

DYING GUATEMALA LAKE UNDERLINES CLIMATE CHANGE THREAT



ATESCATEMPA, Guatemala: A young local fisherman, Wilman Estrada, sits next to one of the few puddles left of what was once Lake Atescatempa, which has dried up due to drought and high temperatures, in Atescatempa. —AFP

ATESCATEMPA, Guatemala: The dried-out oyster shells lie on a landscape parched and cracked by the sun. This is what is left of Lake Atescatempa, once a vast blue-green body of water in southwestern Guatemala. Now the lake is dying, a conspicuous victim of the climate change that is projected to profoundly and irreversibly affect Central America. A prolonged drought descended on the region last year, shriveling two rivers that feed into Lake Atescatempa, and with it the flow of tourists to the area and the livelihood of residents. "We have no more money coming in, nowhere to work. Our hopes for eating fish or supporting our families, that came from the lake," explained Juan Guerra, a 56-year-old who has lived his whole life by the lake.

Today however the lake's shore is dotted with abandoned boats left high and dry. Wilman Estrada, an unemployed 17-year-old wearing jeans and a T-shirt who for the past nine years lived off fishing here, sat by one of the last puddles. "It makes you want to cry," he said, casting a despondent gaze at the rainless sky. Other locals said they began noticing water levels starting to shrink three years ago. And the weather

forecast for Central America offers no relief. From July, El Nino—the irregular weather system that raises the temperature of the Pacific Ocean and causes droughts in some regions—could return.

"Climate change is really affecting the lives and future of these countries and those of our children in Central America," said Hector Aguirre, coordinator of Mancomunidad Trinacional, a group representing towns and villages around the junction of the borders of Guatemala, Honduras and El Salvador.

El Nino

The "Dry Corridor," a zone that runs along the Pacific coast from Guatemala to Panama, felt the brunt of the last burst of El Nino. In 2016, the weather phenomenon left 3.5 million people in need of humanitarian assistance, according to the UN Food and Agriculture Organization (FAO). Crop production from vulnerable small growers shrank badly. "El Nino, bolstered by climate change, has made the Dry Corridor one of the most vulnerable areas on the planet," Aguirre said.

His group has tried to mitigate the problem by training more than 2,000 farmers in

how to diversify their crops, with the aim of guaranteeing food security. But malnutrition is already evident in some places, as in the village of La Ceiba Taquezal, in eastern Guatemala, where 114 families from the Ch'orti' people of the indigenous Maya population have long depended on coffee-growing to survive.

Four years ago, a fungus called coffee rust devastated their coffee plantations, and with it their revenues. Hunger soon set in, most noticeably among children.

Food rations

With help from the Mancomunidad Trinacional and European Union financing, the families were given rations of flour, rice, beans and oil. Nutritionists gave advice on how to improve the quality of their diet by adding tomatoes, herbs and various local plants. "With the dishes we make from beans, rice and plants, we have managed to see the children starting to put on weight," said Marina Aldana, a 36-year-old mother of eight. But Aguirre noted that "these malnutrition problems are worse in indigenous communities for one simple reason: they are not a priority for the governments." —AFP

SCHOOLS FACE VEXING TEST: WHICH KIDS WILL SEXUALLY ATTACK?

'THE RHYME OR REASON AS TO WHY PEOPLE OFFEND, IS INFINITE'

NEW YORK: Third in a month-long Associated Press investigative series focusing on sexual assaults by students on students in US elementary and secondary schools. The children who sexually assault other children may be the popular jocks, the loners or anyone in between. There is no typical attacker, no way for schools to predict who might inflict that kind of torment on a classmate.

Thousands of school-age offenders are treated annually for sexual aggression in the United States, yet experts see

ment and maturation, experts say, young abusers typically recover.

