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CHAANAKYA

SCHOOL OF BUSINESS AND MANAGEMENT

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This issue is presented by team

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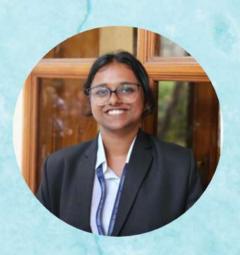
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EDITOR'S NOTE

Greetings Readers!

We are pleased to present the Special Issue of March 2024 of Chanakya, the MBA Finance Students' Association newsletter. This issue is brought to you by **Team Teutates**, a group of students under the mentorship of **Dr. Aparna R. Hawaldar**. The theme of this issue is "Climate Finance", a topic that is becoming a reality in today's world. The writers have explored various topics related to Climate Finance. And also discussed the future, risks and challenges of Climate Finance. In addition to the articles, this issue also includes a "Creative Corner" section, showcasing students' passion for art and poetry. We hope the newsletter helps readers provide a comprehensive overview of the emerging trends, challenges, and opportunities in infrastructure investment.

Team Chaanakya expresses sincere gratitude to our Dean, Dr. Jain Mathew, and the entire leadership team, the Head of Specialization, Dr. Ramanatha HR, the Faculty Coordinator of Chaanakya, Dr. Nisha Shankar, our expert specialisation mentors, and all the contributors for their cooperation and active participation.

Wishing our readers A Happy Reading

Best wishes, Team Chaanakya





OUR DISTINGUISHED SBM ALUMNI MR. RAJEEV RANJAN



AVP- SOUTH INDIA CRIF SOLUTIONS
BATCH: 2010-2012



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INTERVIEW WITH MR. RAJEEV RANJAN

1.1. Climate financeis becoming increasingly important. What are your thoughtson its significance in today's financial world?

- Climate finance is crucial as it bridges the gap environmental sustainability between and economic development. It allows financial institutions to direct capital towards projects that mitigate climate change, such as renewable energy, sustainable agriculture, and low-carbon technologies. In today's financial world, where ESG (Environmental, Social, and Governance) considerations are becoming central, climate finance not only aligns with global sustainability goals but also represents a growing market opportunity for innovative financial products and services.

1. How do you see credit bureaus and business information providers playing a role in advancing climate finance?

- Credit bureaus and business information providers can play a pivotal role in advancing climate finance by incorporating ESG factors into their credit assessments and reporting. By doing so, they can help identify businesses that are not only financially sound but also environmentally responsible. This information can then be used by lenders and investors to make informed decisions, steering more capital towards sustainable projects. Additionally, these entities can develop new risk models that account for climate-related risks, further integrating sustainability into the financialecosystem.

1. What do you think are the biggest challenges financial institutions face when integrating climate financeinto their operations?

- One of the biggestchallenges is the lack of standardized metricsand reporting frameworks for climate-related risks and opportunities. This makes it difficult for financial institutions to accurately assess and price these risks. Additionally, integrating climate financerequires a shiftin mindset, where long-term environmental benefits are weighed against short-term financial gains. There's also the challenge of regulatory compliance, as different regions may have varying standards for what constitutes climate finance. Finally, there is the need for capacity building within institutions to understand and manage thesenew risks and opportunities.

1. What advice would you give to students and young professionals interested in the intersection of finance, technology, and sustainability?

- I wouldadvise students and young professionals to build a strong foundation in both financeand whilealso staying informedabout technology, global sustainability trends. Specializing in areas such as fintech, data analytics, and ESG investing can be particularly valuable. It's also important to develop multidisciplinary perspective, understanding how financial systems interact with environmental and social issues. Networking with professionals in the field and participating in relevant projects or internships can provide practical experience and insights into how technology and finance can drive sustainable change.

1. What initiatives or areas do you believe should be prioritized to foster a more climate- conscious and sustainable financiallandscape?

- Prioritizing the development of standardized ESG metrics and reporting frameworks is foster essential transparency to and accountability in climate finance. Another key area is the promotion of green bonds and other financial instruments that specifically fund sustainable projects. Additionally, financial institutions should invest in technology and data analytics to better assess and manage climate-related risks. Education and awareness programs for both financial professionals and the public can also help build a more climatefinancial landscape. conscious Lastly, collaboration between governments, financial institutions, and the private sector is crucial to create the right incentives and policies that supportsustainable finance.

1. What do you think are the biggest hurdles in promoting green bonds and other climate finance tools in emerging markets like India?

In emerging markets like India, the biggest hurdles include a lack of awareness and understanding of climate finance tools among both issuers and investors. There is also a need for stronger regulatory frameworks incentives to support the issuance of green bonds. Additionally, the higher costs and perceived risks associated with sustainable projectscan be a deterrent for investors. Access to reliable data on environmental impact and benefits these of projects the anotherchallenge. To overcomethese hurdles, it's important to build capacity, provide education, and create a supportive policy environment that encourages investment in green finance.

7. You worked on a project analyzing Micro Hybrid Vehicles in India. What were some key findings, and how do they relate to the broader goals of climate finance?

