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D6.3a – Towards Minilateral Climate Governance? Analysing Climate Club Design Options through the lens of CBDR-RC

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Executive Summary

In response to the limitations and failings of the multilateral UN climate change law regime, a range of new and dynamic climate governance arrangements have emerged. This includes minilateral 'climate clubs', which enable a subset of countries to tackle climate change beyond the UNFCCC. While proposed as a solution to move international climate policy forward, depending on their specific design, climate clubs could raise implications from the perspective of the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) that is enshrined in the climate regime. Accordingly, this paper aims to analyse different design options of climate clubs through the lens of CBDR-RC. First, it explains the general rationale for climate clubs and presents a spectrum of key club design features. Second, it conceptualises the principle of CBDR-RC and describes how this has been operationalised. Third, it draws on existing club-like arrangements – namely, the Climate Club launched at COP28, the Clean Energy Ministerial, and the proposed EU-US Global Arrangement on Sustainable Steel and Aluminium – to critically examine whether different design options are (likely to be) compatible with the principle of CBDR-RC. Last, the paper explores how differentiation could be woven into the architecture of future climate clubs.

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1 Introduction

The multilateral governance frameworks that have been created so far to address climate change – primarily, the United Nations Convention on Climate Change (UNFCCC), Kyoto Protocol and Paris Agreement – have failed to drive the emissions reductions required to halt irreversible climate impacts. While the signing of the Paris Agreement marked a significant moment in the international legal response to climate change, the level of ambition captured in parties' current Nationally Determined Contributions (NDCs) is insufficient to set the world on a 1.5°C trajectory (UNFCCC, 2023).

However, a range of new and dynamic climate governance arrangements have proliferated beyond the UNFCCC (Jordan et al., 2015). Among these arrangements are so-called 'climate clubs'. Generally speaking, climate clubs are conceptualised as minilateral forums established between a subset of countries to tackle climate change outside of the UNFCCC, that can also include non-state actors. By crafting deals in smaller settings, climate clubs arguably allow for higher climate ambition, more effective implementation, and quicker decision-making processes (Victor, 2011). Accordingly, they are proposed as a solution to overcome the political impasse and stagnation that has plagued the multilateral climate regime.

Several types of climate clubs have been proposed that differ significantly in terms of their design structure (see Falkner, Nasiritousi and Reischl, 2022). On the one end of the spectrum are those characterised by binding membership rules and sanctioning mechanisms, that stem from the original economic perspective on general clubs (see Buchanan, 1965). The most prominent example is the climate club model proposed by economist William Nordhaus (2015), that (1) requires members to commit to a binding carbon price, and (2) imposes penalties against non-compliant members and non-participants. On the other end of the spectrum are those that simply aim to unite, and facilitate a dialogue among, countries with a common normative climate ambition (Falkner, Nasiritousi and Reischl, 2022). While climate clubs of this nature do not conform to the classical economic theory on clubs, our article takes a broader perspective, that includes any form of minilateral arrangement established among a group of countries.

Early empirical studies suggested that existing climate clubs were not necessarily focused on increasing climate ambition (Weischer, Morgan and Patel, 2012). These were instead characterised as 'discussion clubs', that failed to produce meaningful mitigation action (Andresen, 2014). Accordingly, Hovi et al. (2016: p. 3) concluded that no 'credible' climate club yet exists. A more recent analysis (Forner and Díaz, 2023) highlights that the existing landscape of minilateral climate initiatives are mainly focused on knowledge sharing. Notwithstanding, more concrete proposals that more or less conform to the Nordhaus model are being increasingly discussed, including by prominent think-tanks (see Tagliapietra and Wolff, 2021; Wolff, 2020). In addition, ongoing negotiations between the US and the EU to establish an arrangement on sustainable steel and aluminium could represent the seedlings towards the world's first Nordhaus-style climate club.

While climate clubs in theory offer a way of moving international climate change cooperation forward, they raise some complex questions. Among them are concerns around equity. The principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) enshrined in the climate regime emerged from 'the application of equity in general international law' (Sands and Peel, 2018: p. 244). Accordingly, equity finds expression in the climate regime through the principle of CBDR-RC. The principle consists of two main conceptual components. The first acknowledges that all states share a common responsibility to protect the environment, while the second concerns the need to consider the differing circumstances of states, particularly with respect to their historical contribution

to, and capacity to address, the problem (Sands and Peel, 2018: p. 144).

While the content and application of CBDR-RC remain contested (Rajamani, 2023), the core of its meaning is generally agreed. In addition, it has been described as 'the most significant guiding principle' of the climate regime (Tian and Xiang, 2018: p. 253). Given that CBDR-RC represents a cornerstone of the climate regime, climate clubs should arguably aspire to embed the principle into their architecture. If countries can simply establish minilateral forums that side-step CBDR-RC, climate clubs risk being inconsistent and misaligned with the UNFCCC. Depending on the specific institutional design of a climate club, however, this could raise compatibility issues with the principle of CBDR-RC.

Existing legal scholarship has analysed the principle of CBDR-RC in the context of the climate regime, including how it has been conceptualised and operationalised, its evolution, its normative and legal status, and possible limitations of the principle (see e.g., Kolmaš, 2023; Pauw et al., 2014; Rajamani, 2023; Rajamani, 2018; Singh, 2022; Voigt and Ferreira, 2016; Tian and Xiang, 2018). Additionally, some scholars have examined how and to what extent the principle has been, or could be, applied beyond the UNFCCC context, for example in the international legal framework for international shipping (Chen, 2021; Kopela, 2014) and in relation to the European Union's proposal to include international aviation into its emissions trading scheme (Scott and Rajamani, 2012). Legal scholarship has also empirically assessed to what extent transnational climate governance initiatives interpret and apply differentiation in a distinct manner to the climate regime (Castro, 2016).

With respect to climate clubs and CBDR-RC, existing scholarly contributions have explored to what extent minilateral climate governance arrangements, at least generally speaking, are compatible with the principle (see e.g., Eckersley, 2012; McGee, 2015). Some scholars have also analysed CBDR-RC in the context of specific minilateral initiatives, including the Asia-Pacific Partnership on Clean Development and Climate (McGee and Taplin, 2009). Nevertheless, contributions that provide a critical and detailed legal analysis of climate clubs and their design options in light of the CBDR-RC principle are lacking. Addressing this research gap is an important and timely exercise, particularly as climate clubs continue to evolve from a theoretical construct into practical policy proposals, with real-world application and implications.

