

Pacific islands seek low-cost storm protection

BONN, Germany (Reuters) — Pacific islands are trying low-cost ways to protect crops and coasts from cyclones that are a bigger threat -- for now -- than rising sea levels that could wipe low-lying nations off the map.

Pacific island delegates at June 1-12 talks in Bonn working on a new U.N. climate treaty say that shifting storm patterns linked to global warming are stoking more "king tides" which bring salt water onto farmland and into fresh water supplies.

"Our immediate concern is cyclones," said Ian Fry, representing Tuvalu which is among the most vulnerable with an average height of 2 meters (6 ft 6 in) above sea level.

"We're careful to say that the

damage is not happening because of rising sea levels - yet," he said.

Many islands are turning to low-cost techniques such as growing taro, a staple food, in pots or small concrete beds to avoid salt intrusion.

"We are also planting mangroves along the coast, that works on some islands as a protective barrier," said Cindy Ehmes, of the Federated States of Micronesia. States lack cash to build barriers against erosion or rising seas.

And several states in the western Pacific are also trying to improve management of reefs to safeguard fish stocks, partly if farmland shrinks. One goal is to protect at least 30 percent of near-shore marine resources by 2020 off Micronesia.



"Moving abroad is the last resort for us," said Joseph Aitaro of Palau. The nations want developed nations to cut emissions of greenhouse gases to slow sea level rise.

Some delegates say communities are already moving within nations because of climate change stoked by greenhouse gases -- often-cited examples are the Carteret islands of Papua New Guinea, Tegua island in Vanuatu or Moala in Fiji.

"I'd estimate that since the year 2000 there have been 1,000 or 1,500 people moving, maybe 6-7 villages" around the Pacific, said Fe'iloakitau Kaho Tevi, general secretary of the Pacific Conference of Churches in Fiji. "It is climate change, at high tide the water goes through the center

of the village," he said of Moala. "We find ourselves losing our burial sites, our beaches, our endemic species. And we are losing some of our islands." Experts say there is no overall tracking of people moving -- or the causes. Some leave outlying islands, drawn by jobs in bigger centers. Subsidence may also sink some atolls.

"There's always the question of 'did climate change play a role in people moving?'" said Yvo de Boer, head of the UN Climate Change Secretariat.

In the Federated States of Micronesia, on the main island of Pohnpei, he said there was a "neighborhood of people who moved from another island, Chuuk, because of a storm."

It was unclear whether the storm was related to global warming.

The UN climate panel has projected that the intensity of cyclones is likely to increase because of climate change, even though total numbers of storms may fall.

Sea levels rose worldwide by about 17 centimeters (7 inches) in the 20th century and are projected to rise by another 18-59 cms by 2100, according to the panel. The estimate excludes possible acceleration of a thaw of Antarctica or Greenland.

Islanders worry increasingly about the future. A video from Kiribati shown on the sidelines of the Bonn talks included a song with the refrain: "Who will take our people? Who will be the good Samaritan for us?"



Nintendo unmoved by rivals' plans

Nintendo's veteran games developer Shigeru Miyamoto has told the BBC that the firm is "not worried at all" by Microsoft and Sony's new controllers. The Japanese firm has enjoyed huge success with its Wii console, in large part due to its motion control system.

At the E3 games show in Los Angeles, both Microsoft and Sony have shown off new control systems which aim to make gaming more accessible.

Mr. Miyamoto said Nintendo was flattered by the approach taken by the firms. He told BBC News: "The fact that both of those companies are looking at getting the gamer off the couch, taking advantage of motion control, and getting them to control the game by moving their body shows that they have looked at what we have done with Wii."

"And now they are moving in the same direction. To that end we are very flattered, he said.

While both the Sony and Microsoft showcases at E3 have featured new technology and techniques for motion controllers, Nintendo's event was decidedly low key. The only "new technology" on offer was a modification to the Wii controller, called the Wii Motion Plus, which was announced last year, and a pulse measuring device called Wii Vitality Sensor, although that is still in the early stages of development.

"Just as we enable you to see the centre of your body balance with Wii fit, the Wii Vitality Sensor enables you to see the information related to the inner world of your body," said Nintendo's chief, Satoru Iwata, at the event. There was a mixed reaction to Nintendo's announcements.

Patrick Garratt, editor of Videogaming 24/7, said: "Nintendo's conference was infinitely more impressive than last year's, but I can't help thinking a tiny, very vocal minority molded the firm's line-up after the reaction to the 2008 announcements."

