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The climate consistency goal and the transformation of global finance

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Controversy remains over the climate consistency of finance flows despite its centrality in the Paris Agreement (Article 2.1(c)). Two main interpretations dispute the goal's reach, threatening its transformational potential. If left unresolved, the controversy may also mask trade-offs, allowing for unintentional harm to countries already vulnerable to climate change. Here we build on four methods to show that Art. 2.1(c) comprises a new meaning of 'finance' under the United Nations negotiations. In contrast to climate finance provision to developing countries (Art. 9), the climate consistency of finance flows represents a purpose that relies on support and action to transform the global financial system. Implementation of Art. 2.1(c) requires engagement by governments and non-state actors, including the financial sector. While solutions for Art. 2.1(c) will need to be adequate for countries' contexts, accounting of trade-offs should ensure some level of convergence towards a global, timely and equitable progress towards climate consistency of finance flows.

The Paris Agreement established the goal of making 'finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development' (Article 2.1(c)). In spite of its centrality as one of the three overarching goals of the agreement, much confusion remains about its scope and implications. Two mutually exclusive views continue to clash on the relationship between Art. 2.1(c) and the established commitment by developed countries to support developing countries with climate finance, as articulated in Art. 9 of the agreement. This divergence could weaken the transformational potential of the climate-consistent finance goal as it could slow down implementation and mask risks from unaddressed trade-offs, such as for countries whose future ability to financially withstand a changing climate is at stake.

The term 'finance' has two original meanings in the 1992 United Nations Framework Convention on Climate Change (UNFCCC, hereafter 'convention'). The first meaning is 'indicative contributions', which is predominantly administrative and is related to operational costs of the UNFCCC. The second meaning, which became known as 'climate finance'[1], refers to the support to developing countries (non-Annex I) to prepare their national communications to the UNFCCC and to implement measures to combat climate change (Art. 4.3 of the convention). Climate finance has played an important role in the UN climate negotiations and evolved into Art. 9 of the Agreement[2].

The first of two opposing interpretations frames Art. 2.1(c) within climate finance. It fully subordinates the climate-consistent finance goal to Art. 4.3 of the convention and Art. 9 of the agreement[3–6], and thus requires 'finance flows' to be mobilized by developed countries, to be public and private, to be balanced between mitigation and adaptation, and to prioritize particularly vulnerable developing countries[7]. However, a second and more far-reaching interpretation has been consolidating in practice. It stresses linkages between the broader financial system and climate change[8,9], and looks at the consistency of domestic[10,11] and global investments[12,13] with climate goals. This view was reflected by the UNFCCC's Standing Committee on Finance in its 2018 Biennial Report[14].

The limited research on Art. 2.1(c) tends to assume one of these interpretations more or less on an intuitive basis, without relying on a clear scope or a robust definition. Here we analyse the ambiguity of the agreement's climate-consistent finance goal. By providing clarity, we aim to lay the necessary foundation to advance the urgent implementation of Art 2.1(c). Our methodology was developed in two phases (Fig. 1). First, we analysed the text, context and purpose of Art. 2.1(c). Building on the outputs of the first phase, we conducted a narrative analysis based on three different data sources to unveil the process that led to the adoption of the Paris Agreement. For explanation of the method, data and limitations, refer to "Methods".

We find that although submissions for a new meaning of finance started as a push for more countries to provide climate finance, narratives for what became Art. 2.1(c) evolved to reflect ongoing action on the greening of the financial system and turned into an autonomous objective with transformational potential for economies and societies at large. A third meaning for 'finance' emerged under the UNFCCC. This innovation created a purpose for all Parties to the Paris Agreement. On the way forward, the UNFCCC negotiations, national governments and non-state actors need to step-up their efforts to implement Art. 2.1(c) in ways that are consistent with both mitigation and adaptation while addressing trade-offs and avoiding the unintentional harm to the economies of countries that are already vulnerable to climate change.

Text, context and purpose of Art. 2.1(c)

Article 2 of the Paris Agreement provides the framing for the climate-consistent finance goal (Fig. 2). Before defining its goals (a, b, c), the chapeau of paragraph 1 establishes the link between the convention and its objective, solidifies its climate scope and frames the agreement within a context of sustainable development and efforts to eradicate poverty. Paragraph 2 adds that certain country qualifiers should be considered when implementing the preceding goals.

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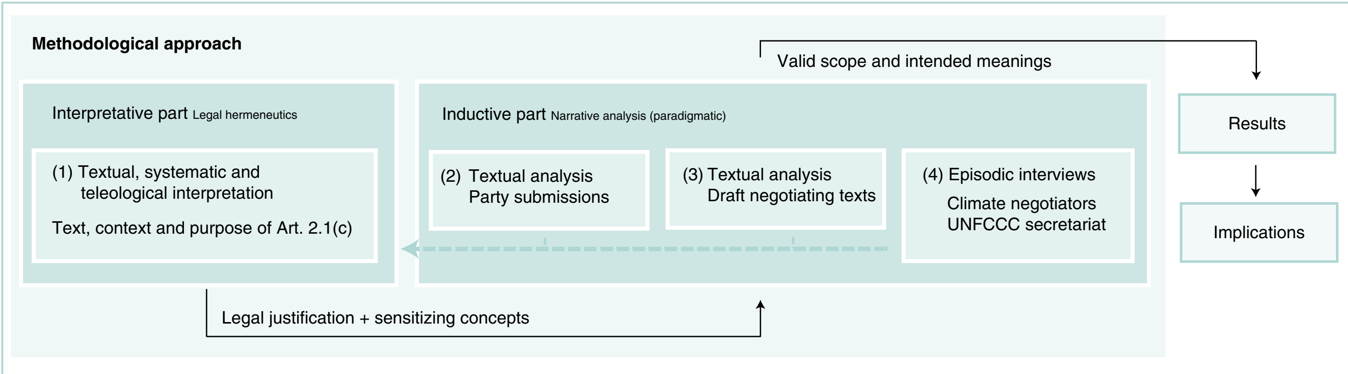

