

India should look to Atlantic for increased malaria risk: research

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AFP

PARIS--Health watchdogs monitoring the risk of malaria in India should keep a close eye on what's happening thousands of kilometers away in the Atlantic, an unusual study published on Sunday suggests.

The temperature of the sea surface in the tropical South Atlantic is a big determinant for levels of monsoon rain, which in turn is the big factor for malarial mosquitoes, it says.

Researchers led by Mercedes Pascual at the University of Michigan compared maps of monsoon rainfall and malaria epidemics in the desert fringe of northwestern India with a global map of sea-surface temperatures.

What struck them was a clear link between abnormally cold temperatures in the tropical South Atlantic in July and a regional increase in malaria in the ensuing September-December period.

Previous research has suggested that the vast body of water in the Atlantic has a much bigger impact on the global climate system than thought.

When this volume of ocean warms or cools, it has a knock-on effect on adjoining seas.

The transfer of heat has an impact on ocean circulation and rainfall, affecting for instance the relationship between the monsoon of the Indian Ocean and El Nino, the pendulum weather swing in the Pacific.

At present, arid and semi-arid parts of the Asian subcontinent get about a month's notice before an outbreak of malaria.

This is the timelag between exceptional rainfall — which helps mosquitoes to breed — and a rise in cases.

But warning time could be increased to as much as four months, if South Atlantic temperature becomes accepted as a factor, according to the study published in Nature Climate Change.

This would give authorities more time to prepare drug stockpiles and hospitals and encourage people to remove outside containers that, filled with water, become breeding grounds for mosquitoes.