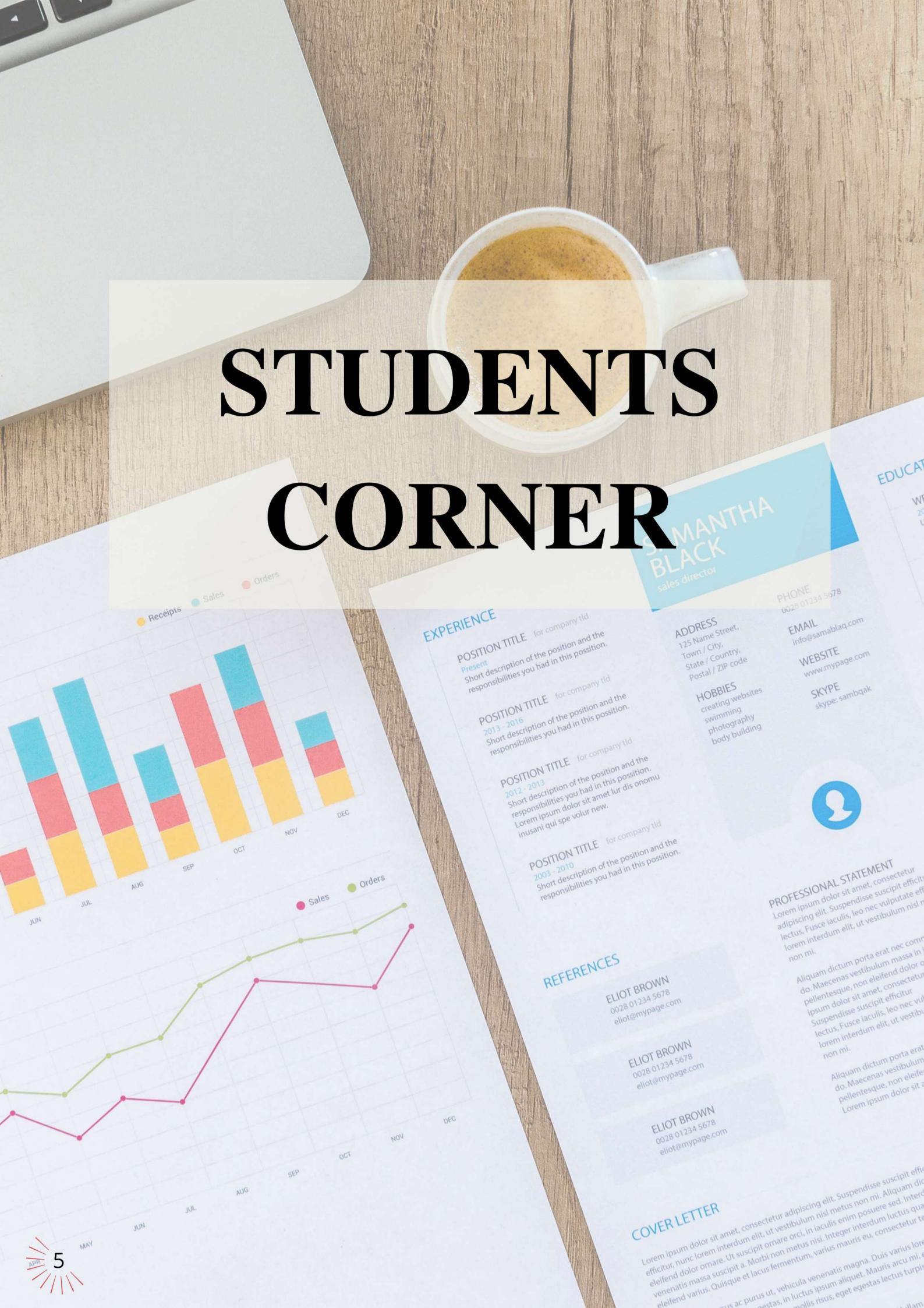
- The analysis of Micro Hybrid Vehicles in India revealed that these vehicles, which use start-stop technology to reduce fuel consumption and emissions, offera cost-effective way to reduceCO2 emissions in the transportation sector. The key findings included a significant reduction in fuel consumption, particularly in urban settings with frequent stops. This relates to the broader goals of climatefinance by demonstrating that investment in energy-efficient technologies can deliver both environmental and economic benefits. Such projects are prime candidates for climate finance, as they contribute to reducing greenhouse gas emissions while also offering a return on investment.

8..How can the lessons learned from your research on Micro Hybrid Vehicles be applied to other sectorsaiming to reduce CO2 emissions?

The lessons from the research on Micro Hybrid Vehicles highlight the importance of incremental innovation in achieving sustainability goals. This approach can be applied to other sectors by focusing on technologies that enhance efficiency and reduce emissions without requiring significant infrastructure changes. For example, in the industrial adopting sector, energy-efficient machinery and optimizing processes can lead to substantial CO2 reductions. Similarly, in the building sector, implementing energy-saving technologies and materials can contribute to sustainability goals. The key takeaway is that even small changes, when widely adopted, can have a significant impact on reducingemissions across various sectors.

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CLIMATE FINANCE - 101 - UNDERSTANDING THE BASICS AND BEYOND



What is Climate Finance?

Climate finance refers to the financial flows dedicated to mitigating and adapting to climate change. These funds are essential for reducing greenhouse gas emissions and enhancing resilience to climate impacts.

Why is Climate Finance Important for India and the World?

Global Perspective

To achieve the goals outlined in the Paris Agreement, which aim to keep global warming well below two°C over pre-industrial levels, climate finance is essential worldwide.

India's Perspective

Climate finance can support India in transitioning to a low-carbon economy, improving energy security through renewable energy sources, and boosting the adaptive capacity of its communities.

Measures to Achieve Climate Finance

Achieving adequate climate finance requires coordinated efforts across various sectors.

Government:

- 1.Policy Frameworks: Governments can establish robust policy frameworks that incentivize green technologies and practices investments.
- 2. Public Funding: Allocating public funds to climate-related projects, such as afforestation, sustainable agriculture, and climate-resilient infrastructure, is crucial.

Citizens:

Awareness and Advocacy: Individuals can raise awareness about climate

- 1.change and advocate for more robust climate policies.
- 2.Sustainable Choices: Citizens can make sustainable choices in their daily lives, such as using public transportation, reducing energy consumption, and supporting eco-friendly products.

Corporates:

- 1.Sustainable Practices: Companies can adopt sustainable practices in operations, such as using renewable energy, improving energy efficiency, and reducing waste.
- 2.Corporate Social Responsibility (CSR): Businesses can allocate a portion of their CSR budgets to climate-related initiatives, such as community-based adaptation projects or reforestation efforts.

Top Companies Investing in Climate Finance:

- 1.Google: Google has committed to operating on carbon-free energy 24/7 by 2030. The company has invested heavily in projects related to renewable energy worldwide, such as wind and solar farms.
- 2.Microsoft: Microsoft aims to be carbon-negative by 2030, meaning it will remove more carbon from the environment than it emits.
- 3.Tesla: The Company's battery technology and solar power investments aim to accelerate the transition to sustainable energy.

Through government policies, institutional funding, corporate initiatives, or individual actions, every effort counts in securing a healthy planet for future generations.

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NAVIGATING CLIMATE FINANCE IN EMERGING MARKETS: CHALLENGES AND OPPORTUNITIES.

Climate finance is crucial in the global fight against climate change, especially for emerging markets that are often the most affected and least capable of handling its impacts. These markets face significant challenges but also offer promising opportunities for climate finance.