Fig. 1 | Schematic overview and flow of the research process. The figure shows how the method evolved sequentially from the first part, interpretative and based on legal hermeneutics, providing the inputs for the second part, inductive and based on narrative analysis with a paradigmatic focus. The legal hermeneutics in (1) reflects the point of departure and serves back and forth the inductive part in providing the legal justification and the sensitizing concepts, which helped to identify narratives and counter-narratives fundamental to Art. 2.1(c). In (2), the sensitizing concepts defined keywords for assessing Party submissions. We textually analysed 472 Party submissions. In (3), we manually assessed 31 publicly available informal notes, non-papers and iterations of the Paris Agreement's draft negotiating text to retrace the development of Art. 2.1(c). In (4), 16 senior representatives of countries and the UNFCCC were interviewed to verify the narratives and counter-narratives, as well as deepen the available knowledge on the historical process and content of Art. 2.1(c). Although schematically presented as part of a linear process, the three methods under the inductive part reflect a process based on circularity[1].

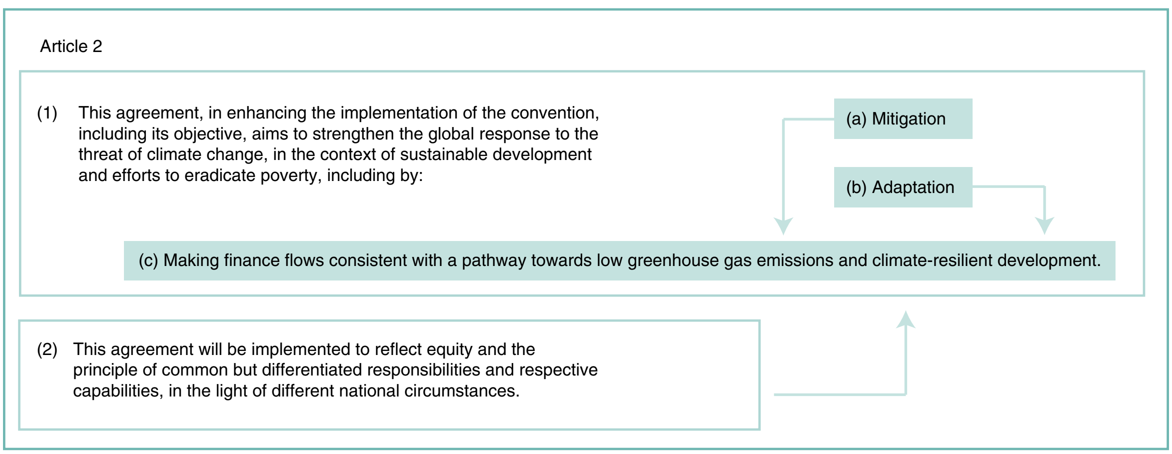

Fig. 2 | Schematic structure of Article 2, with emphasis on Art. 2.1(c). The chapeau of paragraph 1 brings the agreement's context and aims, followed by the three goals (a, b, c). The climate-consistent finance goal (c) makes finance the means for achieving the preceding goals (a) and (b). Paragraph 2 introduces the implementation principles for Paragraph 1, including Art. 2.1(c).

The text of Art. 2.1(c) refers neither to the traditional terms related to climate finance nor to its providers and recipients. Instead, it adopts new terminology such as finance 'flows', 'consistent' and 'pathway' that is not further defined. This vague word choice, which may reflect a common practice of hard-negotiated treaties[15] or simply signal a long-term direction, precludes the full understanding of Art. 2.1(c) from its text alone.

In terms of its context, the first part of the chapeau of Art. 2.1 provides another key source for ambiguity. When read alone, the understanding could be that the Paris Agreement cannot go beyond 'enhancing the implementation' of previously agreed commitments under the convention. In this case, 'finance (flows)' under Art. 2.1(c) could only refer to the provision by developed countries of new and additional financial resources to developing countries (Art. 4.3 of the convention). However, the following mention of the convention's 'objectives' opens up the agreement to new scopes and collective purposes, allowing for a broader interpretation of its goals.

Indeed, the goals on mitigation (Art. 2.1(a)) and on adaptation (Art. 2.1(b)) have been interpreted as creating a purpose for the entire Paris Agreement and collectively for all its Parties[16,17]. Logically, as part of the three goals under Art. 2.1, it is difficult to accept the consistency of finance flows as only applicable to some Parties, when not textually indicated so.

The text, context and purpose of Art. 2.1(c) make it difficult to infer any subjection to Art. 9 of the agreement. However, the vague wording, lack of clear definitions and confusion introduced by its chapeau can explain why this central ambiguity prevented a single interpretation from consolidating thus far. The next sections look back at the process that led to Art. 2.1(c) as a way to falsify or consolidate the transformational interpretation while looking for narratives that attributed meanings to its text.

