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Common but Differentiated Responsibilities
and Respective Capabilities**

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Abstract

This Working Paper examines two instances of global EU climate action which extend the carbon price under the European Emissions Trading Scheme (ETS) to greenhouse gas emissions (GHG emissions) which are generated outside of the territory of EU Member States. The first is the EU Regulation establishing a carbon border adjustment mechanism (CBAM) and the second is the EU Directive including maritime emissions within the scope of the ETS. It appraises these measures from the point of view of the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) that is enshrined in the United Nations Framework Agreement on Climate Change and the Paris Agreement. Drawing a distinction between the EU's first-order and second-order climate responsibilities, the paper argues that the EU has acted consistently with the CBDR-RC principle in relation to international shipping emissions. By contrast, it argues that the EU has acted inconsistently with the principle of CBDR-RC in relation to CBAM and proposes two adjustments to the design of this measure to bring it in to line with this principle.

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Keywords

EU as a global climate actor; Global reach of EU law; Climate fairness; Emissions Trading System and Shipping; EU Carbon Border Adjustment Mechanism.

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1. Introduction

Following the adoption of the European Green Deal in December 2019, the European Union (EU) is becoming increasingly assertive in its use of (unilateral) trade-related measures to address its global environmental footprint, which refers to the environmental pressures ‘embodied’ in goods or services it imports from third countries. In this chapter, we examine two recent and closely related instances of such a global EU climate action, namely the revised Emissions Trading System (ETS) Directive and its extension to greenhouse gas (GHG) emissions from the maritime sector,¹ and the Regulation establishing a carbon border adjustment mechanism (CBAM),² both adopted on 10 May 2023. These measures form part of the ‘Fit for 55’ legislative package, which is aimed at delivering on the targets enshrined in the European Climate Law, namely: a reduction in EU GHG emissions by (at least) 55% when compared to 1990 levels by 2030, and the ultimate objective of ‘climate-neutrality’ (net-zero GHG emissions) by 2050.³

However, measures of this kind that seek to mitigate the negative impact of EU consumption on the Earth’s climate have often proven fiercely controversial. This is partly because the EU’s climate conservation objective is closely connected with economic competitiveness concerns about a ‘level playing field’ between EU and third-country producers in the context of heterogenous and asymmetrical climate action under the Paris Agreement. It is also because they give rise to what one of the authors of this chapter has called the ‘territorial extension’ of EU environmental law in that they use the existence of a territorial connection with the EU (e.g. access to its market or ports) to gain regulatory leverage over conduct or activities that take place abroad.⁴ In so doing, the EU is testing the boundaries of permissible unilateral action to protect the global climate system under international law. One important constraint in this regard is ensuring the WTO-compatibility of these trade-related measures, which has been a key concern for both the EU legislator and scholars. In this chapter, we draw attention to an equally important but less explored dimension; consistency with the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) as one of the foundational pillars of the multilateral climate change regime.

We begin with a brief account of the CBDR-RC principle under the United Nations Framework Convention on Climate Change (UNFCCC) regime, and explain *why* it is of legal significance to global EU climate action and *when* it should be taken into account (Section 2). We then turn to the selected EU trade-related climate measures, and examine whether they respect the CBDR-RC principle – and if they do not, *how* best should these measures be adjusted to ensure they do (Sections 3 and 4). Section 5 concludes.

¹ Directive (EU) 2023/959 of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system (revised ETS Directive) [2023] OJ L130/134.

² Regulation (EU) 2023/956 of the European Parliament and of the Council establishing a carbon border adjustment mechanism (CBAM Regulation) [2023] OJ L130/52.

³ Arts 2(1) and (4) Regulation (EU) 2021/1119 of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law) [2021] OJ L243/1.

⁴ See inter alia J Scott, ‘Extra-Territoriality and Territorial Extension’ (2014) 62 *American Journal of International Law* 87; J Scott, ‘Reducing the European Union’s Environmental Footprint Through “Territorial Extension”’ in V Mauerhofer, D Rupo and L Tarquinio (eds), *Sustainability and the Law* (Cham, Springer, 2020).

2. CBDR-RC Principle and its Significance to Global EU Climate Action

2.1 What is the Principle of CBDR-RC?

CBDR-RC is possibly the most widely-cited principle in the international climate architecture and has underpinned global efforts to fight climate change from the very start. It is enshrined in Article 3.1 UNFCCC, which provides that

[t]he Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their *common but differentiated responsibilities and respective capabilities*. Accordingly, the *developed country Parties should take the lead* in combating climate change and the adverse effects thereof.⁵

Over the past three decades, it has played a central function as a ‘framework’ or ‘structuring’ principle in the multilateral climate regime, providing the bedrock of the burden-sharing arrangements initially crafted in the UNFCCC with regards to climate change mitigation (as well as adaptation, financial assistance and technology transfer), and shaping their subsequent elaboration in the Kyoto Protocol (KP) and Paris Agreement.⁶ And yet, its core content and precise meaning remain deeply contested.

The first element of the principle refers to the ‘common’ responsibility of States to protect the environment and is generally understood as a recognition that climate change is a matter of ‘common concern’ of humankind, which requires the widest possible cooperation by all States.⁷ However, the exact meaning of the remainder of the principle has generated much contention over the years. Essentially, the term ‘differentiated’ calls for differential treatment between countries; but the basis for such a differentiation is left ambiguous. On a plain reading of Article 3.1 UNFCCC, differentiation is to be determined based on two factors: responsibility for causing climate change, and capability to address it. Yet, it does not specify how these differentiation markers should be measured and the extent to which they may be linked.

The UNFCCC itself approaches responsibility and capability as intrinsically linked rather than distinct factors, with enhanced capability being the direct result of industrialisation and *historical* responsibility for GHG emissions. This is reflected in the normative expectation on developed countries ‘to take the lead’ in combating climate change in Article 3.1 UNFCCC.⁸

⁵ Art 3.1 United Nations Framework Convention on Climate Change (New York, 9 May 1992) (UNFCCC) (emphasis added).

⁶ A Boyle and C Redgwell, *Bernie, Boyle, and Redgwell's International Law and the Environment*, Law Trove, 4th edn (Oxford, Oxford University Press, 2021) 150; P Cullet, ‘Principle 7: Common but Differentiated Responsibilities’ in JE Viñuales (ed), *The Rio Declaration on Environment and Development: A Commentary*, Oxford Commentaries on International Law (Oxford, Oxford University Press, 2015) 236; L Rajamani, ‘Common but Differentiated Responsibilities’ in L Krämer and E Orlando (eds), *Principles of Environmental Law*, Elgar Encyclopedia of Environmental Law 6 (Cheltenham, Edward Elgar Publishing, 2018) 298.

⁷ Preamble, Recital 1 UNFCCC; J Brunnée, ‘Common Areas, Common Heritage and Common Concern’ in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford, Oxford University Press, 2008) 564-568.

⁸ Rajamani, ‘Common but Differentiated Responsibilities’ 295; T Deleuil, ‘The Common but Differentiated Responsibilities Principle: Changes in Continuity after the Durban Conference of the Parties’ 21 *Review of*

But the articulation and operationalisation of the CBDR-RC principle has markedly evolved from the UNFCCC to the Paris Agreement.⁹ In particular, the so-called Lima qualifier of ‘in light of national circumstances’ in Article 2.2 Paris Agreement introduces a dynamic and flexible element to interpreting both responsibilities and capabilities.¹⁰ It thereby broadens the parameters for differentiation between countries, which is no longer premised on their historical contributions alone but includes other factors (e.g. current and projected future GHG emissions, financial and technical capabilities, human capacity).¹¹ At the same time, this amalgamation of country-specific responsibilities and capabilities makes it increasingly complex to determine which countries may be deemed to have a ‘high’ responsibility/capability and which instead possess a ‘low’ responsibility/capability in the global fight against climate change.

That said, there is no question that the EU itself falls within the ‘high’ responsibility/capability category and should, therefore, assume a leadership role in global efforts to address climate change. It seems also clear that any EU trade-related climate measure that seeks the same contribution to climate change mitigation from ‘low’ responsibility/capability countries would be out of step with the CBDR-RC principle. Likewise, if an ‘equivalent’ contribution is required of such countries, this concept should be interpreted and operationalised in line with the principle of CBDR-RC. But beyond this, the principle as generally articulated in Articles 3.1 UNFCCC and 2.2 Paris Agreement does not assist us in determining which specific forms of differentiation are needed and for which countries when adopting trade-related climate measures.¹² This is not surprising given its inherently abstract and open-ended nature as a legal principle: while it does sway decision-makers in a particular direction – differentiation between ‘high’ and ‘low’ responsibility/capability countries – it does not itself prescribe particular actions.¹³ We will return below to the question of *how* the CBDR-RC principle should be integrated in the revised ETS Directive and CBAM Regulation. But it is first necessary to establish *whether* the CBDR-RC principle is legally relevant to this kind of trade-related climate measures, and if so, *when* exactly it applies.

2.2 Is the CBDR-RC Principle Legally Relevant to ‘Global EU Climate Action’?

European Community & International Environmental Law 271, 272. See also United Nations General Assembly, ‘Rio Declaration on Environment and Development’ (1992) UN Doc A/CONF.151/26 (Vol. I), Principle 7.

⁹ J Peel, ‘Re-evaluating the Principle of Common but Differentiated Responsibilities in Transnational Climate Change Law’ (2016) 5 *Transnational Environmental Law* 245, 248-249. For a critique of this evolution, see A Rosencranz and K Jamwal, ‘Common but Differentiated Responsibilities and Respective Capabilities: Did this Principle Ever Exist?’ (2020) 50 *Environmental Policy and Law* 291.

¹⁰ Art 2.2 Paris Agreement (Paris, 12 December 2015) reads: ‘[t]his Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances’.