Challenges

- Limited Access to Finance: Emerging markets face bureaucratic hurdles and stringent requirements for accessing international climate finance. Their lack of creditworthiness and high-risk perceptions among investors further complicate this process.
- Inadequate Infrastructure: These countries often lack the necessary physical, institutional, and technical infrastructure to utilize climate finance effectively. Inefficient reporting and management systems also hinder the proper use of funds.
- Political and Economic Instability:

 Political and economic instability in many emerging markets creates high risks for climate finance projects. Policy changes and economic turmoil can disrupt long-term initiatives and discourage investment.
- Vulnerability to Climate Change:

 Emerging markets are highly vulnerable to severe weather changes, rising sea levels, and shifts in agricultural patterns, making it challenging to implement effective mitigation and adaptation strategies.

Opportunities

• Green Bonds and Innovative Financing:

The rise of green bonds and other innovative financing instruments can attract private sector investment and provide a steady flow of capital for climate-friendly projects, enhancing financial resilience.



- International Cooperation and Partnerships: Increased international cooperation can bridge climate finance the i n gap the emerging markets. Multilateral development banks and developed offer countries technical can capacity-building, assistance, and financial support.
- Adaptation and Resilience Projects:

 Climate finance can support projects that build flood defences, improve water management, and develop climate-resilient agriculture, reducing vulnerability and enhancing adaptive capacity.

Addressing the challenges of climate finance in emerging markets requires collaborative efforts from international national governments, donors, and private investors. Renewable energy, innovative financing, and international cooperation offer promising opportunities for sustainable development and climate resilience.

> ARCHANA S 2327511





ROLE OF TECHNOLOGY IN ENHANCING CLIMATE FINANCE

Technology has innovation that makes climate AI technologies, such as Climate finance efficient, transparent, and accessible for platform, can estimate climate risks and the successful mitigation and adaptation of global vulnerabilities using efforts on climate platforms, blockchain guarantees transparency and their resources. Companies like Climate AI accountability of financial transactions between offer granular risk assessments, helping to parties, building trust that money is being steer investments toward resilience-building deployed effectively.

For instance, the Climate Ledger Initiative promotes blockchain as an opportunity to bring In this respect, technologies of mobile more transparency into the financing of climate projects. Advanced data analytics and machine work to extend financial coverage within learning drive critical insights into environmental and financial data to investors and policy decisionmakers.

AI-powered tools, like those in IBM's suite of Environmental Intelligence tools, analyze climate and opportunities and guide strategic investments in climate resilience.

Some key innovations in the sector incorporate green bonds, sustainable investment platforms, and carbon credit trading systems. Aspiration and Trine are among the other firms democratizing access to climate finance by allowing retail investors to engage in sustainability-related projects. Crowdfunding platforms and peer-to-peer lending networks, as represented by GoFundMe and Kiva, form a channel for

small projects to raise the necessary funds from committed communities.

Real-time monitoring and verification of climate finance projects for environmental standards can by IoT provided and remote sensing be technologies. The World Bank deploys IoT efficiently for the management of water resources in relation to climate finance projects.

AI's predictive change. Among digital helping financial institutions better target projects.

> banking, as represented by M-Pesa in Kenya, developing nations. These innovations are critical in mobilizing and utilizing resources to combat climate change effectively.

> Technology enhances climate finance through advanced risk assessments, investment efficiency, and project transparency. In this way, it quickens the flow of capital toward sustainable initiatives to help mitigate climate change.



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ROLE OF PUBLIC-PRIVATE PARTNERSHIP IN CLIMATE FINANCE

(PPPs) Public-private partnerships goals and financial realities. By bringing PPP and private sector players leverage the For pivotal role in mobilizing financial resources, greenhouse gas emissions. fostering technological advancements, and Additionally, the Indian government has issued future.

PPPs help pool financial resources from promoting projects. The public sector typically provides climate finance with capital markets. initial funding, incentives, or guarantees, In conclusion, public-private partnerships offer the overall investment available for climate low-carbon economy. By leveraging mobilization, private companies technological expertise, innovative solutions, unlocking and renewable energy, energy efficiency, and environmental and economic change. sustainable infrastructure. By sharing the financial risks associated with climate projects, PPPs make it easier for private entities to invest in high-risk, high-reward projects.

India provides several notable examples of successful PPPs in climate finance.

are Corporation of India (SECI), a public entity, emerging as a powerful tool to fight against collaborates with private companies to develop climate change, offering innovative solutions large-scale solar parks. For instance, the Kunta to bridge the gap between ambitious climate Solar Park in Karnataka, developed under a model, demonstrates these together the resources and expertise of both partnerships can accelerate solar deployment, sectors, countries like India are harnessing the reduce costs, and increase energy access. potential of PPPs to drive climate action and Another significant example is the Swachh foster sustainable economic growth. These Bharat Mission, which aims to improve waste collaborations between government entities management through various PPP initiatives. example, Municipal the Chennai strengths of both sectors to address the Corporation has partnered with private firms multifaceted challenges of climate change. By for efficient waste collection and recycling combining public sector oversight and private operations. These partnerships are critical in sector innovation and efficiency, PPPs play a managing urban waste sustainably and reducing

implementing sustainable solutions, paving green bonds to finance projects that benefit the the way for a more sustainable and prosperous environment. These bonds attract private investors by offering a stable return while sustainable The projects. public and private sources, mitigating the involvement of private investors in the green often-high costs associated with climate bond market highlights how PPPs can integrate

significantly reducing the risk for private a promising pathway for mobilizing climate investors. This combined approach increases finance and accelerating the transition to a initiatives and makes these projects more strengths of both sectors, India and other feasible and less risky. In addition to resource forward-thinking countries can address the bring urgent needs of a warming planet while the economic opportunities operational efficiencies to climate presented by sustainable development. Through projects. These contributions can lead to more innovation and a shared commitment to a effective and cost-efficient solutions for resilient future, PPPs can drive positive



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FINANCING THE TRANSITION: HOW BANKS ARE SUPPORTING CLIMATE GOALS

As the world intensifies its fight against climate change, banks are stepping up as key players in the transition towards a sustainable and low-carbon economy. Through green banking initiatives, financial institutions are leveraging their resources to support climate goals. This article explores how banks are supporting these objectives by delving into specific strategies and presenting notable facts and figures.

Green Bonds and Loans

of the primary ways banks One are contributing to climate goals is through the issuance of green bonds and loans. Green bonds are fixed-income instruments designed to raise funds for environmental projects. Leading banks like HSBC, Citibank, and BNP Paribas have been prominent issuers in this market. In 2022, the global green bond market reached a record issuance of \$500 billion, up from \$269 billion in 2020, showcasing the commitment environmental growing to financing.