Negotiations and negotiators on the road to Paris

Any new approach to 'finance', if indeed part of countries' intentions, would appear during negotiations as a deviation to the idea

Narratives	Counter-narratives
NR 1. Contribution by all Include own contributions by developing countries	**CN 1. No new responsibilities to developing countries** Include context of implementation of the convention
NR 2. Full transformation Include shifting flows away from high-carbon investments	**CN 2. No weakening of developed countries' commitments**
NR 3. Engagement of the financial sector Include relevance of enabling environments	**CN 3. No creation of economic conditionalities** Include no language on enabling environments Include no privatization of countries' responsibilities

Fig. 3 | Narratives and counter-narratives on new meanings of finance. Our analysis found that three narratives (NR) were fundamental to Art. 2.1(c) discussions: that all countries should contribute financially, that finance should aim at a full transformation and that the broader financial system should be included. Two counter-narratives (CN) developed to oppose the contribution by all countries as means to avoid new responsibilities to developing countries and not to weaken the commitments already made by developed countries. A third counter-narrative opposed the possibility of financial sector inclusion becoming economic conditions to the disbursement of climate finance on the terms of Art. 4.3 of the convention.

of finance as support from developed to developing countries. We therefore analysed the appearance of the word 'finance' and related terms in 472 Party submissions to the UNFCCC in the process leading to the Paris Agreement (Supplementary Data 1). This process was launched at the seventeenth Conference of the Parties (COP) in Durban in 2011 and included the sessions 1-1 to 2-12 of the Ad-Hoc Working Group on the Durban Platform for Enhanced Action (ADP) and COP 18 to 21. At first, we coded and analysed different meanings of 'finance' for the identification of semantic patterns. This led to the identification of three main narratives in relation to new meanings of finance, as well as three associated counter-narratives (Fig. 3). To triangulate results as well as test, contextualize and sometimes adjust the narratives, we carried out sixteen episodic interviews with a senior advisor of the UNFCCC secretariat and representatives of six developed and nine developing countries. These represented, among others, various country groups, the presidencies of COP 20 and COP 21, and an ADP co-chair.

Narratives and counter-narratives were built in a dynamic process by developed and developing countries alike. The first narrative focused on trying to broaden the sources of climate finance, including "own contributions by developing countries and (…) from the private sector" (NR1.1/EU, Supplementary Table 1). This first narrative was part of a broader push that the Paris Agreement should require collaboration by all Parties while recognizing the convention's differentiation of responsibilities (NR1.5/EU). A second narrative developed on the transformational role of finance. Under this narrative, finance should have a "transformational" scope, "in the order of trillions of dollars" (NR2.2/AILAC). According to this, the pledge by developed countries to mobilize US$100 billion annually by 2020 in support of developing countries only represents a "minimum portion of the major transformation of the world's economy" (NR2.3/AILAC). The narrative also took the consideration of finance beyond its strictly 'positive' qualities as means of implementation, to include the awareness of investments with negative effects on the climate, such as in the fossil fuel industry (NR1.7*/Peru and NR2.4/LDC). A third narrative developed the idea of engaging financial markets to allow for non-state actors' greater access to finance and action towards climate objectives (NR3.1/Canada) and to harness "the right kinds of investments" (NR3.4/Multiple countries). This would involve the work on enabling environments to attract capital (NR3.2/United States), expansion of financial instruments (NR3.9/Azerbaijan) and the right incentives for re-orienting investments (NR3.8/United States).

Counter-narratives developed on three main fronts. The first counter-narrative explicitly sought to avoid the introduction of new commitments for developing countries (CN1.2/AGN, Supplementary Table 2), strongly based on the argument that the Paris Agreement should not deviate from what was already committed under the convention (CN1.4*/G77 + China and CN1.6*/BASIC). There were fears that the absence of a clear differentiation between developed and developing countries could push the latter to prioritize climate commitments in detriment of other national goals (CN1.5/G77 + China), which largely explain the agreement's chapeau of Art. 2.1 and Art. 2.2 (Fig. 2). The second counter-narrative sought to avoid any approach to finance that would weaken previously agreed financial commitments by developed countries (CN1.4*/G77 + China). The third counter-narrative opposed any language that could be interpreted either as conditions to the provision of climate finance (CN2.5*/G77 + China) or as a way of using climate change to impose greater market access for developed countries' private sector to developing countries' economies (CN3.2/LMDC). Part of this counter-narrative also cautioned against the transfer of responsibilities from states to the private sector (CN.3.4/ALBA).

Building on these results, the next section investigates the dynamic and nonlinear process of how different narratives were reflected across different parts of the draft negotiating texts of the Paris Agreement, ultimately resulting in the text of Art. 2.1(c).

Evolution of the negotiating text

The text on the need of "all investments (…) becoming low-emission and resilient to climate impacts" first appeared under the general objectives in the first draft of the Paris Agreement of 25 February 2015. Given the topic, it was soon shifted and appeared as an option for the then Art. 6 on finance. Within the specific negotiations on finance, developing countries generally opposed the option on 'all investments' as it potentially weakened previous commitments by developed countries to provide financial assistance.

The text on 'finance flows' only moved back to the general objectives (Art. 2) on 9 December 2015. Our interviews confirmed that together with the implementation principles (Art. 2.2), the specification of the agreement's context (chapeau of Art. 2.1) and the insertion of the word 'shall', "with no options or brackets", for the financial responsibility of developed countries (then Art. 6.1, approved as Art. 9.1), struck a balance that made the text on the climate-consistent finance goal acceptable to all Parties. These changes addressed our first and second counter-narratives (Fig. 3) and the resulting text remained nearly unchanged until the adoption of the Paris Agreement. The textual move consolidated developed countries' climate finance commitments under Art. 9 of the agreement. This separation also allowed a considerably higher ambition with the new and broader scope of finance under Art. 2, which considers the financial system in its entirety.

