Education

'Worsen inequality'

Home learning hard in rural, poor Africa

KAMPALA, Uganda, July 20, (AP): Lessons via radio or TV. Math problems in newspapers. Classes on Zoom or WhatsApp.

The options for African students to keep studying while schools remain closed because of the coronavirus pandemic seem varied, but the reality for many is that they will fall behind and possibly drop out of school forever – worsening inequality on an already unequal continent.

"I think education now is more of an emergency than the health issue," said **Dr Mary Goretti Nakabugo**, a literacy expert who runs a Uganda-based education nonprofit called Uwezo, noting that there have been no reported virus deaths and just over 1,000 cases in this East African country, though, as elsewhere, limited testing means those figures are likely undercounts. Children "are completely helpless at the moment."

Nakabugo

Although the pandemic has disrupted education across the globe, the schooling crisis is more acute in Africa, where up to 80% of students don't have access to the internet and even electricity can be unreliable, making distance learning difficult, if not impossible. Schools also often provide a refuge to vulnerable children, offering services that their families cannot afford.

Sub-Saharan Africa already has the highest rates of children out of school anywhere in the world, with nearly one-fifth of children between the ages of 6 and 11 and over one-third of youth between 12 and 14 not attending, according to the UN culture and education agency.

But getting students back to school also comes with special challenges in Africa, where children in some countries may cram into tiny classrooms by the dozens.

The charity Save the Children called the pandemic the "biggest global education emergency of our time" in a report published this week. It identified 12 countries in which children "are at extremely high risk of dropping out forever." Nine of them are in sub-Saharan Africa.

Support

With the help of outside groups, some African governments have announced measures to support learning from home. But many have been hindered by a lack of reliable electricity and poor internet connectivity. Even newspapers into which learning materials are inserted are not affordable for many in the region. In Uganda, for instance, annual per capita income was less than $800 in 2019, according to World Bank data.

Uganda's government has pledged to distribute 10 million radios and over 130,000 solar-powered TV sets, but authorities have failed to honor past promises, including giving a free mask to everyone.

In neighboring Kenya, primary and secondary schools will remain closed through 2020, although colleges and other institutions of higher learning can reopen in September. That means Kenyan pupils will repeat an academic year, a phenomenon commonly described as a "dead year."

But the effects will not be limited to academic disruption.

"The critical consequences may be related to health, water and nutrition" because schools are often oases of stability, according to a report by the Norway-based Chr. Michelsen Institute.

The development research institute noted that school closures may deny students access to meals and health programs, and sometimes clean water and sanitation.

Schools also provide havens for children from work and exploitation. Girls may especially suffer, according to the literacy expert Nakabugo, who cited anecdotal reports of a growing number of teenage pregnancies – as the Norway-based institute's report noted happened during West Africa's Ebola epidemic.

The prolonged shutdown could also mean many schools close for good and many teachers quit, exacerbating what is already the world's worst teacher shortage.

Media reports in Uganda cite school owners who are looking to sell their properties or have turned dorms into rental units to keep up with loan payments. The local association of Ugandan teachers is urging authorities to employ furloughed teachers as village tutors.

Discouraged

"The teachers are so discouraged at the moment. They feel left out," said Stella Maris Basemera, a mathematics teacher who heads a Uganda-based group of tutors called Creative Learning Africa. "So some of them are going to run away from the profession."

In the West African nation of Senegal, education officials tried to keep children learning by broadcasting some classes on television after schools closed in March, a move aimed at reaching students without home internet access. But electricity is often lacking in villages.

"The potential of digital technology is enormous," said Djibril Tall, a teacher in Senegal's Louga region. But "in many places people are forced to travel long distances just to have enough to charge their phones."

Some students in Senegal returned to classrooms in June, but, for many in Africa, returning to school may be tricky.

In Zimbabwe, where in many schools up to 70 students may be crammed into a small room, the government is postponing a phased reopening that had been scheduled to begin this month. Teachers unions had warned that such a plan is dangerous in schools lacking face masks, hand sanitizer, and even running water.

Even in South Africa, the continent's most prosperous economy, the government has faced criticism from teachers unions for its decision to reopen schools despite a growing number of cases.

