

Mangrove trees on the beaches of Al-Dhafra, north of Abu Dhabi, in October last year. AFP PIX

Mangrove ecosystems at risk

As half of the world's mangrove ecosystems teeter on the brink of collapse, a recent study by the International Union for Conservation of Nature issues a sobering wake-up call

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HALF of the world's mangrove ecosystems are at risk of collapse due to climate change, deforestation and pollution, according to a study published recently.

The International Union for Conservation of Nature (IUCN), known for its red list of threatened species, has, for the first time, taken stock of the world's mangroves, evaluating 36 different regions.

IUCN director-general Grethel Aguilar said the assessment "highlights the urgent need for coordinated conservation of mangroves — crucial habitats for millions in vulnerable communities worldwide".

Mangroves are trees or shrubs that grow mainly in seawater or brackish

water along coastlines and tidal rivers, in equatorial climes.

Released on the International Day for Biodiversity, IUCN said its findings show that "50 per cent of the mangrove ecosystems assessed are worryingly at risk of collapse" — categorised as either vulnerable, endangered or critically endangered.

According to the assessment, at least 20 per cent were already at severe risk of collapse.

Mangroves are threatened by deforestation, development, pollution, and dam construction. However, the risk is increasing because of the rise in sea levels, as well as the greater frequency of severe storms, which are associated with climate change.

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A chick sitting inside a nest among the mangrove branches in Isla de Los Pajaros, in San Lorenzo Bay, in the Gulf of Fonseca, Honduras, in July last year.



Guaiamum (*Cardisoma guanhumi*), or blue land crab, enlisted as Critically Endangered pictured on a mangrove in west Rio de Janeiro, Brazil.



Mangrove tree seeds ready to be planted on the beaches of Al-Dhafra, north of Abu Dhabi in the United Arab Emirates.

Disastrous for Man and nature

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ALARMING OUTCOME

Around 15 per cent of the world's coasts are covered by mangroves, which is roughly a blanket of about 150,000 square kilometres. Climate change threatens a third of mangrove ecosystems assessed, due to rising sea levels.

According to estimates, the way things are going at the current rate, at least a quarter of the global area of mangroves is expected to be submerged in the next 50 years, IUCN said.

The northwest Atlantic Ocean, the northern Indian Ocean, the Red Sea, the South China Sea, and the Gulf of Aden coasts are expected to be particularly severely affected.

"Mangrove ecosystems are exceptional in their ability to provide essential services to people, including coastal disaster risk reduction, carbon storage and sequestration, and support for fisheries," said Angela Andrade, chair of the IUCN commission on ecosystem management, adding solemnly. "Their loss stands to be disastrous for nature and people across the globe."

CALL FOR ACTION

The study said looking after mangroves was essential for mitigating the effects of climate change, with healthy ecosystems coping better with sea-level rise and providing inland protection from the effects of severe storms.

Without significant improvement by 2050, climate change and rising sea levels will lead to the loss of 1.8 billion tonnes of carbon stored in mangroves.

Mangroves currently store nearly 11 billion tonnes of carbon — almost three times the amount of carbon stored by tropical forests of the same size.

Maintaining good sediment circulation and allowing mangroves to expand inland will help them cope with sea-level rise, according to IUCN.

It also called for the restoration of mangroves which have already disappeared.

"A very good study of mangrove change globally that was published in 2022 indicates that about 5,000 square kilometres of mangrove were lost between 1996 and 2020, said IUCN's Marco Valdearabano. AFP



Mangrove seedlings pictured in a nursery at the Qurm nature reserve in the Qurm neighbourhood in the Omani capital Muscat in October last year.



Indonesian soldiers and fishermen planting mangrove seeds as part of a military-led environmental programme at a beach in Banda Aceh in October last year.



A mangrove pictured in west Rio de Janeiro, Brazil, in April.

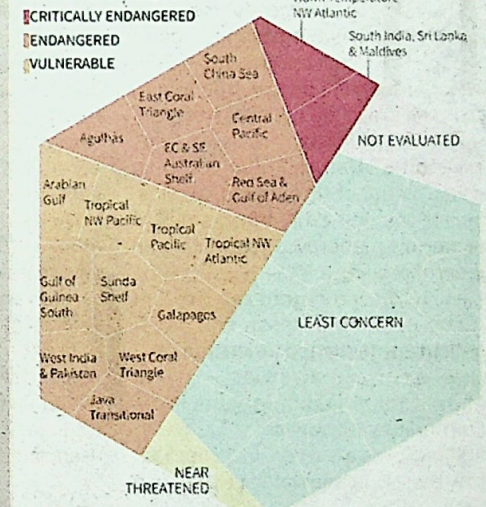


Women of the 'Green Brigade' group volunteer to plant mangrove saplings by a riverside in a village south of Kolkata, India, in July last year.

