International Journal of Advanced Research in Commerce, Management & Social Science (IJARCMSS)
ISSN :2581-7930 (Online), Impact Factor : 7.270, Volume 08, No. 04(II), October-December, 2025, pp 20-28

Carbon Border Adjustment Mechanism: A Cross-Country Comparative Analysis

Dr. Ekta Kumawat[1*] | Prof. Shurveer Singh Bhanawat[2]

[1]Assistant Professor, Faculty of Commerce, Parul University, Vadodara, India.
[2]Head and Dean, Department of Accountancy and Business Statistics, University College of Commerce and Management Studies, MLSU, Udaipur, Rajasthan, India.

[*]Corresponding Author: ektakumawat38@gmail.com

Citation: *Kumawat, E., & Bhanawat, S. (2025). Carbon Border Adjustment Mechanism: A Cross-Country Comparative Analysis. International Journal of Advanced Research in Commerce, Management & Social Science, 08(04(II)), 20–28. https://doi.org/10.62823/ijarcmss/8.4(ii).8317*

ABSTRACT

The relationship between international trade and climate-based regulations has intensified in recent years as countries enact regulations on how much companies should charge for emitting carbon dioxide. One of the main problems associated with implementing unilateral climate-related policies is that some industries may move carbon-emission-intensive manufacturing processes to countries where environmental regulations are not as strict (carbon leakage). To address these issues, the EU created a Carbon Border Adjustment Mechanism (CBAM) that proposes to equalize carbon costs on imported and domestic products. Many of the other nations, such as the USA and Canada, propose or develop their CBAM-type systems, following the introduction of the CBAM by the European Union. This research compares the carbon border adjustment systems proposed by select nations and assesses several factors, including the way the policies have been designed and implemented, what sectors are affected, what components are expected to drive carbon emissions, and how these systems will benefit the environment. A mixed methods design has been adopted using a combination of secondary quantitative indicators for determining the effectiveness of the carbon border adjustments compared to the levels of carbon pricing, carbon emissions intensity, and carbon trade exposure. The findings of this study indicate that a CBAM will enhance the environmental credibility of domestic political action on climate change and help mitigate carbon leakage, but it will significantly vary in terms of its economic impact based on jurisdiction. Finally, the issues associated with setting up the measurement, reporting, and verification component of a CBAM raise significant difficulties with regard to how effective these policies will be in practice. This research will enhance and extend the knowledge regarding CBAM design from a cross-country perspective and also be used to inform global climate policies and global trade policies. The findings suggest that phased implementation of CBAM through international cooperation is a sustainable method of aligning climate ambition with trade objectives.

Keywords: *Carbon Border Adjustment Mechanism, Carbon Pricing, Carbon Leakage, International Trade, Environmental Policy.*

Introduction

In recent years, countries have restructured national economies in response to achieving their specific climate mitigation targets. Many countries have committed to reducing greenhouse gas emissions through various domestic policies under the Paris Agreement framework, such as Carbon Price, Carbon Tax, Emissions Trading Systems (ETS), etc., while many countries have adopted and implemented inconsistent policies regarding greenhouse gas emissions which raises concerns about

competition and carbon leakage (Böhringer et al., 2012). This is a major conflict between economic competitiveness and environmentally productive practices in the context of global economic integration.

Carbon leakage, as defined by Fischer and Fox (2012), is the transfer of production with high carbon emissions from areas with strict climate policies to areas without such restrictions or with less restrictive climate policies. Because of this, carbon leakage causes both domestic industries to have to compete internationally and diminishes the ability of unilateral climate policies to be environmentally effective. Energy-intensive and trade-exposed (EITE) sectors e.g., cement, iron & steel, aluminum face the greatest risk due to carbon leakage. The literature suggests that even the most comprehensive domestic carbon pricing systems are inadequate to attain the global reductions in greenhouse gases without the presence of supporting border measures.

