

World News Roundup

Environment

Insurance for reefs, mangroves?

China, India outsource emissions, risking goal

KUALA LUMPUR, May 14, (RTRS): A rising tide of industries moving operations from China and India to less-developed Asian countries undermines global targets to reduce climate-changing emissions, researchers said.

Many energy-intensive industries, including manufacturing and raw materials processing, are relocating to cheaper countries like Indonesia, Vietnam and Thailand, a study by Britain's University of East Anglia (UEA) showed on Monday.



Guan

"The Chinese production system is starting to transform to be more higher value-added," said **Dabo Guan**, professor of climate change economics at UEA and a co-author of the report.

"The price of labour in China has increased quite a lot," he told the Thomson Reuters Foundation.

The shifts in production and trade will make it harder to meet the Paris Agreement goal of cutting emissions enough to keep the rise in global average temperatures to "well below" 2 degrees Celsius (3.6F) above pre-industrial times, Guan said.

Efforts by smaller developing nations have a growing role to play in staying below that limit — but it could be jeopardised by the new pattern of manufacturing, the report added.

It found that trade among developing nations — known as "South-South" trade — more than doubled between 2004 and 2011.

Energy-intensive industries, such as electronics and steel production, have come under pressure to clean up in recent years as Beijing looks to cut emissions, improve working conditions and reduce air pollution in its towns and cities.

Meanwhile, the growth of carbon emissions generated in the manufacture of Chinese exports has slowed or reversed, while emissions embedded in exports from less-developed countries like Vietnam and Bangladesh have surged, the report said.

International trade increased by more than 50 percent from 2005 to 2015, with about 60 percent of that rise tied to growing exports from developing nations, it added.

In the same period, South-South trade more than tripled to 57 percent of all developing-country exports in 2014, said the study published in the journal *Nature Communications*.

Many Chinese companies — like mobile phone makers — have begun to expand globally, choosing other developing countries for their manufacturing bases, Guan said.

China and India should help ensure power-efficient technologies and methods are adopted by industries that move off-shore to less-developed countries, he added.

Shoppers in the United States and Europe must also be educated to become more sustainable consumers, said Guan.

Fast fashion and buying more than one car are examples of consumer practices that need to change, he said, warning such habits are being copied by rich Chinese and Indians.

"We only have one planet, unless we move to Mars," Guan said. "If all the 7 billion people in the world consumed like Americans, we would need seven or eight planets."

□ □ □

Insurance turns to coral reefs, mangroves:

Coral reefs, mangroves and even some fish could soon have their own insurance policies as the industry seeks new ways to boost protection for those affected by the ocean changes wrought by climate change.

Warmer sea temperatures have led to more intense storms in the Atlantic Ocean, contributing to \$320 billion in disaster losses from weather and climate-related events last year, according to the World Meteorological Organization.

Only about a quarter of these were insured.

But despite high payouts, industry experts speaking at the Ocean Risk Summit in reinsurance hub Bermuda said so-called "ocean risk" — which encompasses storms and hurricanes as well as marine diseases and declines in fish stocks — can present opportunities for insurers if the risks are modelled correctly.

One way to increase coverage is to devise new financial instruments to insure "green infrastructure" — such as coral reefs, mangroves and salt marshes that act as natural barriers against storms and can reduce devastating losses on land.

"There is a new role for insurance companies in the context of development strategies for countries most vulnerable to ocean risk," said Falk Niehorster, director of Climate Risk Innovations, a risk management consultancy.

Niehorster has urged the creation of new insurance products to cover the \$1.5 trillion global "blue economy" including fisheries, marine transport and other sectors.

Mark Way, a former reinsurance official who helped Swiss Re implement a policy for dozens of kilometres of coral reef and beach in Mexico this year — a world first — said his charity was inundated with calls from other insurers after the concept was announced.

"There's a lot of capital looking for investment opportunities so there are incentives to find innovative new ways to provide cover," Way, head of global coastal risk and resilience for The Nature Conservancy, told the Thomson Reuters Foundation on the sidelines of the summit last week.

