



# Research Path on Climate Change Accounting

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This study aims to see the development of research on the topic of "Climate Change Accounting" and research plans that can be carried out based on journals published on the theme. This research uses a qualitative method with a bibliometric analysis approach. The data used is secondary data with the theme "Climate Change Accounting" which comes from the database Dimension with a total of 181 journal articles. Then, the data is processed and analyzed using the VosViewer application with the aim of knowing the bibliometric map of "research development Climate Change Accounting" in the world. The results of the study found that there are 4 clusters with the most used words are impact, distribution, species, area, mission, accounting, condition, factor, ecosystem, and temperature. Then, the research path topics related to Climate Change Accounting are Carbon Accounting and Financial Reporting, Natural Resource Accounting and Climate Change, Future Climate Scenarios in Accounting, and Exposure to Climate Risks Accounting.

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## INTRODUCTION

Climate change refers to long-term changes in temperature and weather patterns, caused by human activities, especially the burning of fossil fuels, which release greenhouse gases into the atmosphere. These gases trap heat and cause a gradual increase in Earth's average temperature. Climate change has significant impacts on Earth's ecosystems, weather patterns and human society. The global average temperature has increased by about 1.7°F since 1970, leading to observable changes such as increased frequency and intensity of extreme weather events, including heat waves, floods, and droughts (U.S. Environmental Protection Agency, n.d.). These shifts disrupt natural systems and threaten biodiversity, as species struggle to adapt to the rapidly changing climate. For example, glaciers and ice sheets are melting at a faster rate, contributing to rising sea levels that endanger coastal communities (Gibbens, 2024; NASA, n.d.)

Furthermore, climate change exacerbates air and water quality problems, increasing health risks, especially for vulnerable populations such as the elderly and children (U.S. Environmental Protection Agency, n.d.). Therefore, as climate change intensifies, accurate measurement and reporting systems are needed to assess environmental impacts and mitigation efforts. In this context, climate change accounting plays an important role in recording, measuring, and disclosing information related to greenhouse gas emissions, carbon footprint, and reduction policies poverty implemented by various entities, including companies and governments. Thus, through accurate accounting practices, organizations can assess their greenhouse gas emissions, evaluate financial risks associated with climate change, and identify opportunities for investment in sustainable practices.

Moreover, climate change accounting facilitates transparency and accountability in the way entities respond to climate-related challenges, thereby enabling stakeholders to make informed decisions regarding environmental sustainability. The integration of climate change considerations into the accounting framework is essential to foster resilience to climate impacts and guide effective adaptation strategies (Kosarkoska & Joldeska, 2024; Agustini & Arifa, 2024). On the other hand, climate change accounting can assist in developing climate-resilient policies by offering a framework for understanding the financial implications of climate change and tracking the effectiveness of various policy responses (Pizarro, 2020). In particular, it enables the identification of sectors and economic activities that

contribute most to climate change, thus enabling targeted mitigation strategies (Pizarro, 2020). Furthermore, climate change accounting supports the evaluation of climate-related risks and opportunities, ensuring that adaptation measures are sound economically and sustainable (Pizarro, 2020).

However, the implementation of climate change accounting in developing countries faces some significant challenges. Many developing countries lack the necessary institutional arrangements and clear roles for institutions involved in climate finance and accounting, which complicates effective data collection and reporting (Tirpak et al., 2014). In addition, financial constraints prevailing in developing countries hinder the establishment of robust climate change accounting systems, as these systems often require significant investments in technology, training and infrastructure (Muslim, 2024). Tirpak et al (2014) added that there is often a dearth of reliable data on climate finance flows, especially from non-governmental organizations and private sector investments. This lack of data limits the accuracy of climate finance estimates and hinders the development of comprehensive accounting practices.

Furthermore, many developing countries struggle with insufficient technical expertise and training in environmental and climate change accounting practices. These gaps may prevent the implementation and utilization of effective climate accounting systems (Mukwarami et al., 2023). A general lack of awareness of climate change impacts among stakeholders may hinder the adoption of necessary accounting practices. This is compounded by cultural barriers that can affect engagement with climate-related initiatives also (Muslim, 2024). Addressing these challenges requires a multifaceted approach that includes strengthening the institutional framework, enhancing technical capacity, improving data collection methods, and fostering stakeholder engagement to build a more resilient response to climate change. therefore

Based on this background, it is important to see the extent of the current development of *Climate Change Accounting* through research, and one method that can be used to see the development of research is bibliometrics using VosViewer. The method is able to create and display author journal maps and research paths based on co-citation data or keyword maps based on shared incident data. Some studies that examine related to *Climate Change Accounting*, namely Gulluscio et al (2020) examine Climate Change Accounting and Reporting using analysis Systematic Literature Review . His research explains the main perspectives discussed in the selected

articles are related to accounting and sustainability reporting in a broad sense, and there is a lack of contributions on the management of climate change-related aspects, with particular reference to strategic and operational planning, accounting, and control measures implemented by company management to address climate change issues.

Wang et al (2018) conducted a bibliometric analysis of climate change adaptation based on vast research literature data. The results found that the field of climate change adaptation has entered a stage of rapid development. The US occupies the leading position in terms of comprehensive strength with the largest publication output and greater influence. The most prolific journals, authors and institutions are Climatic Change, Canada's Ford JD and The Chinese Academy of Science. Collaboration in this area continues to strengthen, but the growth rate at the national level is relatively low. In addition, frequency and co-occurrence analysis of keywords revealed ten important research topics: climate change, adaptation, vulnerability, ecosystems, socio-economic systems, agriculture, regions, extreme events, mitigation, and sustainability, as the focus of climate change adaptation. "Vulnerability" is in a core position across all keywords with the strongest connectedness within them.

Lindawati & Meiryani (2024) quantitatively analyzed global scientific performance and current research areas in the field of global climate change. The results found that research on climate change has evolved from understanding the climate system to developing climate technologies and regulations, such as laws and efficient energy use. Ideas about climate change are reflected in modern models of energy efficiency, renewable energy transition, carbon pricing and circular economy. In addition, the idea of climate change, when viewed from an overall perspective, affects carbon footprints, social and economic impacts, rising carbon dioxide levels, and carbon sequestration

Zheng et al (2022) conducted a review of bibliometric carbon accounting in the social sciences during 1997-2020. The results showed that international trade has spurred considerable scientific interest in responsibility allocation from a consumption perspective. It was also revealed that few publications addressed the quantification of emissions at the organizational level. Considering the importance of organizations, especially companies in emissions reduction, a shift in priority to this particular area is warranted for further research. Milne & Grubnic (2011) examined key issues and areas in climate change research

that are interdisciplinary in nature, with a focus on accounting and accountability. The research shows that accounting for carbon and other GHG emissions is challenging due to uncertainties in estimation methods. It also reveals the magnitude of the challenges associated with reducing emissions in the near term.

Linnenluecke et al (2015) addressed the topic of accounting and climate change adaptation. The findings of this study confirm that the role of accounting can support organizational adaptation to climate change by performing risk assessment functions (assessing vulnerability and adaptive capacity), valuation functions (assessing the costs and benefits of adaptation), and disclosure functions (disclosing risks associated with climate change impacts). Lovell (2014) reviewed and developed financial accounting standards for greenhouse gas emission allowances. This research explains that the theory of the role of standards helps reveal the hidden workings of standards in society and explains why some aspects are difficult to standardize. However, there are shortcomings in understanding how standards play a role in broader processes of policy and technological change. Therefore, the concepts of governmentality and hybrid markets (agencements) are used to further explore the role of standards in markets, and provide a new perspective in understanding the relationship between climate change and standards.

This research was conducted to complement existing research and fill the gaps in previous research and to expand the literature related to *Climate Change Accounting* through the research path. In particular, the purpose of this research is to see the development of "research *Climate Change Accounting*" published by journals with this theme and see future research opportunities by formulating a research agenda.

## METHOD

In this study, various scientific journal publications related to the theme of "*Climate Change Accounting*" around the world were used as data sources. Data is collected by searching for journal publications indexed in the database Dimension using the keyword "*Climate Change Accounting*". After that, scientific articles or journals that are relevant to the research theme will be selected based on the publication data that has been collected. Journals equipped with DOI are the criteria in the filtering process and data processing using software. There are 181 journal articles published from within the research theme "*Climate Change Accounting*". The development of publication trends related to the research topic was analyzed using VOSviewer software,

which can generate bibliometric maps and allow for more detailed analysis.

In order to build the map, VOSviewer uses the abbreviation VOS which refers to Visualizing Similarity. In previous studies, the VOS mapping technique has been used to obtain bibliometric visualizations which are then analyzed. Furthermore, VOSviewer is able to create and display author journal maps based on co-citation data or keyword maps based on co-occurrence data. Therefore, this study will analyze journal maps related to "Climate Change Accounting", including author maps, and keywords which are then analyzed for research paths that can be carried out in the future through clusters in *keyword mapping*.

This research uses a descriptive qualitative approach with meta-analysis and descriptive statistical literature study based on 181 journal publications that discuss the theme of "Climate Change Accounting". Meta-analysis is a method that integrates previous research related to a particular topic to evaluate the results of existing studies. Furthermore, the qualitative method used in this research is also referred to as a constructive

method, where the data collected in the research process will be constructed into themes that are easier to understand and meaningful. The sampling technique used in this research is purposive non-probability sampling method, which aims to fulfill certain information in accordance with the desired research objectives.

Studies with bibliometric analysis in research on other topics, for example, can be seen in [Napitupulu, et al., \(2024\)](#); [Yenice et al., \(2022\)](#), [Rusydiaana \(2021\)](#), [Khalifah et al., \(2024\)](#), [Mi'raj & Ulev \(2024\)](#), [Rusydiaana et al., \(2023\)](#), and also [Ozdemir & Selçuk \(2021\)](#).

## RESULT AND DISCUSSION

### Research Map

The figure below describes the trend of keywords appearing in research on the theme "Climate Change Accounting" and the shapes larger are the most used words in journal publications on the theme "Climate Change Accounting".

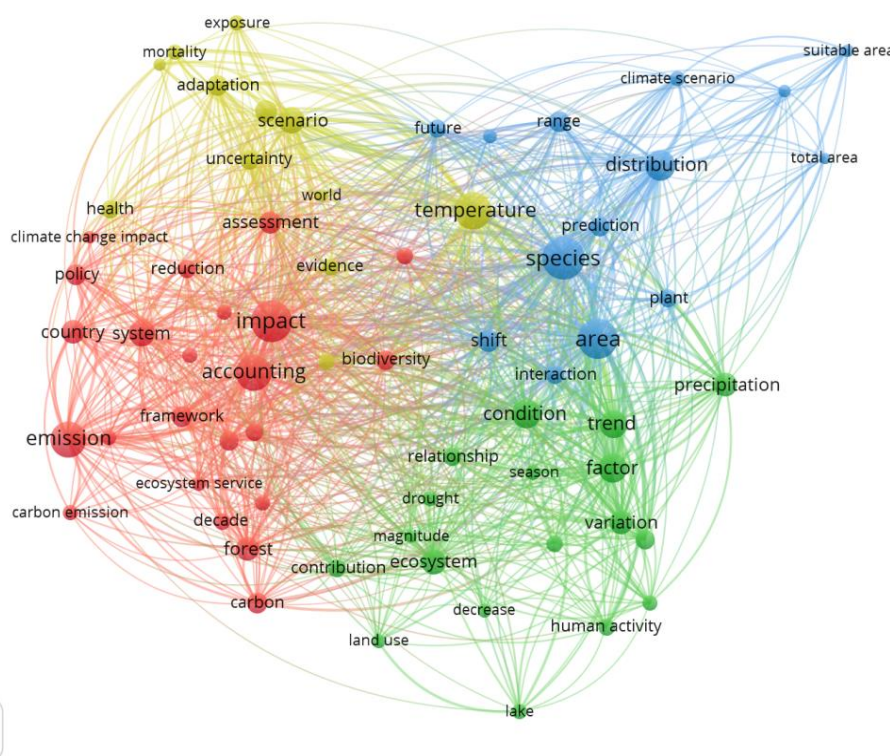


Figure 1. Research Path

As for the mapping, the keywords that appear most in the publication "Climate Change Accounting" include impact, distribution, species, area, mission, accounting, condition, factor, ecosystem, and

temperature which are then divided into 6 clusters, as follows:

### Cluster 1: Carbon Accounting and Financial Reporting

This cluster contains 23 keyword items namely, accounting, assessment, biodiversity, carbon, carbon emission, challenge, climate change impact, climate change mitigation, conservation, country, decade, development, ecosystem service, emission, forest, framework, impact, implication, need, policy, reduction, system, water. A number of studies relevant to the topics in cluster 1 include research from Bebbington & Larrinaga-González (2008) discussing the implications of anthropogenic global climate change (GCC) on corporate accountability and the financial consequences of carbon trading markets. This research explores the accounting challenges associated with valuing pollution allowances and the need for nonfinancial reporting to ensure democratic accountability in the context of the GCC.

Ascui & Lovell (2011) explored tensions and contradictions in carbon accounting by examining five overlapping frames of reference: physical, political, market-enabled, financial, and social/environmental. The highlights how these "clashes" can undermine trust in climate science and policy, ultimately hampering efforts to mitigate climate change. research Ascui (2014) reviewed the treatment of carbon accounting in the social and environmental accounting (SEA) literature, highlighting its broad and diverse nature. The research found that the SEA literature on carbon accounting is large, rapidly growing, rich and diverse. There is a mix of critical, philosophical, or normative discussions on carbon accounting, and empirical studies on carbon accounting, with particular clusters of papers in carbon management accounting, carbon financial accounting, carbon disclosure and reporting, and carbon accounting education. However, when compared to the scope of carbon accounting in practice, it is clear that there is considerable potential for SEA researchers to expand their engagement with other types of carbon accounting, particularly market-enabled, physical and political forms, and to collaborate with other professions and practitioners.

Köhl et al (2011) compared the cost efficiency of four alternative sampling designs for a national carbon accounting system under a REDD regime, highlighting that the choice of sampling design has a significant impact on the cost of forest carbon stock assessments. This research emphasizes the importance of optimizing data sources and sampling methods to improve cost efficiency and reduce uncertainty in carbon stock quantification, ultimately benefiting the financial

outcomes of REDD adoption. England & Viscarra Rossel (2018) reviewed proximal sensing techniques for soil organic carbon (C) quantification, emphasizing the need for accurate and cost-effective methods to assess land management practices that increase soil C. The study identified near-visible infrared (vis-NIR) spectroscopy as the most suitable method for measuring soil organic C concentrations and highlighted the need for standardized procedures and multisensor systems to improve measurement accuracy and reporting. It also discusses the requirement to develop new soil C accounting methods to support emissions reporting and abatement schemes.

Kasperzak et al (2023) investigated the use of various consolidated approaches to measure greenhouse gas (GHG) emissions under the GHG Protocol, focusing on 16,604 companies' annual observations from 2009 to 2019. The found that while the operational control approach is more widely used and has improved significantly, it may not be in line with current social and political sustainability goals, prompting policy makers to evaluate the effectiveness of GHG reporting in achieving such goals. study Anggita & Nugroho (2022) analyzed the impact of carbon emissions disclosure and green accounting practices on the firm value of 16 consumer goods companies in Indonesia over a two-year period. The research findings show that although carbon emission disclosure does not affect firm value, green accounting practices have a positive effect.