Policymakers have suggested Carbon Border Adjustment Mechanism (CBAM), which would impose a carbon-based levy on imported goods that is equivalent to the cost that would be incurred by domestic producers. Through this process, CBAM will help to balance the playing field at a global level while promoting cleaner production methods. The CBAM will be implemented in the European Union starting with a transitional reporting period in October 2023, moving to an established framework starting in January 2026.

Despite the momentum given by this new policy agenda, there is currently very little literature on comparing the design and implementation of similar policies in other countries A recent study reveals how carbon border adjustment policies differ across countries as a result of their own political priorities and goals, as well as due to varying degrees of acceptance of the concept itself. Currently, Canada, the United Kingdom, and many other developed countries are developing and evaluating new or modified versions of these policies in line with their unique political objectives and institutional arrangements.

This research has been undertaken in order to fill a research gap This study addresses the research gap by providing a structured comparative analysis of the carbon border adjustment policies available and being developed in selected developed countries.

The paper addresses the following research questions:

- How do carbon border adjustment policies vary across countries with respect to the policy design, legal basis, and sectoral scope?
- What are the economic effects of these policies for energy intensive and trade exposed (EITE) industries and developing economies?
- To what extent can carbon border adjustment instruments improve environmental efficiency by reducing carbon leakage and achieving carbon emissions reduction?
- Which institutional and administrative factors are required for effective implementation?

These questions are pursued within the broader context of trade integration and the developing global climate policy framework.

Theoretical and Conceptual Framework

- **Carbon Leakage and Unilateral Climate Policy**

According to economic theory, international trading patterns are affected by the increased cost of production for firms subject to unilateral climate policies (Such as, in the case of Böhringer et al. 2016). This can lead to an increase in carbon leaking when firms decide to move their production to countries where it is less expensive and/or the international marketplace is very competitive. Certain industries or sectors face greater potential for carbon leakage than others, especially when production levels are highly emission intensive, with a high degree of standardization and trade exposure. Carbon leakage risks differ greatly by country and sector due to the differences in production technologies, capital mobility and market structures.

Although the total amount of carbon leakage appears to be relatively moderate, it is likely that industries such as the cement, iron & steel, aluminum and fertilizer sectors have substantial amounts of leakage occurring. The carbon leakage that these sectors are exposed to will depend on the elasticities of production, capital mobility and the long-term adjustments in global supply chains, as well as whether they are using historical carbon costs. Understanding the dynamic interactions between these factors is critical to developing a border adjustment policy that will help to mitigate the problem of carbon leakage without causing excessive disruption to the economy.

- **Carbon Border Adjustments and Trade Neutrality**

Carbon Border Adjustment Mechanisms (CBAM) are used to create equalities between imported goods in carbon taxation and the equivalent domestically produced goods equally affected by carbon pricing. CBAM is intended to supplement domestic climate policies since it has the potential to team beyond borders of each nation (Mehling et al., 2019). There are still uncertainties related to adhering to WTO rules and that there are no problems with the ability of governments to implement CBAM mechanisms because, while they are beneficial to the climate system, they must also meet the requirements of international trade law in order to be successful in attaining worldwide acceptance.

Theoretical arguments relating to the effects of CBAM on trade and the environment all center around the idea that the carbon prices created by domestic markets should also apply to foreign products entering that same market accompanied by foreign manufactured products that are affected by that price - with this ability to equalise the prices of domestic and foreign produced items in carbon taxes being the way to fix the distortion created by countries making unilateral decisions regarding climate policies while sending the correct signals on pricing that encourage emission reductions across nations. However, when implementing this argument, governments need to deal with multiple institutional and technical obstacles related to determining accurately the amount of embedded carbon contained in imported processed products, monitoring the compliance of foreign governments, and creating an effective system of administering rebates on exports of processing products to other countries.

- **Political Economy Considerations**

CBAM also reflects and incorporates national political economies and strategic considerations for domestic governance. The Governments maintain a focus on climate considerations while simultaneously attempting to protect their domestic industries and jobs. The CBAM therefore represents a balancing act between environmental objectives, industrial competitiveness, and geopolitical interests. Options related to mechanisms for revenue generation, sector-specific areas of coverage and timeframes for implementation are not only based on technical, functional compatibility but also depend on the political, economic, and social viability within domestic contexts.