Against this background, this article aims to contribute to the existing scholarship by analysing different design options of climate clubs through the lens of CBDR-RC. The article proceeds in three key steps. First, Section 2 briefly explains the rationale for climate clubs and then presents a spectrum of key club design features, namely (1) membership, (2) benefits for participation (3) legal character, and (4) follow-up, compliance and enforcement. Next, Section 3 conceptualises the principle of CBDR-RC, in addition to briefly outlining its evolution under the climate regime and its contested legal status. Drawing on Rajamani (2006), Section 3 then presents three main categories of how CBDR-RC is operationalised under the climate regime, namely through (1) central obligations, (2) implementation, and (3) assistance. Section 4 critically examines three types of climate club design options to determine whether these are (likely to be) compatible with CBDR-RC, that employ a variation of the design features discussed in Section 2. This section draws on current club-like arrangements to examine whether these respective design options are compatible with the CBDR-RC principle, namely the Climate Club launched at COP28, the Clean Energy Ministerial, and the proposed EU-US Global Arrangement on Sustainable Steel and Aluminium. Section 4 then incorporates some concrete examples of existing minilateral climate governance arrangements that have in some way embedded differential treatment into their architecture, to help inform the design and practical creation of future climate clubs. Section 5 concludes.

2 Conceptualising climate clubs: Rationale and key design features

2.1 The rationale for minilateral clubs in global climate governance

The climate club concept originates from club theory in economics. Buchanan (1965) is generally regarded as the founder of club theory, which primarily concerns the study of 'club goods'. However, previous works also contribute to the early literature alluding to club goods (see Knight, 1924; Olson, 1965; Pigou, 1920; Tiebout, 1956; Wiseman, 1957). Buchanan explores the concept of club goods to bridge the gap between classical purely private goods and purely public goods against two key variables: rivalry and excludability. Rivalrous goods refer to those that limit consumption between users (i.e. if one person consumes the good, this diminishes the ability of others to consume the good). Excludable goods refer to those that non-members can be excluded from enjoying. Buchanan distinguishes club goods from both private goods and public goods. Private goods are both rivalrous and excludable, whereas public goods are non-rivalrous and non-excludable. While club goods are defined as a subgroup of public goods that are also non-rivalrous, they are also excludable (Morin, Brandi and Schwab, 2023).

Due to the lack of progress made under multilateral frameworks, several scholars begun applying the general theory of clubs to international climate governance (see e.g., Falkner, 2016; Hovi et al., 2016; Nordhaus, 2015; Victor, 2015). Much of the literature discusses how climate clubs could, in theory, overcome the limitations and failures of the climate regime (see e.g., Hovi et al., 2016; Pihl, 2020; Victor, 2015). First, climate clubs can provide for enhanced flexibility in a smaller environment, thereby allowing for faster decision-making processes (Falkner, 2016; Victor, 2015; Weischer, Morgan and Patel, 2012). Second, climate clubs can allow for higher climate ambition among a limited group of countries, moving beyond political gridlock through a 'narrow-but-deep' approach (Falkner, 2016; Nasiritousi and Reischl, 2022; Victor, 2015; Weischer, Morgan and Patel, 2012). Third, climate clubs can provide for a more focused and tailored approach, for example the decarbonisation of a specific sector (Hermwille et al., 2022; Kumar et al., 2022; Obergassel, Wang-Helmreich and Hermwille, 2019).

2.2 A spectrum of key club design features

Key design features proposed under the club mechanism that are discussed in the literature include: (1) membership; (2) benefits of participation; (3) legal character; and (4) follow-up, compliance and enforcement. While the model developed by Nordhaus (2015) has gained the most academic attention, several scholars have questioned the practical feasibility of its core design features (see e.g., Chen and Zeckhauser, 2018; Falkner, Nasiritousi and Reischl, 2022; Falkner, 2016; Hovi et al., 2016; Zefferman, 2018). Accordingly, several variations of climate clubs with different design features have been elaborated in the literature that deviate from the Nordhaus-style model, generating a spectrum of possible design features.

2.2.1 Membership

In terms of membership, two 'extremes' can be identified. On one end of the spectrum are clubs that are strictly based on invitation only and thereby exclusive in nature, i.e. participation is contingent on the approval of club members. Conditions may even be negotiated individually, as is the case for EU and NATO membership respectively. On the opposite end of the spectrum are clubs that emphasise the importance of inclusivity, i.e. membership is open-ended. Climate clubs of this nature can be described as 'coalitions of the willing' (Hale, 2011).

However, there are also clubs that fall somewhere more along the middle of the spectrum, whereby membership is based on pre-defined and measurable criterion. An example is the climate club model advanced by Nordhaus, which would require its members to meet certain conditions, namely in the form of an internal carbon price. Climate clubs of this nature can be described as comprising 'ambitious members but with strings attached' (Falkner, Nasiritousi and Reischl, 2022: p. 482).

In terms of what specific countries should participate, studies have generally centred on establishing a club of the 'relevant' (Rinke and Schneckener, 2013). This typically refers to a critical mass of actors, that can make a meaningful contribution to international climate policy. Based on this, some scholars have argued that clubs should consist of countries with significant veto power and the capacity to tackle the problem (Falkner, 2016). Relevance has also been defined with reference to other parameters, including the share of global greenhouse gas emissions, in which case membership would require key emitters (Gampfer, 2016; Hovi et al., 2016; Victor, 2011).

Relevance has also been conceptualised through other dimensions, including ambition and willingness (Hale, 2011). Another element considered in the literature is legitimacy, requiring participation of those who are the most responsible for climate change, the most capable of tackling climate change, and the most vulnerable to climate change (Eckersley, 2012).

2.2.2 Benefits for participation

Benefits for club members are generally characterised as either public goods or club goods. On one end of the spectrum are clubs that simply aim to produce public goods (or some type of positive externality). As the name suggests, non-members cannot be excluded from enjoying public goods. In the case of a climate club, the main public good is in the form of climate mitigation and is hence global in nature.

On the other end of the spectrum are clubs that specifically aim at producing excludable benefits, typically referred to as club goods. Due to their excludability, club goods are expected to generate private incentives capable of inducing countries to accept the club's membership requirements, promote the club's growth, and 'contribute more to the production of the public good. . . than they would do as non-members' (Hovi et al., 2016: 3; see Stua, 2017).

Several scholars discuss different types of excludable club goods, that can be differentiated between those that represent or directly affect material or financial resources versus those that don't. In relation to the former, examples include access to low-carbon technology and climate finance (Paroussos et al., 2019). Victor (2015) proposes various examples of club goods, including low-tariff zones for low-emission technologies and linking emissions trading systems. Further examples include preferential access to member countries' markets, collaborative research and development, and the opportunity to help shape the design of future (technical) standards. Other political and less tangible

benefits that constitute examples of club goods include reputational benefits and legitimation (see Falkner, Nasiritousi and Reischl., 2022; Green, 2017; Prakash and Potoski, 2007). Another example is enhanced bargaining power, i.e. by creating an exclusive environment and limiting the number of different interests at play, countries could gain enhanced bargaining leverage that ultimately leads to outcomes they deem more satisfactory.

An example of an existing minilateral initiative that arguably includes both public and club goods is the Climate and Clean Air Coalition (CCAC) (Unger, Mar and Gürtler, 2020). The main objective of the CCAC is to reduce global warming in the near-term to help realise the goals of the Paris Agreement, through minimising emissions of short-lived climate pollutants (CCAC, n.d). Accordingly, the CCAC arguably produces a global public good, through its direct aim to pursue emissions reductions (Unger, Mar and Gürtler, 2020). At the same time, however, the CCAC also produces benefits exclusively for its members. This includes the provision of financial support, primarily for its developing country members, as well as reputational benefits (Unger, Mar and Gürtler, 2020).