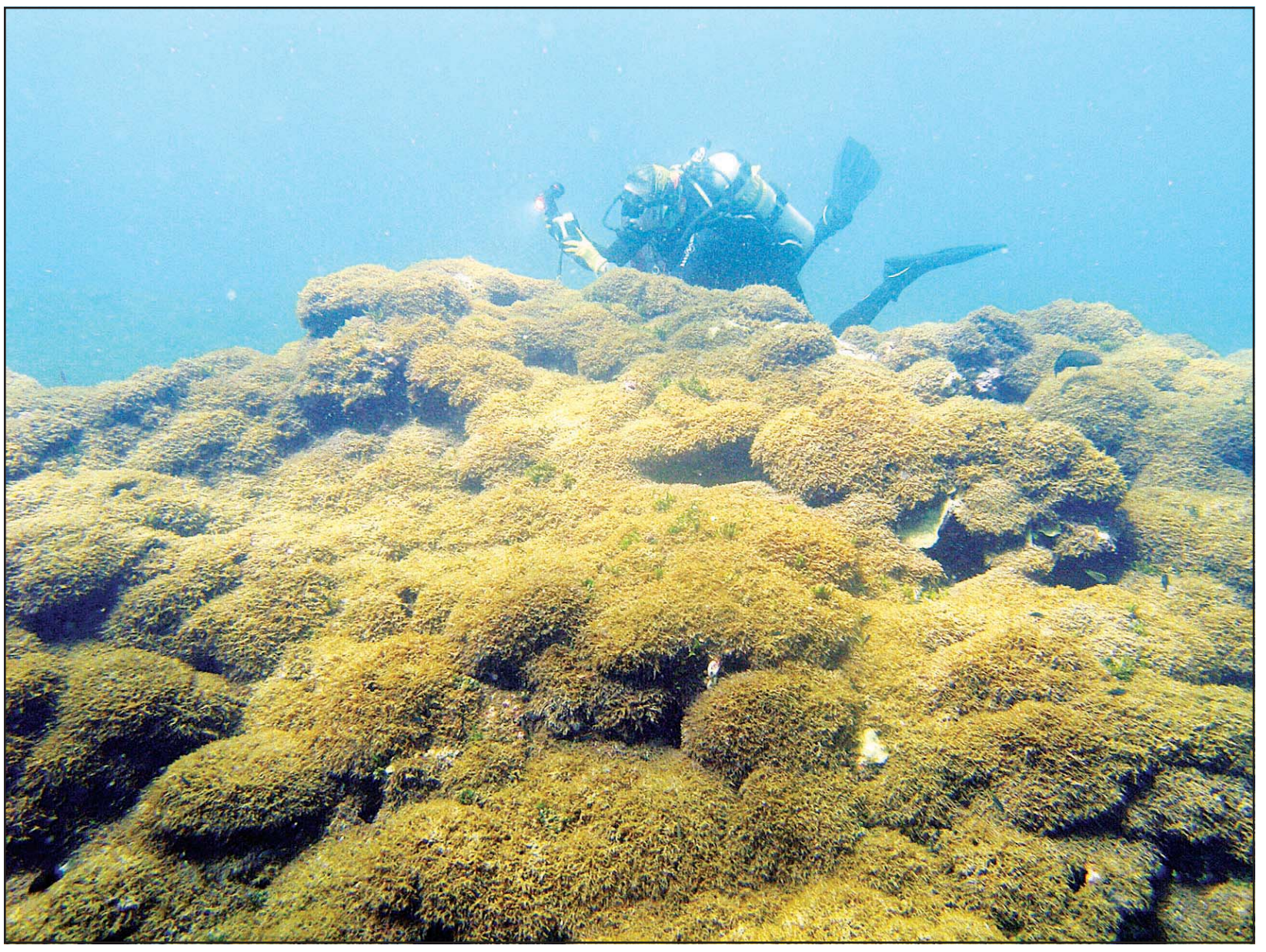
Since schools there reopened in June, at least 650 students and teachers have tested positive in the province of Gauteng, the country's economic hub, forcing 71 schools to close again.

Many private schools across Africa are offering online tutoring. But in poor and rural areas, children are more likely to spend their days playing games or housekeeping.

"It is the poorest schools that will continue to suffer and remain closed, while affluent schools reopen, only deepening inequality in both access to and quality of education," said Dipolelo Moime, spokesman for One SA Movement, a group of South African activists.

While some parents are paying hundreds of dollars a month for their children to attend online classes, others pay much less to teachers who conduct lessons in backyards. Many others cannot afford any support.

"I can't even afford to buy bread. Where will I get the money for these private lessons?" said Maud Chirwa, a mother in the Kuwadzana suburb of Zimbabwe's capital, Harare. "They are better off at school where there are some controls."