Literature Review and Research Gap

- **Carbon Leakage, Competitiveness and the Rationale for Border Adjustment Measures**

Research examining the relationship between climate change and global trade policies consistently finds that carbon leakage is one of the biggest challenges for unilateral climate policies globally. A number of early academic authors pointed out that when different countries implement different prices on carbon, this could create an unequal playing field where certain industries (e.g., energy-intensive businesses) have a high risk for carbon leakage and, therefore, could potentially threaten their ability to compete internationally. Carbon leakage creates no net benefit in reducing overall GHG emissions since production activities are simply relocated to countries with lower-carbon prices (Böhringer, et al., 2012). Subsequent studies have demonstrated that carbon leakage risk differs based on a number of economic characteristics, such as significance of carbon intensity in the region, openness to trade, and potential for substitutes (Fischer, & Fox, 2012) and that these studies provide an economic rationale for imposing import taxes/levies to provide additional economic incentive to keep the integrity of their domestic climate change policies while maintaining the competitiveness of their respective industrial sectors (Fischer & Fox, 2012). Moreover, as such, within this frame of understanding, a large portion of the literature views border adjustment measures as purely alternatives to resolve structural imbalances within carbon regulation on a global scale, although, while border adjustments may place constraints on creating economic advantages or disadvantages, failure to address carbon leakage would create a much larger and significant negative consequence on the success of climate change policies.

- **Carbon Border Adjustment Mechanism: Design and Implementation**

CBAM represents a conceptual instrument for applying a national-level pricing system to imported items based on their greenhouse gas emissions. CBAM also leverages economic efficiency to reduce corruption risks linked to carbon leakage and denotes an economic mechanism via which the compliance with decarbonization targets would be reflected by means of pricing mechanisms used domestically. CBAM implemented through the use of computable general equilibrium (CGE) models has been shown by economists to be more effective than free permits in reducing carbon leakage to a larger extent. Although the potential impacts of CBAM on various economies will likely be comparable, the impact level will differ by CBAM's application (Bellora & Fontagné, 2023). There have been many

academic studies on the challenges of implementing CBAM (Cosbey et al., 2021), of which accurate measurement, reporting and verification (MRV) of emissions has consistently been identified as a key impediment, mainly where there exist complex global value chains. Additionally, there is ongoing support from legal scholars for the application of CBAM as consistent with World Trade Organization (WTO) rules, due to the fact that CBAM can benefit from exceptions and non-discrimination provisions in the context of **decarbonization** efforts. Legal scholars have also noted that, in order for CBAM to function effectively, its design must not be influenced by de facto protectionism (Leonelli, 2022). The level of administrative capacity to implement and enforce CBAM provisions varies significantly from one jurisdiction to another, and generally, developing countries face additional barriers.

- **Developing Country Perspectives and Global Value Chain Considerations**

An emerging body of literature places CBAM in the context of Global Value Chain and development disparities (Bellora & Fontagné, 2023). The ongoing fragmentation of production processes across national borders will create more complex methodologies and administrative requirements for tracking carbon emissions to final consumption goods. Many researchers have indicated that compliance costs for CBAM will be passed on throughout the supply chain, thus creating disparities in the adjustment burdens incurred by small/medium exporters based in developing countries (Cosbey et al., 2021). Consequently, there are significant equity issues regarding how adjustment costs are allocated. Research into the experience of the Global South has illustrated that unless CBAM is implemented with supportive mechanisms, including technology transfer initiatives, climate finance, and phased implementation, it may effectively create an indirect trade barrier (Cosbey et al., 2021). For example, countries such as India, Brazil, and South Africa are more exposed to the risks associated with implementing CBAM because they have limited access to low-carbon technologies, remain highly reliant on carbon-intensive exports, and lack adequate MRV systems (Zhong & Pei, 2023). There is evidence that CBAM may also encourage increased transparency with respect to emissions and promote technological advancement in exporting countries, provided that international cooperation mechanisms to strengthen them are enhanced.