In addition to the provision of club goods, another mechanism that can be used to stimulate participation in a club includes the threat of sanctions (see Nordhaus, 2015; Victor, 2011; Victor, 2015). An example is the Montreal Protocol, which has now achieved universal ratification but started out as an exclusive club (Gopalakrishnan, 2021; Ott, 2014). To promote participation, trade sanctions against non-participants were introduced, in addition to the provision of financial incentives specifically for developing countries (Albrecht and Parker, 2019).

2.2.3 Legal character

Club models can vary significantly in terms of their legal character. This can be assessed along several dimensions, primarily a club's legal form, whether it imposes legally binding obligations, and the precision of said obligations (see Bodansky, 2016).

On the one end of the spectrum are climate club models that are characterised by a strong legal character. This is exemplified by the Nordhaus proposal, which envisions the adoption of a clear and legally binding obligation in the form of a uniform carbon price (Nordhaus, 2015). A club of this nature would also need to take the form of hard law, preferably a treaty. In terms of practical examples, one could argue that an existing club with legally binding rules is the EU. Members are required to comply with a number of binding standards and rules that are contained within EU primary and secondary legislation. New members can only join if they agree to comply with these rules.

On the other end of the spectrum are climate clubs that generally lack a legal character. Most existing minilateral institutions fall on this softer end of the spectrum. Accordingly, these clubs do not set any binding obligations on their members, are not based on a formal legal instrument, and typically have low barriers to entry. Rather than seeking strength from legal character, these club models seek strength from their shared moral ambition/beliefs (Falkner Nasiritousi and Reischl, 2022). The CCAC is an example of an existing climate club that lacks legal character. It does it impose any legally binding obligations on its members, nor is it based on a formal legal instrument (Unger, Mar and Gürtler, 2020).

2.2.4 Follow-up, compliance and enforcement

Closely related to legal character is follow-up, compliance and enforcement. Several options for

promoting compliance and enforcement with club rules are discussed in the literature. On one end of the spectrum are the more stringent proposals that envisage 'hard' sanctions against non-compliant members, for example withdrawing club goods or expulsion (e.g., Falkner Nasiritousi and Reischl, 2022; Gampfer, 2016; Leal-Arcas, 2020; Nordhaus, 2015; Pihl, 2020). On the other end of the spectrum are proposals that do not seek to enforce club rules or involve any sanctions for non-compliance. Most existing clubs lie at this end of the spectrum.

However, there are other 'soft' methods of achieving compliance and enforcement. Countries that fail to comply with club rules run the reputational risk of blaming and shaming. The inclusion of measurement, reporting and verification (MRV) rules represents one means of operationalising this soft mechanism of blaming and shaming. An example of an existing minilateral arrangement that integrates MRV rules is the International Energy and Climate Initiative (the Energy+ Partnership), which requires each of its developing country partners to establish a national energy registry to communicate results as part of an MRV system (Energy+ Partnership, 2012).

3 The principle of CBDR-RC in the climate regime

3.1 Background, evolution and legal status

Differential treatment has featured in international law for over a century, emerging as early as 1920 in the Versailles Peace Treaty (Stone, 2004). Explicit references to different circumstances and needs have been incorporated in international environmental treaties since the early 1970s. The principle of CBDR was, however, only formalised in Principle 7 of the Rio Declaration at the UN Conference on Environment and Development in 1992. As mentioned above, it is generally conceptualised as comprising two key elements: (1) a common responsibility on all states to protect the environment; and (2) differing circumstances of states, primarily in relation to their historical contribution to the problem and capacity to tackle the problem (Sands and Peel, 2018: p. 144). The principle finds full expression in, and is a hallmark of, the climate regime (Rajamani, 2023). Under the UNFCCC, the principle is articulated as 'common but differentiated responsibilities and respective capabilities' (CBDR-RC) and under the Paris Agreement, 'common but differentiated responsibilities and respective capabilities, in the light of different national circumstances' (Rajamani, 2023).

The principle has evolved considerably. Under the UNFCCC, countries are divided into Annex I and non-Annex I countries, with the former predominantly comprising developed countries and the latter comprising developing countries (Rajamani, 2023). Generally speaking, CBDR-RC under the Convention is understood as placing an onus on developed countries to take the lead, as specified in Article 3, through more ambitious and comprehensive targets and potentially at a higher standard of compliance, in addition to providing means of implementation to support developing countries. The Kyoto Protocol reinforced this strict dichotomy between Annex I and non-Annex I. Accordingly, CBDR-RC was operationalised through a binary approach, often referred to as a 'firewall' (see Savaresi, 2016). However, this dichotomy between developed and developing countries was criticised for its failure to capture the growing diversification across developed countries (Depledge and Yamin, 2009; Pauw, Mbeva and van Asselt, 2019).

The approach to differentiation under the Paris Agreement is more diversified and abandons the defined categories of Annex I and non-Annex I countries. The Paris Agreement interprets differentiation along several parameters that allow for a more nuanced approach to CBDR-RC (Rajamani, 2018). The introduction of the qualifier 'in light of different national circumstances' integrates a dynamic facet to the principle, that widens the scope of criteria for assessing differentiation (Voigt and Ferreira, 2016). Accordingly, as the circumstances of a country evolve over time, this will be reflected through their common but differentiated responsibilities under the Paris Agreement (Pauw, Mbeva and van Asselt, 2019). In addition, the Paris Agreement also introduces a system of 'self-differentiation' through NDCs. Although both developed and developing countries have a legal obligation to submit NDCs under Article 4, this bottom-up process requires countries to determine and define their own climate ambitions and priorities.

While the principle of CBDR-RC is a cornerstone of the climate regime, its legal status remains contested (Cullet, 2021; Rajamani, 2023). For example, already in the mid 1990's, Pallemaerts (1995) contended that CBDR was in fact emerging as a new principle of international environmental law. Meanwhile, other scholars such as Stone disputed this, stating that CBDR has 'not been elevated to the status of a customary principle of international law' (Stone, 2004: p. 299). Whether the principle has achieved the status of customary international law continues to be widely debated in the academic literature (see e.g., Cullet, 2021; Rajamani, 2023). Notwithstanding, CBDR-RC continues to operate as a *de facto* principle in the climate regime. Accordingly, Rajamani (2006: p. 160) contends that the

principle of CBDR-RC arguably possesses a 'species of normativity implying a certain legal gravitas'.