Sustainable Investing and ESG Funds

Banks are increasingly offering investment products that focus on Environmental, Social, and Governance (ESG) criteria. These products attract investors interested in sustainability. For example, JPMorgan Chase offers ESG-linked funds that invest in companies with robust sustainability practices. The global sustainable investment market was valued at over \$35 trillion in 2020, significantly driven by ESG funds (Global Sustainable Investment Review).

Carbon Accounting and Reporting

Transparency in carbon footprint reporting is crucial. Leading banks like Barclays and Bank of America have set ambitious targets to achieve net-zero carbon emissions across their operations by 2050. These banks are also encouraging their clients to adopt similar practices, fostering a wider adoption of carbon accounting.

Innovations in Green Finance:

Improvement Loans: Banks are offering green mortgages with preferential terms for energy-efficient homes. For example, Rabobank in the Netherlands provides discounts on mortgage rates for such properties, encouraging homeowners to adopt sustainable practices (Rabobank).

Sustainable Supply Chain Financing: Sustainable supply chain financing is another area where banks make a difference. By offering favourable financing terms to suppliers adhering to sustainable practices, banks foster greener supply chains. HSBC's sustainable supply chain finance program is a notable example, helping companies meet their sustainability goals.

Fintech and Green Banking: Fintech innovations contribute significantly to green banking. Digital platforms like Aspiration and Ant Financials' Ant Forest initiative use technology to promote sustainable practices, offering customers the ability to track and reduce their carbon footprints through various incentives.

Challenges and the Way Forward

Despite significant progress, challenges remain. Standardized metrics for measuring sustainability are needed, as well as balancing financial performance with sustainability goals. Ensuring green financing reaches impactful projects is also crucial.

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GREEN BONDS: A CORNERSTONE OF CLIMATE FINANCE AND MARKET PERFORMANCE

Amid the urgent and escalating global challenges of climate change, innovative financing mechanisms are not just crucial; they are imperative. Green bonds—financial instruments aimed at funding environmentally beneficial projects—have emerged as a central pillar of climate finance, a beacon of hope in this pressing issue.

Green Bonds and Climate Finance: Climate finance refers to financial resources mobilized to support mitigating and adapting to climate change initiatives. Green bonds are a significant conduit for climate finance, enabling both public and private sectors to channel funds towards sustainable projects. The intersection of green bonds and climate finance can be understood through three primary lenses: resource mobilization, market development, and risk management.

Resource Mobilization: According to the Climate Bonds Initiative, the investments in green bonds exceeded \$1 trillion in cumulative issuance by 2023. This influx of capital is critical for financing the transition to a low-carbon economy.

Market Development: Aligning green bonds with the broader financial ecosystem fosters stakeholder collaboration, propelling climate action and sustainability initiatives.

Risk Management: Climate change poses significant investment risks, and green bonds signal a commitment to sustainability and contribute to a portfolio's resilience in the face of climate-related risks.

Investor Issuer Green Projects Renewable Energy Green Transportation Green Waste Management Energy Energy Efficiency

Market Performance of Green Bonds

Yield Performance: Studies show that while green bonds may initially exhibit a slight yield penalty due to high demand from socially responsible investors, they often yield comparably to conventional bonds in the long term as the market matures.

Risk-Adjusted Returns: Green bonds have been resilient during economic turbulence, often displaying less correlation with market downturns.

Investor Sentiment and Reputation: The reputational benefits of investing in green bonds can enhance investor sentiment, further driving demand and solidifying their role in the market.

Challenges and the Future of Green Bonds

Despite their potential, green bonds face significant hurdles that must be overcome to reach their full potential. First, the lack of standardization in definitions and criteria can lead to "greenwashing."

Second, improving transparency around using proceeds and post-issuance reporting remains critical.

Lastly, while the green bond market is expanding, geographic disparities exist.

Green bonds are a powerful tool for directing capital towards climate solutions, fostering a sustainable future. By bridging finance and environmental responsibility, they offer a win-win proposition for investors and the planet.

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CLIMATE RISK INSURANCE: A SHIELD FOR INDIA'S VULNERABLE ECONOMY

India, a country heavily reliant on agriculture and constantly facing extreme weather events, is increasingly recognizing the need for a robust climate insurance framework. Climate change intensifies, leading to unpredictable weather patterns, natural disasters, and economic losses exceeding USD 68 billion in 2019 alone. In this scenario, insurance emerges as a crucial safety net for millions.

The Growing Threat of Climate Change

India faces a multitude of climate-related challenges, from devastating floods in the north to crippling droughts in the south. These extreme events cause loss of life, property damage, and disrupt livelihoods, particularly in the agricultural sector - the backbone of the Indian economy.

Climate Insurance: A Financial Safeguard

Climate insurance acts as a financial shield against climate-induced losses. It helps individuals, communities, and businesses recover from the financial setbacks caused by natural disasters. By transferring the risk of financial loss to insurance providers, people can rebuild their lives and livelihoods more quickly. Here are some key types of climate insurance:

- Crop Insurance: This vital component protects farmers from losses due to adverse weather conditions like drought, floods, and hailstorms.
- Weather Index Insurance: This type pays out based on predefined weather parameters like rainfall, temperature, or wind speed, regardless of actual crop damage.
- Livestock Insurance: This protects farmers from losses due to death or illness of livestock caused by extreme weather events.

India's Initiatives in Climate Risk Insurance

Recognizing its importance, the Indian government has taken significant steps to

promote climate insurance:

- Pradhan Mantri Fasal Bima Yojana (PMFBY): This flagship scheme provides comprehensive crop insurance coverage to farmers at affordable premiums.
- National Disaster Management Authority (NDMA): The creation and execution of insurance plans and other disaster management techniques are greatly aided by the NDMA.
- Public-Private Partnerships: Collaboration between the government and private insurance companies is essential for expanding climate insurance coverage.

Challenges and Opportunities

While climate insurance offers a promising solution, several challenges need to be addressed:

- Awareness: Many farmers and small businesses are unaware of the benefits of climate insurance.
- Affordability: Premiums can be a burden for low-income farmers and individuals.
- Data Availability: Accurate and reliable weather data is crucial for effective insurance products.

