010 at the Officers Training Academy in India, where she received a best international student award and many other awards. She holds a master's degree in business administration from Wits Business School in Johannesburg, South Africa, and is a doctoral student at the same school, with a focus on military social investment. She is married and has two children.

SHAKING OFF THE STRESS OF COVID-19





REUTERS

ADF STAFF

Imagine the stress of being a health worker on duty during a deadly global pandemic.

Personal protective equipment is in short supply. The disease, COVID-19, is highly contagious and can spread quickly. Those sickest with the virus require intensive medical care, up to and including ventilation.

Health workers must cope with a lack of sleep and countless hours

spent separated from their families.

At Kenyatta National Hospital in Nairobi, Kenya, health care workers are trying to do something about all of that pent-up stress. Nurses participated in a Zumba aerobic fitness program. Dozens of nurses in blue scrubs and face masks lined up in accordance with social distancing practices on the Infectious Disease Unit grounds.

Then they began moving to the rhythm.

Zumba is a fitness system that combines moves from Latin dance and music under a number of different styles with the potential to burn hundreds of calories per session, depending on exertion.

Like most exercise, Zumba should work to reduce stress levels, reinvigorating nurses to continue their fight.



MARITIME MOMENTUM

The Regional Cooperation to Track and Liberate a Hijacked Vessel Shows West Africa's Progress in Securing its Waters

ADF STAFF

ADF ILLUSTRATION



When pirates off the coast of Côte d'Ivoire spotted a rusty fishing trawler, they probably saw an easy target. The heavily armed pirates believed they could quickly take control of the ship, sail it back to Nigeria's delta region and hold its crew for ransom. They also likely planned to keep the trawler for use as a "mother ship" for future hijackings.

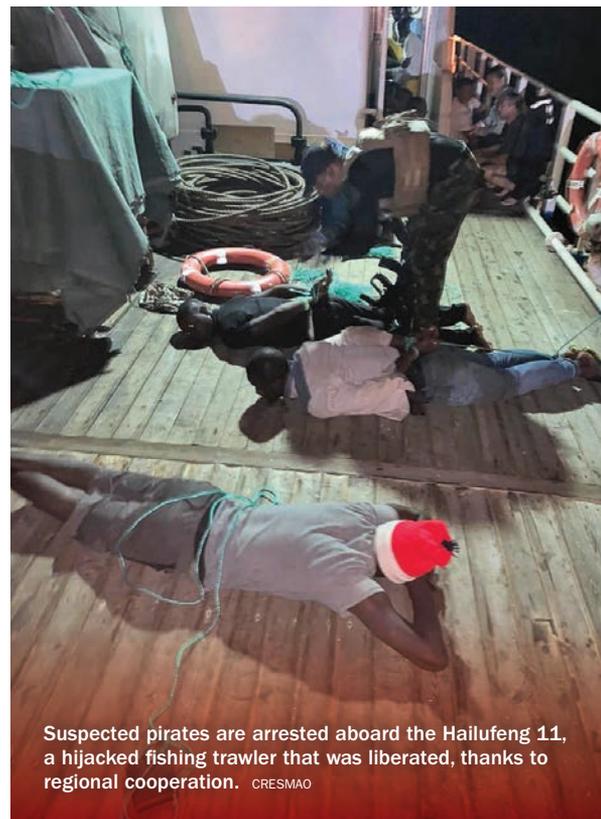
Things did not go as planned.

On May 15, 2020, 10 pirates boarded the Chinese-flagged Hailufeng 11, subdued the 18 crew members and turned off its automatic identification system (AIS). The AIS transponder broadcasts the boat's location, and the pirates believed switching it off made the vessel invisible to monitoring systems.

But authorities were still watching.

Having received an urgent call from the vessel's owner, authorities were able to manually plot the last known location of the Hailufeng. They monitored its movements in real time using maritime domain awareness (MDA) tools shared by all countries in the region. As the hijacked vessel crossed through Ghanaian, Togolese and Beninese waters, MDA professionals from those countries tracked it, exchanged information and dispatched boats to chase it.

When the boat crossed into Nigerian waters on May 16, the Nigerian Navy Ship Nguru was waiting. The Nguru pulled up alongside the fishing boat about 140 nautical miles south of Lagos and ordered it to cut off its engines. When the pirates refused, Nigerian commandos conducted an opposed boarding, climbing aboard the Hailufeng while it sailed at more than 9 knots.





Nigerian Navy special forces prepare to apprehend pirates in a mock scenario during a five-day joint military exercise between Nigeria and the French Navy.

AFP/GETTY IMAGES

There were no injuries to Sailors or crew, and the Nigerian Navy escorted the Hailufeng back to Lagos Harbor and handed the pirates over for prosecution.

“The Nigerian Navy has the capability and will-power to deal with such perpetrators,” said Commodore Ibrahim Shettima of the Nigerian Navy when announcing the arrests.

Shettima added a special thanks to neighboring Benin, which shared information with Nigerian authorities. “This underscores the need for increased regional cooperation in terms of information sharing and further deepening of response capability,” Shettima said.

The thwarted hijacking highlights how far the region has come in a few short years. The cooperation, technology and training on display during the 39-hour rescue effort would have been impossible until recently, experts say.

It “demonstrated the mastering of the use of vessel monitoring systems by experts in the region and its usefulness for the monitoring of vessels, the fight against [illegal] fishing and the protection of human lives and goods,” said Seraphin Dedi, secretary-general of the Fisheries Committee for the West Central Gulf of Guinea.

Sea Vision

Tracking all the ships crisscrossing a vast expanse of sea is difficult. In West Africa where navies may only have a handful of deep-water vessels and few aerial assets, it’s even tougher. Technology can be a force multiplier.

Since 2012, a low-cost digital tool has played a major role in improving MDA for coastal African countries. Sea Vision was created by the U.S. Department of Transportation at the request of Naval Forces Africa (NAVAF) and was offered free to African navies. At the time, maritime crime was a growing threat, and navies

around the world raced to catch up. “We had always been good about tracking enemy forces — red forces — and our forces — blue forces. But tracking merchant ships, we had never really done it that much,” said NAVAF MDA project manager David Rollo.

Sea Vision is an unclassified MDA tool requiring only an internet connection, username and password. It lets users track commercial vessels globally. Using AIS data gathered from coastal radar, satellite and other sources, Sea Vision gives a

complete picture of where a ship is, where it has been, and who and what is on board. This was a game changer for many West African countries, and it was adopted up and down West Africa from Angola to Mauritania.

“It quickly expanded,” Rollo said. “There were a lot of people using it because at that time there were a lot of countries that didn’t have their own coastal radars.”

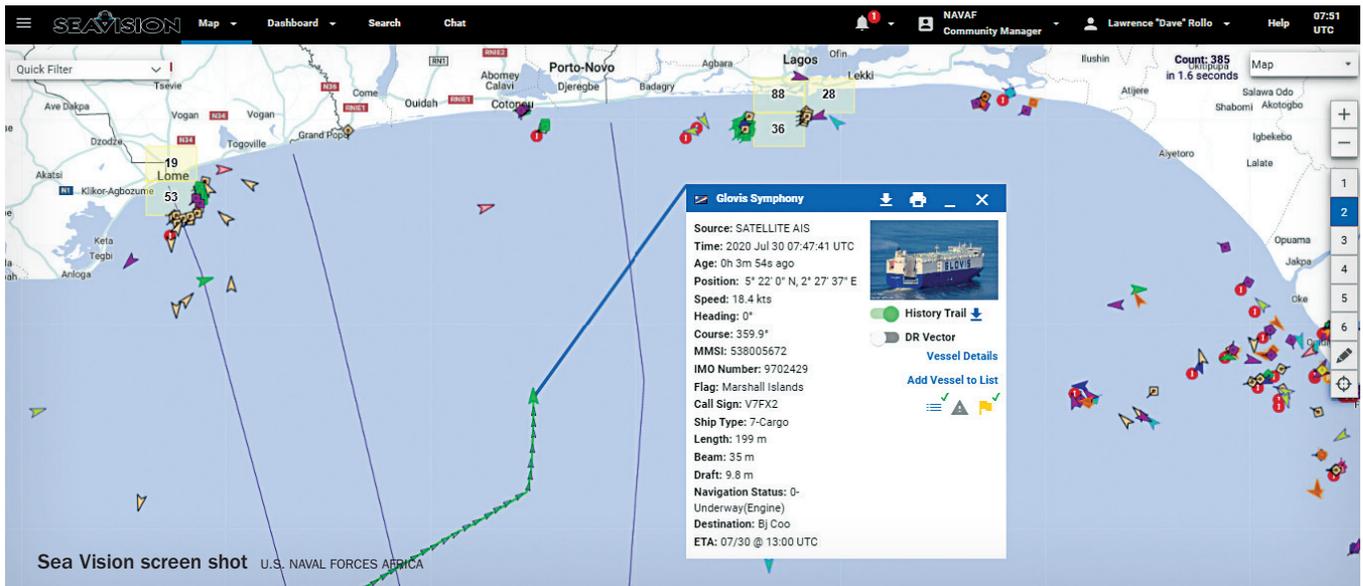
Today, Sea Vision is the only MDA tool shared by the 25 West and Central African countries that are part of the regional maritime security architecture known as the Yaoundé Code of Conduct. Users, typically in the maritime operations centers of individual countries, can create vessel lists, tailored searches and alerts based on a wide range of criteria. There also is a chat function that lets users exchange information. There are community groups in which users can ask questions or display information for all to see.

This MDA capability and the information exchange have led to quicker responses and better awareness of what is happening, particularly in the Gulf of Guinea.

“It used to be if a fishing trawler got kidnapped, it went up to the chief of naval staff of one country, he’d contact the CNS of another country and it might trickle down to lower levels, but it’d be two, three days and by then it’s too late,” Rollo said. “Now these guys are passing information quickly. It’s amazing.”

The collaboration is bolstered by the annual U.S.-sponsored maritime exercise Obangame Express. For the past decade Obangame has allowed MDA professionals from West African countries to gather yearly, collaborate and build trust.

“All these guys work together during exercises. And organizers purposely take people from different countries and put them together,” Rollo said. “Now they all know



Tracking all the ships crisscrossing a vast expanse of sea is difficult. In West Africa, where navies may only have a handful of deep-water vessels and few aerial assets, it's even tougher. Technology can be a force multiplier.

each other, and they chat on a professional and personal level. So, when something happens, they already have guys they can get in touch with."

Yaoundé Code of Conduct

The rescue of the Hailufeng also highlights the development of the Yaoundé Code of Conduct. Signed in 2013 by 25 countries in West and Central Africa, it provides the structure for joint maritime operations, intelligence sharing and harmonized legal frameworks. The code includes five zones, two regional centers and the Interregional Coordination Centre that watch over 6,000 kilometers of coastline and 12 major ports.

According to an analysis by Dr. Ian Ralby, an expert on maritime security and CEO of I.R. Consilium, the information about the May 15 hijacking was shared rapidly and accurately to appropriate authorities. He wrote that the Ivoirian Fisheries Ministry first sounded the alert and then shared information with the Permanent Inter-Ministerial Commission for State Action at Sea, which shared it with the zonal and regional authorities within the Yaoundé architecture.