An additional article on 'transformation towards sustainable development' was dropped out of the negotiating text after the re-introduction of the 'consistency of finance flows' under Art. 2 (Fig. 4). Our interviews confirmed that the climate consistency of finance flows made that article redundant. A chief negotiator from the Independent Alliance of Latin America and the Caribbean

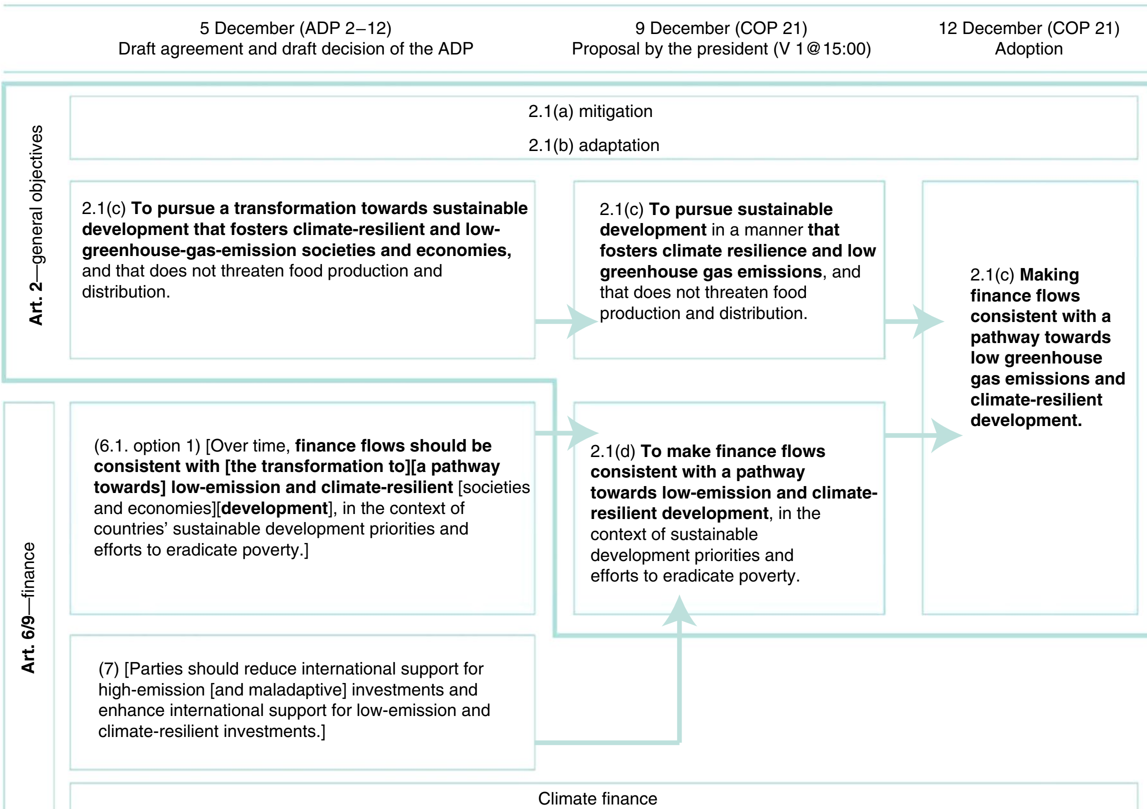

Fig. 4 | Evolution of draft negotiating text related to Art. 2.1(c). Key text related to the identified narratives and counter-narratives fundamental to Art. 2.1(c) (Fig. 3), with focus on the shifts in the last days of negotiations in Paris. The text on consistent finance flows moved from the article on finance (then Art. 6, approved as Art. 9 of the agreement) to the article on general objectives (Art. 2). This made a previous disposition on the 'transformation towards sustainable development' redundant.

(AILAC), the main group pushing for the narrative on the 'full transformation' in submissions (Fig. 3), stated that AILAC's vision was that "every single decision that people make in their lives has to take into consideration climate change (…); even when you go to a store to buy an apple, that transaction, you have to have climate change in mind". In practice, Art. 2.1(c) implicitly indicates the need for a broader transformation. However, it goes beyond and innovates by also indicating the means towards that end: by making all finance flows climate consistent.

One interviewee from the Least Development Countries and one from the African Group of Negotiators opposed the different scopes between Articles 2.1(c) and 9, defending the subordination of the former to the latter. Both negotiators nevertheless stated to be aware of the global, transformational and financial system-related narratives that had been developing at negotiations around Art. 2.1(c). The lack of substantial changes to the text of Art. 2.1(c) after its move under the general objectives indicates that such a broader interpretation of Art. 2.1(c) did not constitute a red line for those groups. An interviewee from the Small Island Developing States mentioned that "it would be naïve, especially given the whole history that led us to the Paris Agreement, not to anticipate that this (Art. 2.1(c)) went beyond just North–South (climate finance flows)". The same interviewee indicated that the Small Island Developing States supported the higher ambition represented by the transformational scope of Art. 2.1(c) ahead of the text adoption in Paris, even if implications were not yet fully understood.