¹¹ L Rajamani, ‘Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics’ (2016) 65 *ICLQ* 493, 507-508; C Voigt and F Ferreira, ‘“Dynamic Differentiation”: The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement’ (2016) 5 *Transnational Environmental Law* 285, 294.

¹² Note that the UNFCCC does not prohibit trade-related climate measures outright, but sets out explicit conditions on their use (Art 3.5 UNFCCC). In doing so, the UNFCCC implicitly recognises (or takes for granted) that Parties may resort to such measures, even unilaterally: see M Hertel, ‘Climate-Change-Related Trade Measures and Article XX: Defining Discrimination in Light of the Principle of Common but Differentiated Responsibilities’ (2011) 45 *Journal of World Trade* 653, 662.

¹³ Rajamani (n 6) 293.

There is considerable debate over the legal status of the CBDR-RC principle under public international law, partly due to the aforementioned enduring ambiguity over its normative content. Most scholars have come to agree that CBDR-RC does not constitute a customary principle and is thus devoid of general applicability outside the confines of the treaty instrument in which it finds expression.¹⁴ In the multilateral climate regime, CBDR-RC is explicitly expressed as an overarching principle in the operational provisions of the UNFCCC (Art 3.1) and Paris Agreement (Art 2.2) – two legally-binding treaties (*inter partes*) with near universal participation. The chapeau of Article 3 UNFCCC ('shall be guided') and Article 2.2 Paris Agreement ('will be implemented to respect') create normative expectations that this principle will be taken into consideration,¹⁵ and given proper weight,¹⁶ by the Parties in their 'actions to achieve the [temperature] objective' of these agreements.¹⁷ It seems clear that the CBAM Regulation qualifies as one of such actions. The EU, as the relevant international actor for present purposes, expressly accepts this proposition, recognising the CBAM is an 'essential' policy tool towards meeting the objective of 'a climate-neutral Union by 2050 in line with the Paris Agreement' and ought to 'respect CBDRRC principle'.¹⁸

A more complex situation is raised by the revised ETS Directive. This is because sectoral GHG emissions from international shipping, as well as from international aviation, remain outside the UNFCCC regime,¹⁹ and are being addressed under the auspices of the International Maritime Organisation (IMO) and the International Civil Aviation Organisation (ICAO), respectively.²⁰ As discussed below, efforts at decarbonising the international shipping sector have been ongoing at the IMO over the past three decades, notably with the adoption of the 2018 Initial Strategy on Reduction of GHG Emissions from Ships (GHG Strategy) and

¹⁴ See eg Cullet, 'Principle 7' 236; Deleuil, 'The Common But Differentiated Responsibilities Principle after Durban Conference of Parties' 275; A Gourgourinis, 'Common but Differentiated Responsibilities in Transnational Climate Change Governance and the WTO: A Tale of Two "Interconnected Worlds" or a Tale of Two "Crossing Swords"?' in P Delimatsis (ed), *Research Handbook on Climate Change and Trade Law*, Research Handbooks in Climate Law Series (Cheltenham, Edward Elgar Publishing, 2016) 36; E Hey and S Paulini, 'Common But Differentiated Responsibilities' in R Wolfrum (ed), *Max Planck Encyclopedia of Public International Law* (Oxford, Oxford University Press, 2021) para 19; Rajamani (n 6) 298; C Stone, 'Common But Differentiated Responsibilities in International Law' (2014) 98 *American Journal of International Law* 276, 299-300.

¹⁵ Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement' 508-509.

¹⁶ This is further supported by *Gabčíkovo-Nagymaros Project (Hungary/Slovakia)* (Judgment) [1997] ICJ Rep 7, para 140, discussing the role of 'sustainable development'.

¹⁷ Art 2 UNFCCC; Arts 2.1 and 4.1 Paris Agreement.

¹⁸ European Commission, 'Proposal for a Regulation of the European Parliament and of the Council establishing a Carbon Border Adjustment Mechanism' (2021) COM(2021) 564 final (CBAM Proposal), Explanatory Memorandum, 1 and Preamble, Recital 9; European Commission, 'Commission Staff Working Document: Impact Assessment Report Accompanying the Document "Proposal for a Regulation of the European Parliament and of the Council establishing a Carbon Border Adjustment Mechanism"' (2021) SWD(2021) 643 final (CBAM Impact Assessment), 3-4 and 8.

¹⁹ Art 2.2 Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto, 11 December 1997) provided that Annex I Parties 'shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the [ICAO] and the [IMO], respectively'. The situation under the Paris Agreement is less straightforward: while emissions from international aviation and shipping are not explicitly excluded, no Contracting Party has actually included them in nationally determined contributions (NDCs). It has been argued that the commitment in Art 4.4 Paris Agreement on 'economy-wide emission reduction or limitation targets' to ensure that the agreement's temperature goals are met implies that emissions from these two core sectors are covered by the Paris Agreement: see E Dehon, 'Legal Advice – Inclusion of Emissions from International Aviation and Shipping in Nationally Determined Contributions' (*Transport & Environment*, October 2021), www.transportenvironment.org/wp-content/uploads/2021/10/Re-Aviation-Shipping-NDC-UPDATED-Legal-Advice-Final-3-5-21-corr-1.pdf.

²⁰ On ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), see 'Carbon offsetting and Reduction Scheme for International Aviation (CORSIA)' (*International Civil Aviation Organisation*), www.icao.int/environmental-protection/CORSIA/Pages/default.aspx.

its Revised GHG Strategy in July 2023.²¹ While the various IMO Conventions do not explicitly recognise the CBDR-RC principle, it is nonetheless specified as a ‘guiding principle’ in the IMO GHG Strategies. This creates normative expectations (albeit, not treaty-based as in the UNFCCC/Paris Agreement context) that the principle should be duly taken into account when adopting measures to decarbonise the international shipping sector, which itself may be considered an ‘action to achieve the [temperature] objectives’ of the UNFCCC/Paris Agreement. Importantly again, as will be seen below, the EU does not contest this proposition and accepts the legal relevance of the CBDR-RC principle to the inclusion of GHG emissions from this sector in the revised ETS Directive.²²

2.3 When Should CBDR-RC be taken into account in Global EU Climate Action?

In addressing this question, we draw on the article entitled ‘The Geographical Scope of the EU’s Climate Responsibilities’ (Climate Responsibilities article), published by one of the authors of this chapter in 2015.²³ That article analysed how far the EU’s climate responsibilities ought to extend geographically. It also elaborated a framework for assessing when the principle of CBDR-RC should be relevant to EU climate action that includes GHG emissions that are generated outside of the territory of its Member States. We return to this article here because it is directly relevant for the analysis in this chapter.²⁴ Hence, it is necessary to provide

²¹ The Marine Environment Protection Committee, ‘Resolution MEPC.304(72) – Initial IMO Strategy on Reduction of GHG Emissions from Ships’ (*International Maritime Organisation*, 13 April 2018) MEPC 72/17/Add.1 (Initial GHG Strategy); The Marine Environment Protection Committee, ‘Resolution MEPC.377(80) – 2023 IMO Strategy on Reduction of GHG Emissions from Ships’ (*International Maritime Organisation*, 7 July 2023) MEPC 80/17/Add.1 (Revised GHG Strategy). See further section 3.1 below.

²² Preamble, Recital 20 revised ETS Directive; see further section 3.2 below.

²³ J Scott, ‘The Geographical Scope of the EU’s Climate Responsibilities’ (2015) 17 *CYELS* 92.

²⁴ The European Commission refers to the pre-publication version of a different article co-authored by Scott in claiming that various EU legislative proposals comply with the principle of CBDR-RC (J Scott and L Rajamani, ‘EU Climate Change Unilateralism’ (2012) 23 *EJIL* 469). However, the arguments concerning which share of GHG emissions the EU may include within the scope of its measures without triggering the application of the principle of CBDR-RC has been made more explicitly and comprehensively in the Climate Responsibilities article authored by Scott. See, for example, European Commission, ‘Commission Staff Working Document: Impact Assessment Report Accompanying the Document “Proposal for a Directive amending Directive 2003/87/EC as regards Aviation’s Contribution to the Union’s Economy-wide Emission Reduction Target and Appropriately Implementing a Global Market-based Measure”’ (2021) SWD(2021) 603 final, para 77 of which notes ‘[t]his approach has been noted as a practical way to solve the issue of Common but Differentiated Responsibilities and Capabilities, which has been a longstanding challenge in the UNFCCC context’; see, for example, J Scott and L Rajamani, ‘EU Climate Change Unilateralism’ (*Social Science Research Network*, 1 November 2011), papers.ssrn.com/sol3/papers.cfm?abstract_id=1952554. Identical phrasing is used in footnotes to the two Explanatory Memoranda accompanying Commission Delegated Decisions exempting incoming flights from Switzerland and the UK from the EU-ETS. See Commission Delegated Decision (EU) 2021/1416 amending Directive 2003/87/EC of the European Parliament and of the Council as regards the exclusion of incoming flights from the United Kingdom from the Union emissions trading system [2021] OJ L305/1 and Commission Delegated Decision (EU) 2020/1071 amending Directive 2003/87/EC of the European Parliament and of the Council, as regards the exclusion of incoming flights from Switzerland from the EU emissions trading system [2020] OJ L234/16. See footnote 5 in particular. In relation to shipping, there is an explicit reference to CBDR-RC and an identical formulation is used as in the above documents. However, there is no explicit reference to the article by Scott & Rajamani. Nonetheless, a Commission official closely involved in the drafting of the Directive (Damien Meadows) has confirmed that it was this article that was in mind when stating that ‘this approach has been noted as a practical way to solve the issue of common but differentiated responsibilities and capabilities, which has been a longstanding challenge in the UNFCCC context’. See Preamble, Recital 20 revised ETS Directive.

a brief recap of the main arguments as a backdrop to the examination of the CBAM Regulation and the inclusion of maritime emissions in the revised ETS Directive.