Hazaea et al (2023) reviewed carbon accounting research from 1994 to July 2022, highlighting its intellectual development and identifying gaps in methodology and theory. The noted a significant increase in research, particularly from the UK, Australia and China, while emphasizing the need for international standards to improve carbon reporting and facilitate comparisons between companies. study Coram et al (2023) investigated how professional financial statement users utilize carbon accounting information in their decision-making, specifically comparing investment and donation contexts. The findings of this study revealed that carbon sequestration information influenced donation decisions but not investment decisions, indicating its value in nonfinancial evaluation rather than purely financial assessment.

Ortas et al (2015) reviewed existing carbon accounting models and principles based on international regulations set by the Kyoto Protocol. This research analyzes various carbon accounting regulations and describes practical applications in various industries, as well as highlights the implications of various models on

the financial performance of companies. Li (2024) discussed the development of the Carbon Financial Accounting System in China, emphasizing its role in sustainable development and carbon footprint reduction. The research highlights the need for a comprehensive carbon financing system, effective management of carbon assets, and integration of carbon accounting into corporate operations, while proposing improved regulations and mechanisms for carbon trading and pricing.

## Cluster 2: Natural Resource Accounting and Climate Change

This cluster contains 18 keyword items namely ,condition, contribution, decrease, drought, ecosystem, factor, human activity, influence, lake, land use, magnitude, precipitation, relationship, season, sensitivity, trend, variation, vegetation. A number of studies relevant to cluster 2 include Heffernan (2022) reviewing climate change accounting in community-based natural resource management. Community-based natural resource management (CBNRM) has emerged as a key technique of resource governance in most parts of Southern Africa. Although it was initially considered a panacea for sustainable development in many countries, its success has faded over time. This research argues that climate change is a binding constraint to the success of the program. It has largely been omitted from scientific research because CBNRM is analyzed primarily as a domestic policy for conservation, which ignores the global dynamics of this form of resource governance and the power imbalances created by the many actors involved. CBNRM is best understood as a global assemblage in which competing actors exercise various forms of power that sometimes synergize and other times conflict with each other.

Common (1991) examines natural resource accounting and sustainability. The recent emergence of attention to sustainability, or sustainable development, has led to renewed interest in the adequacy of national income accounts for monitoring economic performance. Therefore, natural resource accounting is needed, and that national income accounting conventions need to be modified. This research argues that adjustments to national income measures require valuation, and that with respect to sustainability objectives, market prices and substitute market prices are not appropriate. Additionally that the pursuit of sustainability requires modeling rather than historical accounting

Harris & Fraser (2002) examined natural resource accounting in theory and practice. The research argues that most of the literature is conducted with weak conceptual foundations, and that common case studies produce results that are ambiguous in interpretation. In addition, the research highlights the fundamental tension between economic theory and national accounting methodology, and concludes that one result of this is the lack of attention paid by economists to the revision of the system of national accounts (SNA), instead devoting time and effort to case studies 'loose' that sometimes use ad hoc methods from the economic literature.natural resource accounting (NRA)

Zhong et al (2016) reviewed the research progress on natural resource accounting for the period 1995-2014. The results show that the total number of publications on natural resource accounting has increased rapidly since 2001. The most productive journals, countries, institutions, and authors are Journal of Environmental Management, USA, University of California, and Dr. Chen. All of them have higher academic influence. Meanwhile, the natural resources that attract the most attention are water and energy. The six major research methods in this area include mathematical modeling, emergence, exergy, ecological footprint (EF), life cycle assessment (LCA), and material flow analysis (MFA).

Okafor (2012) examined the role of natural resource accounting in sustainable development. The study found that a major weakness of GDP as a measure of development is that it does not account for environmental resource degradation. Natural resource accounting addresses this weakness. The development achieved in some countries like Nigeria so far cannot be described as sustainable development because various development processes have misused or over-exploited natural resources and in the process negatively affected the environment. The accounting and economics professions have the challenge of ensuring interdisciplinary collaboration, development of frameworks to specifically cover the environment, development of credible valuation procedures for the environment, and inclusion of various ethical positions put forward by various groups on the value of the environment.