Implications and way forward

Our analyses demonstrate that the scope of Art. 2.1(c) establishes a third new meaning of 'finance', one with a globally shared purpose to make all finance flows (and capital stocks)[14,18] consistent with the agreement's mitigation and adaptation objectives. This purpose refers to the trillions flowing in the global economy: a pretty penny for climate action.

All countries must engage, albeit in context-specific and differentiated ways. In terms of ambition, the climate-consistent finance goal sends a signal beyond the Parties of the Paris Agreement, to all unspecified actors involved in the generation, management, transfer and application of finance flows. That makes Art. 2.1(c) about both support and action—not only about the provision of finance but also about advancing regulation such as for fixing market imperfections, setting directions and creating enabling environments.

Any finance that contributes to the US$100 billion target and future climate finance commitments is logically contained within the universe of all finance flows (Art. 9 ⊂ Art. 2.1(c)). The different scopes between Articles 2.1(c) and 9 have consolidated their autonomy. However, such an autonomy does not preclude complementarity. Financial support (Art. 9)—as well as technology development and transfer, and capacity building (Articles 10 and 11 of the agreement, respectively)—might be requested by developing countries to implement initiatives specifically aimed at making finance consistent with climate objectives. In turn, activities that successfully re-orient finance away from inconsistency and towards low-carbon and climate-resilient development can provide a positive cascading effect to help countries to achieve their nationally determined contributions and other sustainable development goals.

On the way forward, UN climate negotiations, governments and non-state actors must advance implementation with some level of convergence towards the climate-consistent finance goal, including identifying and addressing potential trade-offs.

So far, UN climate negotiations have 'underdiscussed' Art. 2.1(c), as it lacks a 'home'[19]. Negotiations could support progress on Art. 2.1(c) in at least four ways. First, the relationship between climate finance and Art. 9 of the agreement must be further clarified, particularly in the context of the new collective quantified goal from a floor of US$100 billion per year as agreed in Paris (paragraph 53, Decision 1/CP.21 on the Adoption of the Paris Agreement)[20]. Second, discussions must advance on how the common purpose of countries to reach the climate-consistent finance goal can be differentiated and contextualized to the highly diverse Parties to the Paris Agreement, both in terms of mitigation and adaptation. Third, indicators need to be identified, thus allowing for the appropriate monitoring of global progress towards Art. 2.1(c), for example, as part of the global stocktake under the UNFCCC. Finally, and supporting the three ways above, a work programme could be created with the aim of assisting all Parties, in particular developing countries, to improve understanding of Art. 2.1(c) and to make informed decisions on practical actions for a context-relevant and economically sound implementation.

Besides advancing Art. 2.1(c) in negotiations, countries must translate Art. 2.1(c) into national policy and implementation[21]. Governments can act to advance initiatives that clarify climate consistency for financial and non-financial institutions, for example, through efforts to create classification systems that define sustainable investments (for example, efforts by the European Union (EU)[22], China[23] and Mongolia[24]) or by improving financially relevant climate information for investments (for example, Bangladesh[25] and France[26]). Policymaking can also build on mechanisms that focus directly on the re-orientation of flows, such as the provision of financial incentives (for example, the Netherlands[27] and Russia[28]) and the advance of macro-[29,30] and micro-regulation of the financial sector[31]. Cooperation is also important, as it can ensure peer learning and increase coherence of both action and support (for example, The Coalition of Finance Ministers for Climate Action[32] and the Network of Central Banks and Supervisors for Greening the Financial System[33]).

A groundswell of non-state action is becoming increasingly important to address climate change[34]. Non-state actors in the financial sector had already started their own initiatives ahead of COP 21[31], which helped to build momentum for Art. 2.1(c)[35] by making the climate consistency of finance flows credible and acceptable to both public and private actors. Since then, Art. 2.1(c) has been consolidating as a catalyst for climate mobilization of non-state actors in the financial sector, with multiple initiatives directly or indirectly influenced by the climate consistency concept[36] (for example, the 350's Fossil Free project (https://gofossilfree.org), the public–private Climate Action in Financial Institutions (https://www.mainstreamingclimate.org) and the banking sector's Collective Commitment to Climate Action[37]).

On the way forward, trade-offs in the implementation of Art. 2.1(c) must be identified and addressed. For example, climate-related financial disclosure and inclusion of climate risks in investment decision-making[38,39] will probably negatively impact the financial health of poorer and vulnerable countries that are already at high risk from climate impacts. Data on physical risks might make an 'economically rational' investor less inclined to invest in vulnerable countries. The result would be a reduction in investments and increase in the cost of finance for such nations[40]. This became clear with the announcement by Moody's Investors Service that island states might have their sovereign credit downgraded due to climate risks[41], helping to increase the borrowing costs of islands[42] and negatively affecting their entire economies. Adding to this, the lack of climate data availability might also create a new obstacle for the poorest countries, if one-size-fits-all data requirements are developed for climate risks integration in investment decision-making. Ultimately, Art. 2.1(c) requires consistency of all finance flows to both mitigation 'and'—not 'or'—adaptation; therefore, detrimental effects to the resilience of already vulnerable countries must be taken into account. The UNFCCC and countries engaged in the climate-consistent finance goal should address these trade-offs in order to avoid contestations to the much-needed implementation of Art. 2.1(c).

The window of opportunity to limit global warming to 1.5 °C above pre-industrial levels is closing and the public and private sectors must cooperate and step up action towards the climate consistency of finance flows. National governments should remain in the driver's seat by advancing negotiations in the UNFCCC and implementing domestic regulations and policies that work for both mitigation and adaptation, without unintentionally harming climate efforts elsewhere. This should not only function as a direction for private actors but also crucially as a purpose for any public action, from central banking regulation to economic stimulus packages to address crises, such as the ones related to the current coronavirus pandemic.