Despite its contested legal status, the principle has fundamentally shaped the climate regime and remains the 'overall principle' to guide its continued development and evolution (Rajamani, 2000: p. 124). In a similar vein, Bartenstein (2010: p. 199) describes CBDR as a 'structuring or guiding principle, that is to say a principle which plays a central role in the structuring and systematisation of the rules of law'. Differentiation is deeply engrained in the architecture of a number of different multilateral environmental agreements and has been pivotal in shaping international environmental law generally. More specifically, differentiation is a defining component in several core environmental treaties with universal or near-universal membership, including the Vienna Convention, Montreal Protocol, Convention on Biological Diversity, and the UNFCCC and Paris Agreement (Rajamani, 2006). Accordingly, Rajamani (2023: p. 298) has described CBDR as representing the 'bedrock of burden-sharing arrangements' in environmental treaties. It can therefore be argued that due to its significance, the principle of CBDR-RC should apply beyond the UNFCCC, including within the specific context of climate clubs.

3.2 Operationalising CBDR-RC: central obligations, implementation and assistance

While the content and application of CBDR-RC remain debated (Rajamani, 2023), there are clear ways that differentiation manifests in the climate regime, some explicit and others more subtly. In addition to shaping central obligations, CBDR-RC is also woven into several procedural provisions. Drawing on the work of Rajamani (2006), this section identifies three main categories through which differentiation is operationalised in the climate regime.

3.2.1 Differentiation in terms of central obligations

Differentiation features in provisions that concern central obligations, most notably in the context of mitigation commitments. Nevertheless, this has evolved significantly under the climate regime.

Under the Kyoto Protocol, central mitigation obligations are only imposed on Annex I countries, i.e. developed countries. While the Paris Agreement abandons the distinct classifications of Annex I and non-Annex I countries, it nevertheless distinguishes between 'developed' and 'developing' countries. For example, Article 4.1 acknowledges that 'peaking will take longer for developing country parties'. However, in the context of mitigation commitments, CBDR-RC is operationalised through self-differentiation, primarily through the bottom-up preparation and submission of NDCs. While all NDCs must reflect their 'highest possible ambition' in accordance with Article 4.3, parties are granted considerable flexibility to define the scope of their national contributions, in line with their respective responsibilities, capabilities, and circumstances.

However, this flexibility is caveated by 'normative expectations' concerning the *level of ambition* and *type of target* that is communicated in NDCs (Rajamani, 2018). Article 4.4 states that developed countries 'should continue *taking the lead* by undertaking economy-wide absolute *emission reduction targets'*. At the same time, Article 4.4 specifies that 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'. Importantly though, this provision in Article 4.4 is couched in non-mandatory language, i.e. the application of 'should' rather than 'shall' (Rajamani, 2018).

Least Developing Countries (LDCs) and Small Island Developing States (SIDS) are afforded special consideration and treatment vis-a-vis mitigation action. Under Article 4.6 of the Paris Agreement, LDCs and SIDS '*may* prepare and communicate strategies, plans and actions for low greenhouse gas emissions development that reflect their special circumstances'.

3.2.2 Differentiation in terms of implementation

Differentiation is also operationalised in the climate regime with respect to provisions concerning implementation. This has materialised in several ways.

One way that CBDR-RC is interpreted under the Convention is through delayed reporting schedules. Under Article 12, all parties are required to submit regular reports known as 'national communications'. However, in line with Article 12.5, developed countries are required to submit their initial report within the first six months of joining the Convention, meanwhile developing countries are afforded three years. LDCs can submit at their own discretion. Nevertheless, as a result of the Cancún Agreements, reporting requirements under the Convention have become progressively alike for developed and developing countries (UNFCCC, 2011; see also Weikmans, van Asselt and Roberts, 2020).

Another example is through softer approaches to non-compliance under the Kyoto Protocol. The Kyoto's Compliance Committee is composed of two branches: a Facilitative Branch and an Enforcement Branch. In the context of developing countries, only the former branch applies, although it is available to provide facilitation to all parties implementing the Protocol (UNFCCC, 2001). To this end, the Facilitative Branch is primarily tasked with the formulation of recommendations, provision of advice, and facilitation of financial and technical assistance, among others (UNFCCC, 2001). In addition, when making decisions, the Facilitative Branch is required to consider the principle of CBDR-RC (UNFCCC, 2001). On the other hand, the Enforcement Branch possesses the power to invoke punitive consequences for non-compliance against developed countries (UNFCCC, 2001).

Differentiation also features in the Paris Agreement's enhanced transparency framework (ETF). First, while the ETF applies to all countries, it is designed with 'built-in flexibility' based on the parties' different capacities under Article 13.1. As per Article 13.13, the review process also pays 'particular attention to the respective national capabilities and circumstances of developing country parties'. LDCs and SIDS, however, are not mandated to submit a biennial report on their actions. Another indication of flexibility is the support that is offered to developing countries to enhance their transparency-related capacity, in line with Articles 13.14-15.

3.2.3 Differentiation in terms of assistance

Differentiation in the climate regime is also operationalised through provisions that grant assistance, in the form of financial assistance, technology transfer, and capacity-building.

Differentiation in terms of financial assistance features prominently throughout the climate regime, with an explicit obligation under Article 4.3 on developed countries to provide financial resources to developing countries to support them with implementing the Convention. This is tied to developing countries' ability to implement their commitments. To this end, Article 4.7 states that 'the extent to which developing country parties will effectively implement their commitments under the Convention

will depend on the effective implementation by developed country parties of their commitments under the Convention related to financial resources and transfer of technology'. This obligation to provide financial assistance is reaffirmed by the Paris Agreement in Article 9. Notably, this support does not prescribe certain action on developing countries. Instead, this support is aimed at ensuring 'higher ambition' from developing countries, as per Article 5.5. Rather, many developing country NDCs under the Paris Agreement include components that are conditional on the provision of support from developed countries.

Differentiation is also operationalised through provisions dealing with technology transfer. Under Article 4.5 of the UNFCCC, developed countries are required to promote, facilitate and finance the transfer of climate technologies to developing countries. Likewise to financial assistance, this obligation is linked to the ability of developing countries' to implement their commitments under the Convention. Accordingly, as mentioned above, Article 4.7 relates not only to financial support but also to technology transfer. The Paris Agreement also acknowledges the importance of technology development and transfer for the effective implementation of the Agreement. This is reflected by Article 10.6, which states that support 'shall be provided to developing country parties … including for strengthening cooperative action on technology development and transfer'.

The climate regime also sets expectations on developed countries with respect to general capacity building. While the Paris Agreement urges that 'all parties should cooperate to enhance the capacity of developing country parties', explicit referral is also made to the expectation on developed countries to strengthen support for capacity-building actions, in accordance with Article 11.3.

4 Designing climate clubs of the future

4.1 Assessing climate club design options through the lens of CBDR-RC

This section will now analyse three types of climate club design options against the categories of differentiation discussed in section 3.2, to determine whether these are (likely to be) compatible with the principle of CBDR-RC. When analysing the respective design options, the article will draw on current club-like arrangements that employ a variation of the different design features discussed in section 2.2, namely the recently launched Climate Club, the Clean Energy Ministerial (CEM), and the EU-US Global Arrangement on Sustainable Steel and Aluminium (GASSA). However, with respect to the GASSA, it is important to note that this analysis is speculative, given that negotiations are still in progress. Accordingly, the final design of the club remains to be seen.