Giampietro et al (2014) present an innovative approach to resource accounting for sustainability assessment, focusing on energy, food, water and land use linkages. The research includes detailed case studies from Mauritius, Punjab and South Africa, offering insights into the relationships between resource flows

and emphasizing the importance of quality control in policy and planning processes. Keith et al (2021) highlight the need for a comprehensive approach to carbon accounting in evaluating nature-based solutions (Nbs) for climate mitigation and conservation. The research criticizes current methods that focus on carbon flows rather than stocks, which can lead to misleading results, and proposes an integrated framework that takes into account the entire carbon cycle, emphasizing the importance of carbon storage and sequestration for effective climate action.

Busico et al (2019) present a methodology to evaluate wildfire risk (FFR) in the Campania region of Southern Italy using Geographic Information Systems (GIS) and an analytic hierarchy process (AHP). The analyzed 12 factors to classify the area into five risk levels and showed a strong correlation between predicted and observed fires, while assessing future FFR projections for 2040. This approach serves as a valuable tool to identify high-risk areas and guide preventive measures. study Viscarra Rossel et al (2014) provided a comprehensive basemap of organic carbon in Australian soils, with an average estimate of 29.7 t ha<sup>-1</sup> and a total stock of 24.97 Gt in the top 30 cm layer. The results showed that the average organic carbon in the topsoil of Australian soils was estimated at 29.7 tons per hectare, with 95% confidence limits between 22.6 and 37.9 tons per hectare. The total organic carbon stock in the 0-30 cm soil layer for the entire continent was estimated at 24.97 gigatons, with 95% confidence limits between 19.04 and 31.83 gigatons. This represents about 3.5% of the total organic carbon stock in topsoil worldwide. Given that Australia covers 5.2% of the global land area, Australia's soil organic carbon stocks make an important contribution to the global carbon cycle and have significant potential for carbon sequestration.

### Cluster 3: Future Climate Scenarios in Accounting

This cluster contains 14 keyword items namely ,area, climate change scenario, climate scenario, distribution, future, interaction, plant, prediction, range, shift, species, suitable area, suitable habitat, total area. A number of studies relevant to the topics in this cluster include Prato (2008) taking into account risk and uncertainty in determining the preferred strategy for adapting to future climate change. This study concluded that the conditionally preferred adaptive strategy for future climate change scenarios is determined by ranking adaptive strategies for these scenarios using fuzzy set operations. The preferred overall adaptive strategy for the climate risk case is determined by maximizing the

performance index for the strategies. The preferred overall adaptive strategy for the case of climate uncertainty is determined using the minimum regret criterion, which selects the strategy that minimizes the maximum loss in performance that can occur across all strategies and climate change scenarios.

Battiston et al (2021) describe accounting for finance as key to climate mitigation pathways. The financial system has a constraining role, for example, if investor perceptions of the low risk of a missed transition and the low chance of a failed transition trigger a reallocation of capital to low-carbon investments. This increases the likelihood that the transition will not occur in the timeframe needed to stabilize the climate or will occur irregularly. The study also estimated climate mitigation pathways from a process-based integrated assessment model (IAM). The research notes that IAMs do not model the financial system or investor decisions; thus, feedbacks between the financial system and mitigation pathways are not accounted for by either IAMs or the financial community.

Ranger & Garbett-Shiels (2012) account for a changing and uncertain climate in planning and policy-making. The research focuses on identifying options and strategies for robust adaptation to deep uncertainty in future climate risks, culminating in a framework. The research suggests a core principle is to focus on promoting climate-resilient development enhancing long-term adaptive capacity while avoiding inflexible decisions that may lock in future climate risks or close adaptation options. Jona & Soderstrom (2023) describe management accounting research opportunities in climate change reporting. Climate risk is a very important challenge for society. Current accounting-related efforts include initiatives by regulators to promulgate climate risk disclosure standards, focusing on disclosing nonfinancial and forward-looking information. Management accounting researchers are in a strong position to provide unique input into the ongoing development of reporting standards. This research addresses topics where management accounting researchers can contribute to standard-setting efforts.