Drawing on the scholarship of Simon Caney, the article draws a distinction between the EU's first-order and second-order climate responsibilities.²⁵ Caney explains this distinction as follows:

First-order responsibilities, as I employ that term, are responsibilities that certain agents have to perform (or omit) certain actions. In the context of addressing climate change these *first-order* responsibilities include responsibilities to mitigate climate change (through reducing emissions and maintaining greenhouse gas sinks), to enable adaption, and to compensate people for harm done. *Second-order responsibilities*, by contrast, refer to responsibilities that some have to ensure that agents comply with their *first-order responsibilities*.²⁶

When the EU exercises first-order climate responsibilities, it is regulating GHG emissions which fall, or may reasonably be viewed as falling, principally within its jurisdiction. It has primary responsibility over these emissions from the point of view of 'burden-sharing justice'.²⁷ These emissions 'belong' first and foremost to the EU as an entity and, hence, to an association of high responsibility/capability (EU Member) States. There is, therefore, no expectation that the EU's climate commitments should be differentiated 'downwards' to give effect to the CBDR-RC principle. On the contrary, the EU should adopt ambitious targets in relation to these emissions in keeping with the expectation in Articles 3.1 UNFCCC and 4.4 Paris Agreement that developed countries take the lead in combatting climate change.

By contrast, when the EU exercises second-order climate responsibilities, it is regulating emissions which fall, or may reasonably be viewed as falling, principally within the jurisdiction of a different State. These emissions 'belong' first and foremost to non-EU Member States, some of which will be 'low' responsibility/capability States from the perspective of the CBDR-RC principle. In stepping in, contingently, to regulate GHG emissions which ought ideally to be regulated by a different State, with a view to inducing that State to fulfil its first-order climate responsibilities, the EU ought to take the principle of CBDR-RC into consideration. Where appropriate, in keeping with this logic, the EU should impose lower burdens in relation to emissions 'belonging' to these countries. Here, the EU is acting as a surrogate regulator and should not seek to impose burdens on third countries which exceed the extent of their first-order climate responsibilities. In delineating the extent of these responsibilities, the principle of CBDR-RC should be taken into account.

This then leaves the question of how to distinguish between the EU's first- and second-order climate responsibilities, a distinction which is crucial for the application of the principle of CBDR-RC. Here, the Climate Responsibilities article looks to international standards for guidance in the form of the Guidelines adopted by the Intergovernmental Panel on Climate

²⁵ S Caney, 'Two Kinds of Climate Justice: Avoiding Harms and Sharing Burdens' (2014) 22 *Journal of Political Philosophy* 125.

²⁶ *ibid* 134-135. Caney refines this definition later by observing that the exercise of second-order responsibilities can also serve to impose new first-order responsibilities on other actors by. For example, by offering assistance to States, they may come to enjoy capacities to mitigate climate change that they didn't previously have (*ibid* 137).

²⁷ Caney conceives first-order climate responsibilities in terms of burden-sharing justice and second-order responsibilities in terms of harm-avoidance justice.

Change (IPCC).²⁸ These Guidelines adopt a principally territorial approach to apportioning responsibility for GHG emissions between States. Thus, the State in which GHG emissions are generated must include them in its national inventory of GHG emissions and bear responsibility for their mitigation. For example, GHG emissions generated in the production of steel will be the responsibility of the State in which the steel is produced rather than the State in which the steel is consumed. On this basis, the starting point for our analysis is that the Union has first-order climate responsibilities for GHG emissions generated within the territory of EU Member States, and second-order responsibilities for emissions that are generated abroad. As will be further discussed below, the CBAM Regulation provides an instance of the EU exercising second-order responsibilities.

However, the Climate Responsibilities article argues that there are exceptions to this territorial approach. One category of exception arises, when the IPCC Guidelines themselves endorse a departure from that approach.²⁹ To give just one of several possible examples, carbon dioxide emissions from commercial road vehicles are not attributed to the State in which they are generated, but to the State in which the fuel is sold to the end user, even in relation to emissions that are generated outside of that State. However, these IPCC-endorsed departures from a territorial system boundary are not pertinent for the analysis in this chapter.

Nonetheless, the Climate Responsibilities article posits the existence of a second category of exception which is directly relevant for our purposes, namely when the IPCC Guidelines leave what it calls a 'system boundary gap'.³⁰ Such a gap arises when the Guidelines do not settle the question of how to apportion responsibility for GHG emissions between States. To give the most pertinent example from the point of view of this chapter. While the Guidelines provide for the use of fuel consumption data or ship/flight movement in apportioning GHG emissions from international aviation and shipping, they do not specify on which basis the fuel consumed or flight/ship movements are to be attributed to particular States.³¹ Hence, they do not settle the question of where primary responsibility for GHG emissions from international aviation or shipping lies. They consequently leave uncertain the issue of when a State may be considered to be exercising first-order or second-order climate responsibilities.

The Climate Responsibilities article argues that where the international 'system boundary' remains unsettled or under-specified in this way, States enjoy autonomy in determining how far their first-order climate responsibilities extend geographically. They should, however, be required to exercise this autonomy in a manner that is respectful of the autonomy of other States. This is in keeping with the principle of sovereign equality in international law. To this end, the gap-filling system boundary that is endorsed by a State must be susceptible to replication by all other States (or at an international level) without this resulting in the double

²⁸ HS Eggleston, L Buendia, K Miwa, T Ngara and K Tanabe (eds), '2006 IPCC Guidelines for National Greenhouse Gas Inventories' (Intergovernmental Panel on Climate Change 2006) (2006 IPCC Guidelines for National Greenhouse Gas Inventories).

²⁹ Scott, 'The Geographical Scope of the EU's Climate Responsibilities' 102-103. Introduction, para 1.1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (n 28) endorsing a principally territorial approach subject to qualifications in Section 8.2.1 of Volume 1.

³⁰ Scott (n 23) 103-104. It also asserts the existence of a third exception which is not relevant for this chapter. This arises where 'where imported products (goods or services) are accorded a highly privileged position within the EU market as a result of an EU policy intervention that is specifically intended to reward these products due to their climate credentials, the EU should be viewed as exercising first-order climate responsibilities when it regulates the extraterritorial GHG emissions that are embodied within these products', Scott (n 23) 105.

³¹ Para 8.2.1, Vol 1 and chs 3.5 (water borne transportation) & 3.6 (civil aviation), Vol 2 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (n 28).

counting of the GHG emissions.³² It is only where this 'replication test' is met that a State may reasonably claim to be exercising first-order climate responsibilities even when they are filling a system boundary gap.

This framework helps to understand why the EU should have taken the principle of CBDR-RC into account when it adopted a Directive in 2008 to include GHG emissions from international aviation in its ETS.³³ Here, the EU was acting in a policy sphere characterised by the existence of a system boundary gap as described in the Climate Responsibilities article. Nonetheless, it exercised its autonomy in determining the geographical scope of this Directive in a manner that did not fulfil the replication test set out above. This is because it aimed to include 100% of GHG emissions from flights arriving in the EU from a third country and 100% of GHG emissions from flights departing from the EU for a third country.³⁴ If any third country were to adopt the same approach, there would result a double-counting of emissions in relation to all EU-arriving or EU-departing flights. To the extent that the replication test was not met, the EU should be considered to be exercising second-order as opposed to first-order climate responsibilities and, therefore, ought to take the principle of CBDR-RC into account. In this example, if the EU had only included the GHGs emitted in EU-arriving or EU-departing flights, the replication test would be met and the EU could have claimed to be exercising first-order climate responsibilities. Likewise, if the EU had only included 50% of GHGs emitted in EU-arriving and EU-departing flights, the replication test would likewise have been satisfied.

It is in light of this framework that this chapter will now evaluate *how* the CBDR-RC principle should be integrated in the two selected global EU climate measures. It will start by looking at the revised ETS Directive and its extension to maritime emissions (with short references to international aviation where relevant) and then turn to the best known of the EU's recent global climate measures, namely the CBAM Regulation. The next section will begin by outlining the general context for the inclusion of GHG emissions from international shipping in the EU ETS before turning to the EU initiative itself.

3. Extending ETS Directive to Maritime Emissions and CBDR-RC Principle

3.1 Broader Context

³² Scott (n 23) 104. This is not to say that no double-counting will occur because non-EU Member States may exercise their system boundary autonomy in a different way. It is simply to say that double-counting would not occur if other states were to adopt the same system boundary.

³³ Directive 2008/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3. This is an additional argument to those presented by J Scott and L Rajamani in their earlier article (n 24).

³⁴ Annex I(1)(c) Directive 2008/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3. This was subject to the possibility of exempting incoming flights under Art 25a. To the extent that the emissions generated by these incoming flights fall under the EU's second-order responsibilities, it would be incumbent on the EU to take CBDR-RC into account in articulating country-specific conditions for exemption. If 100% of emissions from departing flights are regarded as falling within the EU's first-order responsibilities, then 100% of emissions from incoming flights would fall within its second-order responsibilities. If 50% of emissions from departing flights were viewed as falling within its first-order responsibilities, then 50% of emissions from incoming flights and 50% of emissions from departing flights would be viewed as falling within its second-order responsibilities.

The Fourth Greenhouse Gas Study adopted by the IMO estimated that shipping contributed almost 3% of global GHG emissions in 2018, with international shipping contributing 2%.³⁵ Depending on the 'plausible' economic and energy scenario' applied, maritime emissions could remain static to 2050 or rise as much as 40% during this period.³⁶ The IMO has been active in addressing GHG emissions from shipping, for example by adopting mandatory energy efficiency requirements for new ships in 2011.³⁷ Nonetheless, there is widespread agreement that its level of ambition has fallen well short of what would be required for the international shipping sector to make a proportionate contribution to reaching the Paris Agreement objectives, including that of holding the increase in global temperature to well below 2°C above pre-industrial levels.³⁸ It is against this backdrop that the EU decision to include shipping in its ETS should be understood.

The IMO subsequently revised its Initial GHG Strategy. Its vision is set out as follows:

[The] IMO remains committed to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible, while promoting, in the context of this Strategy, a just and equitable transition.³⁹

If the aspirational objectives set out in the Revised GHG Strategy were to be fully achieved, it would come much closer to meeting the well below 2°C temperature goal under the Paris Agreement, but not the more ambitious 1.5°C temperature target (see Table 1 below).⁴⁰ The level of ambition 'directing' the Revised GHG Strategy includes the objective of peaking 'GHG emissions from international shipping as soon as possible and [reaching] net-zero GHG

³⁵ J Faber et al, 'Fourth IMO Greenhouse Gas Study: Full Report' (International Maritime Organisation 2020) 1.

³⁶ In 2018, international shipping emissions were 90% of 2008 levels. Using a range of 'plausible long-term economic and energy scenarios, the Fourth IMO Greenhouse Gas Study suggests that GHG emissions from international shipping could increase to as much as 130% of 2008 levels (ibid 3). Other, much higher, estimates are available. Isabelle Rojon et al in an article authored by one of the authors of the Fourth IMO Greenhouse Gas Study (Tristan Smith) suggest increases could be between 90% and 130% by 2050 compared to 2008/2018 'depending on future energy developments and economic growth prospects'. See I Rojon et al, 'The Impacts of Carbon Pricing on Maritime Transport Costs and Their Implications for Developing Economies' (2021) 132 *Marine Policy* 104653, 1.

³⁷ 'Resolution MEPC.203(62) – Amendments of the Annex to the Protocol of 1997 to Amend the International Convention for the Prevention of Pollution from Ships, 1973, as Modified by the Protocol of 1978 Relating Thereto' (Inclusion of regulations on energy efficiency for ships in MARPOL Annex VI) (*International Maritime Organisation*, 15 July 2011), Regs. 19-21 on the Energy Efficiency Design Index (EEDI). See Appendix I of the IMO's Revised GHG Strategy (n 21) for an overview of the steps taken by the IMO. For an overview of IMO measures to date see N Wissner and S Healy, 'Raising ambition levels for the IMO for 2050: An Overview of the Key Issues at Stake at MEPC 80' (*European Parliament*, 14 June 2023), [www.europarl.europa.eu/thinktank/en/document/IPOL_BRI\(2023\)740089](http://www.europarl.europa.eu/thinktank/en/document/IPOL_BRI(2023)740089).

³⁸ Art 2(1) Paris Agreement. It will fall further short of its objective of pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels. B Comer, 'Zero-Emission Shipping and the Paris Agreement: Why the IMO Needs to Pick a Zero Date and Set Interim Targets in Its Revised GHG Strategy' (*International Council on Clean Transportation*, 8 September 2021), www.theicct.org/zero-emission-shipping-and-the-paris-agreement-why-the-imo-needs-to-pick-a-zero-date-and-set-interim-targets-in-its-revised-ghg-strategy/. See also S Franz et al, Requirements for a maritime transition in line with the Paris Agreement (2022) 25 *iScience* 105630.

³⁹ Revised GHG Strategy (n 21) part 2.

⁴⁰ 'Well below' is interpreted as 1.7 in the analyses conducted by the International Council on Clean Transportation (ICCT) relied upon here. It would not, however, be aligned with the more ambitious 1.5 temperature ceiling also enshrined in the Paris Agreement. See B Comer and F Carvalho, 'IMO's Newly Revised Greenhouse Gas Strategy: What it Means for Shipping and the Paris Agreement' (*International Council on Clean Transportation*, 7 July 2023), www.theicct.org/marine-imo-updated-ghg-strategy-jul23/.

emissions by or around, i.e. close to 2050'.⁴¹ It also includes 'indicative checkpoints' to reduce emissions by 20% by 2030 ('striving for 30%') and 70% by 2040 ('striving for 80%').⁴²

Table 1: Paris Agreement Temperature Goals and IMO Revised GHG Strategy (reductions compared to 2008/2018)

Level of Ambition	2030	2040	2050
1.5°C PA	50% reduction	Zero emissions	
1.7°C (well below 2°C) PA	33.3% reduction	66.6 %reduction	Zero emissions
IMO Revised Strategy	20% and striving for 30%	70% and striving for 80%	Net-zero by or around (close to) 2050

Looking at the content of the IMO Revised GHG Strategy, it is littered with aspiration rather than with the pursuit of clear results. The word 'should' appears twenty-five times compared to one appearance for the mandatory term 'shall'.⁴³ To give an example of the Revised GHG Strategy's aspirational nature, the document provides that 'a basket of candidate measure(s), delivering on the reduction targets, *should* be developed and finalized'.⁴⁴ This basket of measures is to be comprised of both a technical element and 'an economic element, on the basis of a maritime GHG emissions pricing mechanism'.⁴⁵ The term 'could' also puts in multiple appearances. For example, 'possible long-term measures *could* be measures finalized and agreed by the Committee beyond 2030, to be developed as part of the 2028 review of the IMO GHG Strategy'.⁴⁶

As previously mentioned, it is significant that the Revised GHG Strategy does reference the principle of CBDR-RC.⁴⁷ This is appropriate in light of the vision animating this strategy to promote a just and equitable transition. In a somewhat convoluted formulation, it sets out 'the principles guiding' the 2023 Revised GHG Strategy which include 'the need to be cognizant of the principles enshrined in instruments already developed, such as...the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances'.⁴⁸ As in earlier documents, CBDR-RC is referred to alongside the long-standing IMO principles of non-discrimination and no more favourable treatment.⁴⁹ As we

⁴¹ Revised GHG Strategy (n 21) para 2.4.

⁴² *ibid* para 3.4.

⁴³ *ibid* para 4.3 states 'In accordance with regulations 25.3 and 28.11 of MARPOL Annex VI, a review of the mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping (the "short-term GHG reduction measures") shall be completed by 1 January 2026'. Even this is a purely procedural requirement.

⁴⁴ *ibid* para 4.5.

⁴⁵ *ibid*.

⁴⁶ *ibid* para 4.1.4.

⁴⁷ *ibid* para 3.5.2.

⁴⁸ *ibid* para 3.5.

⁴⁹ *ibid* para 3.5.1.

have argued elsewhere, while this juxtaposition may seem awkward, there is in fact no inherent incompatibility between these principles.⁵⁰

While the Revised GHG Strategy does reference the principle of CBDR-RC, it does not specify what this concept means, nor what is required for this principle to guide the strategy or in order to be cognizant of it. Nonetheless, it places considerable emphasis upon the need to consider the impacts of measures adopted on States, including developing countries, in particular Least Developed Countries (LDCs) and Small Island Developing States (SIDS).⁵¹ It provides for the conduct of a 'comprehensive impact assessment of the basket of candidate mid-term measures' to be adopted pursuant to the strategy by Autumn 2024.⁵² It further sets out a non-exhaustive list of the kinds of impacts that should be considered and provides that measures may only be adopted after disproportionately negative impacts have been assessed and addressed, as appropriate.⁵³ Among the impacts to be assessed are several of particular salience for developing countries, among them food security and socio-economic development and progress.⁵⁴ The concept of 'disproportionately' is not defined.

While it is not inconceivable that the rights and obligations of States could be differentiated in future measures as a way of addressing disproportionately negative impacts on especially vulnerable countries, there is nothing in the Revised GHG Strategy as it stands that demands or even acknowledges this possibility. There is likewise no attempt to formulate how CBDR-RC could be operationalised in the international shipping context. While 'impacts' may be relevant to an assessment of countries 'respective capabilities' and 'different national circumstances', this leaves entirely open the question of whether and how countries' differentiated responsibilities' for causing climate change will be taken into account.

The IMO's Revised GHG Strategy also recognises that developing countries, in particular LDCs and SIDS, have special needs with regard to capacity-building and technical cooperation.⁵⁵ It provides that '[w]hen developing candidate mid- and long-term GHG reduction measures, due account should be taken to ensure a just and equitable transition that leaves no country behind, including supportive measures'.⁵⁶ The Marine Environment Protection Committee 'should continue to provide mechanisms for facilitating...capacity building and technical cooperation'.⁵⁷ The IMO 'should assess periodically the provision of financial and technological resources and capacity-building to implement the Revised GHG Strategy'.⁵⁸ The IMO 'may', for example, support the implementation of existing short-term GHG reduction measures through the provision of financial and technological resources, enhanced technical cooperation, capacity-building activities and technology cooperation.⁵⁹ While it is clear that the basket of candidate mid-term measures to be developed and finalized pursuant to the strategy is to comprise 'an economic element, on the basis of a maritime GHG emissions pricing mechanism',⁶⁰ there is no discussion of the vexed question of how the

⁵⁰ Scott (n 23) briefly at 113-114. For a discussion in the WTO context, see G Marín Durán, 'Securing Compatibility of Carbon Border Adjustments with the Multilateral Climate and Trade Regimes' (2023) 72 *ICLQ* 73, 95-100.

⁵¹ Revised GHG Strategy (n 21) para 3.5.3.

⁵² *ibid* para 6.2.

⁵³ *ibid* para 4.13.

⁵⁴ See, generally, Rojon et al, 'The Impacts of Carbon Pricing on Maritime Transport Costs'.

⁵⁵ Revised GHG Strategy (n 21) para 5.1

⁵⁶ *ibid* para 5.3.

⁵⁷ *ibid* para 5.8.

⁵⁸ *ibid* para 5.10.

⁵⁹ *ibid* para 5.11.3.

⁶⁰ *ibid* para 4.5.

revenues generated will be used and whether developing countries would stand to benefit in this respect.⁶¹

It is against this backdrop that this chapter now turns to look at the EU's decision to include maritime GHG emissions in its ETS, and to do so specifically from the point of view of the principle of CBDR-RC.