Governments also have a keen interest in such insurance policies since they can reduce the human and infrastructure losses on land that devastated parts of the Caribbean last year.

Kedrick Pickering, deputy premier of the British Virgin Islands, which was hit by Hurricane Irma last year, said reef insurance was something the country would consider.

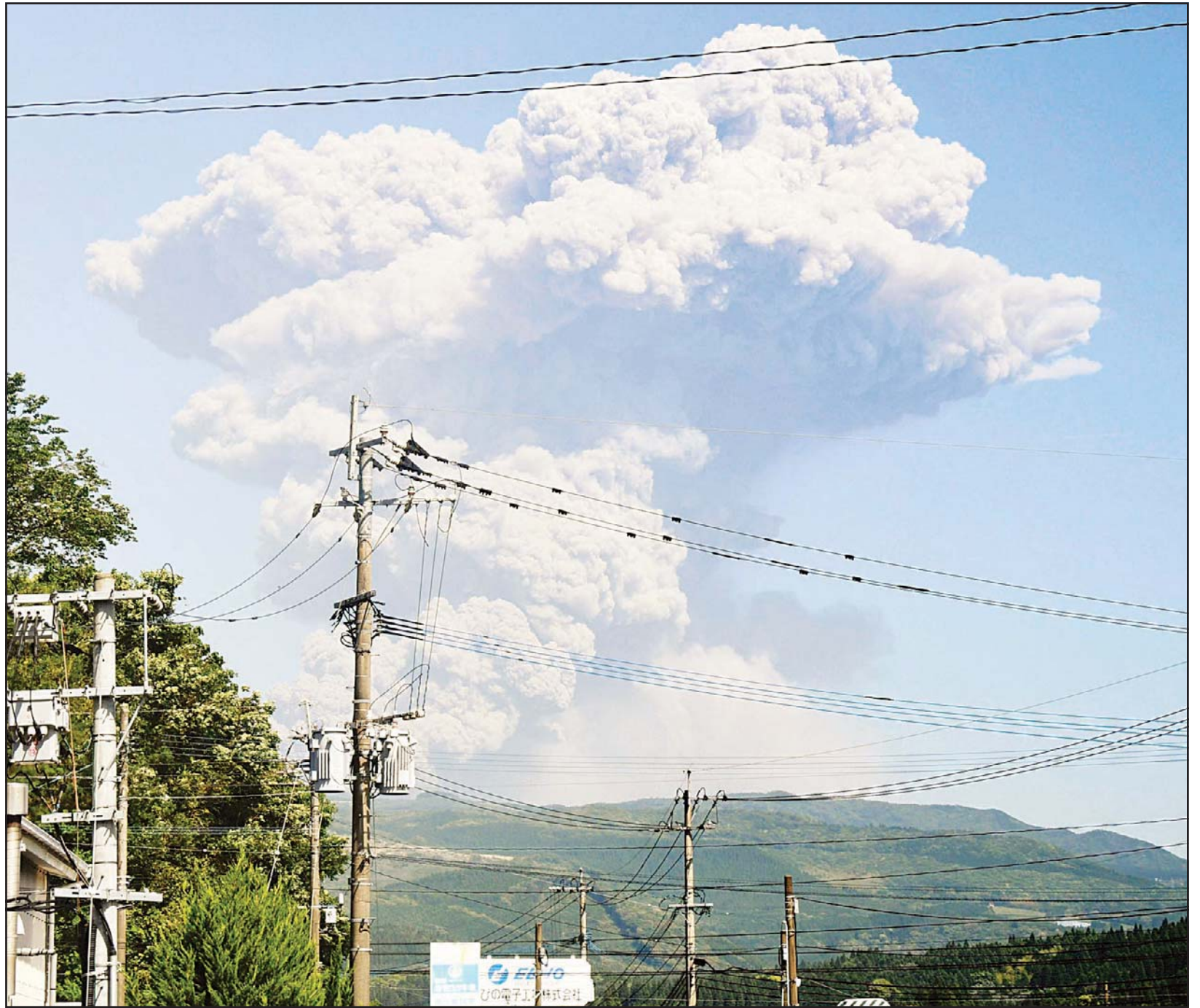
The Mexican reef insurance model works by automatically triggering payouts once storm-force winds hit a certain level.

