

Abby Lodge Mangrove Forests

After millions of years of evolution, mangrove forests are the most productive and biodiverse wetland forests on earth. They are found mainly in the subtropical and tropical areas of the earth. Mangroves support the livelihoods of millions of people across the world. They serve as natural barriers against coastal erosion, storms and wave surges. The forests are partially submerged for hours, except for once or twice a day the tide moves out. When the tides are out unique aerial roots are exposed and they absorb the air quickly. These roots also keep out 90% of the salt from water. What I found very interesting was that the salt that does get absorbed is excreted in salt crystals on the leaves and the crystals eventually fall back into the water. Mangrove forests are huge carbon sequesters – storing about 18 million metric tons worldwide.

Mangroves and coral reefs have a unique relationship. The tangled mangrove roots collect muddy sediment that prevent it from drifting out and smoothing the coral reefs. In return the coral reefs, protect the mangroves from wave surges. Mangroves also provide refuge for fish in their earlier lives. Many mangrove species allow their seeds to germinate while still attached to the tree and they drop off when ready – this helps expand the forest rapidly.

Twenty percent of the world's indigenous people live within 50km of mangroves. On the eastern side of India and western side of Bangladesh there is the largest mangrove forest in the world – Sundarbans. Each year during the monsoons, the rain washes down nutrients from the mangroves to the oceans. In a few weeks, fish can increase their size almost seven times because of the high amount of nutrients in the water at this time. The video described that if the mangroves disappear, so will this productivity. Many of the plants that are disappearing were once used as medicines for the people living near the forests.

All over the world, species are disappearing, and mangroves today are under pressure due to deforestation, degradation, freshwater diversion, conversion to shrimp farming or agriculture, and human population along coast lines increasing. Agriculture runoff and organic and inorganic pollution have killed many species of flora and fauna. In the past 50 years over 40% of mangroves have been lost world wide – and this continues year by year. In Gujarat, on the western coast of India, the government has started to try to restore the mangroves. This has yielded results and has helped with fishing and crab catches. To address the food security problem of the future, genes from the mangroves are even helping scientists make crops that are saline intolerant more tolerant.

The video ended by saying that overall, scientific management and community participation is making a difference. In India mangrove cover has increased from 4000 to 4600 square kilometers over the past 20 years