

MANGROVE LEXICON

Anaerobic: Environment where there is no oxygen. An anaerobic living organism does not need air or oxygen to function.

Anoxic: Environment where the reduction in oxygen makes it impossible to breathe in.

Biodiversity: Refers to the diversity of environments (ecosystems), living species and their genetic characteristics.

Carbon offsetting: Offsetting one's greenhouse gas emissions by financing initiatives to reduce or limit them.

Ecosystem: A relatively homogeneous environment where a group of living organisms develop

Mangrove swamp : Ecosystem located along tropical coasts, in the intertidal zone. Mangrove is a forest that survives in contact with seawater. It is most often found at the mouths of rivers. It is home to a rich biodiversity.

Nursery: Places where fish, crustaceans, etc. are raised.

Nutrients : A substance that can be assimilated by a living being that enables it to live.

Mangrove: A type of tree that forms mainly mangrove swamp. Mangroves are plants that have successfully adapted to the harsh conditions of their environment. They resist the salinity of seawater and filter inland waters. There are more than 40 different species, the most representative of which are Rhizophoraceae and Avicennia.

- *Avicennia Marina* : Their roots, called pneumatophores, are like dozens of small snorkels around the trunk. Avicennia are the most resistant to salt and filter a large part of heavy metals, thus facilitating the development of other mangroves.
- *Rhizophoraceae* : Family of plants recognizable by their large stilt-shaped roots. They retain sediments (sand, mud...) and fight erosion more effectively. They are also an ideal breeding ground and habitat for fish and shellfish.

Tree nursery: Land where young shoots are protected and can grow until they are ready to be planted.

Periophtalm: Or "slender mudskipper". It is a very common fish species in mangroves. It can come out of the water and move on land, and even climb rocks and roots

Photosynthesis: The biochemical reaction of plants that allows them to create energy (in the form of carbohydrate) through sunlight, water and carbon dioxide. This process also releases oxygen.

Mangroves planting: If the planting site is directly exposed to the swell, it is necessary to plant the shoots in groups of 3 to 5. In groups of 3, it is necessary to have 3m distance between each; 4 shoots = 4m... This provides a better chance of survival.

Propagule: Fruit of the mangrove tree that has the particularity of germinating while it is still in the tree. Once ready, it either falls and plants in the ground thanks to its tip or floats to an area where the salinity is not too high

Carbon sinks: Natural reserves of carbon that capture CO₂ circulating in biomass or soil. Mangrove swamp, for example, have a carbon sequestration capacity about 5 times greater than the Amazonian forest

Re-upholstering: The act of replanting losses on a planting site.

Salinity: The amount of salt contained in a liquid, particularly seawater.

Suboxic: Water area with very low oxygen concentration

Shoreline: A line that marks the limit to which marine waters can reach. It is defined by the edge of calm water when the sea is as high as possible

Woody plant: A plant that has the consistency and/or appearance of wood such as trees, shrubs, vines, etc. To differentiate with herbaceous plants (herbs, reeds,...)

INCOME GENERATING ACTIVITES RELATED TO THE MANGROVE

Income Generating Activities (IGA): financial valorization of an endangered species that allows a sustainable and respectful exploitation of the ecosystem. It provides an alternative to other sources of income that would be harmful to the area that we want to preserve. These activities allow actors to reclaim areas and benefit from them in ways that are different from destruction.

Aquacultures

Intensive aquaculture : A system for rearing fish, shrimps and crabs that aims to maximize the quantity produced. Farmers use products for water treatment and for feeding. They only feed one species at a time. However, exploitation is rapidly running out of steam, and after 5 years it is necessary to temporarily stop using the basin. Indeed, soils need to recover from significant exposure to chemicals and from a lack of oxygenation.

"Sylvo-fishery" : Type of sustainable fish farming that integrates mangroves into basins. This improves the quality of the water, which is oxygenated by the mangrove swamp. Moreover, animals are not entirely dependent on humans for food. The production is less important than on an intensive breeding but of better quality. Thanks to a lock system, the water circulates between the basin and the sea and is thus renewed. Small fish enter the basins on their own, without being able to leave due to the current and nets. This ensures a regular supply. Different species can coexist in the same basin (fish, crabs and shrimps), which allows an income distribution over a year. Finally, the operation can last up to 20 years before needing rest!

Batik: Indonesian fabric colouring technique, recognized as "Intangible Cultural Heritage of Humanity" by UNESCO since 2009. It consists in making patterns using a wax mixture. Here are the main steps in the production of batik: