A study on the Impacts of climate change on businesses: Challenges and opportunities

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Abstract- Increasingly, companies are being asked to respond to the threat of climate change because it affects their position in the global community.

When companies can effectively integrate strategy, people, processes, and technology to achieve 4,444 climate-responsive initiatives, the result can be a powerful tool for creating long-term value. But what are the business effects of climate change, the focus of the research?

The different assessment of business effects of climate change is based on the difference between direct and indirect effects of climate change. So, the question becomes, how do direct and indirect differences affect entrepreneurship?

Some of these effects threaten sustainable high returns in a changing climate. What concrete actions can companies take to respond to the threats and opportunities of climate change? To support the business facts about the impact of climate change, a qualitative study was conducted firstly on business houses in Nepal and secondly in a global context. Business initiatives that respond to climate change are typically split across multiple functions, which risks fragmentation. Climate change has the potential to change parts of our planet, the context, and the assumptions on which businesses today typically operate. This change is due to both direct and indirect effects of climate change on business. Many business leaders feel a deep responsibility to respond to the urgent global challenge of climate change. But in addition to social responsibility, business leaders must also be aware of how climate change will alter market dynamics, competition, and profitability.

INTRODUCTION

Climate change is a widely debated topic all over the world. From global leaders to common personalities, it is one of the most crucial global adversities. Although a binding agreement on climate change action was not reached at the United Nations Climate Change Conference (COP15) held in Copenhagen in December 2009, businesses in both developed and

developing countries are nevertheless confronting a paradigm change.

According to a greenjournal.co.uk (2020) article, climate change is "a long-term shift in the Earth's typical weather patterns, with temperatures rising and the occurrence of extreme storms increasing". In addition, according to climate.nasa.gov (n.d.), "climate change is a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates. These changes have a broad range of observed effects that are synonymous with the term".

Climate change is therefore not a recent phenomenon that has just occurred in our lives. It has been ongoing for decades now. The main driving force of climate change is the cruel and ruthless human activities that have been causing more damage than good since the 1800s. This phenomenon mainly occurs due to the interplay of various fossil fuels primarily coal, gas, and oil. Alongside, methane and carbon dioxide are the main greenhouse gasses which are responsible for

Whilst human beings are collectively culpable for climate change, there exists discrimination. Few countries produce much more than others. The seven biggest emitters alone (China, the United States of America, India, the European Union, Indonesia, the Russian Federation, and Brazil) accounted for about half of all global greenhouse gas emissions in 2020.

Having known this, there have been established some global frameworks: rules and regulations in order to control, prevent, and minimize damage. Sustainable Development Goals, the UN Framework Convention on Climate Change, and the Paris Agreement are the most famous. Their main objectives are cutting emissions, adapting to climate impacts, and financing required adjustments.

One of the main questions to be answered is, how does climate change impact business? Precisely, emission instability, cross-border pollution, Industry-specific challenges, rising insurance costs, and exacerbation of poverty along with diminished supplies are consequences of the same.

Apart from this, the supply chain logistics, diverse marketing initiatives, overall financing and manpower, and distribution strategies are now being recalculated due to these effects. More than large MNCs, smaller startups are being more adversely affected.

These small businesses not only play a crucial role in job creation and the overall economy. They also have an impact on the environment, while there is a problem that has to do with their lack of skills and resources that will help them to assess them and mitigate their negative impacts.

We don't know precisely how climate change will alter the planet, but two things are certain: Its complex environmental impact will directly affect business, society, and ecosystems; and governments will seek to mitigate its effects with far-reaching regulations. Until recently, companies have for the most part freely emitted carbon, but they will increasingly find that those emissions have a steep price, both monetary and social. As a result, businesses that continue to sit on the sidelines will be badly handicapped relative to those that are now devising strategies to reduce risk and find competitive advantage in a warming, carbon-constrained world.

Companies that persist in treating climate change solely as a corporate social responsibility issue, rather than a business problem, will risk the greatest consequences. Of course, a company's climate policies will be affected by stakeholder expectations and standards for social responsibility. But the effects of climate on companies' operations are now so tangible and certain.

OBJECTIVE OF THE STUDY

It is globally accepted and the policy community now accepts that human activities cause global climate change. Even though information on climate change is readily available, the nation still seems unprepared to respond effectively to climate change, due to a general lack of public understanding of climate change issues and opportunities for effective responses. The reality of global climate change lends increasing urgency to the need for effective education on the earth system,

as well as on the human and behavioral dimensions of climate change, and business.

The specific objectives of this study are to:

- Identify the impact on local people's Lives on business climate change and political, socioeconomic, and cultural transformations.
- Identify the mechanisms and adaptation strategies developed at the grassroots level.
- Evaluate the place and role of migration in different adaptation strategies.
- Determine the extent to which migration reduces or increases vulnerability to climate change and variability
- Environmental impact has become a critical consideration in the world of business. As society grows increasingly concerned about the state of the environment, businesses are under pressure to assess, address, and lower their effect on the natural world. Environmental impact in business refers to the effects of business operations, practices, and products on the environment, including the consumption of resources, emission of pollutants, and contribution to climate change.
- The issues related to environmental impact in business are wide-ranging. They include resource depletion, pollution of air, water, and soil, habitat destruction, greenhouse gas emissions, waste generation, and the loss of biodiversity. They not only pose risks to the environment but also have significant social and economic implications. Fortunately, businesses are increasingly recognizing the need to address environmental impact and are proactively seeking solutions.
- Production activities have significant environmental impacts that contribute to various problems in the environment. There are many ways in which businesses affect the environment. From resource extraction to manufacturing and distribution, every stage of the production process has the potential to generate negative environmental effects. One of the key concerns is the environmental impact of business activities. Industrial production, particularly in sectors such as manufacturing, energy, and transportation, can have adverse effects on the environment.

SCOPE OF THE STUDY

With growing concerns about current business environment issues and their effects, taking proactive steps to minimize your impact on the environment is essential. By incorporating sustainable practices into your daily life, you can make a positive difference. Here are some effective strategies to reduce your environmental footprint:

- Conduct an environmental impact assessment
- Conserve energy, Conserve water
- Practice responsible waste management
- Support sustainable products and businesses

REVIEW OF LITERATURE

Review

Climate change poses a significant global challenge, affecting sectors such as energy, water, agriculture, construction, and energy-intensive transport, industries. Job losses are expected in urban labor markets due to workers' displacement and damage to business assets, disruption of transport and industrial infrastructure, and water scarcity. However, climate change may also support new crops or allow for sustainable resource utilization, resulting in new employment perspectives. Business activities will be affected by more frequent extreme weather events and gradual climatic processes, increasing uncertainty, creating risks for people and economies, and involving costs. The macroeconomic costs from market impacts could reach 1.0-3.3% annually by 2060 and 2-10% by the end of the century without new policies. New business opportunities will arise, stimulating investments, technological innovation, and new products and services to respond to environmental impacts and climate change. The global market for low-carbon goods and services is projected to grow to over €4 trillion by the end of 2015, with the International Labour Organization estimating up to 60 million jobs by 2030. Addressing climate change is crucial for sustainability, employment growth, and economic stability. A clear, transparent, and reliable policy and market framework is needed, including measures to enable investments, protect and deploy innovative technologies, and foster employment.

Climate change has placed values such as natural beauty, poverty alleviation, cultural preservation, future generations, and fairness in tension with economic competitiveness. This has altered the scoreboards of businesses, which were previously

ranked largely on the magnitude of their profits. Several factors have led to this wake-up call, including global warming data, moral degradation issues, corporate responsibility debates, and government legislation. Despite the lack of a binding agreement on climate change action at the United Nations Climate Change Conference (COP15), businesses in both developed and developing countries are confronting a paradigm change. The Australian government is committed to reducing carbon pollution through policy initiatives such as the Carbon Pollution Reduction Scheme (CPRS), which aims to reduce emissions by 25% below 2000 levels by 2020. The European Union (EU) committed to a 20% reduction in its emissions compared to 1990 levels by 2020, regardless of whether or not a satisfactory international agreement is reached. The impacts of these wide-ranging changes are inevitable in the short to medium term as well as in the long term, and businesses will face profound structural effects during the transition to a low carbon footprint economy.

Climate change is a crucial change that is already impacting businesses on a global scale. It is a longterm shift in Earth's typical weather patterns, with temperatures rising and extreme storms increasing. This change is not new but has been escalating due to industries 3.0 and 4.0. Small businesses are increasingly aware of the importance of this change and are taking preventive measures to ensure their sustainability and survival. Small businesses are more vulnerable due to limited resources and international fluctuations, such as supply chain and raw material shortages. This paper examines the impact of climate change on small businesses and the measures they should take to overcome catastrophic consequences. Small businesses play a significant role in the economy and job creation but also have a heavy impact on the environment. They lack the skills and resources to assess and mitigate their negative impacts. Therefore, it is essential for businesses to take preventive measures to mitigate the negative impacts of climate change and ensure their sustainability.

Climate change poses a significant challenge to global business, as many countries lack the funds or capabilities to invest in environmentally friendly practices. The crisis has led to several negative impacts on global business, including emission instability, cross-border pollution, industry-specific challenges, rising insurance costs, psychological

stress, exacerbation of poverty, and diminished supplies. Climate change is the biggest contributing factor to climate change, with high levels of energy intensity generating higher total emissions. As population and GDP per capita increase, emissions also rise, compounded by individuals using common resources without concern for their depletion. Crossborder pollution is difficult to prevent, as air and water pollution can spread from adjacent countries. Industryspecific challenges include skiing, agriculture, wine, energy, and commercial fishing, which are at greater risk due to rising global temperatures. Insurance companies are also affected, with rising insurance costs potentially impacting their bottom lines. Psychological stress is another significant concern, as weather events associated with climate change have been linked to depression, anxiety, and post-traumatic stress disorders. The crisis also exacerbates poverty, with potential risks including reduced access to clean water, physical risks due to extreme heat, rising sea levels, and local businesses closing.

Financial institutions are actively working towards achieving net zero emissions, but they must also consider the nature-based ecosystem that relies on water, minerals, farmland, and pollinators. As capital providers and advisors, financial institutions have a unique position to identify risks, fund smart interventions, and open new growth avenues. By leading on nature, they can facilitate a just transition that supports human rights, social inclusion, and poverty eradication. To achieve these goals, financial institutions need to develop a comprehensive nature strategy, ensuring the planet's health and long-term growth.

Global Warming, a phenomenon linked to human activities, is causing more frequent and intense natural disasters. The Intergovernmental Panel on Climate Change (IPCC) warns that warming beyond 1.5°C will increase extreme weather events and accelerate chronic changes. To achieve this, net global greenhouse gas emissions must be reduced to zero by 2050. While the IPCC acknowledges this goal is achievable, unprecedented changes in all aspects of society are needed to prevent irreversible consequences.

The Paris Agreement, signed by nearly every country in 2016, aims to combat climate change and prevent irreversible changes in the earth's ecosystem. Over 70 national and sub-national jurisdictions have imposed

carbon emission taxes, and seven stock exchanges in Southeast Asia have mandated ESG reporting. With increased awareness of climate change consumerism, market demand for sustainable products is shifting, with 38% of global consumers willing to pay higher prices for products made with sustainable materials. Innovation is crucial for businesses to be more climate-friendly and resilient, as it creates new opportunities in product and service design and channels more funding into research and development. Operational efficiency is essential for businesses to reduce emissions and stabilize supplies, while talent attraction, engagement, and retention are critical assets. Millennials are more likely to stay with companies that support local communities. Capital access to sustainable investments has surged by 34% between 2016 and 2018, reaching over US\$30 trillion. This growth is expected to continue in the coming years as investors recognize and aim to address climate change-related risks and opportunities.

Climate change is a significant environmental challenge that is causing significant impacts on the natural and socio-economic environment, with the potential to intensify in the coming decades. This negative environment may lead to business opportunities, which can contribute to economic growth and eventually mitigate climate change's effects. Business opportunities may arise due to new climatic conditions, regulatory frameworks for managing climate change, consumer behavior changes, and technological innovations. This report focuses on the business opportunities that may arise due to climate change in the southeast Mediterranean and Greece over the next 10-20 years.

