



NIAS-Europe Studies Brief

European Union Emissions Trading Scheme: A Prototype for Global Emissions Reduction Mechanism

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Abstract

European Union Emissions Trading Scheme EU ETS), the largest market for greenhouse gas (GHG) emissions serves as a significant model for other carbon markets globally like the one in China. The European Union (EU) as a supranational organisation has implemented and initiated various initiatives to achieve a goal of a unified Europe. EU ETS is one such initiative designed to reduce GHG emissions among the participating countries in the region. Though various literature on ETS has outlined several challenges of effectively implementing EU ETS, some pieces of literature argue that if proper policies are formulated, it would have the potential of becoming a global mechanism for emission reduction through a market-based trading scheme. Against this background, this study explores if EU ETS can become a global mechanism for carbon reduction and a forerunner to address climate change. The study briefly discusses the origin of the EU ETS, drawing from the climate change regime like the Kyoto Protocol, followed by an overview of the mechanisms of the EU ETS, highlighting the areas of the cap-and-trade system, allocation of credits, trading patterns, etc. In discussing the EU ETS, the study also weaves into the role that EU integration plays in the implementation and success of the emission reduction policy in the region. The study also highlights specific political-economic nuances of the EU ETS and focuses on major challenges that the implementation of EU ETS faces. The paper reviews the challenges and nuances to assess its potential to be a comprehensive global emissions trading mechanism to address the impact of climate change.

Keywords: *Climate change, EU ETS, cap and trade, challenges, global emission reduction mechanism*

Introduction

Climate change is one of the major environmental problems worldwide. Efforts have been made to combat climate change and its impact through multiple global, regional, and local mechanisms.* Emissions trading is one of the mechanisms incorporated in the 2005 Kyoto Protocol. It is considered the best means or instrument for combating climate change while making it cost-effective. Taking this as an inspiration and a guide, the European Union (EU)

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planned and developed an emissions trading scheme at the regional level. Recently, in 2021, China launched the world's largest emissions trading scheme, estimated to cover 1/7 of the global carbon emissions from burning fossil fuels (Busch 2022). With China being considered the largest emitter of greenhouse gases, the success of the planned Chinese emissions trading scheme would largely determine the nature of climate change.

Nevertheless, it is interesting and significant to study the very first measure implemented regionally by the EU to measure its effectiveness for internationally viable options to curb carbon emissions. EU's emission trading scheme could be the model scheme that the world requires, given that it is the first transboundary cap-and-trade system and has effectively contributed to curbing carbon footprint. Covering approximately 11,000 installations (power plants and factories, including airlines operating flights within Europe) across the region, the EU Emissions Trading Scheme (ETS) is the biggest carbon market in the world (Creti and Joets 2017, and Abnett 2020). It covers 41 per cent of the total EU emissions (Abnett 2020). The scheme is in place across the 27 EU member states, including Iceland, Norway, and Liechtenstein, and is linked with the Swiss emissions trading scheme (LIFE ETX 2021). This commitment from numerous countries to partake in the EU ETS makes the mechanism viable for expansion outside the region.

Since the formation of the European Union in 1993, it has adopted multiple measures to ensure cohesiveness and deeper integration. One such measure is the emissions trading scheme wherein some of the European countries decided to come together to address climate change through the mechanism of cap-and-trade. EU ETS is a market-based mechanism to reduce the emission of greenhouse gas among the participatory countries in the region (European Environment Agency 2020). European integration has allowed the member states to cooperate which has led the EU to address environmental problems in the region collectively.

Background to EU ETS

Emissions trading or market-oriented measures are not new and was included in various climate agreements made under the United Nations Framework Conventions on Climate Change (UNFCCC), beginning with the concept of jointly implemented activities (Philibert and Reinaud 2004). Likewise, the first cap-and-trade system was introduced in the US to address air pollution following the Clean Air Act of 1970 (Borghesi and Montini 2016). Its success inspired countries like Australia and the UK to implement their emissions trading schemes. On the other hand, the EU had been contemplating a policy approach based on the 'command and control' environmental regulation in the 1990s, including adopting a regional carbon tax (Borghesi and Montini 2016). However, this policy was criticised by the industrialists and was subsequently abandoned. This led the EU to look into reforming and reviving European policy instruments in line with appropriate environmental policies, which resulted in the adoption of a market-based instrument in a much more significant manner. Later, the Kyoto Protocol of 1997 laid the foundation for emissions trading between countries whose operating rules were agreed upon in the 2002 Conference of Parties (COP) 7 in Marrakech (Philibert and Reinaud 2004). The EU introduced its emissions trading scheme through Directive 2003/87/EC (2003), drawing on the US experience in emissions trading schemes (Borghesi and Montini 2016).

Currently, many countries are individually developing mechanisms for emissions trading to curb their carbon footprint at the national level. The Paris Agreement also encourages the adoption of Nationally Determined Contribution (NDC) mechanisms through Article 6, and countries like Costa Rica, Cambodia, and Cuba is already finalising their strategies for their NDCs (UNDP 2022). This indicates that the voluntary carbon market for climate action is also emerging and gaining momentum. There are two major categories of carbon markets: a) compliance market, which is a regulatory requirement created as a result of policies made at the national, regional,

and international levels (UNDP 2022), such as the EU ETS and the Clean Development Mechanism (CDM) under Kyoto's regulatory requirement; b) voluntary market, which refers to the issuing, buying, and selling carbon credits voluntarily at national and international levels (UNDP 2022).

The EU ETS is considered a 'flagship measure' (Ellerman and Joskow 2008) and the world's first emissions trading scheme adopted by the EU to meet the obligation of the carbon reduction plan and mechanism inspired by the Kyoto Protocol, but it is independent of the Protocol. The EU ETS was operational even before the Kyoto Protocol came into force in 2005. On 1 January 2005, the EU ETS began its operation though the implementation was not uniform due to multiple factors (Ellerman and Buchner 2014). Yet, it was an important attempt by the countries in the region to adopt such effective measures to limit greenhouse gases (GHG). Such an extensive mechanism is possible when the countries collaborate and are determined to reduce emissions across Europe which also showcases the strength of a united Europe. Moreover, through its partnership with the Kyoto Protocol, the EU has adopted common targets, standards, and methodologies for reducing greenhouse gas emissions (Kollmuss & Polycarp, 2008). This cooperation among the EU member states has helped to reduce the transaction costs of mitigating climate change, enabling the effective operation of the EU ETS.

Phases of EU ETS

The EU's mechanism for carbon reduction was influenced by the 1997 Kyoto Protocol, which set legally binding emission reduction targets for the first time for 37 industrialised countries (European Commission 2022, a). As a result of which, the EU started to strategise the agenda for achieving climate neutrality. The implementation of the EU ETS has taken place over four phases:

i) Phase I (2005-2007)

In 2005, the EU launched its maiden carbon trading phase, which covered emissions from power plants, steel plants, oil refineries, and cement factories in the then-25 EU countries (Abnett 2020). This phase can be considered a preparatory phase for phase 2. Some of the significant features of this phase were:

- a) Only CO₂ emissions were included from energy-intensive industries
 - b) Most of the allowances were given for free to the businesses
 - c) A penalty was also imposed for non-compliance that amounted to 40 Euros per ton.
- The first phase established a carbon price, free trade in emission allowance throughout the EU, and the infrastructure required to monitor, report, and verify emissions from select businesses (European Commission 2022, a). However, due to a lack of data on emissions, the allowances exceeded the emissions leading to the fall of the carbon price to zero in 2007.

ii) Phase 2 (2008-2012)

During this phase, there was an overlap with the Kyoto Protocol's first commitment period, where the European countries needed to meet their emission targets. The EU introduced certain key features in this phase of the ETS, like reducing the cap on granting allowances. This phase also saw: the joining of Iceland, Liechtenstein, and Norway; many countries including nitrous oxide emissions; the non-compliance penalty increased to 100 Euros per tonne; approximately 1.4 billion tonnes of CO₂ equivalent international credits could be bought by businesses; National registry and Community Independent Transaction Log was replaced by Union registry and European Union Transaction Log; and the aviation sector was brought under the ambit of EU ETS (on 1 January 2012) (European Commission 2022, a). Since data availability had

become easier, the cap on allowances was reduced based on emissions. The 2008 recession also impacted the carbon price as there was a surplus of allowances and credits.

iii) Phase 3 (2013-2020)

Phase 3 brought considerable change in the framework of EU ETS compared to the previous 2 phases. Some of the changes included national caps being replaced by the EU cap on emissions, and instead of free allocation, auctioning was chosen as a default method; more gases were added to the emission list, and more sectors were included; approximately 300 million allowances were put aside to fund the deployment of new innovative technologies for renewable energy through the New Entrants Reserve (European Commission 2022, a). These policies complemented the EU's green scheme by fostering new technologies that curb carbon emissions.

Since its adoption, the EU ETS has become one of the most effective mechanisms to curb carbon footprint. On 4 March 2020, the European Commission, as a part of the European Green Deal, proposed the first European Climate Law to sanctify the climate neutrality target of 2050 into law (European Commission 2022, b).

iii) Phase 4 (2021-2030)

The EU ETS is now in its fourth phase (2021-2030). During this phase, it aims to attain climate neutrality in the region by 2050, which is in line with the Paris Agreement of 2015, the objective of which was to keep the rise in global temperature below 1.5 degrees Celsius (European Commission 2022, b). Given the nuanced nature of the scheme itself, it is just a matter of time before such a bold and ambitious aim of the EU is achieved.

The Working of the EU ETS

The EU ETS functions on the principle of cap and trade, which means that the GHG allowances are considered a product that can be traded on the carbon market in the EU (Environmental Protection Agency 2022). The companies regulated under the EU ETS include installations like power plants, industrial plants, companies that use heavy energy, and airlines. The cap is set at the EU level on the total amount of GHGs emitted by these companies (Environmental Protection Agency 2022). The EU also sets the timeline for the pace of limiting emissions, and the cap moves downwards every year to meet the final target. The cap is divided into several permits for pollution - EU Allowances (EUA) and one EUA equals one tonne of CO₂ emissions (LIFE ETX 2021). Under the EU ETS, the installations are to surrender allowances equal to their previous year's emissions (LIFE ETX (2021). For example, an installation that emitted one million tonnes of CO₂ in 2020 would require one million EUAs to transfer to the European Commission's central registry in 2021. (LIFE ETX 2021).

An online banking system called the Union Registry was established to bank carbon allowances instead of money and operate electronically (Environmental Protection Agency 2022).

Companies under the EU ETS must have accounts in the Union Registry to transact their carbon allowances. The companies are levied a heavy penalty if they do not comply.

A series of legislative proposals were tabled in July 2021 that highlighted how to achieve climate neutrality by 2050 and a short-term goal of reducing a minimum of 55 per cent in GHG emissions by 2030 (European Commission 2022, c). The issue of carbon leakage was also discussed. Carbon leakage is a situation which occurs when costs related to climate policies and businesses transfer production to other countries which have fewer constraints on GHG emissions (European Commission 2022, c). Therefore, a more stringent criterion was introduced to prevent carbon leakage.

According to Abrell, Faye and Zachmann (2011), the cap-and-trade system would be ineffective as it has been observed that it would be difficult to set the cap ex-ante as it depends on various factors primarily economic development. Therefore, setting a cap would be an ambitious goal to attain. In addition, the latest EU proposal of a “carbon adjustment programme” imposes a carbon price on imports from regions where there is no carbon tax (Toplensky 2022). This way, Europe is seen expanding its market while regulating shipping under ETS rules and new policies and extending it to sectors like buildings and transport (Toplensky 2022). The EU ETS is a work in progress, and more stringent regional policies may be introduced for its economic gain and its effort to curb carbon footprints in the region.

Achievements

The cap-and-trade system of the EU ETS has successfully limited emissions in the region because of the nature of its integration. According to Convery (2009), the success of the EU ETS was inevitable because of the single European market and its ability to impose a carbon energy tax based on qualified majority voting that nullifies any country's veto. The GHG emissions from the stationary installations under EU ETS have decreased from 1530 million tonnes of CO₂ in 2019 to 1355 million tonnes in 2020, a decrease of 11.4 per cent and 43 per cent compared to 2005 (European Environment Agency 2022). The data shows a drop in emissions witnessed only during the time of recession in 2009. According to the data by Statista, EU ETS alone was responsible for a 23 per cent reduction in global emissions (Ties, 2022).

Hence, the EU and its emissions trading scheme have been lauded for their cost-effectiveness and environmental effectiveness. They complement each other and can be strengthened further in their nature and scope. The study conducted by Abrell, Faye and Zachmann (2011) found that the EU ETS induced emission reductions in the 2nd phase and that there were substantial differences in abatement behaviour across different phases. These findings highlighted that the EU ETS affected profits, employment, and the added value of regulated firms across the firms and was not specific to certain countries. The study undertaken by Abrell, Faye, and Zachmann (2011) was conducted by taking the sample of 2101 European firms covered by ETS to study the effectiveness of the ETS during its first and second phases and its impact on the company's performance. The result shows that two sectors, i.e. non-metallic minerals and basic metals contributed most to the reductions, while the electricity and heat sector did not at all (Abrell, Faye, and Zachmann 2011). This study shows that the reduction in emissions can be achieved if the cap is set properly and inclusive of other sectors like electricity and heat which failed to contribute to the emissions reduction.

The achievement of the EUETS can be attributed to the integration of the EU as it has facilitated some common standards, rules and regulations among the participating states which helped in promoting environmental protection and also address the challenges of carbon leakage. Kollmuss and Polycarp (2008), have highlighted that the common rules and procedures for allocating emission allowances and monitoring compliance developed by the EU across the member states ensured that none of the countries gains an unfair advantage. However, despite the EU's collaborative efforts in reducing emissions, there have been governance issues during the first two phases when member states had the liberty to decide and define their National Allocation Plans (NAPs) for allowances (Borghesi and Montini 2016). Too many allowances had been allocated because of political pressure from pressure groups on the government. In the initial phases, while most member states allocated allowances for free, some members, like Denmark, Ireland, and Lithuania, preferred to auction some share of them to cover administration costs. Despite these irregularities in the beginning, the situation improved later by increasing the price of the allowances and imposing hefty fines for emitting beyond

permitted levels. Though the EU has cut emissions through its ETS, there is no denying that the reductions were achieved by shifting production outside the EU to countries which do not have a carbon market (Bayer and Aklin 2020). This carbon leakage also hampered the achievement rate of the EU ETS. In other words, it might not have had the projected significant cut on global emissions.

Currently, the EU is negotiating to expand the scheme beyond the region through mechanisms like the Carbon Border Adjustment Mechanism (CBAM). This was done considering the issue of carbon leakage. The CBAM was announced by the EU on July 14, 2021, which aims at changing the trade pattern favouring the countries where the production is relatively carbon efficient but does not contribute enough to mitigate climate change (UNCTAD 2021). Interestingly, according to the UNCTAD (2021) report, the CBAM would generate gaps between developed and developing countries in terms of welfare. Under the CBAM mechanism, the carbon price is set at \$44 per ton and according to the analysis made by UNCTAD (2021), the income of developed countries would increase by \$2.5b, whereas the developing nations would fall by \$5.9b. It suggests that despite these differences, CBAM could be an effective mechanism for reducing carbon leakage but its contribution to climate change mitigation is limited to just about a 0.1% cut in global CO₂ emissions. Therefore, UNCTAD suggests EU to bring about policies that would be able to narrow down and gradually eliminate the gaps between developed and developing countries. This would probably help the EU ETS to be accepted not only by the European countries but the EU can bid at the global level to mitigate climate change.

Political Economy of EU ETS - Towards transformation?

The EU policymakers made a political calculation that for their plan to take shape, they needed to allocate free allowances based on the emission history of the polluters (known as grandfathering). Various economists had advised that the system would be cost-effective irrespective of how allowances were allocated (Sato, Rafaty, Call and Grubb 2022). However, policymakers were also cautioned that allocating allowances for free to the highest emitters could create incentives to emit more in the present so that they can obtain more allowances for free in the future. This resulted in a huge public resentment for reforms in the allocation of allowances as the system of providing free allowances would eventually profit the biggest polluters.

It took almost a decade of political lobbying and economic refinement to reform the existing allocation of allowances that eventually bore fruit. By 2022 the price of allowances hiked beyond 90 Euros per tonne of carbon after years of depression in carbon prices (Sato, Rafaty, Call and Grubb 2022 and Toplensky 2022). Figure 1 shows the trajectory of the European Union Allowance (EUA) futures prices and major events.



Figure 1: EUA futures prices and major events.

Source: European Energy Exchange (EEX) and EEA for EUA Futures 2007. ICAP Allowance Price Explorer and Member for EUA Futures Series (Sato, Rafaty, Call and Grubb 2022).

According to Sato, Rafaty, Call and Grubb (2022), allowance allocation is a “complex tug of war between environmental ambition, principles of aggregate economic efficiency, and the politics of distribution”. Hence, it is essential to look at the politics of lobbying and bargaining between environmentalists, bureaucrats, politicians, and other stakeholders, which impacts the decision-making regarding allowances. Mallard (2009) has highlighted that most of the research on political economy focussed on either the government or environmental groups ignoring the significant role played by the national bureaucracy. The role of the bureaucracy is vital because of its role in policy design in two important ways: a) it is the medium through which different players lobby the government, and b) it is the main body that implements policies (Mallard 2009). Hence, the role of the bureaucracy must be considered while designing and developing any environmental policies. Though the EU ETS has successfully captured the attention of the policymakers, the policies related to climate are usually seen as less significant than other profit-making businesses (Laing, Sato, Grubb and Comberti 2013). The involvement of the bureaucracy can be considered one of the important reasons for the scheme to be included in the major decision-making level at the EU. Therefore, the need of the hour is to include climate policies in mainstream policymaking, considering their impact on local, regional, and global levels.

Even with its success, the EU ETS has also received its share of criticisms. According to Toplensky (2022), the rules can be adjusted according to the needs of the EU objectives as carbon credits are conceptual rather than physical. In addition, assumptions can be made that Europe’s carbon trading policies and decarbonisation would lead to the next industrial revolution and address environmental concerns. However, there have been several speculations on the scheme’s limited impact on saving the environment. Further, it needs to be realised that the emissions covered under the scheme are only partial. Vlachou and Pantelias (2016) believe that the EU ETS is anything but a climate-sustainable scheme deeply embedded in capitalistic ideals and argue that a more radical transformation of society is needed with an emphasis on eco-socialist orientation. Therefore, due to the capitalistic nature of the scheme, it is more profit-oriented than environment-oriented, raising the fundamental question of distributive justice and public welfare.

Similarly, the results of the EU scheme have invited much speculation among researchers, with some claiming that the EU has failed to achieve its aim as prescribed. The criticisms stem from issues like allowance surplus, allowance for financial profit rather than environmental benefit, low price of allowances, and several instances of failure and fraud (Vlachou and Pantelias 2016). These complications have given rise to the market-oriented nature of curbing emissions instead of an attempt to address climate change and focus on sustainability. A more rigorous and effective transformative mechanism is required to address these concerns. Given its resources and the level of interconnectedness, the EU has the potential to lead the climate negotiation and develop mechanisms that are viable not only in the region but also beyond it.

Having said this, the integration of the EU though has led to a common emission trading mechanism, it cannot be denied that it has several challenges without addressing which we cannot achieve the stated goal of emission reduction in the region. Some of the challenges can be the favouring of certain selected industries that would lead to a lack of diversity in terms of participating countries. The allocation of too many allowances for free to some industries could result in lower carbon prices and reduced incentives for innovation and investment in renewable

energy (European Parliament 2017). Such instances have led to and could lead to uneven distribution of economic advantage that benefits some countries and companies more than others. The ETS has also been criticised for not being able to set ambitious targets wherein some stakeholders demand stricter regulations to promote faster decarbonisation (Stavins and Stowe 2016). On the one hand, EU integration has led to collaboration among the countries for achieving the goal of net zero through ETS. On the other hand, the EU has been accused of backtracking on climate policy commitments like its decision to abolish the Energy Efficiency Directive and the Renewable Energy Directive in 2018 (Stavins and Stowe 2016). Such actions of the EU have raised concerns about its commitment to tackling climate change which also undermines the credibility of the EU emission policy.

Nevertheless, when we speak about the ETS at the regional level, the commitment of the participating European nations cannot be undermined and the question about the allocation of allowances, political will, and setting of ambitious targets could be addressed with continuous assessments, reforming policies and expanding ETS beyond borders in the region and outside. The more the participation of the nations the more efficient would the outcome be in reducing the emissions.

A Global Emissions Reduction Mechanism?

The EU ETS has been functioning quite efficiently in the region. However, it would be a challenge to implement a similar scheme at a global level in the future due to multiple reasons. Countries like Canada and Japan, which have less complex and more cohesive cultural and institutional contexts, still need to develop emissions trading schemes (Convery 2009). The domestic political economy might be one of the reasons for their failed emissions trading scheme.

The recent EU proposal for a carbon border tax might be the much-needed impetus for expanding carbon trading from the regional to the global level and for the EU to meet its present climate ambitions. The CBAM aims to set a global carbon price by imposing a carbon cost on some imports into the EU, which is one of the biggest markets (Toplensky 2021). The CBAM would also increase the scope of the market for the EU. Under the CBAM, it is proposed to create an EU and US Carbon Club, which would then be expanded to include countries like China (Toplensky 2021). However, given Washington's stance, arriving at a global carbon price in the short term appears difficult.