Ralby said information sharing was led by the Multinational Maritime Coordination Centre of Zone E, which includes Benin, Nigeria and Togo. The regional center known as CRESMAO, which handles the West African waters, played a coordinating role as did its Central African counterpart, CRESMAC, which was prepared to dispatch boats if the chase extended beyond Nigerian waters.

"While the Nigerian Navy deserves credit for the operational success, there are a lot of institutions without

whom the situation would not have been resolved so quickly and successfully," Ralby wrote in an article published by *The Maritime Executive*.

The successful interdiction stood in contrast to the 2016 hijacking of an oil tanker, the MT Maximus. During that incident, regional navies relied heavily on foreign navies for help.

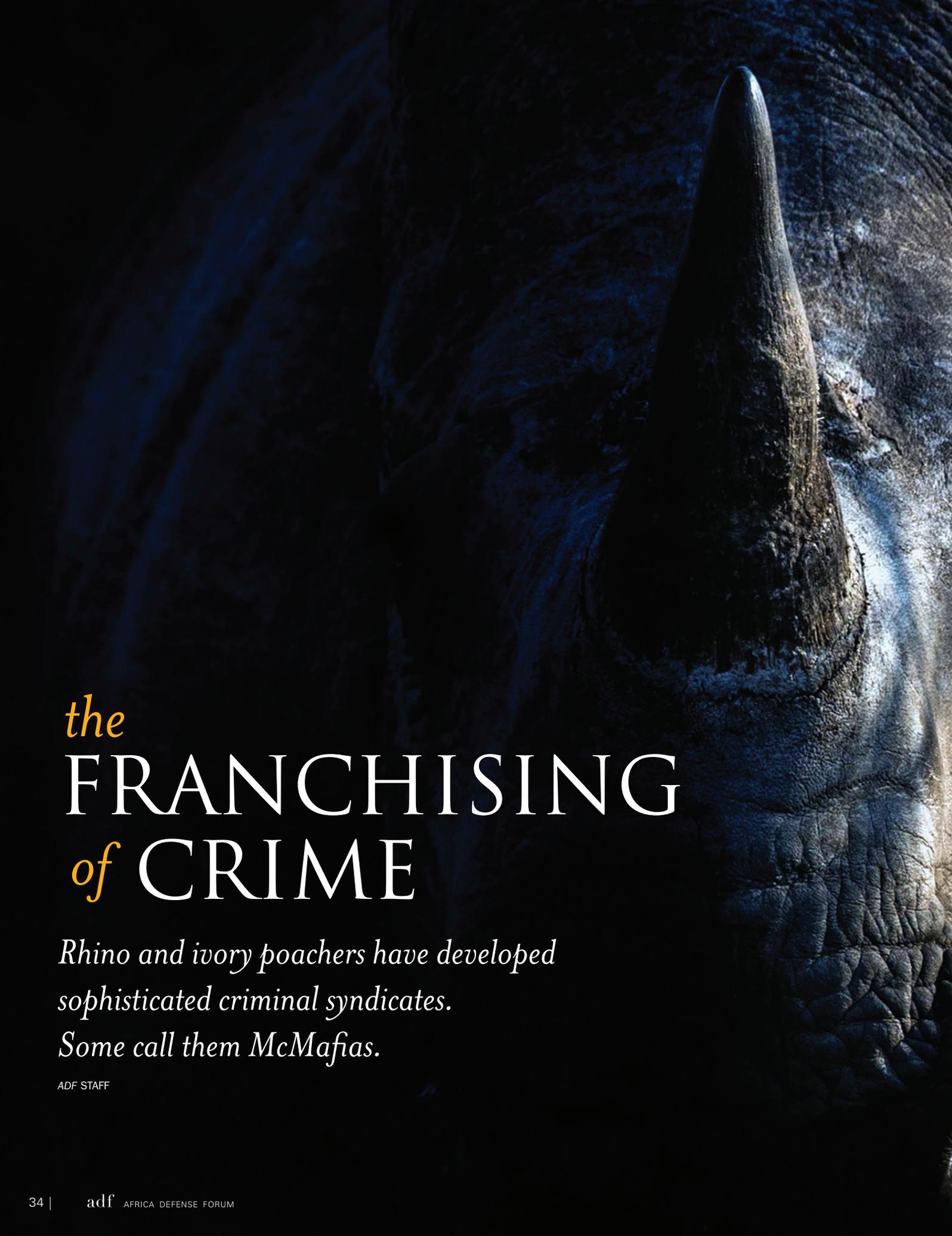
"Many have argued that the 2016 incident would not have been a success story without the assistance of the foreign navies, working to track the vessel and coordinate the flow of information about it," Ralby wrote. "This time, the Yaoundé Architecture and the states of the region were able to do so without any foreign involvement."

The 10 arrests highlighted another positive development. In 2019, Nigeria enacted the Suppression of Piracy and Other Maritime Offences Act. This modernized the country's anti-piracy laws and outlines tough punishments of 15 years to life in prison and fines of up to 500 million naira, or \$1.3 million, for people or organizations convicted of maritime crimes.

During recent iterations of Obangame Express, the United Nations Office on Drugs and Crime has analyzed national maritime laws and held mock trials for piracy. Several countries, including Nigeria, have updated or are in the process of updating their anti-piracy laws.

The pirates who hijacked the Hailufeng will be among the first tried under the new statute in Nigeria.

"Our recent arrests have shown the international community that we are not handling illegalities in our waters with kid gloves," said Dr. Bashir Jamoh, director-general of the Nigerian Maritime Administration and Safety Agency. □



the
FRANCHISING
of CRIME

Rhino and ivory poachers have developed sophisticated criminal syndicates. Some call them McMafias.

ADF STAFF



A Malawian court sentenced nine members of the Lin-Zhang wildlife trafficking gang to a total of more than 56 years in prison for dealing in endangered species in Africa.

The gang, named for its husband-and-wife leaders, was one of the world's most notorious wildlife trafficking syndicates and had been operating out of Malawi for 10 years, conservation groups told Voice of America.

Gang members were convicted of trafficking in rhino horn, ivory, hippopotamus teeth and pangolin scales.

Such gangs and syndicates, also called McMafia groups, have proved to be enormously difficult to prosecute. But as some high-profile cases such as the Lin-Zhang group have shown, an honest and persistent government can exact justice.

The BBC says that such kingpins organize rhino poaching in rural communities "where the locals are desperately poor and know how to track and hunt wildlife."

South African prosecutor Ansie Venter told the BBC how the hunters get the rhino horns:

"These groups may be small but have enough resources and connections to disproportionately exploit the regional environment and local people."

~ Poaching Facts

"These majestic beasts are immobilized with high-powered hunting rifles before having their horns sawn off while still alive and conscious. They are then left to bleed slowly to death. The poachers don't want to kill them immediately because a dead rhino will attract vultures and that, in turn, alerts the rangers."

The International Rhino Foundation reported in 2018 that for five years, African rhinos had been poached at a rate of three per day. Recent conservation efforts have made a difference in bringing some of these species back from the brink of extinction, but even the numbers of these species are a mere fraction of what they were just 50 years ago.

Conservationists say that between 2007 and 2014, rhino poaching rose 9,000%. Rhino horn is now worth more than cocaine, heroin or gold. Depending on where it is sold, the horn sells for between \$25,000 and \$60,000 per kilogram.

All this is for something that is medically worthless. Rhino horn is used in traditional Chinese medicines, but the horn is made mostly of keratin — an ordinary substance found in hair, fingernails and animal hooves. Its curative value is based on superstition.

The Lin-Zhang syndicate's prosecution constitutes a rare moment when all the necessary parts of a justice system came together. Max Graham of the environmental group Space for Giants described the process to the United Kingdom's *The Independent* this way:

"Take a moment to think of all the steps needed to reach this point: Rangers needed training, equipping and paying to patrol the bush and get wind of the gang's operations. Specialist investigators needed months to win the trust of informants. Police needed to run a delicate arrest operation, then gather evidence while guarding against corruption. Prosecutors needed watertight cases, and the magistrate needed to keep the trial moving and deliver an unimpeachable judgment."

'FRANCHISED' CRIME

Journalist Misha Glenny's 2008 book, *McMafia*, tells how these rhino-hunting kingpins established global networks. He interviewed Mark Galeotti, an expert on transnational crime in Russia, who explained that "franchised" crime syndicates have their roots in the Chechen Republic.

"The Chechen mafia became a brand name, a franchise — McMafia if you like," Galeotti said. "They would sell the moniker 'Chechen' to protection rackets in other towns provided they paid, of course, and provided they always carried out their word."

This franchise model for organized crime has since spread around the world to Asia, South America and Africa. These poaching syndicates are not limited to rhino horns; they have trafficked in other endangered wildlife, drugs, people, weapons, alcohol and cigarettes.

"Small-scale and regional-level syndicates run poaching and trafficking operations on the ground and pay poachers and couriers a modest amount for acquiring the animal parts," the research group Poaching Facts reports. "These groups may be small but have enough resources and connections to disproportionately exploit the regional



environment and local people. These syndicates are also responsible for creating or supporting trafficking networks and may also distribute weapons as well as bribe officials and police.”

Heather Merritt of the U.S. State Department has stressed that crime syndicates often “engage in multiple crime areas, and those networks may traffic in wildlife, drugs, people.” In a July 2020 news conference on a crime syndicate operating in Mozambique, she said, “Narcotics trafficking may be indirectly funding some of the terrorist networks and activities, as traffickers pay for safe passage via undergoverned spaces and through routes that have been exploited as well by terrorist entities.”

One relatively new development is the kidnapping syndicate. In late July 2020, police arrested four people for breaking into a house outside Johannesburg, South Africa, allegedly used by a kidnapping syndicate. Officers had raided the house days earlier and arrested five people after receiving information that it was being used as a base by the kidnapping syndicate. TimesLIVE of South Africa reported that the four people arrested were believed to be members of the syndicate, bringing the total arrests to nine.

SHETANI AND THE ‘IVORY QUEEN’

Authorities arrested high-profile elephant poacher and poaching syndicate ringleader Boniface Matthew Mariango in October 2015 after an investigation that began in June 2014. He was one of the poachers featured in the documentary *The Ivory Game*.

Known to law enforcement as “Shetani,” a Swahili word meaning “devil,” Mariango had been the boss of at least 15 poaching syndicates and is blamed for the deaths of thousands of elephants in Tanzania and in Burundi, Kenya, Mozambique and Zambia. The BBC reported that authorities said he also supplied trucks and weapons to poaching syndicates.

When he was arrested, he was trying to smuggle 118 tusks worth more than \$863,000, the World Wide Fund for Nature reported. In March 2017 a Tanzanian court sentenced Mariango to 12 years in prison. A high court rejected his appeal a year later.

Mariango was accused of supplying ivory to notorious Chinese businesswoman Yang Fenglan, known as the “Ivory Queen,” who was tried in Tanzania for trafficking more than 700 elephant tusks worth \$2.5 million. In February 2019, a court sentenced her to 15 years in prison. The

A Tanzanian prison guard escorts Yang Fenglan, China’s notorious “Ivory Queen,” to court in 2016.