Investment opportunities in economic sectors due to climate change require the existence of a reduction of production costs, increased demand for a sector's products, regulatory frameworks for managing climate change and gaining a competitive advantage over competing sectors. The sectors examined in this report include renewable energy sources, infrastructure, finance, insurance, organic farming, biofuels, food and telecommunications, and tourism. conclusion, climate change presents significant business opportunities in the south-east Mediterranean and Greece over the next 10-20 years, with potential for growth and competitive advantage in sectors such as renewable energy, infrastructure, financial, insurance, organic farming, biofuels, food and drinks,

telecommunications, and tourism. Climate change presents both risks and opportunities for businesses, including greenhouse gas regulations, changing attitudes, evolving product markets, and competitor actions. Physical effects of climate change, such as sea level rise and changes in temperature and weather patterns, can affect business processes, fixed assets, and resource availability. However, few businesses have climate impacts on their radar screens.

Climate change may present opportunities for businesses, such as disruptions to construction sites and material delivery due to extreme events or damage to transportation infrastructure. However, it may also provide opportunities for businesses by reducing work stoppages caused by frost, extending construction periods, and creating new product markets.

Agricultural changes in temperature and precipitation patterns will change crop viability and encourage the development of new crop strains and farming techniques suited to the changing climate. Tourism will face mixed results, with opportunities for winter tourism and ecosystem uses declining but being replaced by extended spring and summer recreation opportunities.

The insurance industry faces risks from the physical effects of climate change, but opportunities exist for adaptation by developing and marketing new products, assisting homeowners and businesses in reducing losses and enhancing business reputation. Companies that identify and analyze emerging risks earlier will be better positioned to avoid or mitigate potential damages.

Despite adaptation efforts, the impacts of climate change will not eliminate them. Countries with fewer resources will be hard hit, and the first step is to recognize and consider these potential risks in decision-making. Climate change is a pressing issue affecting industry, government, and civil society in the 21st century. The German government plans to shut down all nuclear power plants by 2022, while the UK government is encouraged to build more nuclear plants. The contradictory perspectives on nuclear energy's role in climate mitigation and low carbon economy mirror disagreements in policy discussions and business activity on investments in clean technology, renewable energy, electric vehicles, lowcarbon housing, green investment banks, and carbon capture and storage. Literature on the impact of climate change on business and industry actions has

increased, but many studies have not accurately captured the dynamic interactions between governments and businesses. Increasing awareness of greenhouse gas emissions and climate change's impact on society has led to calls for businesses to lead in combating climate change.

Climate change is a market issue that is affecting businesses worldwide, with regulations being developed to alter carbon prices at all levels of the local and global economies. These new rules will affect energy pricing and availability, creating a ripple effect throughout the entire value chain. The impact of greenhouse gas (GHG) regulations is similar to the impact on the utility industry caused by the oil crisis of the 1970s. Regulations will alter key aspects of business strategy, including production economics, cost competitiveness, investment decisions, and the value of different types of assets.

The time for action is now, as businesses must separate their business acumen from their feelings on the topic. The signals of this market transition are emerging, with regulations emerging all around the globe. In 2004, Russia became the 126th country to ratify the Kyoto Treaty, which requires industrialized countries to reduce their greenhouse gas emissions by 5.2% below 1990 levels over the compliance period of 2008 to 2012.

While many countries are not expected to reach their reduction targets, discussions are already underway to consider the next steps for a post-2012 framework. In 2007, representatives from the G8 nations and larger developing countries met in Washington to agree on the need for all nations to adopt targets for reducing GHGs.