Focusing on Agriculture and Resilience

The agricultural sector is particularly vulnerable to climate shocks. Climate Risk Insurance (CRI), combined with technological advancements, offers a promising avenue to protect farmers and enhance their resilience. By providing timely information on crops, soil, water, and climate, farmers can make informed decisions. Additionally, projects aim to assess the long-term impact of climate change on soil properties to safeguard soil and crop productivity.

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DECARBONIZING PORTFOLIOS -STRATEGIES FOR ASSET MANAGERS

The global push towards sustainability has ushered in a new era for the financial industry. Investors increasingly prioritise environmental, social, and governance (ESG) factors in their investment decisions. Among these, decarbonisation—reducing carbon emissions within investment portfolios—has gained significant traction. Asset managers are now tasked with developing and implementing strategies to decarbonise portfolios while achieving competitive returns. Here's a closer look at the strategy asset managers can employ to navigate this transformative journey.

Understanding Decarbonization:

Decarbonisation involves reducing the carbon footprint associated with investment portfolios. By investing in companies and projects that have lower carbon emissions, adopting sustainable practices, and engaging with companies to encourage them to reduce their carbon output decarbonisation can be achieved.

Strategies for Asset Managers:

1. Measure and Report Financed Emissions:

The first step in decarbonising a portfolio is understanding its current carbon footprint. Asset managers should calculate the greenhouse gas emissions associated with their investments, often called financed emissions. Utilising frameworks like the Partnership for Carbon Accounting Financials (PCAF) can help standardise these calculations.

2. Invest in Green Bonds and Sustainable Projects:

Allocating capital to green bonds and sustainability-linked loans supports projects focusing on renewable energy, energy efficiency, and other sustainable practices. These investments not only reduce portfolio emissions but also contribute to broader environmental benefits. HSBC has issued approximately 3 billion euros worth of SDG and green bonds between 2015 and October 2020 to finance renewable energy projects, energy efficiency improvements, and sustainable waste management initiatives.

3. Leverage Carbon Credits

This AMC focuses on the voluntary carbon credits market, aiming for long-term capital growth by investing in carbon credits. Their investment strategy is centred on leveraging the opportunities presented by the voluntary carbon market (VCM) to achieve environmental and financial objectives. This coalition includes major tech companies like Google, Meta, Salesforce, Microsoft, and which have committed to purchasing up to 20 million tons of nature-based carbon removal credits by 2030.

4. Invest in Climate Solutions:

Investing in companies that are developing technologies and solutions aimed at reducing carbon emissions is crucial. This includes renewable energy firms, energy efficiency technologies, and other innovative solutions contributing to decarbonisation.

Challenges & Opportunities:

Decarbonisation presents a range of challenges and opportunities. Technological and economic hurdles, infrastructure transitions, policy uncertainty, and social impacts complicate shifting towards a low-carbon economy. Despite these challenges, there are notable opportunities that arise, including technological innovation, economic growth, job creation, and enhanced corporate reputation. Supportive regulations and the growing market for sustainable investments offer favourable conditions for progress.



ALAGAMMAI V 2328304





"NAVIGATING THE SKIES: THE AIRLINE INDUSTRY'S PATH TO A LOW-CARBON FUTURE"

The aviation industry is at a critical juncture, facing the challenges of increasing air traffic, projected to rise by 50% by 2030, and growing environmental concerns. Airlines are under pressure to reduce carbon emissions and the transition to a low-carbon economy to ensure sustainability and meet the expectations of global investors and initiatives like Climate Action 100+, which advocate for ambitious emissions reduction targets and transparency in greenhouse gas emissions reporting.

Leading airlines are taking steps to address their environmental impact. American Airlines Group Inc. aims to reduce greenhouse gas emissions intensity by 45% by 2035, compared to 2019 levels, by investing in more fuel-efficient aircraft and exploring sustainable aviation fuels (SAF). Delta Air Lines, Inc. has committed to carbon neutrality from March 2020, investing in carbon offsets, fleet renewal, and improvements in fuel efficiency, with plans to use SAF for 10% of its jet fuel needs by 2030. Qantas Airways Ltd. targets net-zero carbon emissions by 2050 through operational efficiencies, carbon offset programs, and SAF development. United Airlines Holdings, Inc. aims to halve its emissions by 2050 compared to 2005, SAF investments focusing on and partnerships to eliminate net greenhouse emissions without relying gas traditional offsets. Despite these efforts, industry faces significant risks, the including regulatory challenges from new laws like the EU's. Emission Trading System, which could increase costs by imposing a carbon price.



Physical risks, such as extreme weather events, also pose challenges, as seen in 2020 when Air France-KLM experienced severe operational disruptions. Additionally, the industry faces reputational risks as consumer awareness of environmental issues grows, with a 2020 IATA poll indicating that 73% of respondents consider environmental factors when choosing flights. This could pressure airlines to adopt greener practices to avoid losing market share, when choosing flights. This heightened environmental consciousness could influence consumer choices, pressuring airlines to adopt greener practices or risk losing market share.

The airline industry's approach to climate finance and environmental sustainability is vital for its future viability. Major players like American Airlines, Delta, Qantas, and United are making significant strides, but challenges remain. The industry must continue innovating and investing in sustainable technologies to meet regulatory requirements, mitigate risks, and satisfy consumer demand for eco-friendly travel. As investor and public pressure grows, the industry's commitment to reducing the environmental impact will be crucial for long-term success and sustainability.

VAIDEHI THAKKAR 2327558





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IMPORTANCE OF ESG IN IMPACT INVESTING

In recent years, integrating Environmental, Social, and Governance (ESG) criteria into investment strategies has become a key driver in climate finance. ESG reflects a company's commitment to sustainability and ethical practices and serves as a vital tool for investors to assess the long-term risks and opportunities posed by climate change.

The growing trend of ESG-driven investments is reshaping the financial landscape. Investors are increasingly looking beyond short-term profits, focusing instead on companies that demonstrate sustainable practices, transparency, and social responsibility. This shift is not just ethical but strategic. Companies with strong ESG profiles are not only better positioned to navigate climate risks, regulatory changes, and shifting consumer demands, but they also often outperform their peers in terms of financial returns, making them more attractive to long-term investors.

Regulatory frameworks also play a pivotal role in this transformation. Governments and financial regulators worldwide promote adopting ESG standards to ensure investment decisions account for climaterelated risks. For instance, the European Union's Sustainable Finance Disclosure Regulation (SFDR) mandates that financial institutions disclose how they integrate sustainability risks into their investment processes. Similar regulations are being adopted in other parts of the world, driving the global integration of ESG criteria.

