

## Using algae to purify water

Biomimicry is learning and implementing the strategies found in nature to solve design challenges.

I chose some of nature ways to purify water like the algae mats that clean polluted water by creating an efficient environment this is possible because the algae remove nutrient pollutants, from the water while producing pure oxygen as a byproduct, which can be used by aquatic organisms and also helps to breakdown other toxic chemicals, such as lead and mercury. And at the end of its cycle, it can be harvested and processed into a compost or a biofuel.

I'm really interested in this topic because it gives us a way to access clean water and become more sustainable with our resources even more with such a precious one like water that up to 2 billion people are lacking of.

Some of the aspects that I really like about this project is that not only can you clean the water but by further treatments you can make it potable, you can turn the algae into a biodiesel and even start shifting towards clean energy.

To say that I'm impressed is an understatement, we can learn so many things by taking a step back and looking at nature, the way it cleans itself, the way is sustainable, and mostly the years of evolution that lead to problem solving, I'm truly amazed by the way it all connects and works, from the smallest of things to the biggest it all has a purpose.

A way my community implemented this are in the agricultural areas where they use oxidation ponds also called lagoons or stabilization pond which are designed to treat wastewater through the interaction of sunlight, bacteria, and algae which grows using energy from the sun and carbon dioxide and inorganic compounds released by bacteria in the water.

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**Bibliography:**

*Algae Mat Cleans Polluted Water by Pulsing Water Like a Coral Reef*— *Innovation*. (n.d.).

AskNature. Retrieved October 21, 2021, from

<https://asknature.org/innovation/algae-mat-cleans-polluted-water-by-pulsing-water-like-a-coral-reef/>

*Wastewater treatment - Oxidation pond*. (n.d.). Encyclopedia Britannica. Retrieved October

21, 2021, from <https://www.britannica.com/technology/wastewater-treatment/Oxidation-pond>