How much do you know about the environmental external costs of Taiwanese companies? Taking the year 2021 as an example

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As human economic activities continue to deplete natural resources, the Earth faces an increasing burden of climate change. Enterprises striving for sustainable development encounter formidable challenges. This article explores the inevitable rise in environmental costs for corporate operations due to various environment-related expenses, such as carbon taxes and fees. While some domestic enterprises have internalized costs related to environmental protection, including air and water pollution control, waste disposal, and energy conservation, many environmental costs remain unaccounted for.

To assess the potential impact of these external environmental costs on domestic corporate finances, the study utilizes ESG-related information and data disclosed by companies from databases like CSRone Sustainability Think Tank Sustainability Report and the Taiwan Stock Exchange's Public Information of the Market Observation Post System. By combining carbon pricing and pollution-related environmental cost data, the article examines the operational performance of Taiwanese enterprises after incorporating environmental costs. The findings offer institutional observations and suggestions to address and mitigate environmental challenges in the corporate sector.

An in-depth analysis reveals that the environmental external costs incurred by 544 companies in Taiwan amount to nearly NT$287.3 billion. Notably, the shipping industry bears the highest environmental external costs. For individual companies, 157 of them surpass NT$100 million in environmental external costs, with six exceeding an astounding NT$10 billion. When compared to corporate revenue, the industries with the highest proportion of environmental external costs in net profits are oil, electricity and gas, tourism, and papermaking, all exceeding 60%. This indicates that by 2021, environmental external costs in these industries will significantly impact enterprise profits. Adding another layer to the analysis, the social carbon cost price from a U.S. official study is approximately NT$5,759 per metric ton of carbon dioxide equivalent. Shockingly, for 63 companies, the inclusion of environmental costs could tip the scales from profit to loss. This underscores the urgency for enterprises to acknowledge and address the profound impact of environmental costs on both revenue and profits, signaling a crucial moment for sustainable business practices.

Amid global calls for achieving net-zero emissions, businesses and governments are placing a spotlight on Scope 1 and 2 greenhouse gas emissions. However, it's crucial for companies to recognize that waste, wastewater, and exhaust gas emissions also contribute significantly to the global environmental burden. International research reports emphasize that Scope 3 greenhouse gas emissions have become the primary source of carbon emissions for most companies, necessitating careful consideration of potential environmental external costs. Furthermore, it's essential to address the electricity use, which constitutes the primary source of domestic enterprise Scope 2 greenhouse gas emissions. Taiwan's electricity carbon emission factor surpasses that of advanced European and American countries. As we strive for a sustainable future, policies should strongly emphasize the transition towards low-carbon electricity sources. This article delves into these environmental considerations, urging organizations and institutions to take deliberate actions in response to their ecological impact and encouraging a shift towards greener energy alternatives.