

# Towards Sustainable Pharma: Assessing Contribution To Sustainable Development Goals (Sdgs) Of Leading Companies

Dr. Mayuri Yadav<sup>1\*</sup>, Dr. Priya Agashe<sup>2</sup>, Dr. Prapti Dhanshetti<sup>3</sup>, Dr. Prachi Pargoankar<sup>4</sup>

<sup>1\*</sup> Assistant Professor, S.K.N Sinhgad School of Business Management, Pune. Email: mayuriyadav88@gmail.com

<sup>2</sup> Director, S.K.N Sinhgad School of Business Management, Pune. Email: priya\_agashe@yahoo.com

<sup>3</sup> Assistant Professor, S.K.N Sinhgad School of Business Management, Pune. Email: prapti.dhanshetti@gmail.com

<sup>4</sup> Director, Sinhgad Institute of Management. Email: prachip243@gmail.com

**Citation:** Dr. Mayuri Yadav (2024) Towards Sustainable Pharma: Assessing Contribution To Sustainable Development Goals (Sdgs) Of Leading Companies *Educational Administration: Theory And Practice*, 30(3), 2315-2320  
Doi: 10.53555/kuey.v30i3.4613

## ARTICLE INFO

## ABSTRACT

The pharmaceutical industry, vital for global health, faces increasing scrutiny for its environmental impacts. This research evaluates the environmental sustainability initiatives of five prominent pharmaceutical companies: AstraZeneca plc, Pfizer Inc, Merck & Co., Inc, STADA Arzneimittel AG, and Ultragenyx Pharmaceutical Inc. Drawing from credible sources such as Corporate Knights, Barron's, and Sustainalytics, the study assesses these companies' environmental performance, initiatives, and achievements. Objectives include investigating their contribution to Sustainable Development Goals (SDGs), comparing sustainability efforts, and providing recommendations for industry enhancement. This study evaluates the environmental sustainability practices of five leading pharmaceutical companies, aiming to investigate their SDG contribution, compare sustainability efforts, and propose recommendations for industry enhancement. Selected based on top sustainability lists, data for the five companies were collected from various sources including annual reports and sustainability reports. Evaluation criteria encompassed alignment with global sustainability goals, effectiveness, transparency, innovation, and commitment to improvement. While AstraZeneca, Pfizer, Merck, STADA, and Ultragenyx exhibit commendable efforts, further collaboration and innovation are imperative for addressing industry challenges. By implementing suggested recommendations, pharmaceutical companies can advance sustainability efforts for a healthier planet. AstraZeneca plc, Pfizer Inc, Merck & Co., Inc, STADA Arzneimittel AG, and Ultragenyx Pharmaceutical Inc are evaluated for their contributions to SDGs, emphasizing their commitment to environmental sustainability

**Keywords:** Sustainability, Sustainable Developments Goals, Environmental Sustainability, Pharma Companies.

## INTRODUCTION:

The pharmaceutical industry plays a significant role in global health but also has environmental impacts due to its manufacturing processes, supply chain operations, and product lifecycle. As concerns about climate change and environmental degradation continue to rise, there is a growing emphasis on sustainability within the pharmaceutical sector. This research aims to evaluate the environmental sustainability practices of five prominent pharmaceutical companies: AstraZeneca plc, Pfizer Inc, Merck & Co., Inc, STADA Arzneimittel AG, and Ultragenyx Pharmaceutical Inc. By analyzing data from reputable sources, including Corporate Knights, Barron's, and Sustainalytics, this study assesses the companies' environmental performance, initiatives, and achievements. The findings shed light on the industry's progress toward sustainability goals and provide insights for future improvements.

### OBJECTIVE OF THE STUDY:

This study aims to assess the environmental sustainability practices of five leading pharmaceutical companies: AstraZeneca plc, Pfizer Inc, Merck & Co., Inc, STADA Arzneimittel AG, and Ultragenyx Pharmaceutical Inc. The objectives are to:

- To investigate their contribution to Sustainable Development Goals (SDGs).
- To compare their sustainability efforts to identify strengths and weaknesses.
- To provide recommendations for enhancing sustainability in the pharmaceutical industry.

### RESEARCH METHODOLOGY:

**Selection of Companies:** The research focuses on analyzing the environmental sustainability initiatives of five selected pharmaceutical companies from the top 10 list identified in 2023/2024. These companies were chosen based on their rankings in reputable sustainability lists such as Corporate Knights' 2024 Global 100 list, Barron's 100 Most Sustainable US Companies 2024 list, and insights from Sustainalytics.