There is a strong empirical and theoretical foundation for the carbon border adjustment policies based on the literature reviewed. However, there are still many important research gaps in the available research. The primary focus of most current research is only on the EU carbon border adjustment mechanism (CBAM) with little attention to any other policy type, and very little comparative analysis between policies has been done so far. Quantitative modelling studies are frequently limited by institutional and administrative constraints; therefore, they do not accurately represent the results of actual application in practice. The CBAM assessment is also largely based on the perspectives of developed countries, and only token consideration is given to the views of developing countries. The current study addresses these gaps by presenting a report comparing the CBAM to similar policies implemented or proposed in multiple areas.

Research Methodology

Research Design and Approach

In this study, researcher employs both qualitative comparative policy analysis and quantitative analysis with secondary data to produce an integrated. Researchers use qualitative methods to systematically review legislative proposals, official documentation, and public input on proposed policies across the U.S. Quantitative methods relied on existing data regarding sector emission intensity, carbon pricing, trade exposure, and international competitiveness. The combined approaches provided a means for collecting high levels of context while providing opportunities for cross-national comparison.

Case Selection and Scope

The European Union, the United States, Canada and the United Kingdom are all highly developed countries with established Climate Change Regulatory frameworks and are at varying stages in implementing carbon border adjustment policies. Each jurisdiction has been selected as an example because of the wide range of policy development regarding CBAMs that can be highlighted in this report. The European Union is the most developed jurisdiction in implementing CBAMs while the other three have varying degrees of development from legislative proposals through policy consultations.

Data Sources and Collection

The data were collected from multiple sources including regulatory documents, official government documents and legislative proposals and consultations, carbon pricing databases

maintained by national and international organizations and international trade and emissions statistics. Secondary data included carbon prices from emissions trading systems, sectoral emissions intensity measurements, and bilateral trade flow data. This multi-source approach improves information verification and reduces reliance on any single biased source.

Analytical Framework

Policies are analyzed based on four main dimensions:

- Policy development and rationale for reviewing and analyzing the legal and governance mechanisms and institutional arrangements.
- Sectoral coverage to evaluate which sectors have been included, excluded or included gradually
- Economic impact indicators to assess the level of carbon pricing, the cost of compliance, and the vulnerability of the sector to competition from abroad
- Environmental effectiveness is intended to assess the potential for reducing carbon leakage and potential reductions in total greenhouse gas emissions.

This framework allows for a direct comparison across various regions while honoring the unique characteristics of each jurisdiction.

Comparative Analysis of CBAM-Style Policies

Policy Structure and Legal Design

The EU ETS (European Union Emissions Trading System), which obliges importers to purchase CBAM certificates for their respective developed greenhouse gas emissions associated with their goods, is directly tied to the EU CBAM (European Commission 2023). The EU's unique institutional structure and the regulation of imports are defined by the EU CBAM strategy. The strategy permits importers to determine the carbon content of imported goods either by using the EU CBAM's reference emission factors or by obtaining the actual carbon emissions data from foreign manufacturers. The EU's last facet of the CBAM strategy facilitates and encourages the possibility of establishing mutual recognition between carbon pricing mechanisms of third countries.

While the US Government has developed a carbon tax that encompasses the entire economy, its border measures have specified how the domestic regulatory system is modified. This illustrates how politically difficult it is to implement a comprehensive carbon pricing scheme within the US. The approach outlined will enforce compliance with the costs of compliance for imported products against those for domestic manufacturers thereby determining the prices of the imports indirectly rather than as a result of an explicit price structure. Since the methodology of pricing has departed from the EU CBAM pricing structure, it raises unique issues regarding compliance with the World Trade Organization (WTO).