"It's not a lifelong trajectory," said Maia Christopher, executive director of the Association for the Treatment of Sexual Abusers. "Children tend to be much more influenced by effective kinds of interventions than adults." An ongoing Associated Press investigation has documented how K-12 schools in the United States can fail to protect students in their care from sexual assault, sometimes minimizing or even covering up incidents. Schools also struggle to

After the Division I prospect pleaded guilty to assaulting a classmate in a darkened band room, a judge ordered him into adolescent sex offender treatment - for the second time. His first round was as a fourth-grader, after he pleaded guilty to assaulting two 11-year-old girls, according to records AP obtained. In mandatory counseling as a high school junior, Mondy insisted he did nothing wrong. The therapist saw no value in more sessions: Without that basic acknowledgement, treatment would not succeed.

cases. "If you can't admit you've done something wrong, you're never going to change behavior."

The toughest patients need support from all sides, according to one of the nation's pre-eminent juvenile sexual offender experts. "The safest sex offender is somebody who is stable, occupied, accountable to others and has a plan for the future," said therapist David Prescott, who has treated or assessed hundreds of sexually aggressive kids and now works in Maine for an alliance of nonprofit organizations. Because children are constantly developing, experts say age is an important factor when it comes to the motivation for attacks. Feelings of control or entitlement might spur a high school student. A middle schooler could act on impulse and opportunity. Elementary students might not know they are violating boundaries.

Academic studies suggest that what might seem like two obvious risk factors - exposure to pornography and being the victim of sexual abuse - are far from certain triggers. Broader life instability, such as physically or psychologically abusive parents, appears to increase risk. Experts have struggled to develop accurate ways to assess who will reoffend. Clues include a disregard for others' personal boundaries, or a tendency to fight and steal. Social isolation or pressure to be sexually active further elevates the risk, as do fantasies about forceful sex.

Since 2005, four days before he turned 19, Christopher Lee has been locked up in the Minnesota Sex Offender Program. Growing up, Lee said he desperately sought connections but was too needy to keep friends and became a target for bullying. He channeled his aggressions toward sex.

Minnesota officials civilly committed him for indefinite treatment after concluding he was likely to continue exposing himself to, masturbating in front of or peeping on other children. Inside the complex, he has learned the stories of many of the hundreds of other men confined with him. Some did it because they could, others because they were trying to deal with past trauma or because it made them feel powerful.

"The rhyme or reason as to why people offend," Lee said, "is infinite." Pritchard reported from Los Angeles and Twin Falls, Idaho; Dunklin reported from Dallas, Idaho and Commerce, Texas. Contributing to this report were Robin McDowell in St. Peter, Minnesota; Rhonda Shafner in New York; Gillian Flaccus in Beaverton, Oregon; and Rebecca Boone in Boise, Idaho. —AP



MINNESOTA: Christopher Lee looks through a window secured by bars towards a barbed wire fence surrounding the building from a conference room at the Minnesota Sex Offender Program in St Peter, Minn. —AP

no standard profile of personality, background or motivation. They say that while anti-social behavior can suggest a greater risk of offending, the cool kid may attack and the rebel may reform. Their reasons are rarely as straightforward as physical gratification and range from a sense of entitlement to desperation to fit in.

Though many sexual assaults aren't reported to authorities, research shows that about 95 percent of juvenile offenders who enter the justice system won't be arrested for another sex crime: The ordeal of facing police and parents scares many straight. And with treat-

help sexually aggressive students, both before and after they do lasting harm.

The leading research suggests the overwhelming majority of the nation's roughly 50 million K-12 students will never sexually attack a peer. For those who do, the juvenile justice system stresses second chances, and even unrepentant offenders don't forfeit their right to an education. Back in class, privacy laws can mean teachers and peers do not know their pasts. At Forest Hills Central High School in the suburbs of Grand Rapids, Michigan, Marques Mondy's basketball talent was obvious. The risk he presented was not.