AFP/GETTY IMAGES

Conservationists say that between 2007 and 2014, rhino poaching rose 9,000%. Rhino horn is now worth more than cocaine, heroin or gold. Depending on where it is sold, the horn sells for between \$25,000 and \$60,000 per kilogram. All this is for something that is medically worthless.



A southern white rhino and her calf
inside Nairobi National Park in Kenya

REUTERS



court also ordered that her personal property be confiscated.

Yang was singularly qualified to be a “queen pin” of Africa-to-China organized crime. She also was a rarity in that most arrests and convictions for ivory trafficking involve low-level smugglers and minor players.

Tanzania’s National and Transnational Serious Crimes Investigation Unit tracked her for more than a year. She was arrested after a high-speed car chase in October 2015 and charged with ivory smuggling between 2000 and 2014.

Yang, born in Beijing, majored in Swahili in China — she became fluent — and first went to Tanzania in the 1970s. She worked as a translator for Tazara, the Tanzania-Zambia railway project that China helped build. *China Daily* reported that she returned to China in 1975 when the railway was completed and worked in the Chinese government’s foreign trade department.

In 1998 she returned to Tanzania and established two businesses in one building — a Chinese restaurant on the ground floor and an investment company, Beijing Great Wall Investment, on the second floor.

By 2012 she was secretary-general of the Tanzania China-Africa Business Council. “I myself am the best illustration of China-Tanzania friendship,” she said, as reported by the BBC.

But investigators said she had a double life and with her many business and social

connections had become a key link between ivory poachers in East Africa and buyers in China and other parts of Asia. She lived that dual life, officials said, for more than a decade. The Elephant Action League said Yang was “connected to various companies abroad, all Chinese-owned, and circulates in the upper echelons of Chinese citizens living and working in Tanzania.”

“When we think of a kingpin, we think of someone like Al Capone,” the league’s Andrea Crosta told the BBC. “But this was someone who mingled with the country’s elite, who blended in.”

Although much of Yang’s smuggled ivory ended up in China, her native country was quick to endorse her conviction and refused to help her.

With her skills and inside knowledge of the Chinese and Tanzanian governments, she was a textbook syndicate crime boss. She became the centerpiece of a network of corrupt local officials working with East Asian criminals. Such a combination, journalist Glenny has said, “poses a particular problem to traditional law enforcement and requires huge amounts of resources.” Even when smuggling kingpins are arrested, their power and influence makes it difficult to bring them to trial. In at least two high-profile cases, the heads of two smuggling syndicates have avoided prosecution for years.

In the case of the Ivory Queen, Tanzania found the will and resources to get a conviction. □

Elephant poacher and poaching syndicate ringleader Boniface Matthew Mariango is known to law enforcement as “Shetani,” a Swahili word that means “devil.”

TERRA MATER
FACTUAL STUDIOS



ADF ILLUSTRATION

CHINESE DEMAND FUELS ILLEGAL

— ROSEWOOD —

TRADE

IRREPLACEABLE FORESTS IN SENEGAL
ARE BEING STRIPPED BARE

ADF STAFF

In The Gambia, rosewood is big business. China merchants buy it — hundreds of thousands of metric tons over recent years — even though it’s illegal to harvest. Government officials are bribed to look the other way, loggers have told reporters. Senegalese and Gambian businessmen profit from it, as do some armed groups. The Movement of Democratic Forces of Casamance, a separatist organization that has been fighting for the independence of Senegal’s Casamance region since 1982, is financed in part through timber trafficking.

The Gambia, the smallest nation on mainland Africa, was stripped of most of its rosewood 10 years ago, and yet is consistently among the

five largest global exporters of rosewood. The rosewood shipped out of The Gambia is being stolen from the Casamance region of neighboring Senegal. The African Union Development Agency has described Casamance as “the green lung and last forest stronghold of Senegal.”

Since 2017, the West African rosewood tree has had international protection. It was listed under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, known as CITES. The treaty protects the living environment. The Gambian government, like Senegal, signed the convention, which allows a carefully regulated trade in rosewood so long as it is legal and sustainable.



Workers from The Gambia and Guinea load timber onto containers with a Chinese businessman.

REUTERS

The government of Senegal has fought against the illegal logging by revising its forest code. AFR100, the African Forest Landscape Restoration Initiative, reports that the revised code toughens penalties, strengthens forestry staff and uses the Senegalese Army to patrol for illegal loggers and smugglers.

The results of the enforcement show how illegal logging begins at the grassroots level: In a single week, officials in the Kolda region seized 119 carts, 43 horses, 98 donkeys, two chainsaws, two two-man saws, two axes and two motorcycles.

It's a matter of supply and demand, and the demand mostly comes from China, where the dense, beautiful wood is used to make furniture. China has banned logging in its own natural forests and, for a time, got its rosewood from Malaysia and other countries in Southeast Asia. After depleting the rosewood in those countries, China began logging in Africa about 2010, according to Naomi Basik Treanor of the charity Forest Trends.

"The 'Senegambia' rosewood trade is on a par with conflict diamonds," she told the BBC. "The nature of the conflict in Senegal and the very porous borders makes this trade very hard to contain."

AGENCY INVESTIGATES

The BBC reported that China has imported more than 300,000 metric tons of West African rosewood from The Gambia since 2017. In June 2020, the nonprofit organization Environmental Investigation Agency (EIA) released the results of its three-year investigation into the Senegal-Gambia-China rosewood trafficking. The report included these findings:

- An estimated 1.6 million trees were illegally harvested in Senegal and smuggled into The Gambia between June 2012 and April 2020.
- The rosewood traffic between Senegal and The Gambia largely has been controlled by the Movement of Democratic Forces of Casamance.
- Traffickers themselves say that high-level Gambian officials have undermined the export ban put in place by the current Gambian administration.
- Traffickers have used the politically powerful company Jagne Narr Procurement & Agency Services to bypass the ban.

Import-export figures do not add up. The Gambia reported \$471 million less in exports of rosewood than its trading partners declared as imports between 2010 and 2018, the EIA said. In other words, China is buying even

Continued on page 45



Workers from The Gambia and Guinea load timber onto a container. REUTERS



GROUP WILL TRAIN **8,000** AFRICAN FARMERS

ADF STAFF

An organization determined to sustainably revitalize farmland will train more than 8,000 Sub-Saharan farmers in soil management, including some in Senegal, in a four-year program.

The Forest Gardens project is the work of Trees for the Future, an organization assisting communities around the world in growing trees through seed distribution. AFRIK21 reports that through the program, farmers can plant thousands of trees to protect their soil and restore nutrients. As a result, farmers will benefit from increased income and food security, just one year after the program starts.

The countries involved are Cameroon, Kenya, Senegal, Tanzania and Uganda.

Farmers will learn how to create forest gardens on their land. The goal is to improve soil health and biodiversity, grow diverse and nutrient-rich crops, increase incomes, and adapt to changes in the weather.

“Like most farmers around the world, these farmers have been practicing one-way agriculture for generations, using the intensification of monoculture farming,” Brandy Lellou of Trees for the Future told AFRIK21. “Through the Forest Garden approach, farmers are learning how to diversify crops, restore soils and maximize the full potential of their land.

“Farmers see their nutrition and income start to improve steadily in the first two years,” she said, “and by the end of the fourth year, a 0.4-hectare forest garden typically has about 2,500 trees.”

Trees for the Future says training is divided into five stages:

Identification: The organization identifies 200 farming families in need, selects training technicians and prepares materials for launch.

Protection: In the first and second years, farmers plant 2,500 fast-growing trees and bushes that create a protective and soil-stabilizing barrier.

Diversification: In the second and third years, farmers learn to diversify their field with vegetables and fruit trees to meet the family’s nutritional and selling needs.

Optimization: In the third and fourth years, farmers learn about advanced Forest Gardens management and conservation to optimize the long-term health and productivity of the land.

Graduation: In the fourth year, Trees for the Future implements a sustainability strategy with each farmer. A graduation ceremony celebrates the farmers’ program completion.

A Senegalese farmer cultivates seedlings in her nursery.

TREES FOR THE FUTURE

“IT’S THE GAMBIA THAT HAS TO STOP THE EXPORT OF ROSEWOOD.”

– Haidar el Ali, environmentalist and former Senegalese minister of the environment



ADF ILLUSTRATION

Continued from page 42

more of the wood than The Gambia acknowledges it is selling.

HOW TO STOP IT

In its investigation of rosewood trafficking, the BBC found at least 12 depots containing rosewood and other timber along the 170-kilometer border between Senegal and The Gambia. They were all within Gambian territory. Despite it being illegal to harvest Senegal’s rosewood trees, the BBC observed such harvesting out in the open.

Officially, The Gambia’s government has banned the import of West African rosewood from Senegal. Under The Gambia’s Forestry Act of 2018, importation from another country is only legal if it goes through an official port of entry.

The EIA says the illegal trade could be stopped “almost instantly” if The Gambia established a zero-export quota for the lumber and gave notice to all convention parties, including China, which would have an obligation to stop shipments from coming into its ports.

“This could be a game-changer for The Gambia, as well as for the people and forests of Senegal, and would pave the way for a coordinated West African approach to save one of the most trafficked wild species in the world, and to combat desertification and climate change,” said Kidan Araya, Africa program coordinator for the EIA.

The EIA says that international organizations must pressure The Gambia to shut down its timber trafficking hubs, and other parties involved in the trafficking must take a stand.

Shipping company Compagnie Maritime d’Affrètement-Compagnie Générale Maritime (CMA CGM) has gotten the message. The company, the world’s fourth-largest shipper, says it has done its own investigations after published reports of illegal harvesting.

“There was probably some protected rosewood inside their shipments from The Gambia to China,” Guilhem Isaac Georges of CMA CGM told the BBC. He said the company has “decided to halt timber exports from the country until further notice.” The EIA believes the action is the first time a shipping company has banned the shipment of an entire classification of product.

The company also says it plans to create a global blacklist of shippers involved in the illegal trade of protected and endangered species.

But Haidar el Ali, an environmentalist and former Senegalese minister of the environment, said The Gambia remains the key player in stopping the trafficking.

“It’s The Gambia that has to stop the export of rosewood,” he told the BBC. “They make good speeches, good promises. They say, ‘We are going to stop,’ but in reality it is not true.” □

A HEAVY

Price to Pay

THE COVID-19 CRISIS
EXPOSED THE TRUE
COST OF AFRICA'S
DEBT TO CHINA

Heroes National Stadium is a multi-purpose venue in Lusaka, Zambia. It is used mostly for football matches and was financed with a \$94 million loan from China.



ADF STAFF

A visitor to Lusaka, Zambia's capital city, doesn't need to go far to see China's impact.

Passengers arrive at the glass-walled, \$100 million Kenneth Kaunda International Airport. They drive past construction crews building the \$1.2 billion Lusaka-Ndola carriageway. Football fans can watch a match at the 60,000-person, \$94 million Heroes National Stadium. And when lights are switched on, the power is generated by the Kariba Dam and hydropower station on the Zambezi River.

