

## The Pharmaceutical Industry's Growing Need to Move Toward Sustainability

The pharmaceutical industry plays an important role in advancing healthcare. With research & development, manufacturing, and distribution of medicines and healthcare products, the industry is responsible for saving lives and improving the quality of life for millions. However, the industry is also associated with a negative externality that is - the carbon footprint. Earth Day, celebrated every year on April 22, is an annual reminder to reduce emissions and protect the environment. Every industry is doing its bit to protect and preserve the planet and the pharma sector is not an exception. From sourcing of raw materials to waste disposal, every process in a pharma company has environmental implications. Hence, it is imperative for the pharmaceutical industry to embrace sustainable practices to reduce carbon footprint, minimize pollution, and preserve natural resources.

CPHI Sustainability Report 2023 suggests making sourcing sustainable from the start. "The raw materials themselves are often non-renewable; carbon-based products used to make drugs and plastics for packaging, among others. However, some raw materials of natural origin can be sourced more sustainably. For use in products, materials such as palm oil, cellulose, sugar, tin, gold and other minerals can be extracted under responsible initiatives such as the Forest Stewardship Council Certification, the Roundtable on Sustainable Palm Oil, and the Minerals Traceability Programme to name a few," stated the report.

"Materials for packaging can also be sourced more sustainably; examples include paper from timber managed under various certifications and sustainable forestry initiatives, natural rubber harvested under the Forest Stewardship Council Certification, and aluminium via the Aluminium Stewardship Initiative. Creating a circular economy in packaging materials is a key approach towards reducing emissions associated with procuring the components for drug packaging in the supply chain. The use of recycled plastic, renewable materials, and glass is becoming more common, and companies are doing well in this aspect, but still face a few challenges here," it added.



In the supply chain, one of the most obvious areas where the contribution to greenhouse gas emissions is high is in the manufacturing sector. Various pharma companies are building more environmentally friendly manufacturing plants in the form of bio manufacturing plants.

The pharma sector is also making a shift to renewable energy. One such example is CordenPharma Colorado, which engaged in an 'Off-Site Net Metering' solar program to harness renewable energy generated by solar installations owned and operated by Pivot Energy. This allowed the pharmaceutical company to offset a portion of its Boulder, CO campus' electricity consumption with clean, solar-generated power, without

having to install panels on its buildings, which are prohibitive for rooftop solar.

Pivot Energy had announced that it would be developing two separate solar arrays for CordenPharma Colorado totalling

on local water sources. Additionally, investing in advanced technologies such as reverse osmosis and nanofiltration can enhance water efficiency and ensure responsible usage throughout the production process. By prioritizing sustainable practices, collaborating with local communities, and adhering



6.7 Megawatts (MW), which will produce enough renewable energy to offset 51 percent of CordenPharma's electricity consumption.

Talking about the sustainability practices in the pharmaceutical sector and the importance of Earth Day, **Ayush Patodia, Associate Vice President, Avalon Consulting** says, "On this Earth Day 2024, it's imperative for pharmaceutical companies to address the critical issue of depleting groundwater levels in India. To fulfill our responsibility as custodians of both health and the environment, we must take proactive steps to mitigate this challenge. Pharma companies can implement water recycling and reuse systems within manufacturing facilities, minimizing their freshwater consumption and reducing strain

to stringent environmental regulations, we can safeguard precious water resources and pave the way for a healthier, more sustainable future."

While it's true that the pharmaceutical industry has an undeniable impact on the planet in contributing to climate change, the fact that the industry is in a position to make effective changes to reduce this impact, cannot be denied.

Through continued collaboration and efforts to reduce emissions, the future of sustainability in the pharmaceutical supply chain looks bright.