Hebbernet al (2023) predict a significant increase in excess temperature-related mortality in Canada by 2099, with a net increase of 17.31% under a high greenhouse gas emissions scenario, primarily affecting individuals aged 65 years and older. This highlights the need for urgent action to mitigate the impacts of climate change, as the mortality burden is expected to be much

greater compared to scenarios with strong greenhouse gas mitigation policies. research [Olson et al \(2023\)](#) present a method for making multimodel probabilistic projections of El Niño Southern Oscillation (ENSO) properties, by overcoming challenges associated with model dependence and historical performance. findings suggest that future ENSO is likely to be more seasonally locked and have a longer period, while uncertainties regarding ENSO amplification remain. This approach reduces the uncertainty by 37% compared to the simpler method.

#### Cluster 4: Exposure to Climate Risks Accounting

This cluster has 12 keyword items, namely adaptation, estimate, evidence, exposure, health, heat, mortality, projection, scenario, temperature, uncertainty, world. A number of relevant studies include [Bui & De Villiers \(2017\)](#) explaining the strategies adopted by organizations to respond to risks and opportunities arising from changes in government climate change policies and supporting management accounting adopted. Climate change risk exposure increased during the period due to changes in climate change risk estimates/perceptions, market opportunities, and regulatory uncertainty. Organizational strategies changed in response, moving from stable strategies to various combinations of anticipatory, proactive, and creative strategies, and eventually back to reactive strategies. Carbon management accounting changes to support the new strategies adopted at each time period. Long-term physical and monetary accounts for sustainability and extensive use of carbon information are prevalent during periods when companies employ proactive or creative strategies. In contrast, short-term physical accounts for unsustainability and limited use in decision-making were observed when firms adopted stable, anticipatory or reactive strategies. Regulatory uncertainty was found to be a major constraint to proactive strategies and the development of carbon management accounting in response to climate change.

[Shahrour et al \(2023\)](#) address gaps and limitations in the literature regarding firms' exposure to climate risk. This research offers a comprehensive review of corporate climate risk exposure and the theories used. It also emphasizes the urgent need to address climate change and the critical role of firms in climate risk management. In addition, study this supports the advancement of sustainability policies and highlights the importance of understanding corporate climate risk exposure. [Khalifa et al \(2024\)](#) examined the impact of climate risk on accounting conservatism for a sample of

listed companies operating in 26 developing countries. The study found that greater climate risk leads to lower levels of accounting conservatism.

[Ferdous et al \(2024\)](#) examined the impact of climate risk exposure on accounting conservatism, and documented a significant positive relationship. The study found that companies facing climate risks tend to adopt more conservative reporting practices. This effect is particularly stronger during important periods of climate awareness, such as those around the Paris Climate Agreement, and in jurisdictions governed by common law. [Ding et al \(2024\)](#) studied how climate risks shape accounting conservatism with data collected from 47 countries. The results show that firms exposed to higher climate risks use more conditional conservatism, but less unconditional conservatism in their financial reporting. Furthermore, the impact of climate risk on unconditional conservatism and conditional conservatism is significantly amplified, both statistically and economically, in well-governed countries. higher , the impact of climate risk on unconditional conservatism is significantly enhanced but the impact on conditional conservatism is significantly weakened. The study also finds that in countries with uncertainty avoidance

## CONCLUSION

This study aims to determine the extent of the development of research on the theme of "Climate Change Accounting" in the world. The results of the study show that the number of research publications related to "Climate Change Accounting" there are 181 journal articles indexed by Dimension. Furthermore, in the development of research related to "Climate Change Accounting" based on bibliometric keyword mapping, impact, distribution, species, area, mission, accounting, condition, factor, ecosystem, and temperature the most widely used are keywords . Based on the keywords that are often used, it is then grouped into 4 research map clusters with topics that discuss Carbon Accounting and Financial Reporting, Natural Resource Accounting and Climate Change, Future Climate Scenarios in Accounting, and Exposure to Climate Risks Accounting.

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