All of these projects were financed through Chinese loans and built by Chinese contractors.

The projects are impossible to miss. What is harder to see is their impact on the nation's economy. Zambia's external debt is estimated at \$11.2 billion. About half of that is owed to China. Every year, 40% to 50% of Zambia's domestic revenue goes toward debt service, which means after public sector employees are paid, a sliver of the budget is left to fund needs like education and health care.

When observers look closer they see cracks in the façade. In some cases the quality of the construction is poor. In 2011, the Chinese-built Lusaka-Chirundu Road crumbled and was partially washed away after a heavy rain. In other cases, like Zambia's two glitzy sports stadiums, the projects have been dubbed "white elephants." This means they look impressive but are not practical and don't generate much revenue.

Finally, there is the opacity of the China-Zambia contracts. Few know the terms of the deals or who profits from them.

"Chinese loans often don't even go to Zambian accounts," former Zambian Minister of Information and Broadcasting Chishimba Kambwili told Deutsche Welle. "They choose the contractor from China, the contractor is paid in China, but it reflects in our books as a loan from China."

Although Zambia's debt crisis is among the continent's most serious, other African countries are paying close attention. They realize that the pitfalls of large foreign debt might be waiting for them if they don't change course.

"The rest of African nations can learn from the Zambia-China relations," Zambian scholar Emmanuel Matambo, part of the Southern Voices

The China Road and Bridge Corp. built the Standard Gauge Railway in Kenya, financed by the Chinese government. REUTERS



Network for Peacebuilding at the Woodrow Wilson Center, told *ADF*. “The fact is that China’s unqualified disbursement of debt to weak African economies could have massive implications on African democracy.”

DEBT PICTURE

Modern Chinese political and business ties to Africa date back to the 1960s. At the time, Chinese Communist Party Chairman Mao Zedong sought to deepen ties with several African countries due to a shared anti-colonial position. Among the first major infrastructure projects was the Tanzam Railway connecting Zambia with the Tanzanian coast.

Since the early 2000s, many African countries, particularly those with mineral wealth, have chosen to make deals with Chinese



DEBT AS A NATIONAL SECURITY THREAT

ADF STAFF

Crushing foreign debt has implications in nearly every facet of national life. And although the economy is affected most directly, a nation’s debt burden and foreign-built infrastructure projects also can jeopardize security.

CRITICAL NATIONAL INFRASTRUCTURE: When foreign entities lend money to finance projects such as ports, railroads or airports, the infrastructure itself often is used as collateral for the loan. In the case of China, the threat of taking back the property looms large. Several prominent projects, such as the Port of Djibouti and Kenya’s Port of Mombasa and Standard Gauge Railway, are reportedly at risk of being seized due to mounting debt. China has done this in other parts of the world, including Sri Lanka, where it took control of a port. Foreign control of critical infrastructure threatens security in a range of ways such as limiting a country’s ability to position military assets and compromising its oversight of people and goods entering the country.

ESPIONAGE: Chinese contractors with close ties to the Chinese Communist Party have a history of using development projects to collect information. In 2018, China was accused of installing listening devices and programs to secretly back up computer servers at the African Union headquarters in Addis Ababa, Ethiopia. A report by The Heritage Foundation found that Chinese companies have built 186 government buildings and 14 sensitive intragovernmental telecommunications networks in Africa. This makes spying easy. “The Chinese government has a long history of all types of surveillance and espionage globally,” Joshua Meservey, senior policy analyst for Africa at The Heritage Foundation, told *Voice of America*. “So we know this is the sort of thing they want to do, the sort of thing they have the capacity to do.”

NATURAL RESOURCES: Chinese loans are sometimes backed by guarantees of access to commodities. This means that if a nation is unable to pay in cash, China can recoup its money by taking the debtor country’s natural resources. In Africa, one-quarter of all loans are backed by resources such as oil, copper, bauxite and cocoa, according to the consulting firm Deloitte. Safeguarding natural resources is closely linked to national security. This is especially true of mineral and oil wealth, which often are used to finance military expenditures.

INSTABILITY: Debt crises lead to unemployment, inflation, drastic cuts in government spending and shortages of consumer goods. History shows that national security is closely linked to economic security. “From Latin America’s lost decade in the 1980s to the more recent Greek crisis, there are plenty of painful reminders of what happens when countries cannot service their debts,” wrote Nobel Prize-winning economist Joseph Stiglitz and United Nations Development Programme Senior Advisor Hamid Rashid. “A global debt crisis today will push millions of people into unemployment and fuel instability and violence around the world.”

state-owned enterprises to build roads, bridges, ports, airports and other infrastructure.

The appeal of Chinese debt is obvious. The loans have few strings attached to them; they don't require transparency, economic reforms or human rights standards. In some well-known cases, high-ranking officials received payoffs in exchange for rubber-stamping the loans.

Leaders of African nations often insist that they have no choice but to partner with China since it is typically the only lender offering to finance a project. A study by the Kiel Institute for the World Economy found that China lent more money to Africa than did the World Bank, International Monetary Fund (IMF) and the Club of Paris countries combined.

"When people complain about Chinese loans, it's not as if most African countries have a plethora of options," Gyude Moore, Liberia's former minister of public works and a senior fellow at the Center for Global Development, told Bloomberg.

Today, China is the largest creditor to the African continent and is owed about \$145 billion. According to Johns Hopkins University's China-Africa Research Institute, Angola received the most in Chinese loans between 2000 and 2017 at \$43 billion, followed by Ethiopia at \$13.8 billion, Kenya at \$8.9 billion and Zambia at \$8.6 billion.

COVID-19 AND DEBT RELIEF

The COVID-19 pandemic brought the world economy to a near standstill. African economies, many of which rely heavily on mineral extraction, tourism and agriculture, have been hit particularly hard.

According to the IMF, Sub-Saharan African economies will shrink by at least 3% in 2020. Before the pandemic, they were forecast to grow by several percentage points.

In light of this global crisis, debt payments that once felt manageable have become overwhelming. African nations owed China about \$8 billion in payments in 2020, of which about \$3 billion is interest. Several large

BY THE NUMBERS

20%

the amount of African government debt owed to China

\$43

BILLION

borrowed by Angola from China from 2001 to 2017

\$145
BILLION

the total amount owed by African nations to China

\$8

BILLION

the amount African nations owed to China in 2020 before COVID-19

20

MILLION

estimated number of jobs to be lost in Africa due to COVID-19

\$500
BILLION

the projected cost to African economies as a result of COVID-19

Sources: African Union, Jubilee Debt Campaign, Johns Hopkins University's China-Africa Research Institute, Organisation for Economic Co-operation and Development

Chinese construction workers stand at the site of the 90-story, \$1.2 billion Iconic Tower skyscraper in Cairo, Egypt. REUTERS





Zambian President Edgar Lungu greets Chinese workers from Aviation Industry Corp. of China during a visit to a major road project in Lusaka. AFP/GETTY IMAGES

countries spend more on interest payments for debt than they do on health care.

“Although the COVID-19 pandemic will pass, its consequences for people, economies and our planet will be with us for a long time to come,” South African President Cyril Ramaphosa said during a virtual China-Africa summit.

The crisis has led to a chorus of calls for China and other lender nations to offer debt relief to Africa. There has been some progress. In April 2020, the G-20 countries, of which China is a part, pledged to suspend debt repayments from 73 of the world’s poorest countries for at least eight months.

China also has made concessions. In June 2020 it agreed to forgive interest-free loans made to African countries. However, observers point out that the interest-free loans represent a small fraction of China’s total portfolio of loans to Africa — only 5%, according to the China-Africa Research Institute.

Despite public shows of goodwill and a virtual summit with African leaders in July 2020, China has resisted calls for additional debt relief. Observers say the country prefers one-on-one negotiations about debt restructuring over any sort of broad relief plan.

“The Chinese attitude towards that, to begin with, is quite resistant,” Yun Sun, director of the China

program at the Stimson Center, told Voice of America. “It doesn’t mean that China will not engage in, for example, debt renegotiation or debt restructuring or even postponement to owe for a longer grace period for the African countries to pay back their debt. But I think a blanket debt forgiveness is not in the cards.”

A VOICE FROM THE PAST

In a 1987 speech at the Organization of African Unity in Addis Ababa, Ethiopia, Burkina Faso President Thomas Sankara urged leaders to form a “united front against debt.” Sankara believed debt was one of the quickest ways for relatively young nations to lose sovereignty. “Debt is a cleverly managed reconquest of Africa aiming at subjugating its growth and development through foreign rules,” he told the crowd three months before his assassination.

In the midst of the COVID-19 crisis, many nations around the world are reexamining Sankara’s warning. As lockdowns end and economies reopen, leaders will try to balance the need for growth and development with the urgent requirement to protect the health and welfare of citizens. The lessons learned by Zambia and other African countries show that foreign debt is a short-term answer that can carry hidden costs. □



Investing in

INNOVATION

EDWARD A. DURELL, P.E., SCIENCE AND TECHNOLOGY ADVISOR, U.S. AFRICA COMMAND

**With Strategic Planning, Africa is Poised
to Unlock Scientific Potential**

Important technological innovations don't typically come out of the blue. They are made possible by planning and support. At least 25 African countries have science, technology and innovation (STI) strategies. However, the African Academies of Sciences noted that these policies often focus solely on business and industrial development, and "social and environmental goals are not adequately integrated."

Today, Africa's research strengths are in agriculture, tropical medicine and infectious diseases, according to an STI implementation report. Widening the scope of research and investment could help unlock the vast scientific potential of Africa.

The continent is in the midst of a historic youth bulge with almost 60% of the population under age 25. According to the African Youth Survey 2020, 78% of young people are interested in pursuing a technology career. Global giants such as Microsoft and Google are eager to take advantage of this talent and have made major investments in Africa in recent years. A careful examination of Africa's research and development landscape may help show where strategic investment can yield the greatest gains.

FUNDING RESEARCH AND DEVELOPMENT

One way to measure a country's willingness to commit resources to science and technology is to examine expenditures on research and development. GERD is a value calculated using gross domestic expenditure on research and development as a percentage of gross domestic product. The African Union has established a target of 1% GERD for its member states; by way of comparison, the United States GERD expenditure is 2.7%. Every five years the United Nations Educational, Scientific and Cultural Organization publishes an extensive report tracking science, technology, innovation and governance. It includes a wealth of statistics; one of them is GERD.

Data is not available for every African country, but Table 1 shows the top 15 reporting countries in terms of GERD. When viewed through the lens of regional economic communities, the strongest GERD performance came from the five-member Arab Maghreb Union. Three of its member states appear in the top 10: Algeria, Morocco and Tunisia.

Table 1. **GERD RANKING BY AFRICAN COUNTRY**

Rank	Country	GERD %
1	Malawi	1.06%
2	South Africa	0.83%
3	Kenya	0.79%
4	Morocco	0.71%
5	Burkina Faso	0.70%
6	Rwanda	0.67%
7	Tunisia	0.60%
8	Senegal	0.58%
9	Gabon	0.58%
10	Algeria	0.54%
11	Botswana	0.54%
12	Tanzania	0.51%
13	Dem. Rep. of Congo	0.41%
14	Ghana	0.38%
15	Mauritius	0.35%

GERD – Gross domestic Expenditure on Research and Development

Note: All data sourced from UNESCO Institute for Statistics: <https://data.uis.unesco.org>, with the exception of Malawi's GERD value; its source: "UNESCO Science Report: Towards 2030."

