UN WATER 22 MARCH WORLD WATER DAY

Olam

Improving our global wastewater management

Storm water retention programme, Joanes Cocoa Factory, Brazil

Today there are over 663 million people living without a safe water supply close to where they live. Millions spend their days queuing or trekking to far away sources and must manage the severe health impacts of drinking contaminated water. Agriculture accounts for around 70% of global water usage and contributes to water pollution in several forms, for example, from the overuse of agrochemicals. This year's theme for World Water Day is **'Wastewater'** – and this campaign looks at how we can reduce and reuse this water.

Around Olam different businesses and origins have been using innovative ways to combat the issue of wastewater this year. Here we take a look at how we have progressed and focus on a few key case studies.

Olam Brazil

The Olam Cocoa processing facility located approximately 130km from the city of Ilhéus, Bahia State, has responded to last summer's severe drought [Sep 2015 – Jul 2016] with innovative new ways to capture and treat the wastewater.

The team have installed 2 new systems to retain the storm water and also treat the plant's wastewater, both of which have reduced costs dramatically alongside helping to mitigate the future impacts of El Niño.

1. **Storm Water Retention Programme**
    a. A 9000m^3 reservoir has been constructed to capture storm rain water.
    b. When full, this reservoir will be able to keep the processing facility running for 40-45 days.
    c. Any excess water from the reservoir is treated to be potable. This is then pumped to the office for the employees to drink.
    d. With climate change creating more severe weather patterns, including droughts, this programme will reduce the costs of pumping water in from far away sources.

2. **Treated wastewater used for onsite toilet facilities**
    a. The wastewater from the processing facility is now treated, collected and used to run the onsite toilet facilities for staff.
    b. By using gravity to transport the water from the treatment facility to the 50m^3 storage tank the running costs are low!
    c. 30m^3 of water is recycled everyday which decreases the plant's water needs and consumption.
    d. This minimises the need for the processing facility to draw water from local water sources.

The amount of wastewater saved and treated at the Kochi Spices Plant was enough to grow over **800 coconuts** last year

45 days of water saved

A new reservoir at Olam Cocoa's processing plant in Brazil has the capacity to keep the plant running for a month and a half!

"The team at the Joanes Cocoa Processing Facility in Brazil have put a major focus on recycling and reusing the wastewater over the past year. The new infrastructure will reduce our costs and decrease the stresses on the surrounding environment."

Jeff Pfalzgraf, Global Head of Processing, Olam Cocoa.

Olam India SVI

The Spices Team in India have been working on 2 different programmes to tackle wastewater in our owned operations and supply chains.

1. **Integrated Pest Management (IPM) in our Supply Chains**
    a. 655 farmers have been trained in Good Agricultural Practices in over 90 different farmer field schools. This training has helped farmers produce chilli which is free from pesticide residues and aflatoxin.
    b. This IPM Programme has reduced water and soil pollution and provides a long-term sustainable product. Other co-benefits include reduced costs for the smallholders and improved farmer health as no agro-chemicals are sprayed.

2. **Wastewater treatment at the Kochi Spices Processing Facility.**
    a. The team at the Kochi spices plant have installed a state-of-the-art water treatment centre to clean the discharged water from the factory. By treating the on-site domestic water the team have managed to save enough water to be able maintain a flourishing factory garden.
    b. 2446 KL of water was treated last year, this helped to water the 3 ½ acre garden, helping to produce 800 coconuts, green pepper to show customers and a flower garden!

"We wanted to do something socially responsible and use the water that otherwise could have contaminated the downstream environment. We are proud to have treated over **2446 KL** litres of water this year, and will continue to improve our efforts in the future."

Rajesh Nath, Operations Head, Olam SVI India

Olam Gabon - Water Treatment Plan

In our Gabon Plantations we have installed a new **Water Treatment Plan** for all resident workers and staff. All water is now treated and meets the WHO Standards for water quality.

The treatment process involves 2 steps:

1. Physical removal of solids (mainly mineral and organic particulate matter).
2. Followed by chemical disinfection (killing/inactivating microorganisms).

The pre-chlorination method implemented will remove the excess iron and ferum from raw water, while post-chlorination will protect the treated water from re-contamination as it flows through the distribution system.

To date 7 units have been installed across the 3 plantations sites of Mouila, Awala and Bitam. In 2017, we will measure the performance of the plan in relation to improved worker health, reduced contamination related sick days and against the WHO Standard Indicators.

Awala Mill, Awala Palm Plantation, Gabon

Water Treatment Plant, Awala Palm Plantation, Gabon