

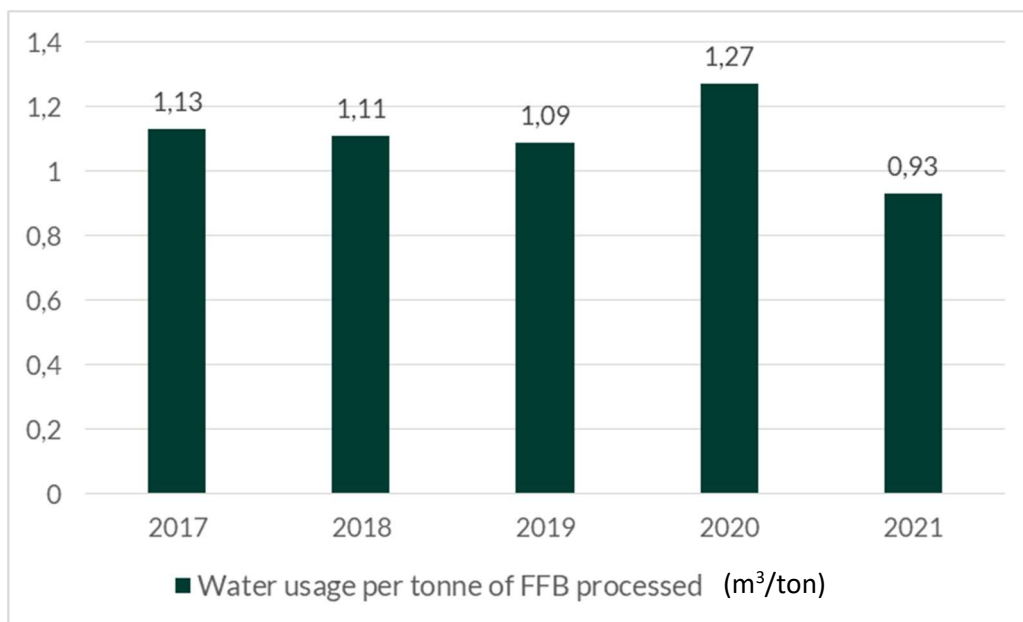
Water Resources

(UPDATED IN SEP/2022)

Among the various environmental aspects that are important to Agropalma, water resources management deserves special attention. We are committed to optimizing water consumption and ensuring water quality.

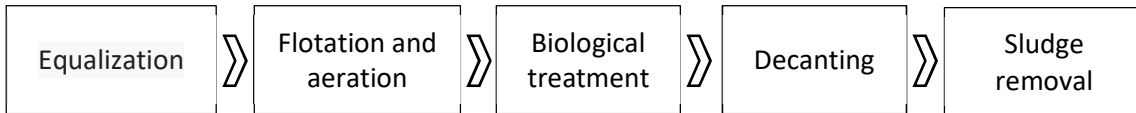
In 2021 we could reduce the use of water per metric ton of FFB processed in our factories based on last years. These numbers remain stable. Important to say we had to reduce use of recycled water after discovering that it could influence 3-MPCD and other contaminant levels that could potentially affecting product quality.

Therefore, we have had to carefully balance water use. However, we have continued to introduce options to reduce water use. We have now installed a dynamic clarification system and improved management, so we were able to reduce water usage intensity by almost 27% from 2020 to 2021. We are proud to report that our efforts were effective and after few years we were able bring our water consumption below of our target, that is 1 m³ of water per ton of FFB processed.



Regarding effluents of extraction mills, we are committed with the best and cost-effective use and minimizing risk of contamination in water streams. For this reason, we use 100% of treated effluents as liquid fertilizers in our plantations, using a proper ferti-irrigation systems which applies only 5 mm of effluent per application, avoiding any run-off. In other words, we have completely halted effluent releases from our extraction mills into bodies of water. These aspects are externally verified during RSPO and POIG audits.