All figures are the most recent available at the time of publication.

Expenditures are one indicator, but what about technological achievements? One quantifiable parameter of scientific and technological health is to use patent applications as an innovation indicator. Again, by way of comparison, the number of patents per 1 million population for the United States is 129. Table 2 shows resident patent applications per 1 million population. Data is not available for every country, and some countries use the African Intellectual Property Organization as their patent office; its application data cannot be separated out by country. Again, there is a strong performance from the five-member Arab Maghreb Union. Three made it into the top eight: Tunisia, Morocco and Algeria.

Some countries perform well in patent applications per capita even though GERD expenditures are outside the top one-third. Cabo Verde, Ethiopia, Ghana, Madagascar, Mauritius, Namibia and Tanzania are all examples of this. Further examination shows that most of these countries have healthy public expenditures on education — generally above 4% of gross

Table 2. **RESIDENT PATENT APPLICATIONS PER MILLION PEOPLE BY AFRICAN COUNTRY**

Rank	Country	Resident applications per 1M	Is public expenditure on education greater than 4% of GDP?	Does country place in top one-third for GERD expenditure?
1	Tunisia	15.36	Yes	Yes
2	South Africa	11.64	Yes	Yes
3	Mauritius	11.60	Yes	No
4	Namibia	7.98	No	No
5	Morocco	5.26	Yes	Yes
6	Cabo Verde	5.14	Yes	No
7	Kenya	4.56	Yes	Yes
8	Algeria	3.53	Yes	Yes
9	Mozambique	1.13	Yes	Yes
10	Rwanda	0.47	No	Yes
11	Ghana	0.44	Yes	No
12	Tanzania	0.43	No	No
13	Madagascar	0.33	No	No
14	Uganda	0.14	No	Yes
15	Ethiopia	0.12	Yes	No

Sources: Patent applications: *World Intellectual Property Indicators 2019*, by World Intellectual Property Organization; education and GERD expenditures: <https://en.unesco.org/countries>; populations: *Central Intelligence Agency The World Factbook*

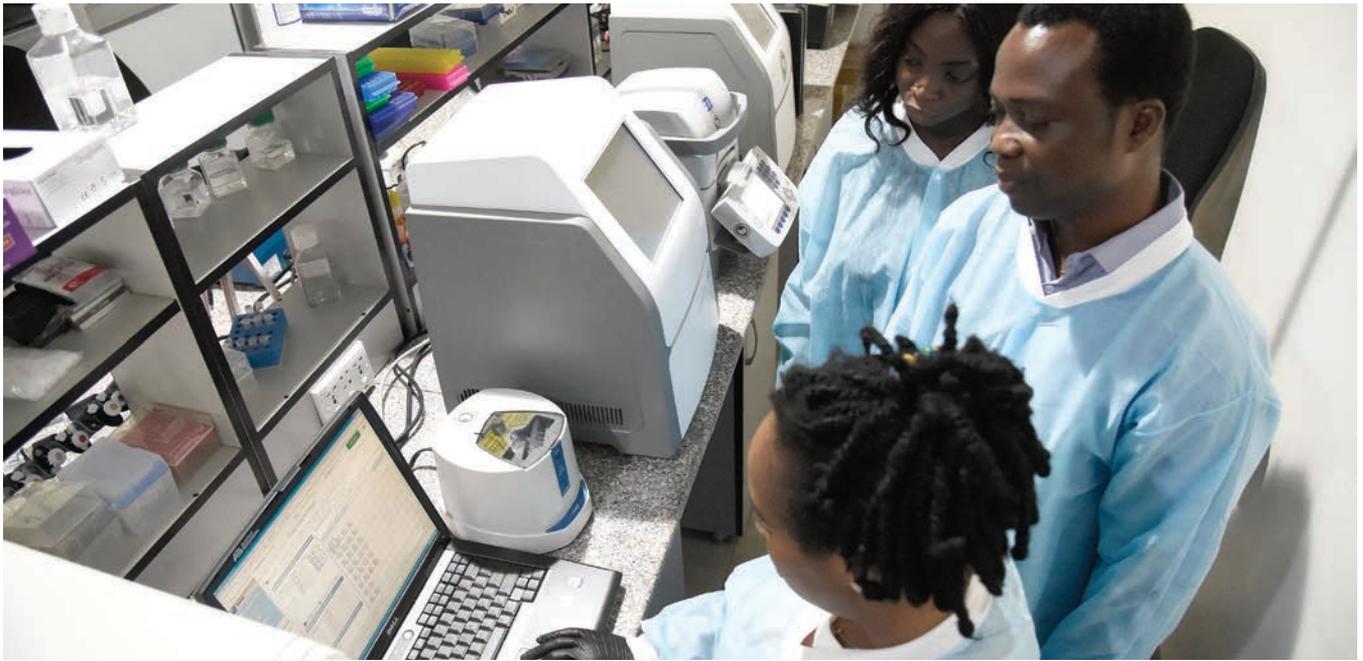
domestic product. Impressive performances were turned in by Madagascar, Namibia and Tanzania; each has low expenditures on GERD and public education but still managed satisfactory patent application results.

An observation can be made regarding Table 2: Ample expenditures on education and GERD increase the likelihood of respectable patent application performance. The top half of the patent performers averaged over 5% on education expenditures and 0.5% on GERD. The bottom-half performers averaged 4% on education and less than 0.4% on GERD; as these expenditures trend down, so do patent applications. This supports the belief that investing in education and research and development leads to innovation.

Patents and intellectual property are key components of a favorable environment for innovation. They protect knowledge by strengthening intellectual property rights and regulatory regimes at all levels. However, the STI implementation report identifies that the lack of operationalizing the Pan-African Intellectual Property Organization has resulted in a lack of activity in intellectual property management and technology transfer. Rewarding innovation paves the way for future discoveries.

BRIGHT SPOTS

There are many reasons to be optimistic about the future of innovation on the continent. One example is the Cape Town-based African Institute for Mathematical Sciences' Next Einstein Initiative. AIMS, established in 2003, is a degree-granting institution with centers in six African countries. Next Einstein Initiative came to be at a TED Talk in 2008 when South African physicist Dr. Neil Turok discussed a dream that the next Einstein will be African. The initiative holds a biennial event, the Next Einstein Forum Global Gathering, to leverage science for human development. The event is driven by the belief that Africa's contributions to the global scientific community are critical for global progress. The selection of winners for the "Challenge of Invention to Innovation" is made at each Global Gathering; finalists are known as "sciencepreneurs." One recent invention is a data analytics platform from Rwanda that uses low-power sensor devices to determine optimum levels of fermentation for the tea processing industry. Another is a Nigerian-designed and manufactured rechargeable, trackable, mobile cold box that enables businesses to store and transport temperature-sensitive commodities. Such a box could play a key role in civil and military cold-chain logistics; particularly for temperature-sensitive products



Molecular biologists with the African Centre of Excellence for Genomics of Infectious Diseases analyze COVID-19 samples in Ede, Nigeria.

AFP/GETTY IMAGES

such as medicines and vaccines.

In some cases, innovation is made possible by government initiative. A prime example is South Africa’s Council for Scientific and Industrial Research (CSIR). The 75-year-old institution supports research in the public and private sectors designed to improve South Africa’s competitiveness on the global stage. The largest research institution of its kind in Africa, it employs more than 2,000 people and gets the majority of its funding through patent royalties and other self-generated mechanisms.

Over the years, key discoveries made possible by the CSIR include: components to lithium batteries, crops genetically engineered to withstand harsh conditions, research on photovoltaic cells for solar power and advances in nanotechnology. The CSIR also is a globally recognized leader in HIV/AIDS and tuberculosis research.

LOOKING TO SPACE

In 2016, the African Union released two important space-related documents: African Space Policy and African Space Strategy. The strategy has four thematic focus areas: earth observation, navigation and positioning, satellite communications, and space science and astronomy. African countries had satellites in orbit well before these documents were published. In fact, 10 countries have satellites: Algeria, Angola, Egypt, Ethiopia, Ghana, Kenya, Morocco, Nigeria, Rwanda and South Africa. Most of these countries helped develop the satellites. None of the satellites has been launched from African soil — yet. Gabon does not have a satellite; however, it does have an Earth-based remote sensing center outside the

capital, Libreville. This center, known as AGEOS (Agence Gabonaise d’Etudes et d’Observations Spatiales), operates a large antenna that collects images from satellites and disseminates them to a broad segment of sectors: mining, petroleum, forestry and marine operators. Gabon’s location is key; it is at the center of the Congo basin, which has the second-largest rainforest in the world. The center’s radius of coverage is 2,800 kilometers and covers 17 countries and parts of six others. AGEOS also is working on the development of a weather station.

South Africa is partnering with Australia to build the Square Kilometer Array radio telescope project. Once complete, it will provide astronomers better information about deep space in less time than other telescopes.

THE ROAD AHEAD

Africa is an ascending continent for scientific and technological capacities, and there is an abundance of opportunities to explore. The time is right. The talent is there. The opportunity is nearly limitless. What is needed now is investment in terms of education, research facilities and governmental support. With the right mix, the next great scientific discovery of the 21st century might take place on African soil. □



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AFP/GETTY IMAGES

AUTO RACING COULD EXPAND IN AFRICA

BBC NEWS AT BBC.CO.UK/NEWS

Formula E auto racing wants to expand its operations in Africa.

The series has one race on the continent. Marrakesh, Morocco, hosts one of the season's 14 rounds, but another could be added within the next two years.

The championship has not featured an African driver since it started in 2014, but there also are plans for change. Formula E is a single-seater motorsport championship that uses only electric cars.

"One of the locations we're talking to is Cape Town," founder Alejandro Agag said. "We have some people there working to see if we can make it happen. There's a great location there around the football stadium, so that would be one of the options we're looking at."

Marrakesh has staged a race since 2016, the third season of a championship that started in 2014, and

the sport is keen to expand further.

"Africa is a key continent where growth is happening and is going to happen," said Allan McNish, the team principal of Audi Sport. "For the moment, Marrakesh is our home in Africa, but we are actively looking for other cities, which doesn't mean we'll stop doing Marrakesh."

As Formula E looks to expand the number of races in Africa, officials say they also are "actively looking" to find the first African driver in the series.

Each team has two drivers, but none of the 12 teams competing this year has an African.

"I think having a local hero on the track is very important to attract fans and to really have a connection with the fans," added Agag, a native of Spain.

The last Formula 1 race to be held in Africa also was South Africa-based, with the Kyalami track staging the 1993 Grand Prix.

NIGERIAN CARTOON — GOING — GLOBAL

ADF STAFF

A popular children's cartoon by a Nigerian animator is promoting African culture and stories.

The *Bino & Fino* cartoon series, which first aired 10 years ago, is now broadcast in 15 countries, including the United States and the United Kingdom.