"There were a lot of calls for Nintendo to show it has learned a lesson from sticking to mass market products like Wii Music in its E3 presentation, and I'd really hoped they were above it."

He added: "That said, it'd be churlish to be disappointed at Galaxy 2, the Wii Super Mario Bros game and Metroid. "It's worth noting that the second 3D Mario title - and Miyamoto's subsequent announcement that a Zelda Wii reveal's likely for next year - means it's extremely unlikely we're going to see the back of Wii for a long time yet." Mr Miyamoto said Nintendo was using its experience in motion control to perfect game experiences.

"What we're really focused on at this point is taking all the experience we gained over the past five years and applying that in a way that creates extremely deep game play experiences that takes advantage of motion control," said Mr. Miyamoto.

"Based on the announcements we've seen here [from Microsoft and Sony] they are still in the initial stages and are trying to create experiences that at this point don't seem like they have the type of depth that we're able to provide with Wii Motion Plus."

Nintendo also showcased a number of titles at the event, including Metroid: Other M, The Legend of Zelda: Spirit Tracks, Kingdom Hearts 358/2, and a new James Patterson's Women's Murder Club game on DS.

Also on offer were two new Mario games: Super Mario Galaxy 2 and New Super Mario Brothers Wii.

(Source: BBC)

Nurturing forests, peatlands will attack global warming: UNEP

PARIS (AFP) — Fixing deforestation, preserving peatlands and ending reckless agricultural methods could be a major weapon in tackling climate change, the UN Environment Program (UNEP) said on Friday.

Biological systems, if responsibly managed, can absorb billions of tons of the dangerous carbon gases that fuel the greenhouse effect, the agency said in a report coinciding with World Environment Day.

Trees and plants suck in carbon dioxide (CO2), the principal greenhouse gas, through photosynthesis.

But this natural "sponge" is being damaged by deforestation and agricultural use, which releases the stored carbon to the air.

Around 20 percent of annual greenhouse-gas emissions are imputable to logging, farming and burning of peatlands, according to scientists.

UNEP Executive Director Achim Steiner said major countries had earmarked tens of billions of dollars in investments in carbon capture and storage technology, by which CO2 is siphoned off at power stations and then pumped underground or under the sea.

"But perhaps the international community is overlooking a tried-and-tested method that has been working for millennia -- the biosphere," he said. "By some estimates, the Earth's living systems might be capable of sequestering more than 50 gigatons [50 billion tons] of carbon over the coming decades with the right market signals."

The report touched on areas that are up for debate in talks to craft a new global pact on climate change. The accord, scheduled to be sealed in Copenhagen in December, will be take effect from



the end of 2012.

Separately, a study published in a science journal said the future pact, by incorporating an innovative mechanism, could deal a blow to tropical deforestation while also preserve precious biodiversity.

The paper looked at the scenarios by which this proposed mechanism, called Reduce Emissions from Deforestation and forest Degradation (REDD), could work. Under REDD, countries that conserve their tropical forests and tackle deforestation would earn credits for reduced emissions. These credits would be sold on an international carbon market, or compensated through an international fund.

But REDD is making slow progress in the UN talks, amid worries about its cost and how it would work in practice.

The paper, published in the journal Conservation Letters, looked at how REDD could apply in the case of 3.3 million hectares (8.25 million acres) of forest in Indonesia's Borneo that is threatened by planned palm oil plantations.

If CO2 credits could be sold for 10-33 US dollars per ton, it would be profitable to keep the forest rather than clear it for oil palm, according to the study, lead-authored by Oscar Venter, a biologist at the University of Queensland in Australia. Conserving the forest at the same time would prevent 2.1 billion tons of carbon from entering the atmosphere and also preserve the habitat of orangutans, pygmy elephants and other threatened species.

"Payments made to reduce carbon emissions from forests could also be an efficient and effective way to protect biodiversity," said Venter.

Peru finds human sacrifices from Inca civilization

LIMA (Reuters) — Researchers at an archeological site in northern Peru have made an unusually large discovery of nearly three dozen people sacrificed some 600 years ago by the Incan civilization.

The bodies, some of which show signs of having been cut along their necks and collarbones, were otherwise found in good condition, said Carlos Webster, who is leading excavations at the Chotuna-Chornancap camp.

The sprawling 235-acre (95-hectare) archeological site is 12 miles outside the coastal city of Chiclayo, near the ancient tomb of Sipan, which was one of the great finds of the last century. The sacrifices were made just decades before Spanish explorers arrived in what is now Peru.