Online content

Any methods, additional references, Nature Research reporting summaries, source data, extended data, supplementary information, acknowledgements, peer review information; details of author contributions and competing interests; and statements of data and code availability are available at https://doi.org/10.1038/s41558-021-01083-w.

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Methods

This Article seeks to consolidate a transparent and in-depth discussion on the scope and meaning of Art. 2.1(c) of the Paris Agreement. It uses an interdisciplinary and qualitative approach, based on four methods rooted in international climate governance and international law. The first method follows an interpretative process based on legal hermeneutics and the three remaining ones follow an inductive process based on paradigmatic narrative analysis (Fig. 1).

Interpretative part. The first part follows an interpretative process based on legal hermeneutics to analyse the text, context and purpose of Art. 2.1(c). This serves two research objectives. First, to assess the validity of the prevailing interpretation of Art. 2.1(c), particularly against the arguments normally used to defend the competing narrative. Second, to legally justify the research and the methodology. This assessment builds on an interpretative process for establishing the sensitizing concepts[43], defined as the initial concepts to drive the ensuing inductive part.

Method 1. Purpose, text and context. Legal hermeneutics was used to assess the text (textual interpretation), context (systematic interpretation) and purpose (teleological interpretation)[44] of Art. 2.1(c). We analysed the text and context, including the choice of words, the position of Art. 2.1(c) under Art. 2, as part of the Paris Agreement and as linked to the convention. The consideration and use of legal hermeneutics strengthened the rigour of the initial interpretation of Art. 2.1(c), building a stronger basis for understanding its political narratives and policy implications. They also justified the paper on legal grounds by satisfying the general rule of interpretation as defined by the Vienna Convention on the Law of Treaties (VCLT, 1969; Art. 31). According to the VCLT, the first interpretation must derive from the analysis of the treaty's text, context and purpose. After the application of the general rule, Art. 32 of the VCLT indicates that "recourse may be had to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of Art. 31, or to determine the meaning when the interpretation according to Art. 31(a) leaves the meaning ambiguous or obscure".

The application of legal hermeneutics to the text, context and purpose of Art. 2.1(c) allowed for the establishment of our sensitizing concepts, which drove the second and inductive part of our methodology. Concretely, our sensitizing concepts had a dual role. First, they framed the discernible aspects that are specific to the competing narrative, such as climate finance's aspects of new and additional financial resources, as particularly targeted at developing/non-Annex I countries, as part of the US$100 billion, as a means of implementation or to mobilize private finance. Second, they supported the selection of a set of 'keywords', by providing the concepts related to the prevailing narrative (Supplementary Table 3). These keywords were centrally used as an input for method 2.

Inductive part. The second part followed an inductive process, based on three qualitative methods to assess the preparatory work that led to the Paris Agreement. The three methods provided clarity about the historical and political process, and strengthened the interpretative assessment with the systematization of the assessment of different types of historical data[45]. This allowed for the identification of the Parties' intentions as the lawmakers of Art. 2.1(c). All three types of data were assessed through narrative analysis with a paradigmatic[46] focus. This analysis was designed to identify common and contrasting categories from the different types of data, contributing to the building of the central storyline(s) for the climate-consistent finance goal. The three methods involved a process based on circularity[1], in which each of the methods and its own data produced feedback that were used for questioning and adjusting the other two while concurring to improve the accuracy about the same historical process. To reflect the historicity of the negotiation process, the results of the three analyses were presented together and following a chronological sequence in the paper. Methods 2 to 4 of the inductive part (Fig. 1) are further explained below.

Method 2. Party submissions. The first of the three methods started by building a database of 318 publicly available submissions by Parties and Party Groupings to the ADP. The ADP was created at COP 17 in 2011, with the specific goal of developing what became the Paris Agreement. For completeness, 139 publicly available submissions to the COPs held from 2012 to 2015 were also included in the database. Submissions to ADP and COP allow countries to communicate their positions, share information, build understanding and advance inter-sessional work[47].

The textual analysis of the paper was done with the software MAXQDA 2020. Eight non-machine-readable submissions in Arabic and Russian were assessed manually by the authors. Initially, MAXQDA 2020 searches and locates relevant keywords in the database. Keywords are built from the sensitizing concepts derived from method 1. They were selected for their association with finance, their explicit use in the text of Art. 2.1(c) and their relevance for the understanding and developing practice of the prevailing scope of the climate-consistent finance goal (Supplementary Table 3).

Following circularity and seeking not to miss any reference, two additional keywords (transform* and condition*) were included after the initial results of method 2. Any match of a keyword in the database defined a hit. Fourteen documents by non-member submissions were excluded from the analysis. In total, 388 out of 472 documents were tagged with at least one hit. All hits were isolated into coded segments with three sentences before and three after each keyword found. A total of 2,291 coded segments remained after adjusting for overlapping segments due to textual proximity of hits.

The attribution of meaning to a coded segment depended on its specific context. Two co-authors assessed all segments and isolated instances with meanings that deviated in any way from criteria normally associated with climate finance, such as the need to be 'new and additional' and the relation to the US$100 billion target[7]. Concretely, the full universe of finance-related mentions (minus) concepts directly related to the competing interpretation would be (equal to) potential new meanings of finance under Art 2.1(c). On one hand, the absence of deviating meanings would invalidate the prevailing interpretation, by failing to link it to the intention of the Parties. On the other hand, the presence of such new meanings would provide an entry point for the inductive process of identifying narratives and counter-narratives that were fundamental to Art. 2.1(c).