ESG-driven investments have a profound impact on climate-related projects. By directing capital towards businesses that prioritize sustainability, investors can fund

that reduce carbon emissions, projects promote renewable energy, and foster social equity. This accelerates the transition to a low-carbon economy and contributes to achieving broader global sustainability goals. In conclusion, the integration of ESG criteria into climate finance is no longer a niche consideration but a mainstream investment strategy that aligns financial success with positive environmental and social outcomes. As climate challenges intensify, ESG will not just continue to shape how capital flows, but it will be a crucial element in financing climate solutions and a greener future. ESG is not just about investing, it's about making a difference in the world we live in.

Furthermore, as more corporations adopt ESG principles, transparency and accountability improve, fostering trust between investors and stakeholders. This cultural shift signifies the growing importance of long-term sustainability over short-term gains, ensuring a more resilient and inclusive financial system capable of addressing future climate risks.

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CLIMATE FINANCE AND ELECTRICAL UTILITIES INDUSTRY

Climate Finance and the Electrical Utilities Smart **Industry**

Climate finance is crucial in addressing change by mobilizing financial climate resources for low-carbon and climate-resilient development. As a significant contributor to greenhouse gas emissions, the electrical utilities industry has a vital role in this transition.

Investments in Renewable Energy

One of the most significant contributions of of implementing these advanced technologies. the electrical utility industry to climate massive investment finance is the in renewable energy. Companies like NextEra Energy, Iberdrola, and Enel have committed billions of dollars to develop and expand their renewable energy portfolios, including wind, hydroelectric power. These solar, and investments help reduce carbon emissions and provide cleaner energy alternatives to fossil fuels.

Energy Efficiency Programs

Electrical utilities also invest in energy efficiency programs in their climate finance carbon solutions. strategies. These programs aim to reduce overall energy consumption and greenhouse gas emissions by promoting energy-efficient appliances, retrofitting buildings, and behavioral encouraging changes among consumers. Companies like E. ON and Southern Company have launched extensive efficiency campaigns, providing energy incentives and rebates to customers who adopt energy-saving measures.

Smart Grids and Energy Storage

Developing smart grids and energy storage systems is another area in which the electrical utilities industry is making significant contributions.

grids enhance the efficiency and reliability of electricity distribution, integrate renewable energy sources, and enable real-time monitoring and management of energy use. Energy storage systems like batteries help balance supply and demand, store excess renewable energy, and ensure grid stability, thereby reducing the reliance on fossil fuels and promoting a sustainable energy mix. Utilities like PG&E and National Grid are at the forefront

Carbon Pricing and Emission Trading

Many electrical utilities are participating in carbon pricing and emission trading schemes to internalize the cost of carbon emissions and incentivize emission reductions. By putting a price on carbon, these mechanisms encourage utilities to invest in cleaner technologies and reduce their carbon footprint. For example, utilities in regions covered by the European Union Emissions Trading System (EU ETS) actively trade carbon credits and invest in low-

Corporate Sustainability Goals

Many electrical utilities have set ambitious sustainability goals and integrated climate finance into their corporate strategies. Companies like Dominion Energy, SSE, and Xcel Energy have committed to achieving net-zero emissions by mid-century or sooner. These goals drive investments in renewable energy, energy efficiency, and other climate-related initiatives, aligning corporate actions with global climate targets.



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CORPORATE CLIMATE RESPONSIBILITY - FINANCING THE TRANSITION TO NET

ZERO



The article reviews, "Financing the Net-Zero Transition: From Planning to Practice" by McKinsey & Company, provides a comprehensive analysis of the financial landscape required to achieve global net-zero emissions by 2050.

Financial Requirements for Net Zero

The report estimates that achieving net zero by 2050 would necessitate a emissions staggering \$275 trillion investment in physical assets. This figure underscores the immense scale of the financial challenge and the need for a concerted effort. The public including sector, governments and international organizations, will play a crucial role in setting policies, regulations, and incentives. The private sector, particularly financial institutions, private will be responsible for providing the necessary financing. The report highlights the role of these institutions, which could potentially facilitate \$3.5 trillion of annual financing.

Further emphasizes the critical role of private financial institutions, including commercial banks, asset managers, private equity, and venture capital funds, in financing the net-zero transition. It highlights these institutions' significant potential to facilitate the transition by building internal capabilities, such as defining net-zero targets, financing green technologies, and managing risks associated with high-emitting assets.

However, underscores the need for significant innovation and developing new skills and capabilities within financial institutions to meet net-zero targets. This includes rethinking workflows, improving analytical tools, and fostering a culture of decarbonization.

Thus, provides a robust framework understanding the financial imperatives of the net-zero transition. The McKinsey article offers an insightful analysis of the financial landscape required to achieve net-zero emissions by 2050 valuable corporate resource for more stakeholders. A collaborative, well-governed, and skill-equipped financial sector will drive the global transition to a sustainable and net-zero future. Global transition to a sustainable and netzero future.

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SOLAR CITY'S ROLE IN ADVANCING GREEN ENERGY AND CLIMATE FINANCE



Solar City, a subsidiary of Tesla Inc., has significantly influenced the green energy landscape by providing solar energy solutions for usage in businesses, homes, and industries.

Solar City's Contributions to Green Energy

Residential and Commercial Solutions: Solar City offers solar panels and energy storage, reducing reliance on fossil fuels and cutting electricity costs.

Energy Storage Innovations: Products like Tesla's Powerwall allow users to store solar energy, enhancing efficiency.

Large-Scale Projects: Partnerships for large solar projects help promote widespread renewable energy adoption.

Impact on Climate Finance

Carbon Emission Reduction

By substituting solar energy for traditional energy sources, solar city helps reduce carbon emissions, a critical goal in climate finance. This reduction contributes to meeting global climate targets and backs the shift to an economy with less carbon emissions.

Green Bonds and Investments

The success of Solar City's projects has attracted investments through green bonds and other financial instruments focused on sustainability. These investments fund further development of renewable energy infrastructure, driving economic growth while supporting environmental objectives.

Incentives and Policy Support

Governments and financial institutions offer incentives for adopting sustainable energy including subsidies, tax breaks and low-interest loans. Solar City's initiatives align with these policies, facilitating the investment of businesses and consumers in solar technologies and participate in climate-positive actions.

Tesla's Integration of Solar City

Solar Roof and Panels: Tesla's Solar Roof integrates solar panels into roof tiles, making solar energy more appealing.

