Mangroves in UAE: A Unique Marine Ecosystem

The mangrove forests that cover thousands of hectares of land along the UAE shoreline form an integral part of the coastal ecosystem in the UAE. They provide a rich natural habitat and safe breeding grounds for several fish species, sea snakes, turtles and commercially important shrimp, snapper, grunt fish and sea bream. In fact, mangroves are natural habitats for 75% of all tropical juvenile commercial fish species in the world. Sea birds also find safe nesting and egg laying areas in the vast mangrove forests of the country.

Mangrove forests grow in intertidal areas and substantially contribute to the preservation of the environment. They prevent the coastline erosion caused by waves and ocean currents, and play an important role in reducing carbon emissions, thereby contributing to lessening the impacts of climate change.

In the past, mangrove wood was a major source of food and fuel, and was also used for building houses and ships because of its hardness and high resistance to rot and termites.

Mangroves grow in a modest temperature of not more than 35°C and low salinity water, making their survival a big challenge for the country, where temperatures rise well above 35°C during the summer months. However, the massive forestation programmes initiated by the late Sheikh Zayed bin Sultan Al Nahyan substantially contributed to its increase over the past decades. Today, mangrove forests cover a wide area of the UAE, with Abu Dhabi accounting for more than 75% of the total mangrove forest area in the UAE.

Mangroves are able to survive in salty water by breathing through special roots that grow upwards. These roots are covered in tiny pores (holes) that allow the roots to breathe.

Located along the eastern ring road, the Eastern Mangrove Lagoon is the closest mangrove forest to the Abu Dhabi City. This unique ecological hotspot is being rebranded as the Eastern Mangrove Lagoon National
Park as part of the first of five national parks identified in Plan Abu Dhabi 2030. In addition, there are vast areas of mangrove forests in Dalma, Sir Bani Yas, Bu Tinah, Saadiyat, Abu Abyadh, Al Aryam and the Al Dhabeia islands of Abu Dhabi.

Although mangroves can grow as high as 14 meters tall, the average height of the trees found in Abu Dhabi is only three to five meters, and can reach up to a maximum of eight metres in some areas.

Avicennia marina or grey mangrove is the only mangrove species that grows widely in the UAE. However, the Environment Agency-Abu Dhabi (EAD) recently succeeded in reintroducing the mangrove species Rhizophora mucronata which once lived in the UAE and became extinct due to over-exploitation. The agency, through the Mangrove Ecosystem Research and Development Project, was able to cultivate a large number of the seedlings of Rhizophora mucronata in the waters of Ras Ghanada Island after 100 years of extinction.

Despite the fact that the size of mangrove forests in the Emirate is steadily increasing, there are some locations where excessive human activities have adversely affected the mangrove ecosystem, thus prompting EAD to urge developers to rehabilitate the affected areas through large-scale cultivation programmes. A case in point is Saadiyat Island where the agency partnered with the Tourism Development and Investment Company (TDIC) to plant 750,000 saplings of mangroves on 25% of the island which is currently being developed as a cultural hub of Abu Dhabi. The move is aimed at fixing the environmental damage caused by the massive development on the island which has large areas of mangroves.

The International Mangrove Action Day on July 26 is also marked by Environment Agency - Abu Dhabi (EAD). On this occasion, EAD urges people not to litter around mangroves, especially plastic bags which can prevent the growth of mangrove trees and release pollutants that could be harmful for their health. Property developers are also urged to protect this endangered natural treasure by giving the environment proper consideration from the early planning stages of their development.

The Agency is currently working on the protection of mangrove forests in seven key sites in Abu Dhabi including: Saadiyat Island, Jubail Island, Marawah Marine Biosphere Reserve (which also comprises famous Bu Tinah Island), Bu Syayeef Protected Area, Ras Gharab, the Eastern Corniche and Ras Ghanada.

Source:
QUESTIONS

Are the following statements TRUE, FALSE or NOT GIVEN?

1. Mangroves can breathe underwater.
2. The grey mangrove is native in UAE.
3. Mangrove wood was used for many different things in the past.
4. The area of mangroves in Dalma is small.
5. Many mangroves have been harmed already by plastic bags and litter.
6. Mangroves are essential nurseries to three quarters of tropical commercial fish.

Questions 7-9: Complete the following paragraph using 1-2 words from the passage.

Even though the area of mangrove forests in the Emirate is continually 7. ________________, there are some places where too much human activity has damaged mangrove ecosystems. Therefore, EAD has encouraged developers 8. _____________ the places that have been damaged by growing large numbers of mangrove trees. For example, 9. ___________ young mangrove trees were planted on Saadiyat Island.

Questions 10 & 11: Which two of the following statements are not mentioned in the passage?

A. The black mangrove is important in UAE.
B. Mangroves disappeared from UAE because they were over-used by humans.
C. The Eastern Ring Road Lagoon is the nearest mangrove forest to Abu Dhabi city.
D. Mangroves are important nesting places for sea birds.
E. Mangroves were more important than date palms in the past.