4.1.1 The Climate Club and CBDR-RC

Following an initiative by the German Presidency, the G7 in December 2022 published terms of reference to establish an international climate club (G7, 2022). At COP28 in Dubai, the 'Climate Club' was formally launched. It currently comprises 37 member countries, including the EU, and is described as an 'open, cooperative, and inclusive forum of climate-ambitious countries' (Climate Club, 2023: p. 4). Germany and Chile are joint co-chairs.

The idea to establish a climate club was initially floated in 2021 by the then German finance minister, Olaf Scholz. While the original German proposal envisioned the creation of a harmonised carbon price based on the Nordhaus club model (see Bundes Finanz Ministeriun, 2021), this failed to capture any political resonance within the G7 and also faced pushback outside of the G7. Accordingly, in moving from theory to practice, the Climate Club has evolved significantly.

In accordance with the Climate Club Work Programme, adopted in October 2023, the overall objective of the club is to support the implementation of the Paris Agreement's 1.5°C temperature goal and accelerate the transition towards net zero emissions, including a specific focus on the decarbonisation of industry (Climate Club, 2023). While it does not envisage the creation of any legally binding rules, it will have a focus on standard setting (Climate Club, 2023). Specifically, the club will seek to lay the groundwork for a standardised CO2 intensity calculation pertaining to selected products, define near-zero emissions for steel and cement, in addition to creating a platform with the aim of matching developing and emerging economies needs with technical and financing instruments, flowing from both private and public sources (Climate Club, 2023). In addition, the club will also seek to provide support to its members with respect to strengthening the measurement and reporting of emissions in relation to the steel and cement sectors (Climate Club, 2023). In terms of benefits for participation, the power to help shape definitions in relation to green materials constitutes one example of a club good. Other examples include access to technical and financial support, in addition to enhanced reputation and legitimation.

While described as open and inclusive on paper, the Climate Club was originally initiated by a group of wealthy, industrialised nations. At the time, this instigated concerns that the G7 were 'setting the agenda on climate change' (Arhin and Kalaba, 2023). Additionally, the terms of reference specified that members of the proposed club 'may – on a voluntary – provide support to developing countries' (G7, 2022: p. 3). Whether the voluntary nature of this support was sufficient in the eyes of Global South countries, and would ultimately motivate them to join, remained uncertain. However, as announced

at Dubai, the Climate Club comprises a number of developing countries. Of the 37 members, just under half are developing countries.

Prima facie, inclusive clubs of this nature are unlikely to result in many implications from the perspective of CBDR-RC. The more pressing concern arguably surrounds whether they represent yet 'another forum for rhetorical discussion' (Huda, 2023). If a club's membership becomes too inclusive, it could come up against the same political challenges that have plagued the multilateral climate regime (Unger and Thielges, 2023), falling foul to the 'least-ambitious-party logic' (Hovi et al., 2019: p. 1091). This challenge can be related to the club good of increased bargaining power. Initially, each new member that is aligned with the core values and interests of the club increases bargaining power. However, if the diversity of values and interests within the club becomes larger than the opposition outside of the club, the club good is essentially lost and the club itself can quickly become obsolete.

Notwithstanding, there are a couple of important points that require brief consideration with respect to the Climate Club and CBDR-RC. First, the Climate Club has the objective of accelerating climate action and ambition to achieve climate neutrality by or around 2050 (Climate Club, 2023). While the principle of CBDR-RC expects developed countries to take a lead role in reducing emissions, as it currently stands, the club arguably places a heavy and unfair burden on Global South countries to decarbonise their economies, and arguably at the expense of advancing their socio-economic development. Nevertheless, this challenge could be resolved by differentiation i.e. differentiated obligations in the form of diverse net-zero targets.

Second, the Climate Club will have a specific focus on addressing carbon leakage (Climate Club, 2023). While the technical details have yet to be finalised, this could potentially result in the eventual adoption of trade mechanisms, including tariffs on carbon-intensive goods. Countries that rely heavily on the exports of such goods and who do not currently have carbon pricing mechanisms in place, particularly developing countries, would be disproportionately affected by such trade measures (Arhin and Kalaba, 2023). Again, however, this challenge could be addressed by differential treatment.

4.1.2 The Clean Energy Ministerial and CBDR-RC

The CEM is an example of an exclusive climate club, given that participation is strictly via invitation (Tosun and Rinscheid, 2020). More specifically, its membership comprises the world's key economies, bringing together the 'largest and leading countries' (CEM, 2023). Accordingly, the CEM accounts for 75% of global GHG emissions (CEM, 2019).

The CEM has the overall objective of advancing the global clean energy transition (CEM, 2023). While it does not set any legally binding obligations on its members, it has established several concrete measures and targets through different initiatives to meet this objective (Yu, 2019). With respect to exclusive club goods, the CEM primarily offers benefits for participation in the form of access to clean energy expertise and technology, in addition to the economic gains this may lead to in terms of venturing into new markets (Tosun and Rinscheid, 2020).

In terms of CBDR-RC, the most problematic aspect vis-a-vis clubs of this nature concerns their lack of inclusivity. By providing exclusive venues specifically for the world's 'powerful elites' (Bäckstrand, Zelli and Schleifer, 2018: p. 341), clubs of this nature marginalise a number of countries, particularly those most vulnerable to the negative impacts of climate change, namely SIDS and LDCs. Such exclusivity in climate minilateralism has generated strong criticism from scholars for its 'considerable lack of inclusiveness' and more specifically, lack of representation concerning poorer countries (Bäckstrand,

Zelli and Schleifer, 2018: p. 349).

According to Eckersley (2012: p. 26), forming clubs around a select number of nations, especially major emitters, is elitist, self-serving and 'likely to thwart the justice principles of the UNFCCC'. She therefore argues that climate minilateralism must be centred on the notion of common but differentiated *representation*, i.e. expanding membership beyond key emitters to include the most capable, the most responsible, and the most vulnerable (Eckersley, 2012: p. 26). Weischer, Morgan and Patel (2012: p. 184) state that climate clubs 'privilege the voices of those within clubs at the expense of those outside, reproducing existing international hierarchies'. McGee (2015: p. 134) makes a similar point, highlighting that climate minilateralism will lead to marginalising and side-lining 'the voices of smaller and less powerful actors'. The key issue here is that major decisions concerning international climate policy could be taken that negatively implicate developing countries. For example, if key emitters come together under an exclusive club, like the CEM, and agree on activities that are not aligned with 1.5ºC and especially 2ºC degree pathways, this will adversely affect those most vulnerable to climate impacts.

Adopting a critical lens to the rise of minilateralism in global climate governance, McGee (2015) concludes that climate clubs have been 'strategically' formed by powerful countries as forums to contest and side-step the CBDR principle, specifically in relation to the binding mitigation targets set by the Kyoto Protocol on developed countries. McGee (2015: p. 138) argues that some club-like arrangements – including the Asia-Pacific Partnership on Clean Development and Climate and Major Economies Forum on Energy and Climate – were created as a way for developed countries to circumvent and 'weaken formal differentiation'. Nevertheless, empirical studies suggest that a 'third wave' of climate minilateralism has provided a more inclusive landscape, through the creation of new clubs specifically geared towards developing nations, in addition to existing clubs adopting a more inclusive approach to participation (Brandi and Bauer, 2017).