Fiercely protective

Adults can play a huge role in rehabilitation, whether by pushing young offenders to confront reality or shielding them from responsibility. As in fourth grade, Mondy's mom was fiercely protective. "I hope race isn't a factor when determining who is telling the truth and who is lying," Nicole Scott, who is black, wrote a school district official on Christmas Day 2010. Her son's accusers were white. Mondy, now 23, said he would call AP to discuss the high school assault. He never did. "He didn't do the treatment he needed to do," said Vicki Seidl, the prosecutor who handled Mondy's juvenile



BOGOR, Indonesia: This photo shows Yulia Herawati preparing to place her daughter Maryamah Sudigyo, who was born prematurely, into an incubator in their home in Bogor. —AFP photos

FREE INCUBATORS SAVE LIVES OF INDONESIAN BABIES

BOGOR, Indonesia: Tiny Indonesian baby Maryamah stared around from inside an incubator, her bright eyes swivelling left and right from under a woolen hat that was far too big for her. When she was born prematurely, Maryamah was just 1.2 kilograms (2.6 pounds), less than half the usual weight of a newborn in Indonesia. Now safely back at home, she is still diminutive but nestles comfortably in a small incubator lent to family, who live in a poor neighborhood in the city of Bogor on Java island.

She is one of hundreds of premature babies born in Indonesia benefiting from the work of an engineering professor who is building incubators and lending them for free to low-income families in a bid to fill a gap in the healthcare system. "The government has a program of public health insurance, but it cannot cover all the people," Raldi Artono Koestoer, who established the initiative, told AFP. Indonesia has the fifth greatest number of premature births of any nation in the world, at 675,700 a year, according to the World Health Organization. The WHO says that pre-term birth complications are the leading cause of death among children under five.

Babies born early can need specialist care. Incubators keep them warm and can help prevent infections. But getting access to the live-saving devices is a huge challenge for the millions living in poverty in Indonesia. The public insurance scheme introduced in 2014 — has helped as it sometimes covers the cost of incubators for a while. But families unable to afford the high cost of continued care are often forced to take their newborns home early.

'Complete success'

Koestoer, who works at the University of Indonesia just outside Jakarta, started his lending scheme back in 2012, using his technical expertise to design and build ultra-light, portable incubators. His interest in incubators began when he fixed one of the devices for his elder brother, a paediatrician, and then learnt how to construct them himself. To fund the scheme, he sought individuals willing to donate 3.5 million rupiah (\$260) each—the cost of making one incubator—and also to transport the devices to the homes of selected families. People who have signed up are generally middle-

class professionals and include many in the healthcare sector.

People requiring an incubator send a text message to a special number, and if they are deemed in need, a volunteer brings one round for them. The service began in the capital Jakarta, and has now expanded to an additional 48 cities, from the island of Sumatra in the west to the mountainous Papua region in the east. As the service has grown, the professor has recruited two of his students to work with him, and he hopes to extend the initiative to 300 cities. Koestoer, 62, says he has so far built 180 incubators that have helped about 1,500 babies, including twins and triplets. "Our success ratio is 100 percent," he said. "1,500 babies — 100 percent alive, healthy."

'Happiest man in world'

The scheme has proved invaluable for Maryamah and her parents, Yulia Herawati and Prayogi, who like many Indonesians goes by one name. Herawati underwent a caesarean section in February when she was almost eight months pregnant due to high blood pressure. Her baby was at first allowed to stay in a hospital incubator with the help of government insurance. But after seven weeks, when the baby was still only 1.5 kilos, doctors said Maryamah could no longer stay in the hospital as her condition had stabilized, prompting her parents to launch a desperate search for help.