The show's creator, animator Adamu Waziri, said that it made no sense for Africa's most-populous nation not to have a children's cartoon show of its own.

He said it was challenging to find skilled animators in Nigeria: "You have to do a lot of training," he told Voice of America. He said that a cartoon series initially takes two to three years to produce, and does not generate revenue during that time.

Bino & Fino is about a brother and sister who live in an unnamed African city. In each episode Bino and Fino, with the help of their friend Zeena the Magic Butterfly and their family, discover and learn things about Africa and the world. The show is aimed at children ages 3 to 5.

The pilot episode celebrated Nigeria's Independence Day and looked at the issue of colonialism. The cartoon also has had segments teaching the numbers one to 10 in the Nigerian Igbo and Yoruba languages, CNN reported.

Bino & Fino isn't the only children's cartoon produced in Africa. *Tinga Tinga Tales*, for example, is made in Kenya for the BBC, while *Jungle Beat* is produced in South Africa and has been shown internationally. Both cartoons, like many set in Africa, tell stories about the continent's animals. Waziri was determined to do something different, CNN said.

BINO & FINO



THE ASSOCIATED PRESS

STARS STAGE VIRTUAL CONCERT

AGENCE FRANCE-PRESSE

Senegalese superstar Youssou N'Dour and Grammy-winner Angelique Kidjo of Benin were among a galaxy of talent brought together for a virtual concert to raise awareness of the COVID-19 pandemic.

Angelique Kidjo at the 2020 Grammy Awards

More than 100 artists and celebrities from across the continent and the diaspora took part in the WAN Show broadcast online by the Worldwide Afro Network and carried by 200 African television channels to mark Africa Day.

"After COVID-19, Africa will be great, Africa will be strong," Malian kora star and hip-hop artist Sidiki Diabate said at the launch of the virtual concert. "Together we are unbeatable."

The event was modeled after the "One World: Together At Home" concert in April 2020 that brought together Taylor Swift and the Rolling Stones playing from their homes.

Malian Afro-pop star Salif Keita, Congolese singer Fally Ipupa, Nigeria's Wizkid, Femi Kuti, Senegalese rapper Awadi, Côte d'Ivoire's Magic System and Beninese singer Zeynab were among the stars performing from their living rooms, studio or garden, ending their songs with the line: "Together as one."

The highlight of the evening was a remote duet between N'Dour and Coldplay's Chris Martin, who sang *A Sky Full of Stars*.

"I am optimistic, culture is at the beginning and at the end of everything," said N'Dour, sponsor of the evening, which aimed "first to raise awareness of the fight against the pandemic, but also to say that in many areas nothing will ever be the same again."

Jamaican reggae and ska performer Jimmy Cliff recorded "a message in these uncertain times."

"The time has come again for us Africans to show the world who we are," he said. "Those in the continent and in the diaspora, it is time to be together as one."

PEACE ACTIVIST FIGHTS FOR WOMEN'S PLACE AT THE NEGOTIATING TABLE

Rita Lopidia Abraham
U.N. WOMEN

ADF STAFF

At a negotiating table for the conflict in South Sudan, Rita Lopidia Abraham is a rare sight. As a woman, she sits across from mostly male representatives of warring parties. Some of them have questioned why she is there at all.

"You will see that it is mostly those who carry guns that are given space to negotiate," she said in an interview with One Earth Future.

Her group, EVE Organization for Women Development, was formed to speak for women and girls in the crosshairs of violence. Many of these women live in camps for internally displaced people. Some have lost loved ones in the war and are the sole breadwinners for their families.

"It only makes sense that in any resolution of conflict, that women are part [of it] in terms of giving their thoughts and sharing their experiences of conflict to shape the discussion that leads to peace," she said.

Abraham has been a delegate to South Sudanese peace talks in Addis Ababa, Ethiopia, and Khartoum, Sudan. She signed a peace agreement in 2018 on behalf of the South Sudan Women Coalition for Peace, an umbrella group of 50 women's organizations, Voice of America reported.

In 2020, she received the Women Building Peace Award from the United States Institute of Peace. The award comes with a \$10,000 prize. She said she plans to use some of the money to fund a project to help young women pursue leadership roles. Another part of the money will help South Sudanese orphans and street children.



U.N. WOMEN

She plans to continue to lend her voice to the quest for peace in her home country. There is much work to be done to include women in the peace-building process. A United Nations review of 14 peace processes from 2000 to 2010 found that only 8% of negotiators and 3% of signatories were women. Few peace agreements even mention women in the text.

"What really motivates me has been the situation that we all are living in — the struggle of women in the face of violence that we all share," she told the institute.



French Forces Take Out AQIM Leader

ADF STAFF

In an operation in northern Mali, French special forces soldiers killed the founder of al-Qaida in the Islamic Maghreb (AQIM). At the time of his death, Abdelmalek Droukdel was one of the most wanted terrorists in the world.

Droukdel was born in Algeria and was one of the main figures responsible for the resurgence of extremism and violence across the Sahel region. He was killed on June 3, 2020, after crossing over from Algeria into Mali.

"This essential fight for peace and stability in the region has just achieved a major success," French Defense Minister Florence Parly said, according to *The Africa Report*.

Several other associates of Droukdel were killed in the raid, and French forces said they were confident of the identity of the deceased terror leader. AQIM appeared to confirm the death two weeks later when it released a video eulogy to Droukdel.

"I congratulate and thank all those who have enabled and carried out these daring operations, which have dealt severe damage to these terrorist groups," Parly said. "Our forces, in cooperation with their G5 Sahel partners, will continue to track them relentlessly."

Droukdel trained as a bomb maker and was one of the first to use suicide bombing in Algeria. After fleeing that country, his terror group formally pledged allegiance to al-Qaida in 2007. Over the years, AQIM has spread fear in several Sahelian countries through attacks on hotels, tourist sites and by kidnapping civilians for ransom. He reportedly organized the terror attacks against the Hotel Splendid and other sites in Ouagadougou, Burkina Faso, in 2016 that left 30 dead and more than 50 wounded.

The village of Talhandak, Mali, where French forces killed the leader of al-Qaida in the Islamic Maghreb

AFP/GETTY IMAGES

MEDICAL SUPPLIES PLATFORM GIVES AFRICAN COUNTRIES BUYING POWER

ADF STAFF

The African Union has announced the launch of a one-stop online shop that will help countries buy much-needed medical equipment during the COVID-19 outbreak.

The Africa Medical Supplies Platform lists cost-effective testing kits, personal protective equipment, ventilators, patient monitors and disinfectants from certified manufacturers.

Zimbabwean billionaire Strive Masiyiwa, who helped develop the platform, said the African Union is getting requests "from other parts of the world to license the concept."

"Africa is leading the way with this online solution to ensure all of our governments get access to personal protective equipment and other urgent medical supplies they need, at fair prices," Masiyiwa said in a report by *The Namibian*.

The platform, which will work like Amazon or eBay, is a result of a partnership involving the African Union; the Africa Centres for Disease Control and Prevention (CDC); Janngo, a social startup studio; the African Export-Import Bank (Afreximbank); the United Nations Economic Commission for Africa; and other organizations.

In July 2020, Masiyiwa announced that the Bill and Melinda Gates Foundation had joined the partnership and secured at least 9 million tablets of the drug dexamethasone, which will be distributed to countries free. "We have a shared belief that access to lifesaving tools should not be dependent on ability to pay," Masiyiwa said.

Typically, payments will be handled by Afreximbank, and African carriers such as RwandAir, Ethiopian Airways and South African Airways will transport goods to major cities. Most orders will be delivered in five to 10 days.

Masiyiwa said the platform will "unashamedly" tout products manufactured in Africa.



Workers process a shipment of medical supplies to protect against COVID-19 in Addis Ababa, Ethiopia. REUTERS

"This platform is not-for-profit; it sits with the Africa CDC and with Afreximbank," Masiyiwa said in a report by South Africa's News24. "Those are the core partners of the platform, no fees, no business for any of us."

In announcing the platform, South African President Cyril Ramaphosa said this sort of collective action will "bind the continent together."

The platform "will address shortages and security of supply, ensure price competitiveness and transparency in procurement, reduce logistical delays, simplify payment processes, and provide a common platform where governments can access services from quality and certified suppliers," Ramaphosa said.

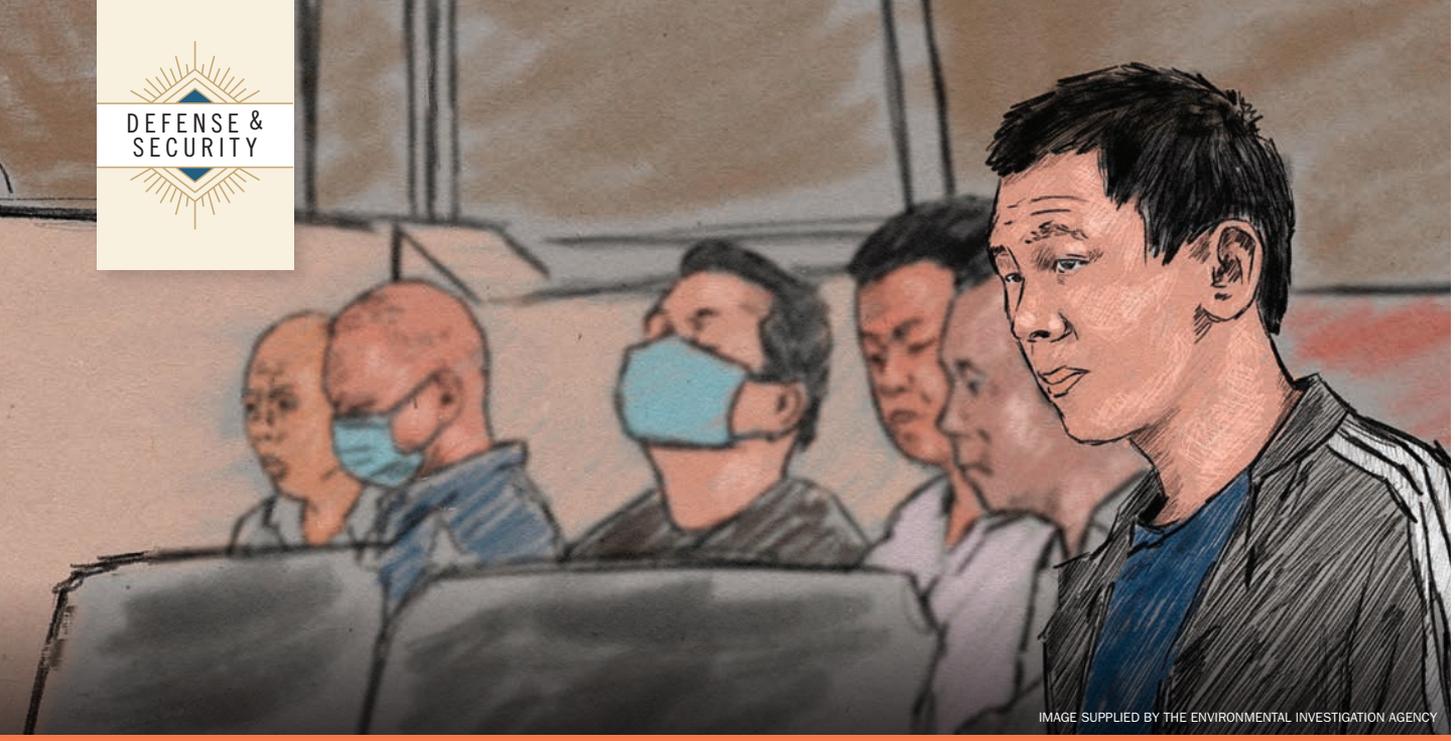


IMAGE SUPPLIED BY THE ENVIRONMENTAL INVESTIGATION AGENCY

MALAWIAN COURT LOCKS UP TRAFFICKERS TIED TO WILDLIFE RING

AGENCE FRANCE-PRESSE

A Malawian court sentenced members of a trafficking ring to a total of 56 years in prison for selling wildlife parts.