**Data Collection:** Comprehensive data for the selected five companies were gathered from diverse sources, including their annual reports, sustainability reports, ESG ratings, official statements, and credible news articles. These sources provided detailed information on the companies' environmental sustainability goals, strategies, achievements, and initiatives.

Each company's environmental sustainability initiatives were evaluated based on their alignment with global sustainability goals (e.g., UN Sustainable Development Goals), effectiveness in reducing environmental impact, transparency in reporting, innovation in sustainable practices, and commitment to continuous improvement.

### COMPANIES CONSIDERED FOR THIS RESEARCH:

- AstraZeneca plc
- Pfizer Inc
- Merck & Co., Inc
- STADA Arzneimittel AG
- Ultragenyx Pharmaceutical Inc

#### **AstraZeneca plc (AZ):**

AstraZeneca plc, a multinational pharmaceutical and biotechnology firm based in Cambridge, England, operates at the forefront of medical innovation. With a diverse portfolio, the company focuses on combatting major diseases such as oncology, cardiovascular diseases, gastrointestinal disorders, infections, neuroscience conditions, respiratory ailments, and inflammation. A notable achievement includes its pivotal role in the development of the Oxford–AstraZeneca COVID-19 vaccine.

#### **Pfizer Inc:**

Pfizer Inc, a global biopharmaceutical leader headquartered in New York, USA, is dedicated to advancing healthcare worldwide. Specializing in research, development, manufacturing, and commercialization, Pfizer offers a comprehensive range of pharmaceutical solutions for various conditions including cardiovascular diseases, metabolic disorders, pain management, women's health, cancer, inflammation, immune disorders, and rare diseases. Its extensive manufacturing network spans the globe.

#### **Merck & Co., Inc:**

Merck & Co., Inc, an American multinational pharmaceutical powerhouse headquartered in Rahway, New Jersey, operates under the name Merck Sharp & Dohme (MSD) outside the United States and Canada. Renowned for its cutting-edge pharmaceutical products, Merck consistently ranks among the top global pharmaceutical companies by revenue. With a reputation for innovation, Merck is a key player in shaping the future of healthcare.

#### **STADA Arzneimittel AG:**

STADA Arzneimittel AG is a leading manufacturer of high-quality pharmaceuticals with a legacy spanning over 125 years. Based on a strong foundation in pharmacy, STADA is recognized for its reliability and trustworthiness in providing affordable healthcare solutions. The company focuses on three main pillars: consumer healthcare products, generics, and specialty pharmaceuticals, operating globally in approximately 120 countries.

#### **Ultragenyx Pharmaceutical Inc.:**

Ultragenyx Pharmaceutical Inc is a biotechnology company dedicated to developing novel medicines for rare and ultra-rare genetic diseases. Headquartered in the United States, Ultragenyx has successfully brought four marketed products to the market, including treatments for Mucopolysaccharidosis, long-chain fatty acid oxidation disorders, X-linked hypophosphatemia, and homozygous familial hypercholesterolemia. Ultragenyx is committed to advancing healthcare and improving the lives of patients with rare diseases.