Electric Vehicles and Energy Ecosystem: Solar City's solar solutions complement Tesla's electric vehicles, creating a sustainable energy ecosystem.

Global Expansion: Solar City's technologies are expanding internationally, contributing to global climate efforts.

Conclusion

Solar City plays a vital role in advancing green energy and climate finance, setting a standard for innovation and sustainability in the industry. Its efforts help reduce carbon footprints and support the global transition to renewable energy.

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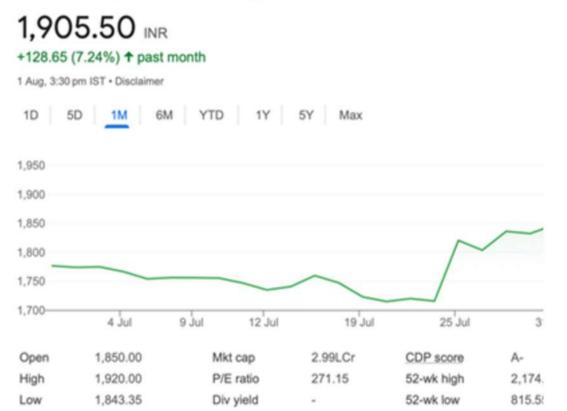






STOCK OF THE MONTH: ADANI GREEN ENERGY

Market Summary > Adani Green Energy Ltd



Adani Green Energy Limited (AGEL) is a leading player in India's renewable energy sector, established in 2015 under the Adani Group. The company's focus on developing and operating large-scale solar and wind projects has positioned it as one of the largest renewable energy companies globally by installed capacity. AGEL's commitment to significantly increasing its renewable energy assets to 45 GW by 2030 is a strong indicator alignment of with international its sustainability targets, instilling confidence in its future prospects.

Adani Green Energy, listed in the Nifty Next 50, boasts a market capital of approximately Rs 3 Lakh Crore and has shown significant growth over the years. Its substantial outperformance of the Nifty Next 50 and its strong market position make it a secure and promising prospect for investors.

Adani Green is aggressively expanding its renewable energy capacity. The company added significant solar and wind energy capacity, bringing its total operational capacity to over 8 GW, with additional projects under construction. This expansion aligns with investor expectations for long-term growth.

The Adani Group is set to invest \$9 billion in manufacturing and transportation infrastructure development for its green hydrogen venture in Kutch, Gujarat. This significant investment will support the project's goal of achieving an initial production capacity of one million tonnes per annum of green hydrogen. The hydrogen will be generated through water electrolysis renewable energy sources. Over the past month, Adani Green Energy has been the strongest performer among the selected green energy stocks, delivering a return of 7.15%. This is followed by ReNew Power (5.89%) and Tata Power (4.28%). On the other hand, Suzlon Energy has seen a decline in its stock price (-2.14%), while NTPC's return remained positive but modest (2.47%).

With all these factors in mind, we can say that Adani Green Energy has had exemplary growth over the past month, quarter and year, with a bullish trend in the far future. Since green energy is the future, Adani green energy might be one of the driving forces towards this future.

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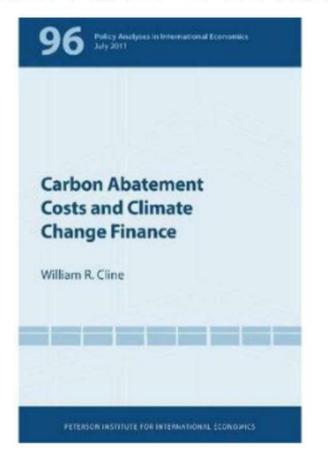






BOOK REVIEW:

CARBON ABATEMENT COST AND CLIMATE CHANGE FINANCE BY WILLAM R CLINE



book "Carbon Abatement Costs Change Finance," authored Climate William R. Cline, comprehensively explores the economic and financial dimensions of addressing climate change. Cline draws on his extensive expertise to analyze the costs associated with carbon abatement and the effectiveness of various financial mechanisms. This groundbreaking work delves into the complexities of climate finance and offers critical insights into how economic policies can mitigate the impacts of global warming. Cline's rigorous analysis helps bridge the gap between economic theory and practical climate solutions. It offers valuable insights into how economic policies can help mitigate the impacts of global warming. The author explores a range of abatement technologies, evaluating their costeffectiveness and potential contributions to global carbon reduction targets. One of the book's key strengths is its in-depth analysis of financial mechanisms to address climate change. Cline investigates carbon pricing, carbon markets, and international climate finance, presenting a comprehensive overview of how these tools can bolster global efforts to reduce greenhouse gas emissions.

He also addresses the challenges and opportunities these financial instruments present, providing a balanced perspective on their implementation.

The robust financial mechanisms, such as carbon pricing, carbon markets, and international climate finance, are essential for incentivizing the reduction of greenhouse gas emissions. These mobilize the necessary capital for tools investment in low-carbon technologies and drive innovation efficiency in and abatement strategies. By aligning economic incentives with environmental goals, finance becomes the linchpin in-transitioning to a sustainable, lowcarbon economy.

Overall, "Carbon Abatement Costs and Climate Change Finance" is a vital resource for anyone interested in the economic aspects of climate policy. Cline's rigorous analysis and clear exposition make it a valuable contribution to the field, offering essential insights into economics, of intersection finance, and environmental sustainability. The book serves as a crucial guide with huge statistics for policymakers, economists, and environmentalists seeking to understand and address the financial dimensions of climate change mitigation.

SHREE VAISHNAVI A 2327752





FINANCE BUZZWORDS

- Green Bonds: These are specifically earmarked to raise money for climate and environmental projects. They provide investors with a fixed return while ensuring the capital is used for green initiatives such as renewable energy, energy efficiency, and clean transportation.
- Carbon Offsetting: This involves compensating for CO2 emissions by funding equivalent carbon dioxide savings elsewhere. It can include planting trees or investing in renewable energy projects that reduce emissions.
- Climate Risk Disclosure: A proactive step towards a more sustainable future. It refers to the practice of companies and financial institutions revealing their exposure to risks posed by climate change. This can include physical risks (like damage from extreme weather) and transition risks (like regulatory changes to reduce carbon emissions).
- Sustainable Finance: This incorporates environmental, social, and governance (ESG) criteria into business and investment decisions. The goal is to promote sustainable economic development and ensure financial practices do not harm the environment or society.
- Greenwashing: This term describes the act of misleading consumers and investors by falsely claiming that a company or product is environmentally friendly. It is a significant concern as it can undermine genuine sustainability efforts.
- Climate Resilience: It is the ability of systems, organizations, and societies to withstand, adapt, and recover from climate-related shocks and stresses. It involves planning and implementing measures to protect against the adverse effects of climate change, and it's more important now than ever.
- Transition Risk: These are financial risks from transitioning to a lower-carbon economy.