3.2 Respecting CBDR-RC?

The EU raised the possibility of including international shipping in the EU ETS as early as 2009. In the preamble to two key pieces of legislation, it insisted that '[a]ll sectors of the economy should contribute to achieving these emission reductions, including international maritime shipping and aviation'.⁶² It went on to stress that:

In the event that no international agreement which includes international maritime emissions in its reduction targets through the [IMO] has been approved by the Member States or no such agreement through the UNFCCC has been approved by the Community by 31 December 2011, the Commission should make a proposal to include international maritime emissions according to harmonised modalities in the Community reduction commitment, with the aim of the proposed act entering into force by 2013.⁶³

Although the Commission observed that the deadline for the conclusion of an international agreement had passed, it later decided to adopt a 'staged approach', starting with the adoption of a Regulation on the Monitoring, Reporting and Verification (MRV) of Emissions seen as a first step.⁶⁴ This 'should serve as an example for the implementation of a global MRV with the aim [of speeding] up the international discussions'.⁶⁵ The Commission was required to review this Regulation and, where appropriate, to propose amendments to it in the event that an international agreement on global measures to reduce GHG emissions from maritime transport is reached.⁶⁶

⁶¹ For a discussion, see G Dominioni et al, 'Carbon Revenues From International Shipping: Enabling an Effective and Equitable Energy Transition – Technical Paper' (*World Bank*, 1 April 2022), openknowledge.worldbank.org/entities/publication/2c6a3435-b005-52a5-89d4-f66e1fe862d2; see also S Kopela, 'Climate Change, Regime Interaction, and the Principle of Common but Differentiated Responsibility: The Experience of the International Maritime Organization' (2013) 24 *Yearbook of International Environmental Law* 70.

⁶² Recital 3 Decision 406/2009/EC of the European Parliament and of the Council on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 [2009] OJ L140/136. Recital 3 Directive 2009/29/EC of the European Parliament and of the Council so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community [2009] OJ L140/63.

⁶³ *ibid.*

⁶⁴ Regulation (EU) 2015/757 of the European Parliament and of the Council on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC [2015] OJ L123/55.

⁶⁵ *ibid* Recital 1.

⁶⁶ *ibid* Art 25(3).

Despite this long build-up, it was not until 2023 that the EU decided to build upon the MRV Regulation by including maritime emissions in the ETS.⁶⁷ From January 2024, shipping companies have to buy and surrender emission allowances to cover the CO₂ emitted by large ships entering EU ports.⁶⁸ Even then, the Directive adopts an incremental approach, covering only 40% of maritime emissions within its scope in 2024, 70% in 2025 and 100% from 2026 onwards.⁶⁹ As with other similar measures, a review clause is included which requires the Commission to review the Directive in light of the adoption of a global market-based measure by the IMO.⁷⁰ Here, as elsewhere, the EU is acting as a 'contingent unilateralist' exercising second-order climate responsibilities on a contingent basis in a bid to encourage or induce third countries or international organisations to step in to regulate these GHG emissions.⁷¹

Unlike the original Directive aimed at including emissions from international aviation in the EU's ETS,⁷² the revised ETS Directive including shipping within its scope, does refer expressly to the principle of CBDR-RC. The preamble to the Directive observes that the extension of the ETS to international maritime transport includes half of the emissions from ships performing voyages arriving at an EU port from a port outside the EU and half of the emissions from ships performing voyages departing from an EU port for a port outside the EU.⁷³ It, thus, covers 50% of the emissions of ships arriving in and departing from the EU.⁷⁴ In the same paragraph, it goes on to note that '[t]his approach has been noted as a practical way to solve the issue of common but differentiated responsibilities and capabilities which has been a longstanding challenge in the UNFCCC context'.⁷⁵

This claim regarding CBDR-RC requires some unpacking, not least because it is not clear from the text where it has previously been 'noted' that this approach is a way to solve the challenge of CBDR-RC. However, it seems clear that the EU considers the fact that the revised ETS Directive includes only 50% of the emissions generated during voyages to and from EU ports to support its claim to 'solve' the challenging issue of CBDR-RC. This is consistent with the argument put forward in the Climate Responsibilities article. This is because, first, the EU is taking steps to fill a system boundary gap in relation to international shipping and, therefore, has substantial autonomy in deciding which emissions to include within the scope of its responsibilities. Second, it is because the scope of the Directive is such that the replication test is met. Recall, this requires that the system boundary set by the EU must be susceptible to replication by other States without this resulting in the double counting of emissions by more than one State. This is because if third countries were to replicate the EU's scope model, each

⁶⁷ Revised ETS Directive.

⁶⁸ Ships of 5000 Gross Tonnage or above. From 2026, the Directive also includes methane and nitrous oxides emitted by ships (Annex I(ix)). The aim is to incorporate acts as soon as possible after their date of entry into force in the EU, in order to ensure that the same rules apply throughout the EEA.

⁶⁹ Art 3gb revised ETS Directive.

⁷⁰ Art 3gg revised ETS Directive.

⁷¹ Scott and Rajamani 'EU Climate Change Unilateralism'.

⁷² Directive 2008/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3.

⁷³ Recital 20 revised ETS Directive.

⁷⁴ It also includes 100% of emissions generated during voyages between EU ports and within EU ports but to the extent that the measure is wholly internal to the EU, the CBDR-RC issue does not arise.

⁷⁵ Recital 20 revised ETS Directive.

country of arrival would assert jurisdiction over 50% of the emissions generated during the relevant arriving and departing voyage. This is illustrated in Table 2 below.⁷⁶

Table 2: Revised ETS Directive and Replication Test for Shipping Emissions

Scope of EU measure	EU coverage	Third country coverage	Total coverage
Voyages departing from EU for third country	50% emissions covered	50% emissions covered	100% emissions
Voyages arriving in EU from third country	50% emissions covered	50% emissions covered	100% emissions

Before concluding this discussion of CBDR-RC in relation to the inclusion of maritime emissions in the revised ETS Directive, two additional points may be usefully made.

First, the scope of this Directive is different from that of the original Directive seeking to extend the EU ETS to emissions from international aviation. While the former includes 50% of emissions generated during voyages to and from the EU, the latter included 100% in both directions.⁷⁷ The critique of the original aviation Directive from a CBDR-RC perspective therefore still stands as the EU exercised its autonomy but in a manner that did not satisfy the replication test.⁷⁸ In the case of aviation, therefore, the EU was exercising second-order as well as first-order responsibilities and, as far as the latter were concerned, it ought to have taken CBDR-RC in to account.

However, the situation with aviation is evolving and the current trend is in the direction of only including outgoing but not incoming flights.⁷⁹ In 2023, the EU adopted legislation amending the scope of the original aviation Directive.⁸⁰ This requires the Commission to submit a report to the Council and the European Parliament assessing the environmental integrity of ICAO’s global market-based measure (CORSIA).⁸¹ Where appropriate, this report shall be accompanied by a legislative proposal to amend the Directive in order to exclude flights arriving in the EU (European Economic Area to be accurate) from airports situated in a third country.⁸² If this were to happen, 100% of emissions from EU-arriving flights would be include in the EU’s ETS while no emissions from EU-departing flights destined for third countries

⁷⁶ The same would be true if the EU had decided to include 100% of emissions generated during voyages arriving in the EU or departing from the EU.

⁷⁷ Directive 2008/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3.

⁷⁸ Scott and Rajamani (n 24).

⁷⁹ See note 23.

⁸⁰ Directive (EU) 2023/958 of the European Parliament and of the Council amending Directive 2003/87/EC as regards aviation’s contribution to the Union’s economy-wide emission reduction target and the appropriate implementation of a global market-based measure [2023] OJ L130/115.

⁸¹ *ibid*, Art 28(b)(1). This report is to be published by 1 July 2026. Criteria for conducting this assessment are laid down. On CORSIA see note 20.

⁸² *ibid*, Art 28b(3).

would be included. The replication test would therefore be satisfied as there would be no double-counting of emissions.

Second, there remains a degree of ambiguity in the revised ETS Directive from the point of view of CBDR-RC. This is because it contemplates the possibility of increasing the share of shipping emissions generated during voyages to and from EU ports to more than 50%.⁸³ The Commission is charged with reporting to the European Parliament and the Council on this issue in the event that the IMO does not adopt a global market-based measure to reduce GHG emissions from international maritime transport in line with the objectives of the Paris Agreement and at least to a level comparable to that resulting from the inclusion of maritime emissions in the EU's ETS.⁸⁴ In its report, the Commission shall consider progress at the IMO level and examine whether any third-country has a market-based measure equivalent to the Directive.⁸⁵

If the EU were to adopt legislation to increase the scope of emissions covered by the EU's ETS to more than 50% of the emissions generated during voyages arriving in *and* departing from the EU, the EU's share of global emissions would be such that the replication test could not be met. If other countries were to adopt the same approach, double counting of emissions could arise. As such, the EU would stray beyond its first-level climate responsibilities into the realm of second-order climate responsibilities and, in so doing, would trigger the need to take CBDR-RC into account. This would have at least two specific implications.

First if, as is contemplated, the EU were to adopt legislation making the inclusion of a larger share of GHG emissions conditional on the question of whether a third country has a market-based measure in place that is 'equivalent' to the EU, it would be incumbent on the EU to interpret the concept of equivalence through the lens of the principle of CBDR-RC. A country's contribution to tackling climate change should be commensurate with its level of responsibility/capability. Thus, equivalence ought not require that all countries make the same contribution, but rather that each makes a contribution that is proportionate to its relative responsibility/capability. While there is no explicit commitment to differentiation in the application of equivalence in the revised ETS Directive, the introduction of this open-ended concept together with an explicit reference to CBDR-RC in the Directive's preamble, leaves space for an interpretation of this kind. Needless to say, this interpretation would lead considerable discretion in the hands of the EU.⁸⁶

Second, in taking CBDR-RC into account in its exercise of second-order climate responsibilities, the EU should re-visit the question of how the revenues generated from the auctioning of allowances for shipping emissions under the ETS are used. This is relevant because 'the principle of CBDR-RC finds expression' in different ways, including through 'commitments to provide, and eligibility to receive, financial and technological assistance'.⁸⁷

⁸³ Art 3gg(2) revised ETS Directive.