Company	SDG's Contribution
<b>AstraZeneca plc</b>	<p><b>Good Health and Wellbeing (SDG 3):</b> Activated 1,258 health facilities as part of the Healthy Heart Africa program, enhancing access to healthcare. Reached over 44.6 million individuals through various healthcare initiatives, promoting well-being. Provided training to more than 126,000 healthcare workers in developing nations, empowering local communities with medical expertise.</p> <p><b>Gender Equality (SDG 5):</b> Nearly half (49.5%) of senior middle management roles and over a third (38.5%) of Board of Directors positions are held by women, fostering gender diversity and inclusivity. Facilitated leadership development programs for 1,000 female employees, advancing gender equality in the workforce.</p> <p><b>Clean Water and Sanitation (SDG 6):</b> Achieved full compliance (100%) with API discharges from its sites and 92% compliance from direct suppliers, ensuring clean water sources. Reduced water consumption by 18.7% since 2015, contributing to sustainable water management practices.</p> <p><b>Decent Work and Economic Growth (SDG 8):</b> Attained a significant 72% reduction in reportable injury rates since 2015, promoting safe and healthy work environments.</p> <p><b>Responsible Consumption and Production (SDG 12)</b> Two-thirds (67%) of new products meet defined targets, reflecting a commitment to responsible consumption. Reduced total waste generation by 18.6% since 2015, demonstrating sustainable production practices.</p> <p><b>Climate Action (SDG 13):</b> Successfully reduced Scope 1 and 2 emissions by 59.3% since 2015, contributing to climate change mitigation efforts.</p> <p><b>Affordable and Clean Energy (SDG 7):</b> Achieved an impressive 89.7% increase in energy productivity and reduced energy consumption by 14.4% since 2015, promoting sustainable energy practices.</p> <p><b>Partnership for the Goals (SDG 17):</b> The Public Health Systems Strengthening and Rebalancing (PHSSR) initiative facilitates policy improvements in active countries, fostering collaboration towards partnership goals.</p> <p><b>Life on Land (SDG 15):</b> Planted over 10.5 million trees through AZ Forest initiative and utilizes 97.5% paper-based product packaging materials from sustainable sources, contributing to biodiversity conservation and responsible resource management.</p>
<b>Pfizer Inc:</b>	<p><b>Good Health and Well-Being (SDG 3):</b> Establishes a governance framework that prioritizes equitable access to essential medicines and vaccines, ensuring the promotion of good health and well-being for all.</p> <p><b>Gender Equality (SDG 5):</b> Demonstrates a firm commitment to eliminating gender-based discrimination and fostering equal opportunities for women across all levels of the organization.</p> <p><b>Peace, Justice, and Strong Institutions (SDG 16):</b> Upholds principles of justice, champions the rule of law, and fosters ethical and transparent decision-making processes to contribute to peaceful and inclusive societies.</p> <p><b>Decent Work and Economic Growth (SDG 8):</b> Promotes decent work conditions and sustainable economic growth through inclusive employment practices and responsible business operations.</p> <p><b>Reduced Inequalities (SDG 10):</b> Champions social and economic inclusion across communities, addressing disparities related to age, gender, disability, race, ethnicity, and socio-economic status to foster a more equitable society.</p> <p><b>Partnerships for the Goals (SDG 17):</b> Actively seeks collaborations and partnerships to tackle global challenges and drive progress towards achieving sustainable development goals, recognizing the</p>

	<p>importance of collective action.</p> <p><b>Industry, Innovation, and Infrastructure (SDG 9):</b> Promotes the development of resilient and sustainable infrastructure through initiatives focused on environmental sustainability and innovation.</p> <p><b>Responsible Consumption and Production (SDG 12):</b> Adopts sustainable practices to minimize environmental impact and ensure responsible consumption and production patterns, contributing to the preservation of natural resources and ecosystems.</p> <p><b>Climate Action (SDG 13):</b> Takes decisive action to combat climate change by reducing greenhouse gas emissions, investing in renewable energy sources, and implementing strategies to mitigate environmental degradation.</p>
<b>Merck &amp; Co., Inc.</b>	<p><b>Good Health and Well-being (SDG 3):</b> Concentrates efforts on the creation and provision of ground-breaking healthcare products and solutions to meet global medical needs effectively.</p> <p><b>Decent Work and Economic Growth (SDG 8):</b> Prioritizes the welfare of employees, sustainability within the supply chain, and initiatives aimed at fostering economic empowerment.</p> <p><b>Industry, Innovation, and Infrastructure (SDG 9):</b> Channels resources into research, innovation, infrastructure enhancement, and the transfer of technology to drive progress and development.</p> <p><b>Responsible Consumption and Production (SDG 12):</b> Advocates for sustainable product development, reduction of waste, and the implementation of sustainable supply chain practices to ensure responsible consumption and production methods.</p> <p><b>Partnerships for the Goals (SDG 17):</b> Collaborates with governments, non-governmental organizations (NGOs), academic institutions, and industry partners to tackle global challenges and promote sustainable development initiatives.</p>
<b>STADA Arzneimittel AG</b>	<p><b>SDG 3: Good Health and Well-being:</b> Emphasizes preventive measures, encourages healthy lifestyles, and ensures access to high-quality medicines to enhance overall health and well-being.</p> <p><b>SDG 8: Decent Work and Economic Growth:</b> Ensures fair working conditions, advocates for diversity, inclusion, and gender equality, and prioritizes occupational health and safety to foster decent work opportunities and sustainable economic growth.</p> <p><b>SDG 9: Industry, Innovation, and Infrastructure:</b> Focuses on producing affordable, effective, and quality drugs, fostering innovation, and enhancing infrastructure for the delivery of healthcare services to communities.</p> <p><b>SDG 12: Responsible Production and Consumption:</b> Promotes responsible product development, efficient resource management, and waste reduction practices to minimize environmental impact and ensure sustainable production and consumption patterns.</p> <p><b>SDG 17: Partnerships for the Goals:</b> Encourages partnerships and collaboration to achieve sustainable development goals, upholds ethical business practices, and advocates for transparent corporate governance to drive progress towards common objectives.</p>
<b>Ultragenyx Pharmaceutical Inc.</b>	<p><b>SDG 3: Good Health and Well-being:</b> Extends support to the rare disease community, promotes public health, and enhances access to care through patient support programs, awareness campaigns, and grant initiatives.</p> <p><b>SDG 4: Quality Education:</b> Advocates for STEAM education to empower the next generation of leaders, facilitates scholarships, after-school programs, and donations to organizations fostering STEAM education.</p> <p><b>SDG 8: Decent Work and Economic Growth:</b> Places emphasis on cultivating fair and nurturing working conditions, fostering employee engagement, and investing in employee development to promote decent work opportunities and sustainable economic growth.</p> <p><b>SDG 9: Industry, Innovation, and Infrastructure:</b> Conducts business operations with a focus on environmental responsibility, endeavors to minimize environmental impact, and supports sustainable waste management and recycling programs to promote innovation and infrastructure</p>