The nine convicted traffickers were part of the Lin-Zhang crime syndicate and included seven Chinese nationals. Officials arrested the kingpin, Yunhua Lin, in August 2020 after a three-month manhunt. The court found them guilty of trafficking animal parts such as pangolin scales, rhino horn, ivory and hippo teeth.

Malawian Director of Parks and Wildlife Brighton Kumchedwa hailed the convictions. “Malawi is no longer a playground for these wildlife criminals,” he said after the verdict.

Authorities believe Lin-Zhang has been operating in Malawi for at least a decade. Poaching has decimated the world elephant population, which slumped in Africa from several million at the turn of the 19th century to about 400,000 in 2015. Up to 60% of all elephant deaths can be blamed on poaching, according to conservation group World Wildlife Fund.

There is a huge demand in Asia for elephant tusks, rhino horns and other animal parts for ornaments and their purported medicinal properties.

International environmental groups lauded Malawi for its commitment to taking down trafficking rings. Malawi arrested 14 members of the syndicate in 2019 and, as of August 2020, one still was awaiting trial, *Nyasa Times* reported.



Malawi sentenced nine members of the Lin-Zhang wildlife poaching gang to a combined 56 years in prison for trafficking in animals and animal parts. IMAGE SUPPLIED BY THE ENVIRONMENTAL INVESTIGATION AGENCY

“Following years of concerted efforts and overcoming countless obstacles, this small nation has demonstrated how, with political will and determination, to dismantle one of Africa’s most prolific organized international crime syndicates,” said Mary Rice, executive director of the Environmental Investigation Agency.

Rice hopes other countries follow Malawi’s example. “Fighting crime on this scale demands sophistication, collaboration, courage and tenacity,” she said. “Malawi should be immensely proud — and other African countries currently battling the scourge of illegal wildlife trade would do well to follow this example of global leadership.”

ALL-FEMALE AIR FORCE TEAM MAKES HISTORY IN NIGERIA

ADF STAFF

After a push to recruit and train more female pilots, the Nigerian Air Force (NAF) announced it had conducted an intelligence, surveillance and reconnaissance (ISR) mission led entirely by a female team. The mission, which used a Beechcraft King Air ISR aircraft, included two female pilots, an onboard technician, a mission operator and a female marshaller. This all-female mission was the first in the history of the NAF.

"The NAF's objective in this regard is to maximize all of the potentials of Nigeria's vast human resource pool, male and female, to ensure the effective, efficient and timely employment of air power in response to Nigeria's national security imperatives," Air Commodore Ibikunle Daramola told *This Day*.



Nigerian Air Force crew members inspect a Beechcraft King Air ISR aircraft. NIGERIAN AIR FORCE

The NAF now has seven female pilots and plans to add to that number. The 307 Executive Airlift Group left Nnamdi Azikiwe International Airport and flew over parts of Niger State. The captain of the Beechcraft, Flying Officer Oluwabunmi Ijelu, is the first woman to captain an NAF plane.

After the mission, Air Commodore Francis Edosa, commander of the airlift group, said the mission was a success and thanked Nigeria's chief of air staff for a commitment to gender inclusion.

"He has actually given opportunities for the genders, and that opportunity has come to fruition with us having a full female crew. They've just gone on the mission and done very well. I think it's something we should be proud of as an Air Force."



CÔTE D'IVOIRE CAPTURES EXTREMIST LEADER

AGENCE FRANCE-PRESSE

Ivoirian forces captured an extremist leader and a large number of fighters responsible for an attack on a border post.

Defence Minister Hamed Bakayoko did not name the suspected terrorist but said he was responsible for a June 11, 2020, attack at the border with Burkina Faso that left 14 military personnel dead and six wounded, according to an Al-Jazeera report. The predawn attack has been attributed to the Group to

Kiali Ouattara, traditional chief of Ferkessedougou, Côte d'Ivoire, walks through a town close to the borders with Burkina Faso and Mali. Terrorists hit the region in June 2020, killing 14.

AFP/GETTY IMAGES

Support Islam and Muslims. It was the first major attack on Ivoirian soil since 2016 and came shortly after a joint Ivoirian-Burkinabe mission to rid the border region of extremists.

"We will go further as the investigation progresses," Bakayoko said. "We will know who he was in contact with, who is behind it."

Bakayoko credited the arrests of people who took part in the assault to photos retrieved from mobile phones.

On June 18, the Ivoirian Army said it had carried out a sweep in the Kafolo area and in the neighboring Camoe National Park, a reputed haven for extremists. Troops picked up 27 people, destroyed logistical material and seized communications equipment.

The attack on Kafolo shook Côte d'Ivoire, which only recently has returned to stability after a decade of turbulence. The June 11 attack took place in the same zone where the two countries launched a groundbreaking joint operation in May to flush out extremists.

Operation Comoe, named after a river that flows through the two countries, led to the death of eight suspected terrorists, the capture of 38 others and the destruction of a terrorist base at Alidouougou in Burkina Faso, the Ivoirian Army said on May 24, 2020.

South Sudan Working to Vaccinate

VOICE OF AMERICA

Shejirina Moni sits beside her children in front of their makeshift home in Juba, South Sudan's capital. Six of her children have died of various illnesses. She has three surviving.

"The first one died at 9 months," she said. "Another one died at the age of 10 months. Another one died when he was crawling, about 3 months."

Moni's story highlights a sad fact: Millions of children in South Sudan do not get routine vaccinations. They are vulnerable to preventable illnesses.

In addition to dealing with the COVID-19 pandemic, the country is battling a severe measles outbreak, with more than 4,700 confirmed cases and 26 deaths since January 2019.

The government of South Sudan has partnered with the World Health Organization; UNICEF; Gavi, the

Vaccine Alliance; and ONE, the anti-poverty campaign co-founded by Irish musician and celebrity-activist Bono; to carry out a nationwide measles vaccination drive that aims to reach 2.5 million children.

The campaign launched in February 2020 at the only pediatric medical facility in the country, Al-Shabbah Children's Hospital. Situated in the heart of Juba, it provides health care to more than 5,000 people monthly, reaching some of the poorest people in the city.

"We need to boost the vaccination coverage to protect children against measles outbreaks," said Dr. Makur Matur Kariom, the Ministry of Health's undersecretary. "Unfortunately, in South Sudan routine vaccination coverage against measles remains low at only 59%."

Public health specialists recommend that coverage not fall below 90%. It's crucial to maintain that

standard for measles, which is highly infectious.

One reason why childhood immunization coverage against measles is low in the country is due to the logistical challenges involved in keeping vaccines at near-freezing temperatures. It's not easy to do in South Sudan, the least electrified country in the world, where temperatures often soar above 40 degrees Celsius.

Al-Shabbah Hospital uses a solar-powered refrigerator provided by UNICEF.

"We are able to keep these things at the correct temperature in the hospital here. That is the most important thing," said Dr. Felix Nyungura, the hospital's executive director. "The public electricity has not yet arrived in our place here. Although in some places it is there. But now we are depending on solar power and electricity from a generator."



A health worker administers a polio vaccine in South Sudan. AFP/GETTY IMAGES



AFP/GETTY IMAGES

'Train of Hope' Fights Virus in Countryside

AGENCE FRANCE-PRESSE

Dozens of locals line up eagerly as the train heaves to a halt at a station in a remote rural region of South Africa's coastal Eastern Cape province.

The so-called Train of Hope has come to provide COVID-19 screening in one of South Africa's virus hot spots from aboard a specially equipped mobile clinic. The Eastern Cape in mid-June 2020 accounted for 14% of South Africa's COVID-19 infections nationwide. Since the first case was reported on March 5, Africa's most industrialized country has recorded the continent's highest number of cases.

The train previously operated as a general health services facility offering dentistry, eye checks and counseling services in more than 70 of South Africa's rural communities. The state-funded train was repurposed as a locomotive of "hope" in South Africa's fight against the virus.

The train, known in normal times as Phelophepa, which means "good, clean health" in the Sotho and Tswana languages, crisscrosses the country nine months of the year.

"We have shelved the Phelophepa services, and we are now solely dealing with the issue of the COVID-19," train manager Bheki Mendlula said.

"I now suddenly realized that corona[virus] is real, and I think I should know my status, know if I am safe or not," said Sinisipho Nxojelwa before getting tested.

She was worried that her aunt, a nurse who lives with her family, might bring the infection home from work.

Health authorities have mobilized tens of thousands of volunteers to travel in search of COVID-19 cases.

Malaria Completely Stopped by Microbe



BBC NEWS AT [BBC.CO.UK/NEWS](https://www.bbc.co.uk/news)

Scientists have discovered a microbe that protects mosquitoes from being infected with malaria. Team members in Kenya and the United Kingdom said the finding has "enormous potential" to control the disease.

Malaria is spread by the bite of infected mosquitoes, so protecting them could also protect people. The researchers are investigating whether they can release infected mosquitoes into the wild or use spores to suppress the disease.

The malaria-blocking bug, Microsporidia MB, was discovered by studying mosquitoes on the shores of Lake Victoria in Kenya. It lives in the gut and genitals of the insects. The researchers could not find a single mosquito carrying Microsporidia that was harboring the malaria parasite.

"The data we have so far suggest it is 100% blockage — it's a very severe blockage of malaria," Dr. Jeremy Herren, from the International Centre of Insect Physiology and Ecology in Kenya, told the BBC.

More than 400,000 people are killed by malaria each year, most of them children under age 5. Although huge progress has been made through the use of bed nets and spraying homes with insecticide, this has stalled in recent years. It is widely agreed that new tools are needed to tackle malaria.

Microsporidia MB could be priming the mosquito's immune system so it is more able to fight off infections. Or the presence of the microbe in the insect could be having a profound effect on the mosquito's metabolism, making it inhospitable for the malaria parasite.

At the very least, 40% of mosquitoes in a region need to be infected with Microsporidia to make a significant dent in malaria.

CHAD PAYING DEBT TO ANGOLA WITH CATTLE



AFP/GETTY IMAGES

BBC NEWS AT [BBC.CO.UK/NEWS](https://www.bbc.com/news)

Chad is repaying Angola a debt of \$100 million with cattle, Angola's state-run newspaper has reported.