Although archeologists regularly find evidence of human sacrifice from Incan and pre-Incan cultures, it is rare to find the remains of 33 people in one place, researchers

said.

Scientists say human sacrifice was common within the Incan culture, which flourished immediately before the arrival of the Spanish in what is now parts of Peru, Chile and Ecuador between 1400 and the mid-1500s.

"Most of the remains belong to young women, around 15 years of age. One of them appears to have been pregnant because in her abdomen, the collarbone of a fetus, probably around 4 months, was found," Webster said of the latest find, made over the past year and a half.

"The majority (of the bodies) are in good condition -- skin tissues and hair have been preserved. They were found in a dry area more than 7 feet underground," he said.

Incan civilization is best known for the city of Machu Picchu, the ruins of which are Peru's top tourist destination and considered one of the new seven wonders of the world.

Analysis finds elevated risk from soot particles in the air

A new appraisal of existing studies documenting the links between tiny soot particles and premature death from cardiovascular ailments shows that mortality rates among people exposed to the particles are twice as high as previously thought.

Dan Greenbaum, the president of the nonprofit Health Effects Institute, which is releasing the analysis on Wednesday, said that the areas covered in the study included 116 American cities, with the highest levels of soot particles found in areas including the eastern suburbs of Los Angeles and the Central Valley of California; Birmingham, Ala.; Atlanta; the Ohio River Valley; and Pittsburgh.

The review found that the risk of having a condition that is a precursor to deadly heart attacks for people living in soot-laden areas goes up by 24 percent rather than 12 percent, as particle concentrations increase.

A variety of sources produce fine particles, and they include

diesel engines, automobile tires, coal-fired power plants and oil refineries.

Comparing exposure within the New York and the Los Angeles metropolitan areas, the study found that the risks were evenly distributed in the vicinity of New York while some areas around Los Angeles, including neighborhoods near the Ports of Los Angeles and Long Beach, had elevated health risks.

The extended epidemiological analysis, which draws on data gathered from 350,000 people over 18 years, and an additional 150,000 people in more recent years, was conducted for the Health Effects Institute by scientists at the University of Ottawa.

The institute was created by the Environmental Protection Agency and the industries that it regulates with the goal of obtaining unbiased studies.

(Source: The NYT)



Bats 'recognize other's voices'

voices'

As if flying around in the dark swooping and diving to catch insects was not tricky enough, bats also listen for their fellow hunters.

A study has revealed how these winged mammals recognize other bats' voices. They are able to differentiate the ultrasonic "echolocation" calls that other bats make as they navigate.

In the journal PLoS Computational Biology, the scientists report that the bats have an internal "reference" call to which they compare others.

Yossi Yovel from the Weizmann Institute of Science, Israel, and his colleagues in Germany recorded the echolocation calls of five greater mouse-eared bats. The bats use these brief bursts of sound in sonar navigation - bouncing sound waves off their surroundings to find their way and locate prey.

Dr. Yovel's team tested the bats' ability to identify the others by playing the recorded sounds to them.

"Each bat was assigned two others it had to distinguish between," Dr. Yovel explained. "So we trained bat A on a platform, playing a sound from bat B on one side and from bat C on the other. He had crawl to where the 'correct' sound was coming from."

Each of the subjects was taught that a call from just one of the other bats was correct.

So during this training exercise, if the bat A made the right choice, and crawled towards the sound from bat B, it was rewarded with its favorite food - a mealworm.

"Then, in the next stage - the test - we rewarded them no matter what choice they made, and they still chose correctly more than 80% of the time," said Dr Yovel.

"So we knew the bats were able to distinguish individuals. But it wasn't clear what they're using to discriminate one from the other.

"If you think of this in comparison with humans, it's like being able to recognize a person just by listening to the same one-syllable yell in different voices.

"The bats learned the voice by listening to hundreds of very short 'yells', but they then were able to recognize an individual based on one single yell."

In the second part of the study, Dr. Yovel's team designed a computer model to mimic the way in which the bats compared the different sounds.

"The model takes all the calls the bat thought were A, and all the calls it thought were B, and tries to understand what differences it is using to match them up," said Dr. Yovel.

"Our analysis showed that each bat has a typical distribution in the frequencies it emits, probably a result of the differences in each animal's vocal chords." He thinks the bats may have an internal "prototype" - a sort of reference sound against which they can compare these subtle differences.

This could explain how bats remain in a group when flying at high speeds in darkness, and how they avoid interference between each others' echolocation calls.

(Source: BBC)