In this Aug 4, 2019 photo provided by Taylor Williams, a new species of seaweed covers a dead coral reef at Pearl and Hermes Atoll in the remote Northwestern Hawaiian Islands. (AP)

The Neowise Comet streaks across the northwestern skies over Walla Walla, Wash, Friday night, July 17. The Big Dipper can be seen above the windmill. According to NASA, comets are cosmic snowballs of frozen gases, rock and dust. When a comet's orbit brings it close to the sun, it heats up and spews dust and gases into a giant glowing head larger than most planets. (AP)

Khan

Wheeler

Discovery

Elephant relocation OK'd: A Pakistani court on Saturday approved the relocation of an elephant to a sprawling animal sanctuary in Cambodia after animal rights activists launched a campaign saying the pachyderm that spent three decades in the Islamic nation was being mistreated at the capital's small zoo, officials said.

The decision was hailed by the World Wide Fund for Nature, which said its representative in Pakistan "has been part of the continuous efforts to address welfare issues regarding Kaavan," the 33-year-old elephant that was given to Pakistan in 1985 by Sri Lanka.

The group had proposed that the animal be moved a 25,000-acre sanctuary in Cambodia, which already houses elephants and has rehabilitated over 80 elephants so far.

Mian Aslam Amin, Pakistan's federal minister for climate change, called the ruling by the Islamabad High Court a "sad but correct decision," which he said was made for the benefit Kavan, the lone elephant at Islamabad's zoo. Pakistan's Prime Minister is **Imran Khan**.

He said Kaavan would be relocated, but gave no dates for it.

The elephant was well-loved by children and was treated well until recent years when it was chained. Authorities had said that was done for the safety of visitors after observing occasional aggression in the animal's mood. (AP)

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Chain addresses warming: Burger King is staging an intervention with its cows.

The chain has rebalanced the diet of some of the cows by adding lemon grass in a bid to limit bovine contributions to climate change. By tweaking their diet, Burger King said Tuesday that it believes it can reduce a cow's daily methane emissions by about 33%.

Cows emit methane as a by-product of their digestion, and that has become a potential public relations hurdle for major burger chains.

Greenhouse gas emissions from the agriculture sector made up 9.9% of total US greenhouse gas emissions in 2018, according to the Environmental Protection Agency. Of that amount, methane emissions from livestock (called enteric fermentation) comprised more than a quarter of the emissions from the agriculture sector. EPA administrator is **Andrew R. Wheeler**.

With an over-the-top social media campaign that teeters between vulgarity and science (sprinkled with more vulgarity), Burger King is banking on the heightened awareness of climate change and its responsibility to limit its own role.

According to a recent poll by The Associated Press-NORC Center for Public Affairs Research, about two out of three Americans say corporations have a responsibility to combat climate change. The gravitational pull of climate change is increasingly finding its way onto national political stage.

Potential customers are also cutting down on the amount of meat they consume, citing both environmental and dietary concerns. Burger King and rival McDonald's have added meat alternatives to their menus.

Two years ago McDonald's said it was taking steps to cut the greenhouse gases it emits. It tweaked the manner in which the beef in its Big Macs and Quarter Pounders was produced. The company said at the time that it expected the changes to prevent 150 million metric tons (165 million tons) of greenhouse gas emissions from being released into the atmosphere by 2030.

Burger King worked with scientists at the Autonomous University at the State of Mexico and at the University of California, Davis to test and develop its formula of adding 100 grams of lemongrass leaves to the cows' daily diets. Preliminary tests indicate that the lemongrass leaves help the cows release less methane as they digest their food.

On Tuesday, Burger King introduced its Reduced Methane Emissions Beef Whopper, made with beef sourced from cows that emit reduced methane, in select restaurants in Miami, New York, Austin, Portland and Los Angeles, while supplies last. (AP)

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Kangaroo captured: Police officers captured an unlikely suspect bouncing through a Florida neighborhood Thursday morning.

After receiving a call about a kangaroo running loose, Fort Lauderdale police officers managed to capture him and place him in a squad car. The marsupial was taken to a barn where the agency keeps its horses.

Anthony Macias, who claims to be the kangaroo's owner, told the Sun Sentinel he had been hoping to bring his pet, Jack, home, but police told him the animal won't be returned, because Fort Lauderdale isn't zoned for kangaroos.

Macias said he was at work when he learned Jack had escaped.

"I was taking out the recycle bin, and I didn't shut the gate all the way," Macias said. "I guess he just punched his way through."

Jack was first spotted about a block from Macias's home around 9:30 am, officials said. Officers followed him for three blocks before grabbing him.

Macias said he got Jack about four months ago from a Davie man who was moving and did not want the animal anymore. Macias also has a Corgi named Max.

"They love each other," he said. "They play and run around." (AP)

Environment

It's a new species of red algae

Aggressive seaweed smothers remote reef

HONOLULU, July 20, (AP): Researchers say a recently discovered species of seaweed is killing large patches of coral on once-pristine reefs and is rapidly spreading across one of the most remote and protected ocean environments on earth.