⁸⁴ *ibid.*

⁸⁵ *ibid.* It shall also assess the risk of an increase in evasive practices, including through a shift to other modes of transport or a shift of port hubs to ports outside the Union.

⁸⁶ For an insightful discussion of the issues at stake in relation to this see L Rajamani et al, 'National Fair Shares in Reducing Greenhouse Gas Emissions within the Principled Framework of International Law' (2021) 21 *Climate Policy* 983, 999.

⁸⁷ L Rajamani, 'The Principle of Common but Differentiated Responsibilities and Respective Capabilities in the International Climate Change Regime' in R Lyster and RRM Verchick (eds), *Research Handbook on Climate Disaster Law: Barriers and Opportunities*, Research Handbooks in Climate Law (Cheltenham, Edward Elgar Publishing, 2018) 50.

As things stand, revenues generated through the inclusion of international shipping in the ETS will accrue both to the EU budget in the form of ‘own resources’ and to the Member States.⁸⁸

While Member States have some discretion in determining the use of their revenues, they are required to use them for one of the purposes laid down in the revised ETS Directive.⁸⁹ Commendably, even at present several of the purposes listed involve expenditure which would benefit developing countries; for example ‘to finance climate actions in vulnerable third countries, including the adaptation to the impacts of climate change’.⁹⁰ Even some areas of expenditure that are not specifically targeted at developing countries would not preclude revenues being spent on projects outside the EU. This is explicit in some cases, such as in relation to expenditure in developing countries that have ratified the Paris Agreement to finance measures to avoid deforestation and support the protection and restoration of peatland, forests and other land-based ecosystems or marine-based ecosystem’.⁹¹ In others, it is simply not precluded; for example in relation to the financing of ‘research and development in energy efficiency and clean technologies’.⁹² Similarly, the encouragement to MS to increase the use of EU ETS revenues to contribute to the protection, restoration and better management of marine-based ecosystems, in particular marine protected areas, given the increase in auctioning revenues due to the inclusion of maritime transport in the ETS, is not territorially confined.⁹³ However, none of these positive features compels MS to ensure that a certain portion of the revenue generated from including international shipping in the ETS accrues to developing countries in some form. If the EU were to increase its share of maritime emissions beyond 50% in both directions, the taking into account of CBDR-RC would strongly militate in favour firmer commitments in this regard.

Many of these issues will be re-visited in a different context in the next section which examines the EU’s most ambitious and complex global climate measure to date, namely the CBAM.

4. The CBAM Regulation and CBDR-RC Principle

4.1 Context and Key Elements of CBAM

Border carbon adjustments such as the EU’s CBAM are the climate-associated version of border tax adjustments; the latter being ‘fiscal measures which put into effect, in whole or in part, the destination principle, according to which taxes are paid where products are consumed and not where they are produced’.⁹⁴ Border carbon adjustments have been a

⁸⁸ Recital 41 revised ETS Directive states that ‘Member States’ auctioning revenues will increase as a result of the inclusion of maritime transport in the EU ETS. Therefore, Member States are encouraged to increase the use of EU ETS revenues pursuant to Article 10(3) of Directive 2003/87/EC to contribute to the protection, restoration and better management of marine-based ecosystems, in particular marine protected areas’.

⁸⁹ Art 10(1) revised ETS Directive the exception of the revenues used for the compensation of indirect carbon costs referred to in Art 10a(6) of this Directive.

⁹⁰ Art 10(3)(j) revised ETS Directive. See also sub-paragraph (a).

⁹¹ Art 10(3)(c) revised ETS Directive.

⁹² Art 10(3)(g) revised ETS Directive.

⁹³ Recital 41 revised ETS Directive.

⁹⁴ I Espa, J Francois, H van Asselt, ‘The EU Proposal for a Carbon Border Adjustment Mechanism (CBAM): An Analysis under WTO and Climate Change Law’ (2022) 20(1) *Oil, Gas & Energy Law Intelligence* 1, 5.

popular topic in scholarship over the past two decades,⁹⁵ and their adoption has been contemplated by a number of jurisdictions, including the EU, in connection with domestic carbon pricing mechanisms (i.e. carbon taxes or ETS) to address the risk of carbon leakage.⁹⁶ Carbon leakage would occur if strong ETS-based carbon prices in the EU simply lead to a shifting of emissions abroad, through the relocation of EU industries to countries with no or less stringent carbon pricing policies and/or increased EU imports of carbon-intensive products from such countries.⁹⁷ This would result in reduced carbon emissions within the EU being offset by increasing carbon emissions outside the Union, with no net emission reduction (or even an increase) at the global level, thereby undermining the goals of the Paris Agreement. In fact, concerns about carbon leakage need to be placed within the increasingly heterogeneous carbon prices and other climate policies across jurisdictions stemming from the Paris Agreement bottom-up approach to mitigation based on self-determination and self-differentiation.⁹⁸

It is within this context that the adoption of the CBAM Regulation in May 2023 should be understood. The Union is the first jurisdiction worldwide to extend the carbon price paid by domestic EU producers (as determined by the auctioning of emission allowances under its ETS) to emissions that are generated outside its borders but are embedded into its imports of carbon-intensive commodities. The CBAM is thus a trade-related alternative to the free allocation of emission allowances under the EU's ETS, which has been thus far used to mitigate carbon leakage risks and which levelled *down* carbon prices for domestic carbon-intensive and trade-exposed industries. This free allocation method, however, has been widely criticised as ineffective from an environmental standpoint for muting the price signal for the heaviest domestic polluters and thereby damping the incentive to invest in low-carbon production.⁹⁹ By contrast, the CBAM seeks to level *up* carbon prices for imported carbon-intensive products while maintaining their full application on EU domestic firms. In this respect, it constitutes a better environmental alternative in that it allows the EU to increase its climate ambition and impose strong carbon prices on domestic enterprises while at the same time avoiding carbon leakage.¹⁰⁰

⁹⁵ See inter alia A Dias, A Nosowicz and S Seeuws, 'Border Carbon Adjustments and the WTO: Hand in Hand Towards Tackling Climate Change' (2020) 15 *Global Trade and Customs Journal* 15; R Eckersley, 'The Politics of Carbon Leakage and the Fairness of Border Measures' (2010) 24 *Ethics & International Affairs* 367; SD Lady, 'Border Carbon Adjustments, WTO Law and the Principle of Common But Differentiated Responsibilities' (2012) 12 *International Environmental Agreements: Politics, Law and Economics* 63; M Mehling, H van Asselt, K Das, S Droege and C Verjuikl, 'Designing Border Carbon Adjustments for Enhanced Climate Action' (2019) 113 *American Journal of International Law* 433; T Meyer and TN Tucker, 'A Pragmatic Approach to Carbon Border Measures' (2022) 21 *World Trade Review* 109; J Pauwelyn, 'Carbon Leakage Measures and Border Tax Adjustments under WTO Law' in D Prévost and G Van Calster (eds), *Research Handbook on Environment, Health and the WTO*, Research Handbooks on the WTO (Cheltenham, Edward Elgar Publishing, 2012); S Sato, 'EU's Carbon Adjustment Mechanism: Will It Achieve Its Objective(s)?' (2022) 56 *Journal of World Trade* 383.

⁹⁶ For an overview of earlier proposals and CBAM legislative history, see Espa, Francois and van Asselt, 'The EU Proposal for a Carbon Border Adjustment Mechanism' 7-10; Mehling et al, 'Designing Border Carbon Adjustments for Enhanced Climate Action' 448-456.

⁹⁷ As acknowledged by European Commission itself, evidence on carbon leakage risks is mixed: CBAM Impact Assessment, 7 and Annex 11. See also K Kulovesi, 'EU Emissions Trading Scheme: Preventing Carbon Leakage Before and After the Paris Agreement' in R Leal-Arcas and J Wouters (eds), *Research Handbook on EU Energy Law and Policy*, Research Handbooks in European Law (Cheltenham, Edward Elgar Publishing, 2017) 420-421; Mehling et al (n 95) 444-446; Sato, 'EU's Carbon Adjustment Mechanism' 386-390.

⁹⁸ Arts 4.1-4.3 Paris Agreement, and further discussion in section 4.2.

⁹⁹ Preamble, Recitals 11-12 and Art 1(3) CBAM Regulation. For discussion, see K Kulovesi, 'EU Emissions Trading Scheme'.

¹⁰⁰ Espa, Francois and van Asselt (n 94) 6.

The EU thus presents the CBAM primarily as a global climate measure linked to a tightening of the ETS through the gradual phased-out of free emission allowances,¹⁰¹ with its overarching objective being 'to prevent the risk of carbon leakage, thereby reducing global carbon emissions and supporting the goals of the Paris Agreement'.¹⁰² However, as was noted in the introduction, this climate-informed objective is closely intertwined with economic competitiveness concerns about a 'level playing field' between EU and third-country producers in the absence of an internationally-agreed uniform carbon price.¹⁰³ Evidently, there is an in-built economic rationale behind the carbon price equalisation logic underlying the CBAM, since the risk of carbon leakage materialises only when competitiveness concerns are not adequately addressed in the country that is imposing ambitious carbon pricing policies.¹⁰⁴ In other words, these climate and industrial narratives can be reconciled, at least for the EU, insofar as the CBAM is designed to ensure nothing more than equalisation of carbon prices for domestic and imported products in sectors exposed to carbon leakage.