This study shows us that the marginal benefits associated with controlling climate change vary with different levels of mitigation. Some studies use a common metric, typically dollars, to express all impacts of climate change, but this may be difficult to apply to sectors not traded in markets or undervalue impacts in developing countries. This study surveyed the literature on global impacts of climate change in specific sectors, focusing on global impacts up to 2100 and highlighting regional impacts. The primary indicator of climate change was a change in global mean temperature (GMT), which can vary widely and encompass changes in regional climate and climate variance. The study examined different studies to determine if damages rise monotonically with

increasing GMT if there are thresholds below which there are virtually no impacts, or if there is a parabolic relationship, i.e., positive impacts followed by a reversal in sign. The findings could help policymakers understand the distribution of these impacts and make more informed decisions about mitigation efforts. Climate change poses a significant risk to all societies, with developed countries investing 100 billion dollars per year in combating it and supporting sustainability in developing countries. However, the USA declined to sign the Paris Agreement, causing uncertainties about global actions to mitigate climate change. Organizations must adapt to or focus on mitigating climate change, and organizations must mobilize internally by adopting environmental management initiatives and low-carbon operations management practices. Business opportunities are also created by the climate change situation, with 33% of these opportunities expected to materialize over the next three years. Understanding how organizations respond to these opportunities and challenges is crucial, as big data management has gained prominence due to its potential to transform business practices. Information technologies with a green approach may influence total income and firm-level profits. Successful implementation of environmental practices depends on organizational effort and skill, including big data and predictive analytics. This article explores the current literature on climate change opportunities and challenges, identifying organizations' responses, and highlighting research gaps. Big data management is a key issue in the move towards a more sustainable society, as it can maximize business opportunities while reducing associated challenges.

Findings

In our research, we cover various aspects including how businesses can be formed or grow due to climate change while also focusing on the challenges faced by current businesses. In this paper we can see the authors explaining how climate change is a significant challenge affecting businesses worldwide, requiring to adopt environmentally sustainable approaches. This includes reducing emissions, utilizing resources effectively, and reducing waste. By controlling emissions, businesses can minimize their environmental footprint, save energy costs, and create more jobs. They explain how businesses should also consider voluntary initiatives, corporate responsibility actions, capacity building, and technical advice. By implementing these proactive measures, businesses can contribute to a more sustainable future and contribute to a more sustainable future.

The authors discuss how businesses will be affected by climate change over the short, medium, and long term and how they will need to develop new frameworks to make the transition to a low carbon footprint economy. According to our research, moving towards an economy with a low carbon footprint is one of the best ways to move forward because it boosts a nation's overall GDP, but the shift is likely to be challenging. Comparing it to our study work, the articles assist us in comprehending the opportunities and difficulties experienced by small firms. The authors spell out how Climate change is a global phenomenon impacting society, particularly small businesses. Their research aims at understanding the impact of climate change on small businesses and the necessary actions to mitigate its negative effects. They explain how mitigation is achievable if government and small businesses implement certain actions, and adopt eco-friendly practices in their commercial philosophy, operations, and overall approach to dealing with climate change. Instability, Cross-Border Pollution. Emission Industry-Specific Challenges, Rising Insurance Costs, Psychological Stress, Exacerbation of Poverty, and Diminished Supplies are the seven ways that climate change affects global business that are covered in this article. In addition to these effects, our research has revealed a few others, such as physical harm and disruption, supply chain disruptions, elevated operational costs, etc.

The most important role in assisting company growth is played by financial institutions. This article explores how, if they gave it some attention, financial institutions could assist in the transition to a more sustainable world. They assist us in understanding how financial institutions play a significant part in combating climate change in our article.

This article takes us through how different countries are working towards combating climate change and initiatives taken to achieve it, this article has aided us in better understanding the approaches different economies are adopting towards climate change.

This article on climate change and business opportunities has mostly aided our research because it discusses the opportunities that climate change has created. It discusses how, The natural and socioeconomic environment is already being significantly

impacted by climate change, which has the potential to worsen over the next few decades. This unfavorable environment might create business opportunities that help the economy grow and ultimately lessen the effects of climate change. New climatic circumstances, frameworks for managing climate change, modifications in consumer behavior, and technological advancements may present business opportunities.

It is also explained in the articles on how climate change affects businesses, which helps us understand their dilemma. Beyond the obvious consequences on buildings and operations, climate change has important implications for businesses. Leading firms are beginning to incorporate climate impact risks as part of their assessments of other climate risks, such as compliance with possible climate legislation, shareholder and consumer views, and the effects of greenhouse gas limits on fuel supplies and costs. However, because of the uncertainty of future estimates and the long-term nature of the change, businesses frequently miss the physical threats of climate change. Companies that make long-term capital investment decisions, as well as those in industries where weather and climate are important to production, are particularly vulnerable.