4.1.3 The Global Arrangement on Sustainable Steel and Aluminium and CBDR-RC

In the lead up to Glasgow Climate Change Conference in 2021, the EU and the US announced their decision to resolve their long standing bilateral trade dispute (European Commission, 2021a). Tensions between the two countries can be traced to the former US Trump Administration, which introduced so-called 'national security' tariffs on both steel and aluminium exports in 2018. Accordingly, the US agreed to temporarily suspend its import tariffs on EU steel and aluminium (European Commission, 2021b). The EU also agreed to remove its rebalancing measures (i.e. retaliatory tariffs) on US exports (European Commission, 2021b). In addition, both parties agreed to suspend their respective disputes to the World Trade Organisation (European Commission, 2021b).

As part of this deal, the EU and the US also announced their intention to launch a new club-like arrangement on steel and aluminium, referred to as the GASSA (European Commission, 2021a). The objective of the agreement, which will renew old transatlantic trade flows between the EU and the US, is twofold. It seeks to address global overcapacity and carbon intensity in the steel and aluminium industries (European Commission, 2021a). As currently proposed, the agreement will essentially function as a joint tariff zone, imposing trade barriers against carbon-intensive imports from non-market economies outside of the club.

While the EU and US were aiming to conclude negotiations by October 2023 (The White House, 2023),

they have so far failed to secure a final agreement. Accordingly, negotiations are still ongoing. Respective negotiation positions of the EU and US have been exchanged through 'concept papers' between December 2022 and January 2023 (Kleimann, 2023). With regard to how the GASSA should be designed, these concept proposals diverge from one another in certain aspects. While it is therefore not possible to paint an exact picture of what the GASSA will ultimately look like, the proposed arrangement corresponds to the Nordhaus-style club model in several ways.

For starters, while intended to be 'open to any interested country' (European Commission, 2021a), the arrangement sets clear membership criteria. In line with the US concept proposal, participation in the arrangement would be contingent on a 'countries' average embedded product emissions, applicant economies, contributions to non-market excess capacity, and a to-be-agreed minimum percentage of public procurement of low-emission steel and aluminium' (Kleimann, 2023: p. 8). While the EU concept proposal also entails that participation will depend on average emissions intensity, it additionally proposes that members should undertake legally binding obligations to fully decarbonise their steel and aluminium sectors by 2050 (Kleimann, 2023).

In addition to the inclusion of clear membership criteria and legally binding commitments, the GASSA also foresees the creation of excludable club goods. Countries that opt to join the GASSA would be entitled to more favourable trade terms concerning steel and aluminium, while market access would be restricted to non-participants. At the same time, the agreement aims to impose sanctions on non-participants in the form of trade tariffs on steel and aluminium imports, to 'incentivise' those countries to pursue low-carbon production methods (Espa and Holzer, 2023).

Accordingly, the GASSA could arguably form the nucleus for the world's first Nordhaus-style climate club. Nevertheless, clubs of this nature raise several implications from the perspective of CBDR-RC. First, despite being open in principle to 'any interested country' (European Commission, 2021a), the club's proposed membership criteria is likely to exclude certain countries from joining, specifically China, the largest global producer of steel. Currently, China accounts for over half the world's total steel production (World Steel Association, 2023). Accordingly, the criterion concerning non-market excess capacity 'appear[s] to be specifically designed to exclude one economy from [GASSA] membership, irrespective of non-market excess capacity considerations – i.e. China – and discourage prospective [GASSA] members' steel and aluminium imports and investments from China' (Kleimann, 2023: p. 10). Concerns that the membership criteria will also preclude other countries from joining have been raised, such as South Korea, the world's sixth largest steel producer (see Choi, 2023). This raises questions around GASSA's so-called open membership.

In addition to concerns surrounding the inclusiveness of the club, the proposed commitments also raise implications with respect to CBDR-RC. As mentioned, members would have to commit to emissions intensity standards. Specifically, the average emissions intensity should not exceed 'a certain percentage higher than the average emissions intensity of EU and US steel and aluminium' (Kleimann, 2023: p. 12). Furthermore, the EU's proposal would require all members to adopt legally binding obligations to fully decarbonise their steel and aluminium industries by 2050, including interim targets for 2030 and 2040 (Kleimann, 2023).

However, in line with the principle of CBDR-RC, developing countries bear less responsibility than developed countries to mitigate climate change. The key question then is whether, and how, differentiated responsibilities would be reflected within the GASSA's final design structure with respect to these obligations. For example, in relation to achieving net-zero by 2050, it is questionable whether developing countries can reasonably be expected to commit to this. Under the Paris Agreement,

several developing countries have set longer-term net-zero targets than 2050. Indonesia, China and Nigeria have committed to reach net-zero by 2060, and India has committed to reach net-zero by 2070 (Climate Action Tracker, 2023). In addition, the legally binding nature of these commitments also pose implications for CBDR-RC with respect to developing countries, given that binding mitigation targets have so far only applied to developed countries under the climate regime.

Another design element that is particularly problematic is the inclusion of trade barriers, specifically in the form of a common external tariff against carbon-intensive steel and aluminium imports from non-participating countries (Espa and Holzer, 2023). If uniform trade tariffs are adopted, this will create adverse distributional effects, placing an unfair burden on developing countries. This would undermine the principle of CBDR-RC by burdening imports from developing countries at the same level as developed countries. To avoid economic damage, developing countries may be compelled to adopt equivalent club rules. Accordingly, this would effectively 'equalise' developed and developing countries.

Last but not least is the question surrounding whether the GASSA will entail any scope for assistance for developing country members. Currently, there are no provisions for this, at least in the eyes of the US negotiators. However, 'leaked' documents concerning the EU's position do make some reference to the provision of support for least-developed countries (Rimini et al., 2023). Nevertheless, there has been no explicit discussion of this so far with respect to formal negotiations. Absent support for developing country members, such as financial, technology access and general capacity building, this will raise further tensions with respect to CBDR-RC.

In its proposed form, the GASSA, for the reasons described above, will prove difficult to reconcile with the principle of CBDR-RC. Notwithstanding, the agreement is yet to be concluded. Hence, the devil will be in the (final) details.

4.2 Embedding differentiation into the architecture of future climate clubs

Based on the foregoing analysis, all three design options raise implications with respect to CBDR-RC in several ways. Nevertheless, this does not mean that these implications cannot be addressed, nor that climate clubs are inherently misaligned with CBDR-RC. Several existing club-like arrangements have successfully embedded differentiation into their design structures in various ways. Accordingly, this section will discuss different options for integrating differential treatment into the architecture of future climate clubs, namely (1) differentiation through membership tiers, (2) differentiation through membership commitments, (3) differentiation through mechanisms for means of implementation, and (4) differentiation through compliance mechanisms.