Canada and the United Kingdom are clearly prioritising the alignment of both Countries' existing Carbon Pricing regimes. An incorporated price-regulation model, like that of Canada, would benefit from any proposed improvements to the existing model. The UK is looking to create a policy which is not only complements the current U.K.'s Carbon Pricing regime but also creates the opportunity of alignment with the EU's emissions reduction systems in the future. The two nations seek a balance between the need for an environmentally efficient solution while also addressing their respective international relationships and managing the associated complexities. Table 1 summarise the comparison of CBAM policy structure of selected economies:

Table 1: Comparison of CBAM Policy Structures

Dimension	European Union	United States	Canada	United Kingdom
Policy Status	Implemented (transitional)	Proposed	Under Discussion	Under Consultation
Link to Carbon Price	Explicit (EU ETS)	Implicit	Explicit	Explicit
Legal Basis	Regulation	Legislative Proposal	Policy Consultation	Policy Review
WTO Alignment Approach	Non-discrimination Principle	Domestic Standards-based	ETS Alignment	ETS Alignment

- **Sectoral Coverage and Scope**

EU Regulation of CBAM marks the first time that the EU plans to regulate the import of carbon-intensive commodities through an economic mechanism. The regulation targets the most carbon-intensive commodities that are imported into the EU, including cement, iron and steel, aluminum, electricity, fertilizer, and hydrogen. This phased approach to implementation is designed to allow the EU and its lawmakers to learn about and improve the measure as they implement it. The transition phase of the CBAM will focus on reporting rather than financial obligations and will provide both producers and importers time to develop systems for measuring the amount of carbon contained in their products. The sector-specific focus of the CBAM makes clear both the environmental and political priority of these sectors in terms of their potential impact on the overall economy and political landscape of the EU.

A number of other countries are currently considering the implementation of limited CBAM coverage due to administrative and political issues. the U.S. is currently focused exclusively on its border adjustment proposal for the same sectors that are directly affected by domestic climate standards, and Canada and the U.K. also anticipate that their initial implementation will have a relatively limited scope. The differences between the different countries reflect the varying levels of assessments by the relevant authorities of their administrative and political capacity and the relative importance of the various sectors. Although a limited-scope approach can reduce the overall complexity of implementing the CBAM, it has the potential to reduce the amount of benefit to the environment and to maintain or enhance competitive advantage. Table 2 presents sectoral coverage under developed and proposed CBAM-style policies:

Table 2: Sectoral Coverage under CBAM-Style Policies

Sector	European Union	United States (Proposed)	Canada (Proposed)	United Kingdom (Proposed)
Steel	✓	✓	✓	✓
Cement	✓	✓	✓	✓
Aluminum	✓	✓	✓	✓
Fertilizers	✓	Limited	Limited	Limited
Electricity	✓	–	–	–
Hydrogen	✓	–	–	–

- **Economic Implications and Distributional Effects**

CBAM increases the cost of compliance for exporters from carbon-intensive economies through added costs from usage of carbon-intensive products in their end product. This is countered by the competitive disadvantage that CBAM created for domestic manufacturers of carbon-intensive products who are already subject to carbon pricing. As would be expected from CBAM's focus on those carbon-intensive exporters with high levels of emissions intensity and export dependency, the costs of compliance may be substantial and focused on various geographic areas where those carbon-intensive exporters operate. In addition, producers in those countries that already employ carbon pricing mechanisms and other new carbon-reduction technologies will only incur small incremental compliance costs.

Economic impact indicators demonstrate considerable discrepancies by area (Bellora & Fontagné, 2023). Because of its relatively high carbon pricing compared to other countries, the EU has a much higher cost of carbon for importers without comparable pricing in the rest of the world. The United States does not have economy-wide carbon pricing but has a variety of state and sectoral policies creating a confusing baseline condition for border adjustment mechanisms. Canada and the UK fall into a mixed category with the carbon pricing within Canada and the UK being relatively higher than what was anticipated in the estimate for the US. The difference in pricing is significant in how it will affect the competitiveness of the countries under a possible CBAM implementation.