This coding process also enabled the cleaning of the database, excluding irrelevant segments that included keywords, but that were either part of the bibliography or not actually related to finance, such as mentions of 'natural resources' and 'trillion cubic metres of gas' (keywords that were emphasized).

Two co-authors independently conducted a paradigmatic narrative analysis to identify semantic patterns and linkages across the segments with deviating meanings. In this process, the column with the submitting party and/or party grouping was omitted in order to prevent biases in the analysis. After comparing the results, three narratives emerged. In a second round of analysis, this time with all segments, including the ones related to the competing interpretation, both co-authors searched for linkages that explicitly or implicitly responded to the three narratives. This resulted in the identification of three counter-narratives.

Method 3. Evolution of the negotiating text. Based on the identified narratives and counter-narratives, the third method analysed the evolution of Art. 2.1(c) throughout 31 informal notes, non-papers and iterations of the Paris Agreement's draft negotiating text (Supplementary Table 4). The first documents in this process were the informal 'non-papers' produced by the ADP's Co-chairs and the Lima Call for Climate Action at COP 20 (2014), which contained elements for a draft agreement[6]. The first negotiating text for the future agreement was released at the end of ADP's meeting on 25 February 2015 in Geneva and the final text is the Paris Agreement from 12 December 2015. After reconstructing the chronological evolution of texts and coding their meanings with MAXQDA 2020, parts of the negotiating texts could be assessed against the narratives and counter-narratives identified in the Parties' submissions.

Method 4. Negotiators and UNFCC secretariat. Finally, the fourth method consisted of 16 interviews with senior representatives of countries and a senior climate advisor to the UNFCCC secretariat involved in the negotiations of the Paris Agreement. This methodological triangulation helped to verify the narratives and counter-narratives, deepen the available knowledge on the process and content, as well as improve research quality[48]. Although limited in number, the interviews were found to be adequate for reaching saturation on an issue as specific and specialized as the negotiations towards Art. 2.1(c)[49].

To account for the different narratives and counter-narratives for Art. 2.1(c), particularly on its relationship with climate finance, interviewees included six lead negotiators in finance and nine chief negotiators. In addition, one senior climate advisor from the UNFCCC secretariat was interviewed, following recommendation by other negotiators. Initial interviewees were identified based on the frequency of their countries' finance-related submissions to the UNFCCC, as identified throughout method 2. The strategy also actively aimed at a balance between developed and developing countries and their most important negotiation groupings, such as the EU or the least developed countries. Additional interviewees were selected through snowballing[50]. Nine interviewees were negotiators from developing countries, including an ADP co-chair and a lead facilitator from the Presidency of COP 20 (Peru), as well as representatives from the African Group, the least developed countries, the Small Island Developing States, the AILAC and the group of large newly industrialized countries—Brazil, South Africa, India and China (BASIC Group). Six interviewees were negotiators from developed countries, including from the Presidency of COP 21 (France), the EU and the Umbrella Group.

The interviews were episodic[51], maintaining a semi-structured format in combination with some narrative freedom to capture the most from interviewees' participation. The interview design was structured around three core axes with possible questions and subquestions. These core axes sought to (1) locate the interviewee's role for the historic process, (2) bring the interviewee to the topic, with a narrative style focused on when she/he first heard references to a 'consistency of finance flows' and what her/his initial reaction was to such reference, and (3) clarify her/his specific understanding back then and now on the relationship between Articles 2.1(c) and 9 of the agreement.

Twelve interviews took place via phone or online streaming and each lasted for 30 minutes on average. Based on interviewees' preferences, four interviews were conducted via email, with initial questions and follow-ups in writing. To allow interviewees to speak more freely and feel safe to share personal views and potentially sensitive information, different levels of confidentiality were agreed on ahead of each interview, with the common baseline of not disclosing any names. The downside of confidentiality is the limitation it imposes on public and publishable use of certain types of obtained data.

The same co-author conducted all interviews. All voice interviews except one—at the interviewee's request—were recorded and transcribed manually. Textual data were assessed in MAXQDA 2020 by coding relevant segments and grouping them both chronologically and according to the narratives and counter-narratives. Given the qualitative nature of this Article and the limited number of interviews, no statistical analysis was conducted.

Ethics statement. This work has been approved by the Ethics Committee of the Frankfurt School of Finance and Management. All interviewees provided informed consent and were assured that interview data would remain confidential. The level of anonymity was agreed individually with each participant, with the general rule of no disclosure of names, but only represented country and/or negotiating group. Interviewees were not compensated for their participation in the study.

Reporting Summary. Further information on research design is available in the Nature Research Reporting Summary linked to this article.

Data availability

With the exception of interviews, all data used to support the results reported in this paper are listed in the Supplementary tables and Supplementary Data 1, and are available publicly on the webpage of the UNFCCC (https://unfccc.int/). Due to confidentiality agreements with respondents, transcriptions and other data related to interviews are stored locally and are not public. Some anonymized metadata such as regional, country of origin and gender balance of interviewees can be obtained from the corresponding author on reasonable request.