To inform the analysis, this section will incorporate some concrete examples of how differentiation has manifested in existing minilateral climate institutions, including the CEM, the CCAC, the Beyond Oil and Gas Alliance (BOGA), the Partnership for Market Readiness (PMR), the Powering Past Coal Alliance (PPCA), the Asia-Pacific Partnership on Clean Development and Climate (APP), and the Energy+ Partnership, and the Montreal Protocol.

4.2.1 Differentiation through membership tiers

One way that climate clubs could integrate differentiation into their architecture is through the

creation of different membership tiers, that classify members into distinct categories. Several clubs have established membership tiers, or similar approaches, that enable clear differentiation between members. One example is the BOGA, which seeks to phase-out oil and gas production. The BOGA offers three different categories of membership that countries can choose from: (1) core members, (2) associate members, and (3) friends (BOGA, 2023a). Core members must commit to ending new 'concessions, licensing or leasing rounds for oil and gas production and exploration' (BOGA, 2023a). In addition, they are also required to set explicit, measurable targets for fully phasing-out oil and gas production and exploration in their jurisdiction, in alignment with the Paris Agreement (BOGA, 2023a). Unlike core members, associate members are not required to adopt full licensing bans. Nevertheless, they must undertake some 'significant concrete steps' that help restrict the supply of fossil fuels (BOGA, 2023a). Examples include domestic subsidy reform and ending international public financial support (BOGA, 2023a). Friends are only required to sign up to the Declaration and hence demonstrate their support for the general objectives of the BOGA, including to 'support a socially just and equitable transition to align oil and gas production with the objectives of the Paris Agreement' (BOGA, n.d).

Another example is the PMR, which seeks to support countries in designing and implementing market-based mitigation instruments, through information sharing and the provision of technical and financial support (Moyer, 2012). The PMR explicitly differentiations between 'contributing participants', 'implementing country participants' and 'technical partners'. The contributing partners are specifically comprised of developed countries that provide financial support to the trust fund. On the other hand, the implementing country participants are comprised of developing or emerging countries, who receive financial and technical support to develop domestic market-based mechanisms to tackle climate change (Moyer, 2012). The technical partners represent countries at an 'advanced stage of carbon mitigation policy development', (Climate Funds Update, n.d). Unlike the contributing participants, who explicitly provide financial support, the technical partners engage in the PMR through collaborative activities, primarily via knowledge exchange (Climate Funds Update, n.d).

While less explicit than distinguished categories, the CEM functions on the basis of a 'distributed leadership model'. This model affords members the flexibility to decide (1) what initiatives they wish to become involved in; and (2) how deep their involvement is with respect to these initiatives (Yu, 2019). Under this bottom-up approach, 'any government interested in furthering a substantive idea on clean energy technology is encouraged to identify willing partners and proceed' (Yu, Bernstein and Hoffman, 2021: p. 6). If members do choose to partake in a specific initiative, they then decide whether they will participate as a leader or co-leader (Yu, 2019). Yu et al. (2021) attribute the success of the CEM to this 'opt-in' system.

4.2.2 Differentiation through members' commitments

Another way that climate clubs can incorporate differentiation into their design structure is through the creation of differentiated commitments for members. Some existing clubs provide for differentiation between members with respect to their commitments. A clear example of this is the BOGA. As mentioned, the BOGA distinguishes between core members, associate members, and friends. While all core members are required to commit to phase-out dates for the production of oil and gas, these dates are based on differentiation between the different countries. BOGA explicitly states that while climate change is a 'global challenge that requires global solutions', it also acknowledges that 'some countries will have a greater capacity to phase-out oil and gas production faster' (BOGA, 2023b). Accordingly, in its Declaration, the BOGA provides that 'industrialised countries should lead the way' (BOGA, n.d). To this end, the BOGA clearly recognises that poorer countries will need more time, and support, to make their transitions towards clean energy, particularly those that are heavily reliant on fossil fuel revenues.

Another club that has pursued differentiation in a similar manner to the BOGA is the PPCA launched at COP23, which seeks to advance the transition from coal to clean energy. Under the PPCA, all country members must commit to phasing out unabated coal power generation. However, the PPCA recognises that 'not all countries can completely phase out the use of unabated coal at the same rate' (UK Government, 2017). Accordingly, the PPCA provides differentiated phase-out timelines for coal, comprising 2030 for OECD and EU countries and 2050 for developing and emerging economies (Bi, Bauer and Jewell, 2023; Muttitt et al., 2023).

A further example, albeit more implicit than the approach that is pursued by the BOGA and PPCA, is the now defunct APP. The APP comprised several of the world's key GHG emitters, including developed and developing countries, to tackle the issues of air pollution, energy security and climate protection (APP, 2007). To achieve its objectives, the APP adopted a 'decentralised structure' that allowed for differentiation between countries in accordance with their national circumstances (Fujiwara, 2007: p. 2). While members were encouraged to establish their own non-binding national goals and targets to reduce greenhouse gas intensity (McGee and Taplin, 2009), the level of ambition was to reflect their 'national circumstances', as stated in the Charter (APP, 2007: p. 1).

4.2.3 Differentiation through mechanisms for means of implementation

In addition to membership tiers and commitments, climate clubs can also operationalise differentiation through the creation of mechanisms for means of implementation that provide support to developing countries, such as financial, technological access, and capacity building. Several clubs provide support that is specifically targeted towards their developing country members, primarily in the form of direct funding from developed country members. For example, the CCAC has created a Trust Fund that helps support project implementation in developing countries, to assist them in achieving their goals under the coalition (CCAC, 2021). Between 2012 and 2021, around $96 million financial support was provided by developed countries (CCAC, 2021). Further funding has been pledged beyond this period. While funding is exclusively provided by developed country members, the Trust Fund nevertheless functions on a voluntary basis (Unger, Mar and Gürtler, 2020).

While the Montreal Protocol eventually achieved universal ratification in 2009, as mentioned above, it arguably started out as an exclusive club (Gopalakrishnan, 2021; Ott, 2014). Likewise to the CCAC, the Montreal Protocol also has its own financial mechanism established under Article 10, called the

Multilateral Fund for the Implementation of the Montreal Protocol (MLF). The creation of the MLF has been described as playing 'a key role in facilitating developing countries to ratify the protocol' (Zhao, 2002: p. 332). Under Article 10.6, financial contributions to the MLF are provided voluntarily by developed countries to help support developing countries, through financial and technical assistance, to meet their obligations under the Protocol to phase-out ozone-depleting substances.

Another existing club-like arrangement that facilitates the flow of funding from its developed to developing country members is the Energy+ Partnership, launched by Norway in 2011. Energy+ is designed to help '[scale] up access to renewable energy sources and [increase] energy efficiency', specifically in developing countries (Energy+ Partnership, 2011: p. 1). Accordingly, under the initiative, developed country partners are expected to 'provide funding for scaled up development and implementation of low carbon development and energy strategies and actions', while developing country partners are expected to 'demonstrate strong political will and national support to achieve the Energy+ Partnership goals, including coordination of actions and policy changes to facilitate access to renewable energy and energy efficiency investments' (Energy+ Partnership, 2011 p. 2).