Table 3: Economic Impact Indicators

Indicator	European Union	United States	Canada	United Kingdom
Average Carbon Price (USD/tCO_2)	High	Moderate	High	Moderate-High
Trade Exposure of EITE Sectors	High	Moderate	Moderate	High
Administrative Readiness	High	Moderate	Moderate	Moderate

Environmental Effectiveness and Implementation Challenges

The Carbon Border Adjustment Mechanism will improve environmental effectiveness by raising the price of carbon across international borders and providing incentives to members to reduce global emissions to meet their obligations under the Paris Agreement. However, accurate measurement, and reporting, and verification, commonly referred to as M.R.V. Systems, is essential to the effectiveness of the CBAM. Within exporting countries, an ineffective MRV Framework may reduce effectiveness and create inequalities. In countries that are underdeveloped and do not have advanced monitoring and reporting systems, it creates unique challenges to administer confirmations of embedded emissions within complex products.

One of the challenges regarding measurement is calculating the carbon intensity of imported products that are produced using different methods and is a part of extensive global value chains, or supply chains. For example, depending upon the measures utilized to calculate carbon emissions, for one product, large discrepancies could arise between the amounts reported. If the product-specific information does not exist, the EU's default valuation system can use preset standards; however, in many cases, these preset values will result in either inflated or deflated amounts of carbon emissions based on the actual production methods used. A second technical and politically unresolved matter relate to creating common measurement standards across borders.

Potential implementing countries differ greatly in their ability to implement a complex Carbon Border Adjustment Mechanism (CBAM). Developed countries have already established institutional frameworks, technical capabilities, and administrative structures that allow them to be able to manage a complex mechanism like a CBAM. Developing nations, however, do not currently possess these same institutional, technical, or data collection capabilities. As a result, the differing capabilities between developed and developing nations will pose significant challenges for the practical implementation of a CBAM and potentially raise questions regarding fair and equitable implementation of CBAM's in developing nations.

Policy Implications and Recommendations

Policymakers seeking to implement or explore carbon border adjustment mechanism (CBAM) should consider several important elements identified in this comparative analysis. To minimize the potential for trade disruption while maximizing fairness, an initial priority should be to implement CBAMs in phases and through international collaboration. A phased implementation process will allow both importing/exporting countries to learn from the CBAM experience, making adjustments as necessary to the CBAM policy. In addition, it will allow importers and exporters time to adjust to the implementation of the CBAM. Additionally, transitional provisions and exemptions should be given serious consideration for developing countries that may have been disadvantaged by the implementation of CBAM.

For exporting nations, the development of emissions accounting systems and implementation of low-carbon technologies will be critical to minimize the costs associated with CBAM. The implementation of these technologies will require international financial assistance and technology transfer, especially from developed nations to developing countries. The ability of current international climate finance mechanisms to provide assistance in support of these investments requires further clarification, and should be a major focus of multilateral climate forums.

CBAM developments highlight the necessity for establishing consistent carbon pricing systems across all levels of the international community, and the importance of developing mutual recognition systems. In this sense, rather than treating CBAMs as purely unilateral forms of protectionism, policymakers can view CBAM-style measures as an opportunity to promote global collaboration related to carbon pricing. Therefore, the World Trade Organization (WTO) and the United Nations Framework Convention on Climate Change (UNFCCC) should produce guidance clarifying how border measures relate to international trade and climate change frameworks.

Limitations and Future Research Directions

This investigation has some constraints that need to be mentioned. First, while the findings of this research are mainly based on publicly available materials and resources, they do not take into consideration the use of stakeholder perspective or primary data collection. Second, the use of quantitative indicators does not provide a comprehensive view of the dynamics of policy changes and implementation of CBAM. Third, the limited number of advanced economy case studies makes it difficult to apply the findings of this study to the worldwide policy environment. Fourth, federal policies have

changed or continue to be amended since the date of this review of policies triggered by the rapid change in federal policy that have taken place in the months prior to this review. The future research of the effects of these policies will require the use of real-time data on the implementation of the policies as they develop, and therefore, further examination of the interactions between CBAM and other climate policy instruments should be carried out, including evaluation of potential mechanisms for providing technology transfer and financial assistance to developing nations. Longitudinal analysis of the results of these studies will be extremely useful to the European Union's CBAM implementation efforts, and additionally, future research should include comparison case analyses focusing on the specific sectors in which the impacts of CBAM manifest.