Following this carbon price equalisation logic, the CBAM (once it fully enters into force)¹⁰⁵ will extend the ETS-determined carbon price to emissions embodied in EU imports of carbon-intensive commodities in six sectors at 'significant risk or carbon leakage': aluminium, cement, iron and steel, fertilizers, electricity and hydrogen.¹⁰⁶ As of 1 January 2026, EU importers of targeted products would have to: (i) apply for the status of 'authorised CBAM declarant' with the competent authorities of the EU Member States where they are established and be included in the CBAM Registry;¹⁰⁷ (ii) submit a 'CBAM declaration' by 31 May of each year with the total (direct and indirect) emissions embedded in their imports of covered goods,¹⁰⁸ as verified by accredited verifiers;¹⁰⁹ and (iii) buy and surrender sufficient 'CBAM certificates' (whose price mirrors the weekly average price under the EU ETS) via their account in the CBAM Registry to cover these emissions.¹¹⁰ However, and in line with the equalisation logic, special provisions are made for crediting explicit carbon pricing policies in trading partners, through two mechanisms: (i) the 'EU-led climate club exemption', which fully exempts from the CBAM's application imports from countries that are fully integrated into the EU ETS, or have an ETS fully linked to the EU one;¹¹¹ and (ii) the 'CBAM discount', which provides for a reduction in the number of required CBAM certificates to take account of any carbon price paid in the country of production.¹¹²

¹⁰¹ Arts 1(3) and 31 CBAM Regulation, providing that as free allowances are expected to be gradually phased out under the revised ETS by 2034, the CBAM would be phased-in as an alternative mechanism to address carbon leakage risks.

¹⁰² Art 1(1) CBAM Regulation.

¹⁰³ Preamble, Recital 29 CBAM Proposal, referring to 'the objective of ensuring that imports of energy intensive products into the Union are on equal footing with EU products in terms of EU ETS carbon pricing'. This reference has been removed from adopted CBAM Regulation.

¹⁰⁴ Espa, Francois and van Asselt (n 94) 6. For a critical discussion of these 'Paris Agreement', 'climate leadership' and 'fair competition' narratives underlying the CBAM, see further A Pirlot, 'Carbon Border Adjustment Measures: A Straightforward Multi-Purpose Climate Change Instrument?' (2022) 34 *Journal of Environmental Law* 25, 28-35.

¹⁰⁵ Art 32 CBAM Regulation, whereby for a transition period until December 2025, importers of covered goods will be mainly subject to reporting obligations.

¹⁰⁶ Art 2(1) CBAM Regulation.

¹⁰⁷ Arts 4-5, 14 and 16 CBAM Regulation.

¹⁰⁸ Art 3 (21)-(22) and (34) CBAM Regulation.

¹⁰⁹ Arts 6-8 CBAM Regulation.

¹¹⁰ Arts 20-22 CBAM Regulation.

¹¹¹ Art 2(4) and (6) CBAM Regulation. At present, these are: Iceland, Liechtenstein, Norway (already part of the EU ETS) and Switzerland (whose ETS is linked to the EU one).

¹¹² Art 9 CBAM Regulation.

To further contextualise our CBDR-RC discussion in the next section, it is important to highlight that the CBAM is expected to have an uneven impact across the EU's trading partners, depending on how much of the targeted products they export to the EU and whether or not they have carbon pricing policies in place. Moreover, even within the top-twenty exporters of the covered goods, the CBAM will affect a widely heterogeneous range of countries in terms of their development levels, ranging from 'developed' countries (notably Russia, Ukraine and Turkey), to 'developing' countries (including the BASIC countries, Brazil, China and India), and also several LDCs and SIDS. For instance, BASIC countries, which have voiced fierce opposition to the CBAM, feature among the top exporters for specific sectors, notably: aluminium (China and India) and iron/steel (China, Brazil and India). LDCs and SIDS generally account for a smaller share of EU imports of the targeted products, but the CBAM's impact on these countries is estimated to be considerable given the relative importance of such exports for their economies. For instance, in 2020, Mozambique was the sixth largest exporter of aluminium (accounting for nearly 7% of its gross domestic product) and, in that same year, Trinidad and Tobago was the fourth largest exporter of fertilisers to the EU.¹¹³ Furthermore, the European Commission has acknowledged that compliance costs are likely to be higher in these countries when compared to other trading partners, given their lower capacity to both decarbonise production processes as well as to measure and verify the carbon intensity of products exported to the EU.¹¹⁴

4.2 Respecting CBDR-RC?

Drawing on the framework developed in Section 2.3, in the CBAM context, the Union is clearly exercising second-order climate responsibilities, since the GHG emissions embedded in EU imports of CBAM-covered goods fall within the primary jurisdiction and responsibility of a different State pursuant to the territorial approach in the IPCC Guidelines.¹¹⁵ In stepping in, contingently, to regulate these emissions, with a view to inducing the third State concerned to fulfil its first-order climate responsibilities, the EU ought to take the principle of CBDR-RC into account. Hence, unlike in the international shipping context, there is no system gap boundary for emissions from CBAM-covered sectors and the replication test is not applicable here. Instead, guidance on how to integrate CBDR-RC into the CBAM should be sought in the UNFCCC and Paris Agreement, which establish the multilateral framework for regulating emissions from CBMA-covered sectors. However, for the reasons explained in Section 2.2, the abstract articulation of the CBDR-RC principle in Articles 3.1 UNFCCC and 2.2 Paris Agreement does not help us in determining which specific kinds of differentiation ought to be introduced into the CBAM. A more adequate benchmark are the mitigation provisions in these agreements, which are of direct relevance to the CBAM as a carbon-reduction measure, and which implement in more precise terms the CBDR-RC principle through a set of differentiated obligations among State Parties. Given that these substantive commitments are conventional norms that are legally-binding on the EU,¹¹⁶ our position is that the CBAM can only be in spirit

¹¹³ CBAM Impact Assessment, Annex 3, 20-21; Annex 10, 100-1.

¹¹⁴ CBAM Impact Assessment, 21. With a focus on African countries, see also E Gergondet, 'The European Union's Proposed Carbon Border Adjustment Mechanism and its Impact on Trade with Africa' (2021) 16 *Global Trade and Customs Journal* 564, 567-70.

¹¹⁵ Volume 2 ('Energy') and Volume 3 ('Industrial Processes and Product Use') of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (n 28).

¹¹⁶ Albeit the legal character or strength does vary across individual provisions: see generally D Bodansky, 'The Legal Character of the Paris Agreement' (2016) 25 *Review of European, Comparative & International Environmental Law* 142.

with the CBDR-RC if it does *not* (unilaterally) undercut the differentiation balance (multilaterally) established in the mitigation pillar of the (currently applicable) Paris Agreement.¹¹⁷

It is rather odd for a measure that is purposely aimed at achieving the Paris Agreement's goals that the CBAM Regulation makes no explicit reference to the CBDR-RC principle. It does nonetheless acknowledge it implicitly, by justifying the CBAM as a tool to enable the EU to 'continue playing a leading role in global climate action'.¹¹⁸ To the extent that the prospect of carbon leakage is genuine, it is true that the CBDR-RC principle places the EU in a dilemma. On the one hand, the EU is called upon to meet its first-order climate responsibilities and increase its own mitigation efforts (*in casu*, by phasing-out ETS free emission allowances), but it is hard to see why and how the EU should lead in this manner if it would simply result in a shifting of carbon emissions abroad. On the other hand, the EU should consider the CBDR-RC principle when exercising second-order climate responsibilities through the CBAM and recognise that not all countries are to contribute in equal measure to the common goal of mitigating climate change, in view of their differentiated responsibilities and capabilities. The preceding Commission legislative proposal goes some way in recognizing this,¹¹⁹ but maintains the CBAM respects the CBDR-RC principle without need for any form of differentiation. In what follows, we appraise the Commission's position against the CBDR-RC principle as operationalised in the mitigation provisions of the Paris Agreement.

The Commission's main reason as to why the CBAM respects the CBDR-RC principle is that it has been 'designed in such a manner that it does not directly depend on the *overall level* of ambition of a country nor on the *policy choices* made by a country'.¹²⁰ This statement is partly correct,¹²¹ if we consider emission reduction targets as the most obvious quantitative indicator of each Party's overall level of climate ambition under the Paris Agreement. In this regard, the EU's emission reduction target is *economy-wide*,¹²² whereas the CBAM would only apply to selected sectors and only insofar as the foreign products are exported to the EU.¹²³ Hence, the CBAM would not harmonise emission reduction targets between the EU and the exporting countries through the backdoor. But this should not mask the fact that, for *particular* sectors/products, the CBAM is clearly aimed at incentivising (or arguably, forcing) a reduction of carbon emissions in exporting countries. So, the question is whether this emission-reduction effect of the CBAM defies the balance of differentiated obligations on mitigation under the Paris Agreement. As elaborated below, we believe this is the case to some extent.

In broad terms, an exemption from the CBAM for *all* developing (non-Annex I) countries no longer appears justifiable on CBDR-RC grounds under the Paris Agreement, as it was at the time of the Kyoto Protocol when developing countries were not be expected to reduce GHG

¹¹⁷ On this point, see further Marín Durán, 'Securing Compatibility of Carbon Border Adjustments with the Multilateral Climate and Trade Regimes' 81-84.

¹¹⁸ Preamble, Recital 8 CBAM Regulation.

¹¹⁹ CBAM Proposal, 1; see also CBAM Impact Assessment, 4.

¹²⁰ CBAM Impact Assessment, 8 (emphasis added).

¹²¹ The claim regarding 'policy choices' is simply incorrect, given the nature of the CBAM as carbon price equalisation measure, which undercuts the substantial flexibility provided in the Paris Agreement with regards to the choice of means to pursue decarbonisation. For further discussion, see Marín Durán (n 50) 89-80; and Pirlot, 'Carbon Border Adjustment Measures' 33.

¹²² See 'Nationally Determined Contributions Registry' (*United Nations Framework Convention on Climate Change*), www.unfccc.int/NDCREG.