"We were slowly recovering from the shock of having a premature baby, but then we had another problem—how were we going to take care of her at home?" said Prayogi. After asking around, he found out about the incubator lending service from a friend. "I sent a text message and the response was very fast. After a few minutes the operator got in touch with me, and said that the incubator can be picked up as soon as the baby is at home," he said. Maryamah now weighs 2.4 kilograms and although she still spends a lot of time in the incubator, her parents now feel safe taking her out and playing with her. While running the scheme is a big task, Koestoer says it all seems worth it when he meets the children he has helped. "When a mother comes here with her baby and it is in good health, I'm the happiest man in the world," he said, speaking from his university office. —AFP



BOGOR, Indonesia: Photo shows Maryamah Sudigyo, who was born prematurely, in an incubator in her home in Bogor. —AFP

MINING BRINGS CHILE CITY RICHES, FEAR OF CANCER

ANTOFAGASTA, Chile: Black dust stains the walls of the building where Jacqueline Jimenez and her children once lived in northern Chile. In an industrial city like Antofagasta, there is perhaps nothing so unusual in that-but Jimenez says she fears that this dust carries a poisonous burden, and that her children now bear it in their bodies. It is blown on the wind from the nearby port, where copper from the region's abundant mines is loaded and shipped across the world. Long known as a hub of production in the world's biggest miner of the red metal, Antofagasta has earned a darker distinction as Chile's cancer capital.

Authorities have called for calm, insisting that heavy metals cannot be breathed in and are only poisonous if ingested. But Jimenez is not convinced. "It is not normal that everyone should be dying of cancer here," she says. "It is a death sentence for my family."

Arsenic

Run your finger along the window sill in Jimenez's old home and it will come away black with dust that is hard to wash off. A study by the Public Health Institute identified 16 different metals in the dust. The Antofagasta Medical College said it found "arsenic, cadmium, zinc, chrome, copper, lead and manganese which far exceed Chilean norms." Jimenez lived for five years in an apartment building opposite the port terminal in the city center. Her children would play out on the roof terrace, unwittingly exposed to the dust. She says medical tests carried

out by specialists abroad have confirmed that the children, now aged 10 and 20, have traces of carcinogenic heavy metals.

High income, cancer risk

Mining has helped raise residents' annual income in Antofagasta to nearly double the national average: some \$36,000. But it is also blamed for giving the city the highest rate of lung cancer deaths: more than double the average at just under 35 per 100,000 inhabitants. Bladder and skin cancer deaths are also high. "Scientists consider that the Antofagasta area is undergoing a biological experiment in having the population exposed to such levels of contamination," the president of the Antofagasta Medical College, Aliro Bolados, told AFP.

Decades of pollution

The scourge of pollution in Antofagasta goes back decades. In 1998, doctors detected dangerously high levels of lead in children living near a freight railway in the city. Further back, high levels of arsenic found in the local drinking water between 1958 and 1971 are blamed for a rise in diseases. People born during that period who are now in their forties or fifties are at high risk of cancer, says Caterina Ferreccio, deputy head of the Center for Advanced Study of Chronic Diseases, Epidemiology and Cancer. "There is a whole generation that has had all these things," she told AFP. "Despite having the highest per capita income, they have the lowest life expectancy in Chile."

'This Dust Kills You'

The arsenic threat was brought under control. Now attention is focused on the black dust blowing from the port. The port's operators, the major Chilean conglomerate Lukic, have signed a commitment to "clean production." Despite that, a court fined the company \$1.3 million in October for pollution and ordered them to clean up the area. The port continues to operate. "They prefer to sacrifice Antofagasta than to stop Chile making money," said Ricardo Diaz of "This Dust Kills You," a group campaigning for the port to be moved.

Testing the children

Authorities have called for calm, insisting that even people living nearby have been exposed to levels of heavy metals below the legal safety limits. In late 2015, hundreds of children in surrounding schools and nurseries were tested for lead in the blood. More than 99 percent of them were found to be within the safe limits, according to international recommendations. But the Antofagasta Medical College said further tests were needed. Jimenez sent samples of her children's hair abroad to have them analyzed. She says the results indicated higher levels of poisonous metals. Some experts have cast doubt on the validity of the hair tests—but they say children's exposure to the dust should in any case be limited, due to uncertainty about what effect it could have over the long term. "There should be obligatory annual tests for children from one to six years old," the city's mayor, Karen Rojo, told AFP, "to determine the damage to the population." —AFP