Half of mangroves at risk of collapse

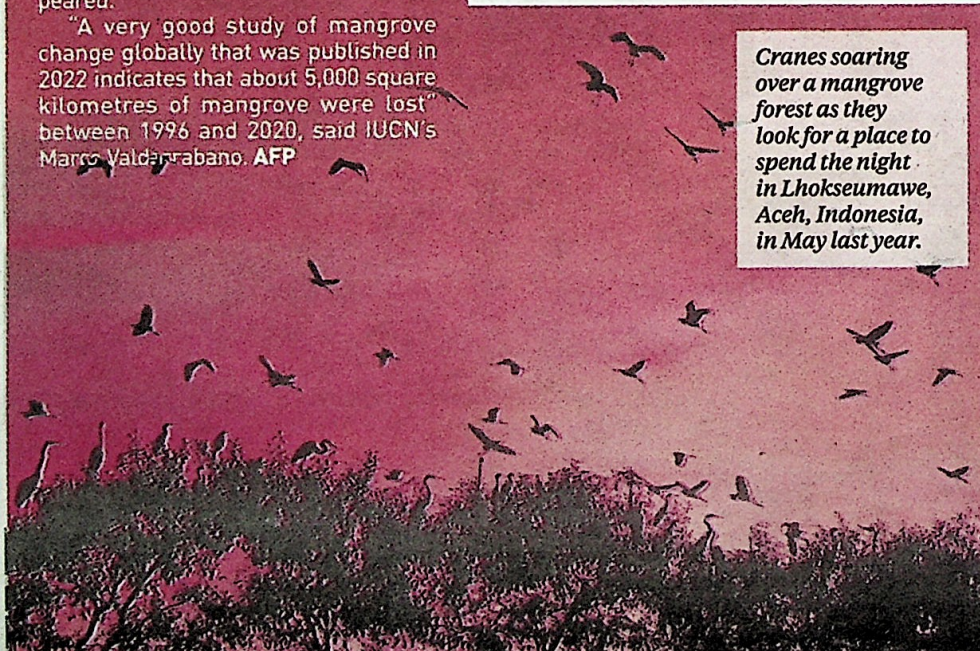
Regional mangrove ecosystems by IUCN threat status

50% at risk of collapse

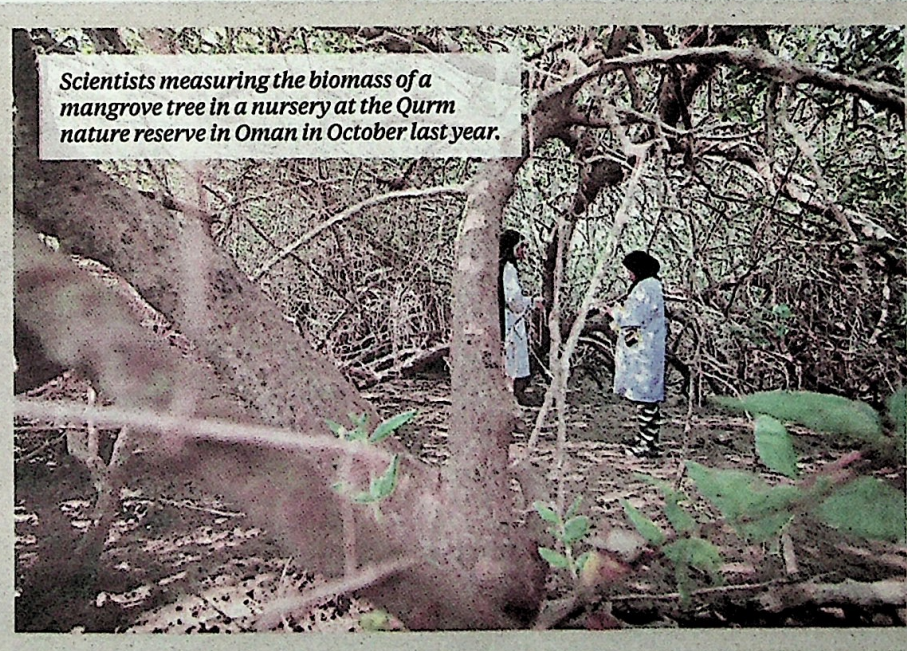


Source: IUCN Red List of Mangrove Ecosystems

AFP



Cranes soaring over a mangrove forest as they look for a place to spend the night in Lhokseumawe, Aceh, Indonesia, in May last year.



Scientists measuring the biomass of a mangrove tree in a nursery at the Qurm nature reserve in Oman in October last year.