¹²³ Note that, in these sectors, the ETS applies instead to all domestic production (whether domestically consumed or exported) and emissions are also subject to an EU-wide cap that decreases every year through a linear reduction factor: para 11 revised ETS Directive.

emissions at all.¹²⁴ By contrast, the Paris Agreement does not allocate an exclusive responsibility for reducing GHG emissions to developed countries (or Annex I countries). Instead, in order to achieve the agreement's temperature goals, *all* Parties are committed to 'reach global peaking of [GHG] emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter...so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of [GHGs by 2050]'.¹²⁵ More specifically, the Paris Agreement embraces a bounded self-differentiation model to mitigation commitments,¹²⁶ which imposes a binding obligation of conduct on each Party to 'prepare, communicate and maintain nationally determined contributions (NDCs) that it intends to achieve', coupled with strong normative expectations on 'progression' and 'highest possible ambition' for each successive NDC, 'in light of different national circumstances'.¹²⁷

Within this global mitigation trajectory, the Paris Agreement still assigns a leadership role to developed countries by undertaking economy-wide absolute reduction targets, but 'developing countries should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances'.¹²⁸ Such an expectation has been met in practice with several developing countries committing to economy-wide reduction or limitation targets, including the BASIC countries.¹²⁹ However, there are two important qualifications to this general proposition which, contrary to what the Commission claims, do call for introducing specific forms of differentiation in the CBAM.

The first relates to developing countries and stems from Article 4.5 Paris Agreement, which clearly requires ('shall') developed countries to provide financial support to developing countries to assist their mitigation efforts, 'recognizing that *enhanced support* for developing country Parties will allow for *higher ambition in their actions*'.¹³⁰ The Paris differentiation balance thus reflects a critical understanding of the relationship between greater overall ambition with developing countries assuming responsibility for lowering carbon emissions (which the CBAM encourages), on the one hand, and increased financial resources by developed countries to support such mitigation efforts, on the other hand (which the CBAM ignores).¹³¹ From this perspective, both the CBAM Regulation and the earlier Commission

¹²⁴ See Marín Durán (n 50) 85-86. This point is independent of more pragmatic considerations relating to the risk of carbon leakage.

¹²⁵ Art 4.1 Paris Agreement.

¹²⁶ Rajamani (n 11) 509, rightly noting that the 'Paris Agreement operationalises the CBDRRC principle not by tailoring commitments to categories of Parties as the UNFCCC and the Kyoto Protocol do, but by tailoring differentiation to the specificities of each of the Durban pillars—mitigation, adaptation, finance, technology, capacity-building and transparency'.

¹²⁷ Arts 4.2 and 4.3 Paris Agreement; see further Rajamani (n 11) 500-501; Voigt and Ferreira, C Voigt and F Ferreira, "Dynamic Differentiation" 295-297.

¹²⁸ Art 4.4 Paris Agreement.

¹²⁹ For instance, in its second update NDC (April 2022), Brazil commits to an absolute economy-wide reduction in emissions by 37 per cent below 2005 levels in 2025, and by 50 per cent below 2005 levels in 2030. China, in its first updated NDC (October 2021), commits to emission-peaking before 2030, an emission-reduction target of 65 per cent below 2005 levels by 2030 and achieving carbon neutrality before 2060. India, in its first NDC (October 2016, not updated), commits to reduce the emission intensity of its GDP by 33 to 35 per cent from 2005 levels by 2030. South Africa, in its updated NDC (September 2021), commits to economy-wide emission limitation targets for 2025 and 2030. All NDCs are available at: 'Nationally Determined Contributions Registry' (*United Nations Framework Convention on Climate Change*), www.unfccc.int/NDCREG. See also, L Rajamani et al, 'National Fair Shares' 1000.

¹³⁰ Art 4.5 Paris Agreement (emphasis added), read in conjunction with Art 9 Paris Agreement.

¹³¹ Rajamani (n 11) 494.

legislative proposal are disappointing and strikingly silent on the use of revenue generated through the sale of CBAM certificates. They just contain preambular provisions declaring that the Union

is committed to working with and supporting [including through financial assistance] low and middle-income third countries towards the decarbonisation of their manufacturing industries as part of the external dimension of the European Green Deal and in line with the Paris Agreement...The Union is working towards introducing a new own resource based on the revenues generated by the sale of CBAM certificates,¹³²

but there are no firmer commitments or guidance on revenue use in their operative texts. In line with the Paris burden-sharing arrangements, CBAM-generated revenue ought to be recycled back to affected developing countries to support their own decarbonisation efforts.¹³³

The second form of differentiation concerns LDCs and SIDS, whose specific situation is acknowledged in the mitigation and other provisions of the Paris Agreement.¹³⁴ Of most relevance is Article 4.6 Paris Agreement, which provides that these countries ‘*may* prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances’.¹³⁵ This provision follows those applicable to all Parties seen above, and its permissive character is clearly significant. It differentiates LDCs/SIDS from all other Parties (including other developing countries), in that these countries can –but are under no obligation to– undertake emission-reduction action. This special treatment of LDCs/SIDS reflects the fact that they bear the least (historical and current) responsibility for the climate emergency (i.e., presently accounting for only 7% of global GHG emissions) and have the least capacity to adapt to new climate conditions,¹³⁶ thus being the most vulnerable countries to the adverse effects of climate change. Insofar as the EU’s CBAM would incentivise (or arguably, pressure) producers in LDCs/SIDS to lower carbon emissions, it is out of step with the CBRDDC principle as operationalised in Article 4.6 Paris Agreement.

The EU, however, has rejected from the start the possibility of an LDCs/SIDS exemption on grounds that it would run counter the overarching objective of the CBAM by encouraging a growth of emissions in these countries and be counterproductive in potentially locking them into high-carbon development paths.¹³⁷ The first concern is an overstatement, given that the risk of carbon leakage associated with LDCs/SIDS has been estimated to be negligible,¹³⁸ while the second argument is not entirely misplaced. However, as seen above, the Paris differentiation balance does give LDCs/SIDS full discretion (‘*may*’) as to whether they embrace

¹³² Preamble, Recital 55 CBAM Proposal.

¹³³ Similarly, see Mehling et al (n 95) 478-479; Pirlot, 45; ‘A European Union Carbon Border Adjustment Mechanism: Implications for Developing Countries’ (*United Nations Conference on Trade and Development*, 2021), www.unctad.org/system/files/official-document/osginf2021d2_en.pdf, 24.

¹³⁴ See also Arts 9(4), 9(9), 11(1) and 13(3) Paris Agreement.

¹³⁵ Emphasis added.

¹³⁶ UNDP, ‘The State of Climate Ambition – Global Outlook Report 2021’ (*United Nations Development Programme*, October 2021), www.undp.org/sites/g/files/zskgke326/files/2021-11/UNDP-NDC-Global-Outlook-Report-2021-The-State-of-Climate-Ambition.pdf, 13.

¹³⁷ CBAM Impact Assessment, 30.

¹³⁸ Mehling et al (n 95) 475; ‘A European Union Carbon Border Adjustment Mechanism: Implications for Developing Countries’ (*United Nations Conference on Trade and Development*, 2021), www.unctad.org/system/files/official-document/osginf2021d2_en.pdf, 18.

the decarbonisation of energy-intensive industries in light of their special circumstances –and ultimately, this national choice ought to be respected by the EU when designing the CBAM in spirit with the CBDR-RC principle.

To sum up, contrary to what the Commission claims, the EU's CBAM as presently designed is *not* compatible with the CBDR-RC principle as given effect in the mitigation provisions of the Paris Agreement. To be brought in spirit with this principle, the CBAM needs to be adjusted through two kinds of differentiation: (i) an LDCs/SIDS exemption (based on Article 4.6 Paris Agreement) and (ii) a revenue-recycling provision applicable to imports originating in developing countries (based on Article 4.5 Paris Agreement).

5. Conclusions

This chapter has appraised global EU climate action, as manifested in two recent trade-related climate measures, from the point of view of the principle of CBDR-RC and has made four key points.

First, it has argued that the CBDR-RC principle is legally relevant to these EU measures and has clarified when it should be taken into consideration by the Union. Second, the chapter has found that, overall, the EU has acted consistently with the CBDR-RC principle when exercising first-order climate responsibilities. In relation to international shipping, this is because the EU has filled a system boundary gap left by the UNFCCC regime and because in the design of the revised ETS Directive, the 'replication test' elaborated by Scott has been met. This test has been met because if other countries were to adopt the same approach as the EU, no double counting of carbon emissions would arise. In relation to CBAM, this is because it arguably enables the EU to fulfil its leadership role in the global battle against climate change called by the CBDR-RC principle, by increasing its ambition through the phasing-out of (environmentally inefficient) free emission allowances under the ETS while avoiding carbon leakage risks.

Third, and conversely, the chapter has argued that the EU has not acted consistently with the principle of CBDR-RC when exercising second-order climate responsibilities in the CBAM context. In view of this, it has proposed two adjustments to the design of the measure to bring it in line with this principle. First, the introduction of a full exemption from the CBAM's application for LDCs and SIDS in order to duly recognise their special status under Article 4.6 Paris Agreement. Second, the EU must ensure that CBAM-generated revenue is used to support decarbonisation efforts in other affected developing countries, pursuant to its obligation under Article 4.5 Paris Agreement.

Fourth, and finally, the chapter has observed that while the EU has not yet exercised second-order climate responsibilities in the ETS/international shipping context, if it were to do so in the future, specific forms of differentiation would need to be introduced in relation to emissions that fall within the purview of the first-order climate responsibilities of non-EU Member States. This would arise, for example, if the EU were to include more than 50% of the emissions generated during voyages starting and ending in the EU. In this situation, in evaluating the 'equivalence' of third-country measures in the shipping sector, the principle of CBDR-RC ought to be considered. In keeping with this, a country's contribution to tackling the climate change impacts of shipping should be differentiated in accordance with that country's relative degree of responsibility/capability.