Countries worldwide are committed to limiting carbon emissions to address the existential climate change crisis in a globalising era. Some major tools or mechanisms governments use to curb greenhouse gases include imposing pollution taxes, emission restrictions, emission trading policies, afforestation, and promoting renewable energy (Wei, Gong et al. 2021). Amongst these measures, the market-oriented emission trading scheme is considered a more cost-effective option, according to Schmalensee and Stavins (2017). However, this argument has invited criticism in the recent 27th Conference of Parties of the United Nations Framework Convention on Climate Change held in Egypt because the mechanism is yet to be projected as an environmental policy that addresses climate change. In this summit, the EU proposed the Carbon Border Adjustment Mechanism intending to impose a tax on products like steel and cement, which are regarded to be highly carbon intensive and would be effective from 2026 (The Hindu 2022, a). This proposal was opposed by India, China, Brazil, and South Africa, also known as (BASIC) (The Hindu 2022 a). The parties, including the G77 and China, insisted on a decade-old demand for creating a 'loss and damage' fund to compensate target countries bearing the brunt of climate-related tragedies (The Hindu 2022 b). Countries might adopt the emission trading scheme or carbon market as the policy measures to address climate change, but arriving

at a common global mechanism soon remains moot. Hence, the real issue is to examine if the EU's model emission trading scheme can be expanded to include more countries agreeing to a carbon trading scheme to reduce global warming to 1.5 degrees Celsius.

Though the EU ETS can invest in innovation to lower carbon footprint and bring about alternatives and innovative processes for using carbon, making countries adhere to a global emissions reduction scheme is still an uphill task. According to Genovese (2020), considering competitiveness, countries need to accept the scheme from the perspective of equitability. In other words, there is a requirement for mutual recognition of the scheme for global emissions trading. However, classical political economists argue that the national interest of states prevents them from committing to any global cooperation credibly (Genovese 2020); the political economy of countries worldwide is not at par, and it would be a tough call for any country to commit to global arrangements for curbing emissions.

Conclusion

The EU's mechanism to curb carbon footprints in the region and its potential to contribute to the global emission trading scheme will continue to excite academic interest in this policy space. The ETS already includes four non-EU members. Therefore, it might be able to engage other countries outside the union and expand the remit of the ETS. Europe had a mechanism for curbing carbon even before the Kyoto Protocol came into force in 2005 and has been able to expand and improvise on it since the trial phase of its implementation. Various technological developments in the third phase would contribute to the EU's efforts to curb emissions. Currently, the EU ETS is in its fourth phase and aims to achieve climate neutrality in the region by 2050. Such ambitious targets, if achieved, would contribute to minimising global emissions to a great extent.

The EU ETS's cap-and-trade system has proven viable for the EU market. However, it also has some political nuances associated with granting allowances, especially the grandfather allowances. There has been public outcry over the grandfather allowances as it is believed to benefit big polluters.

Though the EU ETS is regarded as a flagship model for curbing carbon footprints, the key question is whether it could serve as a model for emissions trading at the global level. In the recent COP27, the EU proposed the CBAM, which the BASIC countries rejected. This opposition might challenge the EU's goal to curb carbon at the international level. At the same time, there is a need to work towards new methodologies, like creating opportunities to benefit the most vulnerable by delivering shares and transferring technology to adapt to climate change. It is also imperative to expand the scope of emissions to include other emissions from households and transport for a more comprehensive action plan. A major cut in emissions is required to stabilise the greenhouse gas emissions in the atmosphere, which mandates global cuts in emissions in addition to regional and domestic efforts. It requires the participation of most countries in contributing to mitigating climate action plans.

Even though the EU ETS has a few shortcomings, it must be acknowledged that it is a great model in the ETS context. The ETS introduced by the EU has spurred critical research examining the pros and cons of the scheme, which fed into formulating various policies and developing novel ideas for improvising the scheme. Therefore, cooperation among international actors is required to make it a global emissions reduction mechanism.

As the world tries to achieve carbon neutrality through NDC or the compliance market, attention should be given to examining how a carbon trading scheme like the EU ETS can be

implemented globally. It would be pragmatic if the countries focus more on opportunities like encouraging collaboration among the EU member states and more participation in the system facilitating new targets and policies. Above all, the ETS would reap economic benefits if implemented properly through employment generation in the renewable energy sector, development of new technologies to minimise emissions, and investment in cleaner industries which would provide greater opportunities for green growth and sustainability. Since the regional effort to curb emissions has already taken shape, its improvised policies and implementation could further the EU's leadership in the global arena in addressing climate change.

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About the author



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