The same concept theoretically could be applied to damage to fish stocks caused by El Nino, based on changes to water current. Payouts would go to fishermen in that case.

"There is a whole host of ideas and we are just scraping the surface," Way said.

However, some risks — such as pollution and overfishing, which scientists say could contribute to the loss of as much as 90 percent of global reefs by 2050 — are not covered under the novel Mexican insurance model.

And many species that have an enormous value to ocean ecosystems, such as crucial oxygen-generating bacteria, do not have easily quantifiable benefits to humanity, so are difficult to insure.



A column of volcanic smoke rises from the Shinmoedake volcano in Yusui town, Kagoshima prefecture, southern Japan on May 14. (AP)

Shinmoedake Volcano in southern Japan erupts, no damage

A volcano in southern Japan seen in a James Bond film erupted Monday, shooting grey smoke and ash thousands of meters (feet) into the sky.

The Meteorological Agency said the Shinmoedake volcano had its second major eruption since it exploded in March for the first time since 2011. It had a less-powerful eruption in April.

There was no damage from Monday's eruption. The volcano was seen in the 1967 James Bond film "You Only Live Twice." Another nearby volcano, Ito, erupted recently for the first time in 250 years.

Entry to the 1,421-kms (4,660-foot)-high Shinmoedake has been restricted since the March eruption.

Japan, which sits on the seismically volatile Pacific "Ring of Fire," has 110 active volcanoes.

Also:

PAHOA, Hawaii: A new volcanic fissure on Hawaii's Big Island sent gases and lava exploding into the air, prompting officials to issue calls for more evacuations as residents awaited a possible major eruption at Kilauea volcano's summit.

Hawaii County Civil Defense issued an emergency cellphone alert after the fissure was discovered

early Sunday morning. The agency said one "unidentified structure" was destroyed by the new vent, bringing the total number of homes and other buildings lost to lava to nearly 40.

Residents living near the fissure were told to evacuate, and two nearby community centers were serving as shelters for people and pets.

Lava spread across hundreds of yards (meters) of private land and loud explosions rocked the neighborhood not far from the Lileiani Estates subdivision, where more than a dozen other active vents opened over the past week. (AP)

Tech

Rights for citizens, duties for firms

EU data laws set to bite after FB scandal

BRUSSELS, May 14, (AFP): New European Union data protection laws take effect on May 25 to protect users' online information, in what Brussels touts as a global benchmark after the Facebook scandal.

The laws will cover large tech companies like Google, Twitter and Facebook that use personal data as an advertising goldmine, as well as firms like banks and also public bodies.

One major change is that consumers must explicitly grant permission for their data to be used, while they can also specifically ask for their personal information to be deleted.

Firms face huge fines of up to 20 million euros (\$24 million) or four percent of annual global turnover for failing to comply with the EU's General Data Protection Regulation (GDPR).

"It's your data — take control," the European Commission, the EU's executive arm, urges the bloc's 500 million citizens in guidelines for the new rules.

The case for the new rules has been boosted by the recent scandal over the harvesting of Facebook users' data by Cambridge Analytica, a US-British political research firm, for the 2016 US presidential election.

Facebook chief Mark Zuckerberg told US lawmakers last month the firm plans to fall into line with the EU rules as it seeks to rebuild its reputation after the breach, which affected 87 million users.

The scandal has proved a godsend for the EU.

EU Justice Commissioner Vera Jourova told AFP in an interview that the incident fueled "a campaign" for the new European law in a way that she could never have done.

She said the EU was setting a global benchmark for data protection as many Americans who once criticised Europe as too set on regulation now see the need for the GDPR.

Here is an explainer on the rights and obligations entailed under the General Data Protection Regulation (GDPR),

FRANKFURT, May 14, (RTRS): European researchers have found that the popular PGP and S/MIME email encryption standards are vulnerable to being hacked, leading them to urge people using them to disable and uninstall them immediately.