It has provided us with leading scholar insights by showing us how Climate change presents unprecedented challenges to business and politics, with many corporations and governments implementing serious activities. However, these efforts are not transformational enough to reverse climate change.

Many articles have thrown light on how different nations are working towards climate change. They have stated businesses must differentiate their business acumen from their feelings on the topic, as global regulations emerge. Russia ratified the Kyoto Treaty in 2004, requiring industrialized countries to reduce emissions by 5.2%. Discussions are underway for a post-2012 framework, with G8 nations agreeing on targets. This research was until 2012 we'll be working on the details post-2012 framework.

This review examines climate change studies to determine if there are common relationships between global mean temperature increases and their reported impacts. Most studies focus on sensitive sectors like recreation, tourism, and energy. However, there is limited research on climate change and its global

impacts. The studies use different metrics, making it difficult to combine results. Some assumptions introduce biases, and some studies do not address key factors like extreme weather or climate state changes. This paper analyses the present literature on climate change opportunities and challenges, identifying organizations' responses, and noting research needs. It strongly aligns with our research motive, which is the problems and opportunities generated by climate change. Big data management can increase economic potential while lowering associated challenges, making it a crucial issue in the transition to a more sustainable society.

RESEARCH METHODOLOGY

- The assumption that many teachers of science in secondary schools are not currently including the examination of climate change in their classrooms, even if it relates to their content standards. In this project, I am assuming that
- The reason for the above-stated problem involves the lack of time, preparedness, and /or resources for many teachers in the United States. Climate change is a subject that has relatively recently been the focus of scientific debate, and to an extent, this debate continues. I would like part of my research to address the topic of controversy with science theories in the public mind, and how the idea that there are human causes for global warming is itself considered to be an assumption by certain people. It is my intention to confirm through research findings that the topic of climate change itself is more absent from the nation's classrooms than it should be. I would also like to clarify which points of debate exist within the arena of climate change science, if any, and then examine educators' possibilities for addressing such debate.
- The race for net zero has captured the imaginations of countries and companies alike. And not a moment too soon: the latest report from the UN's Intergovernmental Panel on Climate Change finds that greenhouse gas emissions (GHGs) must peak no later than 2025 to avoid the most dangerous and irreversible effects of climate change.
- But even as governments and companies ramp up their decarbonization commitments, there's

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another pressing challenge that's not getting nearly enough management attention. Outside of the most carbon-intensive industries, too few CEOs are looking closely enough at the physical and transition risks that a changing climate poses to their companies. And these risks can be eye-opening.

Assumptions of the research

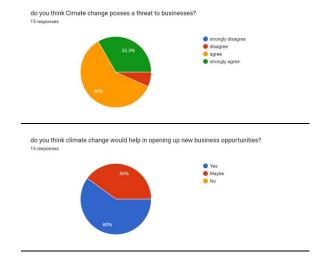
• Consider these real-life examples:

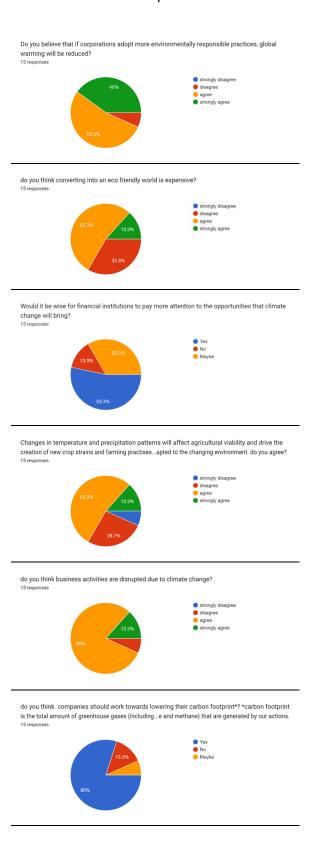
A conglomerate came to learn that extreme weather events could cost it several hundred million dollars a year as soon as 2030. Most of the company's risk exposure is in its supply chain, and out of its direct control.

A large retailer identified dozens of its critical facilities at elevated risk of extreme weather and saw how a global transition to a low-carbon economy could more than double the company's transportation costs by 2030.