	<p>development.</p> <p><b>SDG 11: Sustainable Cities and Communities:</b> Supports community initiatives addressing local needs, promotes community engagement, and contributes to positive impacts on sustainable cities and communities.</p> <p><b>SDG 17: Partnerships for the Goals:</b> Engages in collaborations with diverse organizations and stakeholders to advance sustainability objectives, advocates for ethical business practices, and fosters transparent corporate governance for collective progress towards shared goals.</p>
--	---

## ENHANCING SUSTAINABILITY IN PHARMA COMPANIES: STRATEGIES FOR A GREENER FUTURE:

Pharmaceutical companies have the opportunity to bolster their sustainability efforts through a range of strategic and operational actions:

**Transitioning to Continuous Manufacturing:** Embracing continuous manufacturing over batch processes can streamline operations, reduce energy consumption, and minimize waste generation.

**Optimizing Packaging:** Efficient packaging techniques can maximize transport space utilization, thereby reducing carbon emissions associated with logistics.

**Investing in Green Chemistry:** By prioritizing green chemistry practices, such as minimizing hazardous substances and waste in drug formulation, companies can decrease environmental impact while maintaining product efficacy.

**Water Conservation and Treatment:** Adopting water conservation measures and implementing effective wastewater treatment processes can significantly reduce water usage and pollution in manufacturing operations.

**Adopting Renewable Energy:** Transitioning to renewable energy sources for manufacturing operations can mitigate greenhouse gas emissions and decrease reliance on fossil fuels.

**Sustainable Procurement Policies:** Implementing sustainable procurement policies that favor environmentally friendly materials and services can drive positive environmental outcomes across the supply chain.

**Designing Eco-Friendly Products:** Designing drugs and packaging with recyclability in mind can minimize environmental impact and facilitate end-of-life disposal processes.

By embracing these strategies, pharmaceutical companies can play a pivotal role in advancing sustainability goals while maintaining their commitment to innovation and global health.

## FINDINGS:

**AstraZeneca plc:** AstraZeneca has demonstrated a commitment to environmental sustainability through initiatives such as reducing greenhouse gas emissions and waste diversion. Despite a slight drop in its Corporate Knights ranking, the company remains focused on achieving ambitious targets for carbon reduction and energy efficiency.

**Pfizer Inc:** Pfizer has set comprehensive sustainability goals, including achieving net-zero emissions by 2040 and reducing emissions throughout its value chain. The company's initiatives aim to address Scope 1, 2, and 3 emissions, demonstrating a holistic approach to environmental stewardship.

**Merck & Co., Inc:** Merck has consistently been recognized as one of the most sustainable pharmaceutical companies, with initiatives like the Low Carbon Transition Playbook and advancements in green chemistry. The company's focus on innovation and waste reduction underscores its commitment to sustainability.

