

Environment News Futures

China's Env't Watchdog Warns Polluters not to Flout Winter Smog Plan

September 30, 2018

Beijing: China's environment ministry has issued a stern warning to companies across heavy industry not to flout the nation's tough emission rules – a move seen as quashing speculation that the 2018 winter anti-smog campaign will be more lenient.

The warning comes after the Ministry of Ecology and Environment (MEE) on Thursday dropped blanket production cuts on heavy industry across northern China in its final winter anti-pollution drive and allowed local authorities to adopt flexible measures based on regional emission levels.

Shanghai benchmark rebar prices plunged nearly five percent this week as investors speculated that production curbs would be relaxed further this year. "Pollution emitters must not take chances (on the new plan)... They will still be shut down or be ordered to enforce capacity cuts if they exceed emission standards," said Liu Youbin, MEE spokesman, at a briefing.

Liu said improved air quality last winter showed production restrictions on heavy industry, from steel mills to coke plants, helped reduce toxic air that blankets the colder northern regions during winter when households crank up heating, mainly fuelled by coal.

China will continue to carry out the curbs this year, but with more efficient measures to ensure blue skies, he said. The yearly average concentrations of particulate matters, known as PM2.5, dropped by 35.6 percent in 2017 to 58 micrograms per cubic metre. Still, forecasts of warmer temperatures, lower rainfall and wind in the north compared with last year may increase smog this winter, he said. The government has said it aims to reduce average PM2.5 reading by around three percent this winter from the level last year.

Also on Saturday, Jincheng in Shanxi province became the latest city to issue its winter anti-pollution plan, telling coke makers to shut 30 percent of capacity from Oct. 1 and steel mills to cut output from Nov. 15.

How Ancient DNA may Rewrite Prehistory in India

Tony Joseph—30 December 2018

New Research Using Ancient DNA is Rewriting Prehistory in India - and Shows that Its Civilisation is the Result of Multiple Ancient Migrations

- Who are the Indians? And where did they come from?

Many Indian scholars have questioned the "out of India" thesis, arguing that these Indo-European language speakers – or Aryans – were possibly just one of many streams of prehistoric migrants

who arrived in India after the decline of an earlier civilisation. This was the Harappan (or Indus Valley) civilisation, which thrived in what is now north-western India and Pakistan around the same time as the Egyptians and Mesopotamians.

The study showed that there were two major migrations into India in the last 10,000 years. The first one originated from the Zagros region in south-western Iran (which has the world's first evidence for goat domestication) and brought agriculturists, most likely herders, to India.

This would have been between 7,000 and 3,000 BCE. These Zagrosian herders mixed with the earlier inhabitants of the subcontinent – the First Indians, descendants of the Out of Africa (OoA) migrants who had reached India around 65,000 years ago – and together, they went on to create the Harappan civilisation.

Studies using ancient DNA have been rewriting prehistory all over the world in the last few years and in India, there has been one fascinating discovery after another.

The most recent study on this subject, led by geneticist David Reich of Harvard University, was published in March 2018 and co-authored by 92 scholars from all over the world – many of them leading names in disciplines as diverse as genetics, history, archaeology and anthropology.

Underneath its staid title – *The Genomic Formation of South and Central Asia* – lay some volcanic arguments.

Anak Krakatau: Indonesian Volcano's Dramatic Collapse

Jonathan Amos, BBC Science Correspondent—29 December 2018

The scale of the dramatic collapse of the Indonesian volcano that led to last Saturday's devastating tsunami in the Sunda Strait is becoming clear. Researchers have examined satellite images of Anak Krakatau to calculate the amount of rock and ash that sheared off into the sea.

They say the volcano has lost more than two-thirds of its height and volume during the past week. Much of this missing mass could have slid into the sea in one movement.

Madagascar Pochard: World's Rarest Bird Gets New Home

Victoria Gill, Science Reporter, BBC News

The rarest bird in the world – a species of duck called the Madagascar pochard – has been given a new home in time for the new year.

An international team of researchers released 21 of the birds at a lake in the north of Madagascar. It is a step towards the recovery of a species that just over a decade ago was thought to be extinct. Rescuing the species could also be a first step in protecting Madagascar's threatened wetlands.

Climate Change: Huge Costs of Warming Impacts in 2018

Matt McGrath, Environment Correspondent—27 December 2018

Extreme weather events linked to climate change cost thousands of lives and caused huge damage throughout the world in 2018, say Christian Aid.

The charity's report identified ten events that cost more than \$1bn each, with four costing more than \$7bn each. Scientists have shown that the chances of heat waves in Europe were influenced directly by human-related warming.

Other events, say the authors, are due to shifts in weather patterns, said to be a consequence of climate change.

- Climate deal to bring Paris pact to life
- Climate talks: Five things we've learnt
- The massive CO₂ emitter you may not know about

According to the report the most financially costly disasters linked to rising temperatures were Hurricanes Florence and Michael, with costs said to be around \$17bn for the former, and \$15bn for the latter.

Rare Albino Orangutan 'Alba' Returns to the Wild

The world's only recorded albino orangutan has been released into the wild in Borneo after many months of rehabilitation.

Alba lacks the pigment melanin in her hair and skin. She was named after the Latin word for "white" following a naming competition by the Borneo Orangutan Survival Foundation.

Fish Bones Yield New Tool for Tracking Coal Ash Contamination

Isotope Ratios Used as Fingerprints of Ash's Impacts on Organisms

Duke University—December 26, 2018

A new study shows that trace elements found in fish ear bones can be used as biogenic tracers to track coal ash contamination. Strontium isotope ratios in the otoliths of fish collected from two lakes that received coal ash effluents matched strontium isotope ratios in contaminated pore water samples from the lakes' bottoms. This marks the first time strontium isotope ratios have been used as fingerprints to track coal ash's impacts in living organisms.

Trees' 'Enemies' Help Tropical Forests Maintain Their Biodiversity

Oregon State University—December 25, 2018

Scientists have long struggled to explain how tropical forests can maintain their staggering diversity of trees without having a handful of species take over—or having many other species die out. The answer, researchers say, lies in the soil found near individual trees, where natural ‘enemies’ of tree species reside.

300 Blind Mice Uncover Genetic Causes of Eye Disease

University of California, Davis—December 21, 2018

Hundreds of new genes linked to blindness and other vision disorders have been identified in a screen of mouse strains. Many of these genes are likely important in human vision and the results could help identify new causes of hereditary blindness in patients. The work is published Dec. 21 in *Nature Communications Biology*.

Japan Confirms It Will Quit IWC to Resume Commercial Whaling

Japan Will Resume Hunting in Its Waters in July But Will End Controversial Expeditions to the Southern Ocean

Justin McCurry in Tokyo and Matthew Weaver—December 26, 2018

Japan is facing international condemnation after confirming it will be resuming commercial whaling for the first time in more than 30 years. The country's fleet will resume commercial operations in July next 2019, the government's chief spokesman, Yoshihide Suga, said of the decision to defy the 1986 global ban on commercial whaling.

Suga told reporters the country's fleet would confine its hunts to Japanese territorial waters and exclusive economic zone, adding that its controversial annual expeditions to the Southern Ocean – a major source of diplomatic friction between Tokyo and Canberra – would end.

He said Japan would officially inform the IWC of its decision by the end of the year, which will mean the withdrawal comes into effect by 30 June. Its decision prompted criticism from conservationists and other nations including the UK and Australia.