A study from the University of Hawaii and others says the seaweed is spreading more rapidly than anything they've seen in the Northwestern Hawaiian Islands, a nature reserve that stretches more than 1,300 miles north of the main Hawaiian Islands.

The study was published in the journal PLOS ONE recently.

The algae easily breaks off and rolls across the ocean floor like tumbleweed, scientists say, covering nearby reefs in thick vegetation that out-competes coral for space, sunlight and nutrients.

"This is a highly destructive seaweed with the potential to overgrow entire reefs," said biologist Heather Spalding, a study co-author and longtime Hawaii algae researcher. "We need to figure out where it's currently found, and what we can do to manage it."

In 2016, government researchers were on a routine survey of Pearl and Hermes Atoll when they found small clumps of seaweed they'd never seen before.

Last summer, they returned to find algae had taken over huge areas of the reef – in some areas covering "everything, as far as the eye could see" – with seaweed nearly 8 inches (20 centimeters) thick, said Spalding, who was among the divers there.

"Everything underneath of it was dead," she said.

The area was mostly devoid of large schools of tropical fish and other marine life that usually cruise the vibrant reef, and fish that typically eat algae were not grazing on the new seaweed, researchers said.

Dives along the outer reef of the 15-mile (24-kilometer) atoll revealed the seaweed in varying densities and depths.

Scientists say the actual coverage area is likely much larger than documented because they couldn't survey many sites during their brief visit.

Close to Midway Atoll, site of a pivotal World War II air and sea battle, Pearl and Hermes Atoll is mid-Pacific about 2,000 miles (3,200 kilometers) from Asia and North America.

The uninhabited atoll is in the 600,000-square-mile (1.6 million-square-kilometer) Papahanaumokuakea Marine National Monument, one of the world's largest protected marine environments.

Noting that individual mats of seaweed were as big as several soccer fields, researchers say the algae could dramatically alter Pearl and Herme's reef and threaten the entire Hawaiian archipelago if it spreads.

Hawaii's main islands have several established invasive seaweeds, but cases in the remote northwest are rare.

Species

"We have, not until now, seen a major issue like this where we have a nuisance species that's come in and made such profound changes over a short period of time to the reefs," said University of Hawaii at Manoa Interim Associate Dean and Professor Alison Sherwood, chief scientist on the study.

Researchers studied the seaweed's DNA to try to determine its origin but concluded it's a new species of red algae they named Chondria tumulosa.

The algae can spread in various ways, Sherwood said. It produces tumbleweed-like clumps that move around the immediate area, but it also generates spores that could be traveling much greater distances.

Among the unknowns are why the algae is growing so fast and how it reached such a remote place.

Scientists say seaweed blooms happen worldwide and can be seasonal, but this does not appear to be the case. The National Oceanic and Atmospheric Administration has been monitoring the site for over 20 years.

"When you see something unusual in the last few years, you can be pretty sure that this is something that's a bit special as opposed to just things that change from year to year," said University of Queensland Professor Peter Mumby, who is also chief scientist for Australia's Great Barrier Reef Foundation. "But it is a matter of concern whenever you see an ecosystem start to display symptoms ... like this."

Mumby, who was not involved with the Hawaii research, said more needs to be done to understand what is driving the seaweed growth.

But he noted that in other parts of the world algae blooms often occur because fish that eat the plants have been harvested or forced to relocate by environmental changes.

The new seaweed could have been introduced by a boat or marine debris. But there is no fishing allowed at Pearl and Hermes, and any ship that enters the region is required to have been inspected and cleaned. The species could also be native, having lived in small, unseen nooks and crannies before a change in local conditions caused it to bloom, researchers said.

The NOAA research crews will soon return to study the outbreak and find out if currents have spread it to nearby Midway, home to the Battle of Midway National Memorial, a US Fish and Wildlife Service base and the region's only airstrip.

The first order of business, officials say, is to ensure anyone studying the seaweed doesn't inadvertently spread it.

"All of our dive gear, all of our boats, everything got saturated with bleach," said Randall Kosaki, NOAA research coordinator at the marine monument and expedition lead for the earlier surveys.

"If something like this got back to Waikiki or anywhere in the main Hawaiian Islands it would be an ecological disaster, but also an economic disaster," Kosaki said. "You can imagine what that would do to tourism to have an algae like this overgrowing the reefs."

This July 17 handout photo released by Greenpeace Russia, shows a forest fire in the Krasnoyarsk region, Russia. The Greenpeace Russia team has documented forest fires in the Krasnoyarsk region. While Russian authorities are failing to stop these fires, valuable for the earth's taiga, they continue to burn with consequences for the local people and make a big contribution to climate change. (AP)