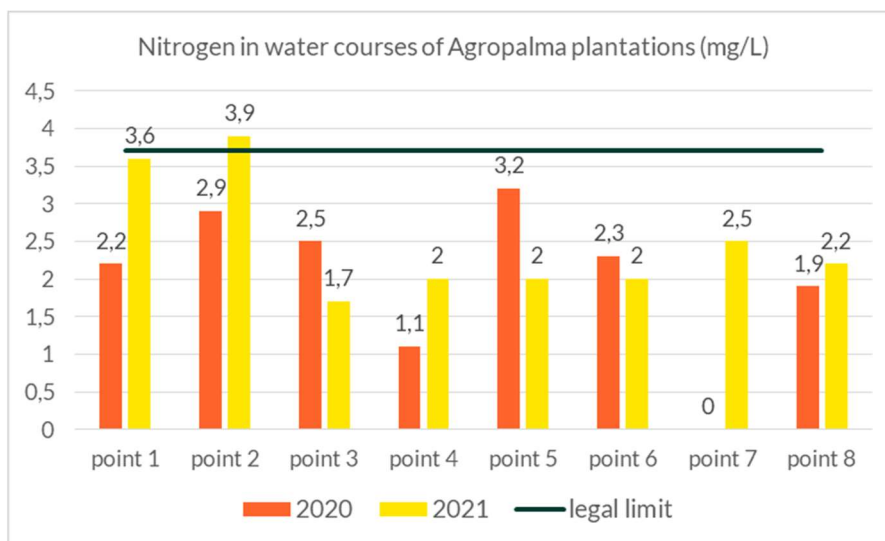
Our refineries also produce effluents. They are composed by a mixture of water, fat acid, residual oil and some residues of chemical products, like caustic soda and citric acid. All effluent from the operations is collected and delivered to proper stations, where they are treated following the basic flow below.



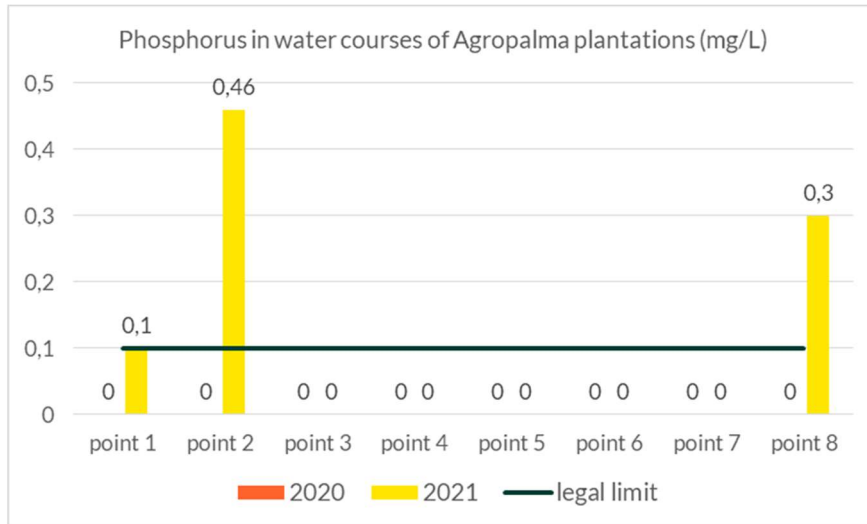
All effluents in our refineries are treated according to the stages registered above before being released in the water bodies. The quality of released effluent is assessed every 30 days to make sure they are attending the environmental parameters and will not interfere with any natural feature of the water body.

Moreover, as recorded in our sustainability reports, we have monitored phosphorus and nitrogen levels in 8 carefully chosen water streams. This monitoring aims at verifying if our plantations and extraction industries are causing any damage to water quality. In this case, the goal is to address the legal limits of 3.7 mg/L for nitrogen and 0.1 mg/L for phosphorus.

Below the analytical results for 2020 and 2021 are featured.



In 2020, all figures for nitrogen and phosphorus were below the legal limit. In 2021, results for point 2 exceeded the limit for both parameters and points 1 and 8 for phosphorus. Our environmental team determined that the higher figures were caused when unexpected heavy rain washed freshly applied fertilizer into the streams. The team concluded that there were no significant environmental impacts, such as dead fish or eutrophication, and all streams appeared normal. Nevertheless, monitoring of this waterway was continued with weekly measurements, and no signs of abnormality were recorded.



Our plantations are in a region of Para state where towns and villages are not affected by water shortages. Nevertheless, as part of our commitment to the POIG Charter, we do our utmost to ensure we have little to no impact on the quality or volume of locally available water.

Therefore, Agropalma is committed to minimize the use of chemicals fertilizers in its own and all FFB suppliers operations. In other to do that, our organic agriculture plantations as well as our FFB and POME composting project are key drivers.

Still aiming at preventing negative impacts to water resources, Agropalma manages pests, diseases and naturally growing vegetation preferably through non-chemical methods, such as: biological control, traps, mechanical eradication and mechanized hoeing, among others.

Moreover, company is committed to reduce and limit the use chemical pesticides in our own operations as well as in all FFB suppliers operations, including the prohibition of paraquat as well as agrochemicals rated by the World Health Organization as type 1A or 1B, or agrochemicals listed in the Stockholm or Rotterdam Conventions.

The use of pesticides is monitored by tracking toxicity per hectare instead of volumes. This allows observation of any changes from year to year and follow up on performance compared to our peers in the industry, regardless of changes in formulation or the type of pesticide used. Volumes used vary according to the planting cycle, since younger palm trees require more frequent applications. It is possible to assign the resulting increase to the replanting that has taken place over the last five years.