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Author contributions

L.H.Z., P.P. and H.C. conceptualized and designed the research. L.H.Z. supervised the project, collected the data and analysed the first part of the research (method 1). L.H.Z., P.P. and M.K. prepared the sensitizing concepts. L.H.Z. and M.K. collected the data and ran the qualitative analyses of Parties' submissions (method 2) and the evolution of the draft negotiating text (method 3). L.H.Z., P.P., M.K. and H.C. developed the interview guide. L.H.Z. conducted the interviews (method 4) and analysed the resulting data. All authors discussed the results and implications, and contributed to the writing of the manuscript at all stages.

Competing interests

The authors declare no competing interests.

Additional information

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Correspondence and requests for materials should be addressed to L.H.Z.

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Behavioural & social sciences study design

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Study description	The study is based on mixed methods. The first method is legal (hermeneutics), approached from a interpretative perspective to analyse the text, context and purpose of art. 2.1(c) of the Paris Agreement. The second to fourth methods are qualitative, following an inductive approach and based on narrative analysis with a paradigmatic focus. All three use different data to analyse the same negotiation process. The second method analyses submissions by parties to the process that led to the Paris Agreement to identify narratives and counter-narratives at the basis of art. 2.1(c). The third method analyses how narratives and counter-narratives were reflected over time in the draft negotiating texts of the Paris Agreement. The fourth method functions to triangulate, falsify and adjust narratives from data obtained from interviews with senior representatives from countries and UNFCCC secretariat involved in the negotiation of art. 2.1(c).
Research sample	Sampling for qualitative methods 2-4 attended the criterion of relevance for the negotiation process. Method 2 was built on two datasets, the first with UNFCCC party submissions to the Ad Hoc Working on the Group Durban Platform for Enhanced Action (ADB), sessions 1-1 to 2-12; the second with UNFCCC party submissions to the Conference of the Parties (COP), sessions 18 to 21. Method 3 was built on a dataset containing ADP and COP documents related to the draft negotiating texts of the Paris Agreement, with focus on negotiating articles 2, 2bis and 6. Method 4 was built on episodic interviews to 15 climate negotiators (9 from developing countries and 6 from developed countries) and one senior climate advisor of the UNFCCC secretariat.
Sampling strategy	Methods 2 and 3 sought to include all documents that are publicly available in their respective categories. Method 4 initially sought to reach key interviewees by crossing the list of participants, facilitators and co-chairs of ADP sessions with the frequency of party submissions identified in Method 2. Other interviewees were selected through snowballing. From the start, the aim was to maintain a balance between developed and developing countries, as well as diversity across party groupings. Data saturation was assessed throughout the interview process. Given the specificity of the topic, no more additional data was obtained and saturation started to become evident with the conclusion of about 80% of interviews. However, final interviews were conducted to confirm saturation and to strengthen the aforementioned diversity across party groupings.
Data collection	Data for Method 2 were collected from the UNFCCC website. While submissions stored in the UNFCCC submission platform were more easily accessible, all submissions before the platform's launch on July 2014 were stored across various sub-pages of the UNFCCC website. We tried to reach the UNFCCC secretariat through different channels to ensure completeness of our dataset, but no confirmation could be obtained. Finally, we cross-checked with the website of the International Institute for Sustainable Development (IISD) to ensure that no publicly available submission was missing. The list of documents in the database is available as Supplementary Data. Data for Method 3 were collected from the UNFCCC website and could be checked for comprehensiveness based on in-document references to documents from previous sessions. Interviews (Method 4) were episodic and conducted by the same researcher. This enabled oversight to adjust questions based on previous interviews and to control for data saturation. Given the historical component of the negotiation process (i.e. building on memory), as well as the specificity of the topic (one article in the context of the broader negotiation of the Paris Agreement), the specific topic was informed to interviewees in advance. Twelve interviews took place via phone or online audio streaming and eleven of those were recorded with both an in-built software (Skype or Zoom) and an external voice recorder (Olympus VN-541PC). A student assistant transcribed manually the recordings with supervision and support of one co-author. One interviewee asked not to be recorded and, in this case, only written notes were taken by pen and paper. The remaining four interviews took place via email, with initial questions and follow-up in writing.
Timing	Data for methods 2 and 3 were collected between February and March 2020. Interviews under Method 4 took place between 3rd July and 21st September 2020.
Data exclusions	Method 2 focused on party submissions to the UNFCCC, so submissions from observer (intergovernmental and non-governmental) organisations were excluded. We maintained, however, submissions by UNFCCC-linked bodies such as GCF and GEF. Two additional interviews were conducted for Method 4, but not included in the final database. That's because although active in the negotiations of the Paris Agreement, both interviewees were involved in other topics, with little to no contact with negotiations on art. 2.1(c).
Non-participation	No participants dropped out of participation, nor expressly declined the interview.
Randomization	Methods 1-3 sought to include in the analysis the total universe of publicly available data in each category. Focus of Method 4 was not on randomisation, but on representativity across party country groupings and balance between developed and developing countries.

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Methods

n/a	Involved in the study
☒	☐ ChIP-seq
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☒	☐ MRI-based neuroimaging

Human research participants

Policy information about studies involving human research participants

Population characteristics	Interviewees were lead negotiators in finance, chief negotiators or senior climate advisor to the UNFCCC secretariat, all involved in negotiations of what became art. 2.1(c).
Recruitment	Selection of interviewees was based on snowballing. Given the position of participants, this was expected to carry at least some selection bias. As a way of correcting this bias and ensuring diversity and balance across interviewees, the researcher-interviewer sought to frame snowballing questions as targeted recommendations against a list of party groupings.
Ethics oversight	The Ethics Committee of the Frankfurt School of Finance & Management has approved the study protocol.

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