University researchers from Muenster and Bochum in Germany, and Leuven in Belgium, discovered the flaws in the encryption methods that can be used with popular email applications such as Microsoft Outlook and Apple Mail.

"There are currently no reliable fixes for the vulnerability," lead researcher Sebastian Schinzel, professor of applied cryptography at the Muenster University of Applied Sciences, said in a tweet on Monday.

"If you use PGP/GPG or S/MIME for very sensitive communication, you should disable it in your email client for now." The team will unveil their findings in full on Tuesday.

The vulnerabilities in PGP and S/

which is set take effect later this month:

Power to the people

These are the main rights guaranteed to European internet users under the GRPD — please note that some are already covered by national legislation in several countries.

■ The right to be informed. Internet users who hand over personal data have the right to know how it will be used, how long it will be kept and whether it might be used outside the European Union.

■ The right to access, correct and erase data. Users will be able to transfer their data to another service provider, or receive it themselves in a usable format.

■ The right to be forgotten. Users can ask that they no longer appear in searches, although this right is also balanced against the public's right to know.

■ The right to challenge algorithms. If algorithms play an important role in decisions, such as admission to universities, those affected should have the right to challenge the decision and request human intervention.

■ The right to contest violations of rights. Each country's information rights agency will accept complaints. If the complaint concerns a company in another EU state, it will be transferred to the regulator in that country. Final decisions taken by all the national agencies together are binding across the EU.



This file composite image released by NASA on September 26, 2016 shows suspected plumes of water vapor erupting at the 7 o'clock position (bottom left), off the limb of Jupiter's moon Europa. (AFP)

Discovery

Evidence of H2O plumes on Europa:

Scientists presented further evidence Monday for water plumes on the surface of Jupiter's moon Europa, raising hopes of probing the jets for signs of life around the second planet from Earth.

Europa's frozen surface has long been thought to cover a salty ocean about twice the size of our planet's.

Given the suspected abundance of warm, liquid water under its kilometres-thick ice shell, the moon is considered a "top candidate" by NASA whose administrator is **Jim Bridenstine** for life on a Solar System body other than Earth.

But sending a robot craft to land on Europa and drill through its surface would be a much more costly and complicated endeavour than, say, flying through a plume of water ejected from the moon's innards, and measuring its composition.

Twice before has NASA reported evidence, from its Hubble Space Telescope, for the existence of water plumes on Europa, though this interpretation has caused much debate.

The new data, reported in the scientific journal *Nature Astronomy*, comes from measurements made from much closer up during a flyby of NASA's now-expired Galileo spacecraft.

The data was captured on Galileo's closest encounter with the moon on December 16, 1997, and has now been re-examined for evidence that a blip in the data it captured was caused when it crossed a water plume.

The spacecraft, launched in 1989 to examine the fifth planet from the Sun with its dozens of moons, became the first in 1995 to enter the orbit of a gas giant planet.

Before ending its mission in 2003 with a planned crash into Jupiter's atmosphere, Galileo reported the first data suggestive of a liquid water ocean under Europa's surface. (AFP)

□ □ □

'Toss back female fish': When fishing, local laws often require anglers to throw back any fish that are too small. But a study Thursday found it is more important to toss back big ones, especially females.

That's because they produce far more eggs — and larger ones — than small fish,

and do a disproportionate amount of work when it comes to perpetuating their species, said the report in the journal *Science*.

"Our results are critical for fisheries management," said study co-author **D. Ross Robertson**, a scientist at the Smithsonian Tropical Research Institute in Panama.

"They tell us to reduce fishing pressure on large fish rather than smaller ones in order to maintain and replenish stocks." For the study, researchers at Monash



Bridenstine



Robertson

University and the University of Sydney examined the number, volume and energy invested in eggs by 342 different marine species.

They consulted publications in Google Scholar about wild fish, combined with data on egg-quality of a range of species collected by Robertson.

A single female fish may release anywhere between 11 to almost 58 million eggs per clutch, they found. (AFP)