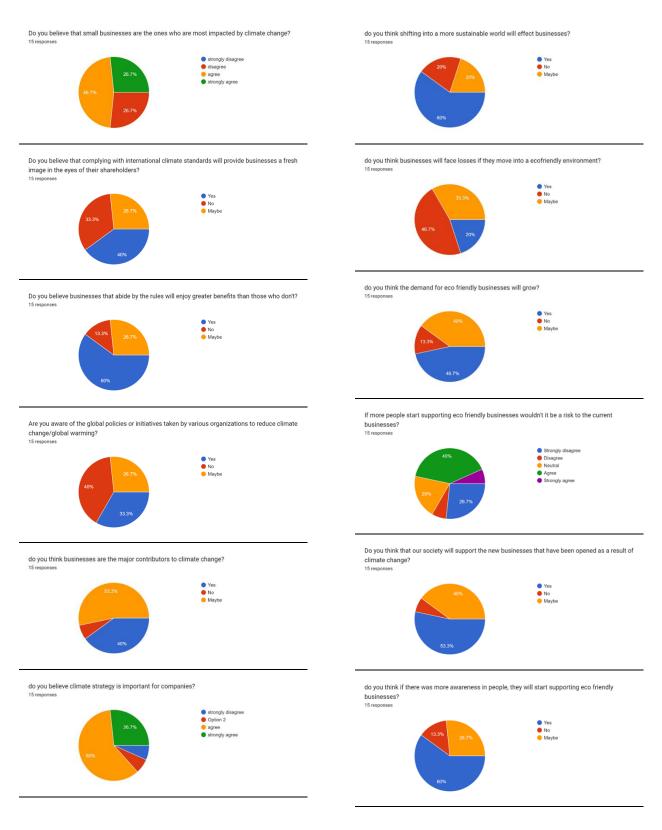
- Climate risks such as these are not only worrying business challenges for CEOs and other leaders but deeply human challenges, too.
- Future scenario development should specifically include low-growth scenarios, and the possibility of low-growth economic trajectories should be taken into account in climate policy analyses.

QUESTIONNAIRE





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REFERENCE

- [1] Center for Climate and Energy Solutions. (2020, February 4). Adapting to Climate Change: A Business Approach Center for Climate and Energy Solutions. https://www.c2es.org/document/adapting-to-climate-change-a-business-approach/
- [2] Compagnon, T. (2023). For financial institutions, nature is the next frontier. *Quantis*. https://quantis.com/financial-institutions-nature-frontier/
- [3] Feeling the heat? (n.d.). Deloitte Insights. https://www2.deloitte.com/us/en/insights/topics/s trategy/impact-and-opportunities-of-climatechange-on-business.html
- [4] Okereke, C., Wittneben, B., & Bowen, F. (2011). Climate change: challenging business, transforming politics. *Business & Society*, *51*(1), 7–30.
 - https://doi.org/10.1177/0007650311427659
- [5] Revell, A., Stokes, D., & Chen, H. (2009). Small businesses and the environment: turning over a new leaf? *Business Strategy and the Environment*, n/a. https://doi.org/10.1002/bse.628
- [6] Seles, B. M. R. P., De Sousa Jabbour, A. B. L., Jabbour, C. J. C., De Camargo Fiorini, P., Yusliza, M. Y., & Thomé, A. M. T. (2018). Business opportunities and challenges as the two sides of the climate change: Corporate responses and potential implications for big data management towards a low carbon society. *Journal of Cleaner Production*, 189, 763–774. https://doi.org/10.1016/j.jclepro.2018.04.113
- [7] Thyil, V., & Wise, V. (2012). Impact of climate change issues on businesses: an action plan using a corporate governance approach. *International Journal of Global Environmental Issues*, 12(1), 91. https://doi.org/10.1504/ijgenvi.2012.047890
- [8] Hoffman, Andrew & Woody, John. (2008). Climate Change: What's Your Business Strategy?.
- [9] 7 ways climate change affects global businesses. Business Insights Blog. (2022, August 2). https://online.hbs.edu/blog/post/climate-change-affecting-businesses