PATHSTONE IMPACT

Sustainable Investing Highlights

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MIT researchers have achieved a simple but efficient solar-powered water desalination.

Access to safe drinking water has been a major need for the global community, especially in emerging economies where large numbers of people live without clean water. According to the 2019 United Nations World Water Development Report, nearly 2.2 billion people worldwide do not have access to clean drinking water.[1]

Recently, researchers from the Massachusetts Institute of Technology ("MIT") and Jiao Tong University in China successfully developed a solar-powered, off-grid, and low-cost water desalination system that is efficient, affordable, and reliable. The new desalination system is aimed at reducing the wide gap by providing a better path to clean water.

According to an MIT News article by David L. Chandler, a research paper authored by twelve MIT and Jiao Tong University students and published in the Energy and Environmental Science 'journal' outlined their thoughtful method as well as the specific materials they used to develop the solar-powered water desalination.[2]

According to researchers, the off-grid water system is designed to reliably provide 1.5 gallons of fresh drinking water per hour to households close to seawater.[3] The system has increased desalination efficiency through a design that reduces heat waste, resulting in a greater percentage of the solar energy being used to evaporate water. The researchers believe that the equipment is affordable since it can be built from common materials for around $100, making it within reach for many households in need of clean and safe drinking water.[4]

SDGs targets and indicators 6.1.1, 7.2.1, 8.2.1, and 9.B.1

Lenders say "incorporate ESG or no funding."

As environmental, social, and governance ("ESG") becomes mainstream, several lenders are cognizant of the benefits of incorporating ESG into their business strategy.[5] These lenders are demanding that borrowers track and report their ESG accomplishments, or they won't have access to bank capital.[6] Such lenders are said to believe that it makes sense from a risk and return perspective, even when ESG data lacks standardization. Lenders are also incorporating rewards for improvement along ESG dimensions, and penalties for deteriorating metrics.[7]

As noted in a Bloomberg opinion piece by Jacqueline Poh, ESG-backed loans have the capacity to shape corporate strategy as well as reduce financial risk to borrowers.[8] However, there are concerns that lenders and borrowers may seek to employ ESG metrics simply to benefit from the positive halo generated by public relations, rather than seeking to benefit from any substantive economic outcome. If unchecked, such "greenwashing" might become more commonplace.[9]

SDGs targets and indicators 8.1.1, 9.2.1,16.8.1, and 17.16.1

Climate advocacy group wants oilman Lee R. Raymond off of JPMorgan's Board.

Majority Action, a non-profit advocacy group, has vowed to use their influence to encourage shareholders to vote to remove Lee R. Raymond from the board of J.P. Morgan, the largest bank in the United States.[10] The group notes that Raymond is a staunch climate change denier and the longest-serving board member at J.P. Morgan.[11]

Raymond has been on the J.P. Morgan board for more than three decades and is known as the brains behind J.P. Morgan's successful merger with Chase, as well as for his role as a former CEO and board member of Exxon Mobil as it grew to be the largest energy company in the United States.[12]

A Bloomberg article by Max Abelson and Michelle F. Davis reports that Raymond's influence within J.P. Morgan has gone relatively unnoticed as the bank loaned trillions to fossil fuel companies.[13] However, that will change as Raymond's role within the bank will now be subject to greater scrutiny.[14] The Majority Action advocacy group argued that Raymond's connection with big oil companies and his role as a board member have hindered J.P. Morgan's efforts to act on climate change.[15]

The fight to remove Raymond from J.P. Morgan's board may be a tough sell, given his influential voice on the board and his close working relationship with CEO Jamie Dimon.[16] The relationship with Raymond did not prevent J.P. Morgan from recently announcing they will no longer make loans to companies for drilling in the Arctic, or to companies that generate more than half of their revenues from coal.[17]

SDGs targets and indicators 13.2.1 and 16.8.1

The social, environmental, and economic cost of climate change - who suffers the most?