**STADA Arzneimittel AG:** STADA's commitment to decarbonization and waste reduction has positioned it as one of the top sustainable pharmaceutical companies globally. With significant progress in reducing greenhouse gas emissions, STADA demonstrates a proactive approach to environmental responsibility.

**Ultragenyx Pharmaceutical Inc:** Ultragenyx's inclusion on sustainability lists highlights its efforts to mitigate environmental impact, such as purchasing renewable electricity and implementing waste reduction programs. Despite being focused on rare diseases, the company prioritizes sustainability in its operations.

## SUGGESTIONS:

Based on the findings, the following suggestions are proposed for further enhancing environmental sustainability in the pharmaceutical industry:

- Increase transparency and reporting on environmental performance metrics to track progress effectively.
- Collaborate with stakeholders across the value chain to identify opportunities for improvement and innovation.
- Invest in renewable energy sources and energy-efficient technologies to reduce carbon footprint.
- Implement circular economy principles to minimize waste generation and promote resource efficiency.
- Engage in partnerships and initiatives that promote sustainability within the industry and beyond.

### CONCLUSION:

In conclusion, the pharmaceutical industry is making strides toward environmental sustainability, as evidenced by the efforts of companies such as AstraZeneca, Pfizer, Merck, STADA, and Ultragenyx. By prioritizing initiatives to reduce carbon emissions, minimize waste, and promote sustainable practices, these companies are demonstrating leadership in environmental stewardship. However, there is still room for improvement, and continued collaboration and innovation will be essential to address the complex environmental challenges facing the industry. By implementing the suggested recommendations and building on existing initiatives, pharmaceutical companies can further advance their sustainability efforts and contribute to a healthier planet for future generations.

### BIBLIOGRAPHY:

1. Choma ´c-Pierzecka, E. Pharmaceutical Companies in the Light of the Idea of Sustainable Development—An Analysis of Selected Aspects of Sustainable Management. *Sustainability* 2023, 15,8889. <https://doi.org/10.3390/su15118889>
2. Belkhir, L. (2019, May 28). Big pharma emits more greenhouse gases than the automotive industry. McMaster University. <https://brighterworld.mcmaster.ca/articles/big-pharma-emits-more-greenhouse-gases-than-the-automotive-industry/>
3. Belkhir, L., & Elmeli, A. (2019). Carbon footprint of the global pharmaceutical industry and relative impact of its major players. *Journal of Cleaner Production*, 214. doi: 10.1016/j.jclepro.2018.11.204.
4. Schneider, J.L., Wilson, A. and Rosenbeck, J.M. (2010), "Pharmaceutical companies and sustainability: an analysis of corporate reporting", *Benchmarking: An International Journal*, Vol. 17 No. 3, pp. 421-434. <https://doi.org/10.1108/14635771011049371>
5. <https://www.sustainalytics.com/>
6. <https://xtalks.com/top-10-most-environmentally-sustainable-pharma-companies-in-2023-2024-3778/>
7. <https://www.corporateknights.com/rankings/global-100-rankings/2024-global-100-rankings/the-20th-annual-global-100/>
8. <https://www.barrons.com/lists-rankings/top-sustainable-companies?page=1>
9. <https://www.sustainalytics.com/>
10. [https://www.astrazeneca.com/content/dam/az/Sustainability/2023/pdf/Sustainability\\_Report\\_2022.pdf](https://www.astrazeneca.com/content/dam/az/Sustainability/2023/pdf/Sustainability_Report_2022.pdf)
11. <https://www.ultragenyx.com/wp-content/uploads/2023/05/Ultragenyx-2022-ESG.pdf>
12. [https://www.merckgroup.com/en/sustainability-report/2022/\\_assets/downloads/entire-merck-sr22.pdf](https://www.merckgroup.com/en/sustainability-report/2022/_assets/downloads/entire-merck-sr22.pdf)
13. [https://www.stada.com/media/8159/stada\\_sustainability\\_report\\_2022.pdf](https://www.stada.com/media/8159/stada_sustainability_report_2022.pdf)
14. [https://www.pfizer.com/sites/default/files/investors/financial\\_reports/annual\\_reports/2022/files/Pfizer\\_ESG\\_Report.pdf](https://www.pfizer.com/sites/default/files/investors/financial_reports/annual_reports/2022/files/Pfizer_ESG_Report.pdf)