 This can include policy changes, shifts in market preferences, technological advancements, and legal actions to reduce carbon emissions.
- Climate-Adjusted Return: This is the financial return on an investment after accounting for the risks and opportunities climate change presents. It helps investors understand the long-term viability of their investments in the context of a changing climate.
- **Decarbonization Pathways:** These are strategic plans and roadmaps developed by governments, industries, or companies to reduce carbon emissions. They outline the steps and measures to significantly reduce greenhouse gas emissions over time.
- Stranded Assets: These are investments that lose value or become obsolete due to market or regulatory changes brought about by the transition to a low-carbon economy. For example, if carbon emissions are severely limited by restrictions, fossil fuel reserves may become stranded.

HARSHA H R 2328028





UNSCRAMBLE!

1. FSEOTFCONRAB

Hint: A way to balance your carbon footprint by supporting projects

2.TSRICBAEDNORC

Hint: Businesses buy and sell them to help reduce overall emissions

3. FDERIIETN AFTRFS

Hint: A policy tool to encourage investments in low-carbon technologies.

4. ADCTPAE NRDA

Hint: Companies can buy and sell permits to pollute, creating a market that encourages reducing emissions

5. EBGN JOREDS

Hint: Positions created or supported by green industries and practices

6. TNIOIMSSE DAINGRT

Hint: A system where companies can buy and sell permits to emit greenhouse gases

7. NDLONIENG

Hint: The financial institution lends this money to other organizations to support climate-friendly initiatives

8. DBETPSWAS

Hint: These entail the sale of foreign currency debt by the creditor country to an investor

9. PTINIGTPON

Hint: The critical moment when small changes lead to dramatic and irreversible effects on the climate.







CROSSWORD PUZZLE

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Across

- 1.A type of financial support intended to promote the reduction of greenhouse gas emissions. (5 letters)
- 3.A type of bond issued to fund climate and environmental projects. (11 letters)
- 4. Investments with environmental, social, and governance criteria. (3 letters)
- 7. Bonds for environmental projects is reversed. (15 letters)
- 8. An international treaty aimed at reducing greenhouse gas emissions (13 letters

Down

- 2.A policy aimed at reducing emissions through economic incentives. (11 letters)
- 3. Policy to reduce emissions through pricing (3 letters)
- 4. Credit for environmentally beneficial projects. (5 letters)
- 6. A financial instrument that that funds renewable energy projects (10 letters)

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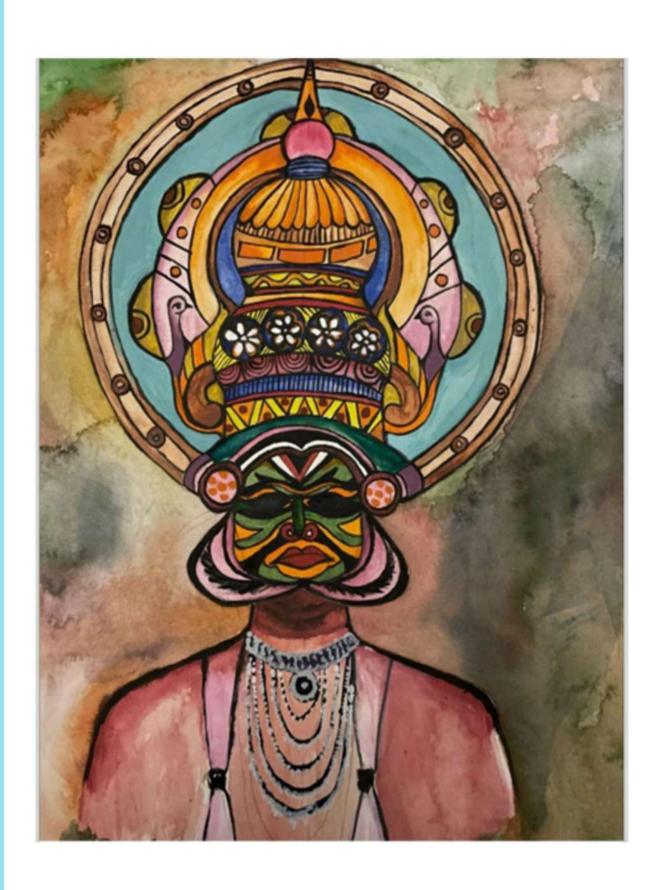
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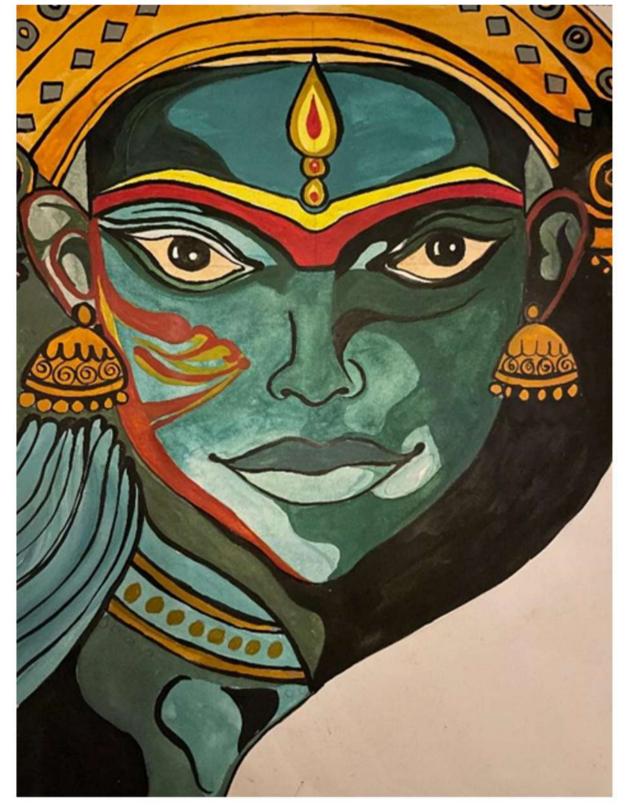






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