Conclusion

There are differences in terms of the level of development, as well as the regulatory and operational capability of countries implementing CBAM legislation (See Comparison of Country CBAM Legislation Comparatives). The framework established by the Convention of the European Union includes an active carbon pricing scheme, making this specific model the most sophisticated of all analysed (European Commission, 2023).While countries can easily adopt and adapt this model, they will need to modify it significantly to fit into their own institutional, policy, and economic landscapes, as illustrated by various CBAM policy examples in the United States, Canada, and the United Kingdom.

The findings show that a CBAM has the capability to reduce carbon leakage, as well as enhance the environmental integrity of countries' climate policies (Böhringer et al., 2012; Mehling et al., 2019). On the other hand, the economic and distributive consequences of a CBAM will vary significantly depending on the type of industry and its jurisdiction. As noted, the accurate measurement, reporting, and verification of the CBAM are not insignificant obstacles to successful implementation (Cosbey et al., 2021). Finally, any failure to incorporate a mechanism for both technical and financial assistance could pose the greatest challenges for least developed countries to adjust to a CBAM (Zhong & Pei, 2023).

Creating and implementing CBAM-style policies in a manner that allows trading partners, including developing countries, to raise legitimate concerns about achieving environmental objectives will influence their success in the future. To achieve this goal, international cooperation and communication methods need to go beyond a single nation approaching it on a unilateral level; therefore, the Paris Agreement provides the framework for this type of collaborative environment. Still, making the transition from a broad promise to precise institutional arrangements continues to present challenges.

As countries move forward with implementing CBAM, the body of evidence regarding its effectiveness continues to grow. The iterative process of policy improvement should be guided by ongoing assessment of policies' effectiveness, the resulting economic impacts, and how well a CBAM policy will benefit society as a whole compared to the individual. Policymakers should view CBAM as one tool within a larger suite of climate policy options rather than a permanent or comprehensive solution; CBAM typically performs best when utilized with measures that directly deal with the underlying systemic causes of carbon leakage such as technology transfer, capacity building, and developing international agreements regarding the harmonization of carbon pricing.

Acknowledgement

The author acknowledges financial support from the Indian Council of Social Science Research (ICSSR), New Delhi, India.(File No.- 3-119/2023-24/PDF/GEN)

References

1. Bellora, C., & Fontagné, L. (2023). EU carbon border adjustment mechanism: Economic impact and policy challenges. Journal of Environmental Economics and Management, 117, 102760.
2. Böhringer, C., Balistreri, E. J., & Rutherford, T. F. (2012). The role of border carbon adjustment in unilateral climate policy. Energy Economics, 34(S1), S97–S110.
3. Böhringer, C., Carbone, J. C., & Rutherford, T. F. (2016). The strategic value of carbon tariffs. American Economic Journal: Economic Policy, 8(1), 28–51.
4. Cosbey, A., Droege, S., Fischer, C., & Munnings, C. (2021). Developing guidance for implementing border carbon adjustments. Energy Policy, 152, 112156.
5. Durel, L. (2024). Border carbon adjustment compliance and the WTO. Journal of International Economic Law, 27(1), 18–39.

6. European Commission. (2023). Regulation establishing a carbon border adjustment mechanism. Brussels: European Commission.
7. Fischer, C., & Fox, A. K. (2012). Comparing policies to combat emissions leakage. Journal of Environmental Economics and Management, 64(2), 199–216.
8. Leonelli, G. C. (2022). Export rebates and the EU carbon border adjustment mechanism: WTO law and environmental objections. Journal of World Trade, 56(6), 963–984.
9. Mehling, M., van Asselt, H., Droege, S., Das, K., & Verkuijl, C. (2019). Designing border carbon adjustments for enhanced climate action. American Journal of International Law, 113(3), 433–481.
10. Zhong, J., & Pei, J. (2023). Carbon border adjustment mechanism: A systematic literature review of the latest developments. Climate Policy, 23(5), 567–586.

❑❑❑