4.2.4 Differentiation through compliance mechanisms

Currently, there are next to no existing club-like arrangements that provide for differentiation through their compliance mechanisms, or have compliance mechanisms in the first place. Nevertheless, future climate clubs should aspire to integrate compliance mechanisms that accommodate differentiation into their architecture, as a means of encouraging implementation, enhancing trust among members, and avoiding free-riding. Drawing inspiration from the climate regime, in addition to the Montreal Protocol, this section offers several suggestions for incorporating differentiation into the compliance mechanisms of future climate clubs.

First, climate clubs could operationalise differentiation through flexible implementation schedules for developing country members. This is an approach that has been adopted under the Montreal Protocol. The Montreal Protocol's preamble '[acknowledges] that special provision is required to meet the needs of developing countries'. One way that the Montreal Protocol has addressed this is under its Article 5, which offers developing countries a 10 year 'grace period' to implement their phase-out obligations. Adopting a similar mechanism under a climate club would provide developing country members with some flexibility to implement their commitments, reflecting the different responsibilities and capacities between developed and developing countries.

Another way of embedding differentiation is through the creation of delayed reporting schedules. As discussed above, the UNFCCC affords developing countries more time than developed countries to submit their first initial reports. Drawing on this experience, climate clubs could follow a similar approach. For example, a club could require all of its members to submit annual reports to track and monitor progress towards certain goals or targets, including an inventory on domestic GHG emissions and policies to implement their commitments. However, a club could offer delayed schedules for developing country members, allowing them some flexibility to submit their reports, as compared to developed country members.

Last but not least, climate clubs could also offer assistance to developing country members to help them prepare their reports, including financial and technical support. This approach has been pursued under the climate regime and the Montreal Protocol. The capacity of developing countries to enhance transparency under the climate regime has been described as a 'fundamental limitation' (Tian and

Xiang, 2018: p. 260). Developing countries face several constraints, including financial and technical resources and institutional arrangements (Tian and Xiang, 2018). Providing support is therefore crucial to help developing country members meet reporting requirements and overall, help facilitate transparency.

5 Conclusions

This article has sought to offer an examination of how different climate club design options raise implications from the perspective of CBDR-RC, with respect to how the principle has been articulated and operationalised under the climate regime. Concrete examples of three existing club-like arrangements that differ significantly in terms of their key design features are analysed, including the Climate Club, the CEM, and the proposed GASSA.

The Climate Club is characterised by its inclusivity and comprises several developed and developing nations. While crafting clubs of this nature are not confronted by high political barriers, the extent that they are capable of driving substantive climate action, rather than merely 'elevating cheap talk and symbolic gestures', is questionable (Falkner, Nasiritousi and Reischl, 2022: p. 483). Of the three case studies, the analysis finds that the Climate Club is the least problematic of the design options from the perspective of CBDR-RC. Nonetheless, the analysis sheds light on two specific features of the Climate Club, namely the overall objective of achieving climate neutrality by or around 2050, and the possible adoption of future trade mechanisms. Both of these challenges, however, could be resolved by differential treatment.

The CEM is representative of a climate club that is strictly exclusive i.e. membership is contingent on invitation. Additionally, its membership is confined to the world's major economies. It therefore suffers from a lack of inclusivity and specifically excludes less powerful countries. Accordingly, several scholars have criticised the rise of exclusive minilateralism in global climate governance (see Bäckstrand, Zelli and Schleifer, 2018; Eckersley, 2012; Weischer, Morgan and Patel, 2012). Some have argued that clubs of this nature have provided powerful developed countries with a strategic platform to contest and evade implementation of the CBDR-RC principle (see McGee, 2015). Here, the most significant risk is that key decisions on international climate policy can be adopted in exclusive clubs that negatively impact developing countries, especially those most vulnerable to the consequences of climate change, including SIDS and LDCs.

While the GASSA may provide the seedlings for the world's first Nordhaus-style climate club, its prospective design features raise several tensions from the perspective of CBDR-RC. First, the proposed membership criteria appears to discriminate against a specific country from participating, namely China. Whether this criteria will also exclude other countries from joining has been raised, casting doubt on GASSA's so-called inclusivity. Second, the obligations that the GASSA envisages also present challenges, in terms of both content and bindingness. Whether developing country members can be reasonably expected to undertake equivalent commitments to developed country members, that are also legally binding in nature, is questionable. Third, the application of uniform trade tariffs against non-participants also raises concerns around burdening countries at the same level, despite their status as developed or developing. Fourth, whether the GASSA will provide any support for developing country members also remains uncertain.

Despite being significantly distinct in terms of their design, the analysis finds that all three of the design options present implications for CBDR-RC. The evolution of the G7 club is a particularly interesting case study with respect to the relevance of CBDR-RC and the difficulties associated with the formation of climate clubs in practice. As mentioned, the initial German proposal to establish a Nordhaus-style club ultimately lost steam. In its original formulation, the club would have likely violated the principle of CBDR-RC. The proposal failed to gain traction within the G7, and received strong pushback outside of the G7, in part for exactly this reason. While the analysis noted a couple of outstanding considerations with respect to the finalised Climate Club and CBDR-RC, these could be resolved through differential

treatment between developed and developing country members, as mentioned above. Depending on their specific design structure, however, climate clubs could provide exclusive venues for the world's most powerful nations at the expense of the most vulnerable, as highlighted by the analysis concerning the CEM. Moreover, climate clubs could provide a forum for countries to strategically exclude specific countries (and hence undermine the principle of CBDR-RC). The GASSA is representative of a real-world case where countries are trying to do exactly that, with respect to China.

With this analysis in mind, this article has concluded by deliberating how differential treatment can be woven into the architecture of future climate clubs, drawing on the experience of existing minilateral climate governance arrangements. Several avenues for integrating CBDR-RC into clubs are explored, namely: (1) differentiation through membership tiers; (2) differentiation through commitments, (3) differentiation through mechanisms for means of implementation, and (4) differentiation through compliance mechanisms. With respect to differentiation through membership tiers, several clubs classify their members into clearly defined categories with corresponding commitments. In addition to membership tiers, some clubs have also pursued differentiation with respect to members' commitments, including differentiated timelines for coal phase-out. Alongside membership tiers and commitments, some clubs have integrated differentiation into their design structure through mechanisms for means of implementation to support developing countries. Last but not least, clubs can embed differentiation into their architecture via compliance mechanisms. While existing club-like arrangements have so far not pursued this, the Montreal Protocol and Paris Agreement both provide some useful lessons learned, including flexible implementation mechanisms, delayed reporting schedules, and assistance to fulfil reporting requirements.

While this article has demonstrated the implications posed by forming minilateral climate clubs with respect to the principle of CBDR-RC, including in the context of specific design options, it has also highlighted several ways of embedding differential treatment into future clubs. By embracing differentiation into their design structure, climate clubs can still offer a way to move international climate policy forward, without the risk of contravening, and being misaligned with, the climate regime.

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