The global community of today is faced with many risks linked to climate change. It is essential to understand the social, environmental, and economic costs associated with climate risks. Human activities—the burning of fossil fuel, mechanized agricultural activities, rapid development, and growing human population—are no doubt necessary for economic growth, however, these activities do come with social, environmental, and financial costs tied to the severity of climate change.[18]

A Reuters article by Nita Bhalla effectively captured the social consequences of climate change. According to Bhalla, the Eastern region of the Horn of Africa has been hit with an invasion of locusts that has ravaged crops, with implications of intensifying food insecurity in the region.[19] A statement put out by the United Nations Food and Agriculture Organization ("FAO") describes how locusts' ability to breed in swarms was tied to cyclones, which dumped vast amounts of water in the desert of Oman that is perceived to be a perfect breeding ground for the locusts.[20]

The Eastern Horn of Africa is not the only region that has experienced the severe adverse impact of climate change. Eleven western states in the United States have suffered severely from flooding tied to heavy rainfall. A Bloomberg article by Brian K Sullivan reported a study, carried out by the Scripps Institution of Oceanography, which concludes that atmospheric rivers induced by climate change have caused significant flooding, resulting in $1.1 billion in damage.[21] The article describes how these "rivers in the sky" are expected to persist in the future due to increasing human-induced activities.[22]

The economic cost of human-induced climate change is estimated to be higher than the Gross Domestic Product of the United Kingdom. According to the Center for Research on Energy and Clean Air ("CREA") report published by Yale Environment, "the economic and health costs of air pollution from burning fossil fuels totaled $2.9 trillion in 2018, calculated in the form of work absences, years of life lost, and premature deaths […] representing 3.3 percent of global GDP, or about $8 billion per day." [23]

SDGs targets and indicators 3.9.1 and 13.2.1

Policymakers and activists are pushing for lower carbon emissions.

Policymakers have moved the deadline for the United Kingdom's ban on cars powered by gas and diesel engines up to the year 2032.[24] With 12 years left before the ban, Prime Minister Boris Johnson and Transport Secretary Grant Shapps' ban is designed to help meet the United Kingdom's goal to become a net-zero energy economy.[25]

While this is a welcomed development by the United Kingdom to meet the objectives set in the Paris agreement, many have raised concerns that the ban would hurt the U.K. auto industry, labor market, and the Organization of the Petroleum Exporting Countries ("OPEC") exporting petroleum products to the United Kingdom.[26]

Prime Minister Boris Johnson believes that the ban would speed up hybrid vehicle production, as well as reduce environmental pollution and align with the Tory Party's manifesto to create an attractive investment environment for the production of electric car batteries.[27]

Meanwhile, activists continue to pressure university endowments and have set their sights on sovereign wealth funds. Georgetown University has become the latest to commit to divesting from fossil fuel companies.[28] A fossil-fuel-free Georgetown University highlights the strength of the national divestment movement [29] and is a bellwether to other higher education institutions such as Harvard University, whose administrators have consistently maintained a stance against divestment.[30]

A Bloomberg opinion piece by Kate Mackenzie provides insights on how activists are trying to shape the sovereign wealth space. According to Mackenzie, policy formulation and corporate engagement with fossil fuel companies has not yielded sufficient enough results needed to address the threat posed by climate change. As a result, activists are engaging with a broader spectrum of entities.[31]

SDGs targets and indicators 8.2.1, 9.B.1, 11.2.1 and 13.2.1

About the SDGs, Targets, and Indicators

The SDGs

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals ("SDGs"), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.[32]

Targets

The SDGs targets are set to be achieved by 2030. There are approximately 169 targets covering a broad range of sustainable development issues.[33]

Indicators

The SDGs indicators are used to measure progress made by the United Nations member states towards the achievement of SDGs targets. There are approximately 232 indicators set by the United Nations to measure SDGs progress.[34]

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4. Id.

5. Jacqueline Poh. "Lenders Seek Loans Tied to Borrowers' Sustainability Performance." Bloomberg. February 12, 2020. Accessed February 14, 2020. https://www.bloomberg.com/news/articles/2020-02-12/sovereign-debt-funds-be-warned-climate-activists-are-coming

6. Id.

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8. Id.

9. Id.

10. Max Abelson and Michelle F. Davis. "Oilman Lee Raymond is a force on JPMorgan's board. Climate activists want him out." Bloomberg. February 11, 2020. Accessed February 14, 2020. https://www.latimes.com/business/story/2020-02-11/jpmorgan-board-climate-activists

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12. Id.

13. Id.

14. Id.

15. Id.

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23. Yale Environment 360 (E360 Digest). "Air Pollution from Fossil Fuels Costs $8 Billion Per Day, New Research Finds." E360 Digest. February 12, 2020. Accessed February 14, 2020. https://e360.yale.edu/digest/air-pollution-from-fossil-fuels-costs-8-billion-per-day-new-research-finds

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26. British Broadcasting Corporation (BBC). "Petrol and diesel car sales ban could start in 12 years, says Shapps." BBC News. February 12, 2020. Accessed February 14, 2020. https://www.bbc.com/news/business-51474769

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