The unusual agreement is seen as creating a win-win situation for both nations — Chad is short of cash and Angola needs cattle.

More than 1,000 cows arrived by ship in Angola's capital, Luanda, as the first payment, *Jornal de Angola* reported. In total, Angola will receive 75,000 cattle over 10 years, meaning it has accepted payment of \$1,333 per animal.

Chad had proposed repaying the 2017 debt with cattle, and Angola had agreed because it would help the Southern African state rebuild its cattle population in drought-affected areas. Angola is often hit by drought, causing animals to die of hunger and thirst and leaving many villagers destitute.

Although oil rich, the country is still striving to recover from the legacy of a 27-year civil war that ravaged the country after independence.

Chad is described by the World Health Organization of Animal Health as a "livestock farming country par excellence," with 94 million head of cattle. Livestock accounts for 30% of Chad's exports and is its main source of foreign exchange after oil.

In an October 2019 report, the World Bank said Chad's economy "remains fragile and vulnerable to considerable risk, such as oil price volatility and regional insecurity" caused by militants operating in the region.

AFP/GETTY IMAGES





SUPERCOMPUTER PREDICTS LOCUSTS' MOVEMENTS

THE ASSOCIATED PRESS

A supercomputer is boosting efforts in East Africa to control locust outbreaks that raise what the United Nations food agency calls “an unprecedented threat” to the region’s food security.

The computer, a donation from the United Kingdom, uses satellite data to track locust swarms and predict their next destination. Quickly sharing the locusts’ movements with regional authorities is key to controlling the outbreak because even a small swarm of locusts in a single day can move nearly 100 miles and consume an amount of crops that would otherwise feed 35,000 people.

An analyst uses a computer map to track the movements of invading locusts.

Based in a regional climate center in Kenya, where the insects have been particularly destructive, the supercomputer system “produces extensive weather forecasts to predict the high winds, rainfall and humidity that provide ideal breeding conditions for locusts so climate experts can predict their next destination,” the United Kingdom’s Department for International Development said.

Kenya, Somalia and Uganda have been battling the worst locust outbreak that parts of East Africa have seen in 70 years. Swarms also have been sighted in the Democratic Republic of the Congo, Djibouti, Eritrea, South Sudan and Tanzania.

The threat from the locusts “remains extremely alarming” in the Horn of Africa, where “widespread breeding is in progress and new swarms are starting to form, representing an unprecedented threat to food security and livelihoods at the beginning of the upcoming cropping season,” according to a warning from the U.N. Food and Agriculture Organization.

Aerial spraying is generally considered the only effective control method. In Uganda, Soldiers have been battling swarms using hand-held spray pumps because of difficulties in getting aircraft and the recommended pesticide.

Officials in Nairobi said the technology will boost their efforts in tracking locust swarms.

“The forecast is quite useful because it helps them to focus their efforts in the areas that are most likely to be affected by the desert locust in the coming, say, 10 days,” said Abubakr Salih Babiker, a climate scientist at Nairobi’s regional climate center. “In this way they are more efficient in allocating their resources, allocating the financial capacity to control the desert locust. It is a very innovative and new way of using technology to solve a real-life problem like the desert locust.”

Kenneth Mwangi, a satellite information analyst at the center, said the team can run better prediction models in an outbreak where the spread of locusts “has been very rapid.”

RWANDA WANTS TO BECOME DRONE HUB

BBB NEWS AT BBC.CO.UK/NEWS

Rwanda, the country of a thousand hills, was the first in the world to embrace a commercial delivery service by drone aircraft when the company Zipline began flying blood in 2016. Rwandan President Paul Kagame sees drones as part of his country’s future; he wants them manufactured and piloted by Rwandans.

Zipline has delivered tens of thousands of units of blood. But it is an exception. Its flights are classified as government flights, meaning it has high-level exemptions when it comes to air traffic management.

The same is true in Kigali, the nation’s capital, where police use drones to enforce quarantines resulting from the COVID-19 outbreak. Police have outfitted drones with megaphone speakers to order citizens to remain in their homes.

Such exemptions to traffic management of lower airspace don’t apply to long-term commercial drone delivery networks. The thorny issue of regulation and management of the lower airspace will have to be resolved before drones can become commercially successful.

The World Bank’s Edward Anderson, who has focused on drones in the region, notes that they have many uses beyond medical deliveries.

“Rwanda is one of the most densely populated rural parts of the world,” he said. “In the long run we’re looking at drones providing economic opportunity in agriculture, for small-scale manufacturers, and to deliver time-sensitive goods such as cash and documents.”



A Rwandan police drone fitted with a megaphone flies through a Kigali neighborhood to enforce a COVID-19 lockdown.

REUTERS

The Rebel Princess of ZANZIBAR

ADF STAFF

Sayyida Salme's life was a whirlwind.

She was a sultan's daughter from what is now Tanzania. Denied any formal education, she taught herself to read and write. She spoke four languages — Swahili, Arabic, Turkish and German. She got pregnant out of wedlock, her brother tried to execute her, and she fled to Europe. When she became a penniless widowed mother, she became one of the first African women ever to write an autobiography.

She is said to have carried with her a small bag of sand from a beach in Zanzibar throughout her life.

She was born in 1844 in Zanzibar, the daughter of Said bin Sultan Al-Said and one of his courtesans. She was one of the sultan's 36 children and lived in a gigantic palace that housed more than 1,000 people. She learned to write by copying the Arabic alphabet and the Quran.

Her father died when she was 12. Because of his death, she became of age and inherited wealth and a plantation. Two of her brothers, Majid and Barghash, fought to inherit the sultanate. She sided with Barghash, and at the age of 15 she became his general secretary, writing letters to chiefs on his behalf. But Majid was the victor, and when she switched her allegiance to him, she alienated much of her family.

Alone and isolated, Salme made new friends. Next door to her home lived a young German businessman named Rudolph Heinrich Ruete. She was drawn to his Western ideas; he was struck by her intelligence and beauty. Their blossoming romance did not go over with the Europeans in the community, who didn't want to offend the sultan. And the sultan was indeed offended.

When word began to spread that the 22-year-old Salme was pregnant, her sultan brother summoned her and prepared for her to be executed. Relatives talked him out of it, saying it was too early to know if she was indeed pregnant.

When it became clear that she was carrying a child, the sultan ordered her to travel to Saudi Arabia. Believing she would be murdered on the way, she fled instead to Yemen, where her baby was born. The baby died.

Months later, Ruete joined her in Yemen. They married and she changed her name to Emily Ruete and converted to Christianity. They moved to Germany, where they had three children. But shortly after the birth of her youngest child in 1870, her husband died in a horse-drawn tram accident.

She was stranded in Germany and could not return to her native land. She was 25 years old.

She had money, but women in Germany at that time were not allowed to manage their own finances. Two men were appointed to handle her money and lost most of it. To make ends meet, she began teaching Arabic. The story of an Arab woman of noble birth earning a living as a teacher was printed in newspapers throughout Europe.

In 1886, she published her memoir, *Memoiren einer arabischen Prinzessin*.

Two years later, she published an English translation, *Memoirs of an Arabian Princess*. The book got mixed reviews, with most of the unfavorable ones reflecting the prejudices of that time.

The book, in addition to telling her life's story, includes her extensive commentaries on the contrasts between the Western and Arab worlds. The famous Irish playwright Oscar Wilde loved her book, saying, "The story of her life is as instructive as history and as fascinating as fiction."

She is often credited as being the first East African woman, and Arab woman, to write an autobiography. But that distinction may not go far enough. Up until the 19th century, memoirs by women in any culture were rare. She may well have been the first African woman to actually publish a memoir.

In 1888, she traveled to Zanzibar with her daughter Rosalie, hoping to reclaim some of her inheritance. When it didn't work out, she became bitter and moved to what is now Tel Aviv. From there, she moved to Beirut in 1892 and returned to Germany in 1914. She died 10 years later at age 80.

She was buried in Germany with a bag of sand from a beach in Zanzibar.



CLUES

- 1 This needle-shaped volcanic plug stands 386 meters tall.
- 2 Mosses, frequent fog and rain make climbing this peak dangerous, yet some still attempt the slippery ascent each year.
- 3 The area around the peak is known for exotic wildlife, including an abundance of snakes.
- 4 This formation has been called “The Dark Tower.”



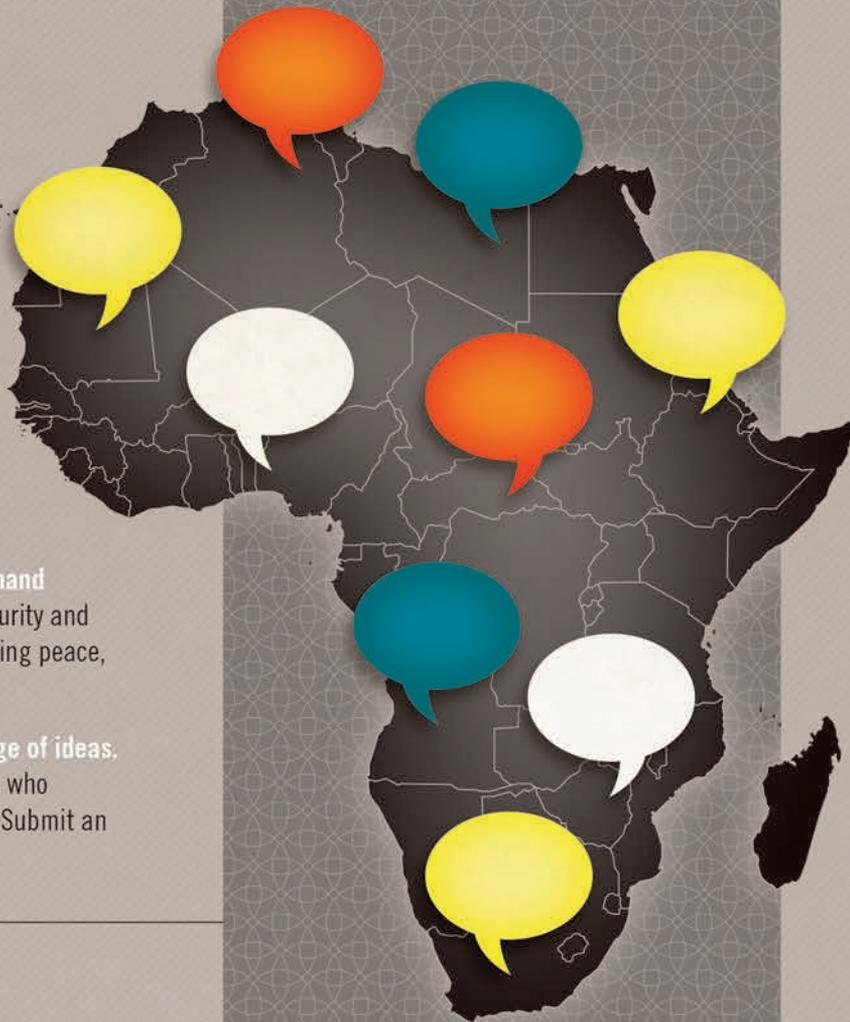
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