Techniques for Regulating Disasters across the Breadth of International Law: Disapplication, Exculpation, and their Shortcomings
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Abstract

The field of ‘international disaster law’, properly understood, includes not just disaster-specific norms and instruments, but also indirect means of regulating disasters across the breadth of international law. In order to advance the field in this latter direction, this essay presents a theoretical framework by which to understand how disasters are reconciled with a State’s existing obligations under international law, focusing on two techniques: disapplication and exculpation. It argues that the applicability of these two techniques to disasters hinges on outdated sociological and scientific understandings of disasters as rare and episodic occurrences beyond human control. The gradual delegitimisation of these understandings in modern thinking has not only strained the particular legal mechanisms and doctrines which employ these techniques, but also this regulatory approach as a whole. This analysis has implications for policymakers engaged in disaster regulation, but also for academics when conceiving of the proper scope of ‘international disaster law’.

1. Introduction

Nomenclature is important in international legal theory. As academic writing proliferates under the umbrella of ‘international disaster law’ (‘IDL’), one must be careful to identify what the phrase is actually being used to mean. It is commonly asserted, and correctly so, that there is no discrete branch of IDL.¹ The British Red Cross, for instance, insists on referring to ‘international disaster laws’.² However, this proposition is not only true because, as a matter of fact, the instruments of IDL lack the normativity, depth or coherence of other so-called ‘branches’. It is also true because ‘branches’ or ‘regimes’ have no “legally meaningful existence” in international law.³ As the International Law Commission (‘ILC’) has recognised, a so-called ‘branch’ “can receive… legally binding force only by reference to (valid and binding) rules or principles outside it”⁴.

It follows that the phrase IDL can only be used descriptively, in order to refer to the array of norms across the breadth of international law which regulate the phenomenon of disaster.

² Cited in Clement (n 1) 69.
disasters, either in name or indirectly. On this view, although most commentary on IDL in recent years has focused on attempts to codify and flesh out, by means of soft law instruments, the norms governing disaster risk reduction (‘DRR’) and response, the proper scope of IDL is broader.

Accordingly, this essay approaches IDL from a generalist perspective. It supplies a theoretical framework by which to more fully understand how disasters are indirectly regulated under international law, aside from the recent development of disaster-specific norms. Though there have been various branch-specific inquiries into the relationship between disasters and international investment law,\(^5\) human rights law,\(^6\) and (to a lesser extent) trade law,\(^7\) among others, this essay takes a cross-section of international law, and presents a single theoretical account of the relationship encompassing each of these branches.

In order to present this account, this essay has three subsequent sections. Section 2 identifies two premises which characterised former sociological understandings of disasters: rarity and human non-responsibility. It explains how these premises have formed the conceptual basis for two regulatory techniques by which disasters are reconciled with a State’s existing obligations under international law: ‘disapplication’ and ‘exculpation’. It provides examples of each technique, both in general international law and ‘special treaty-regimes’,\(^8\) and assesses their doctrinal suitability for capturing disasters within their remit. Section 3 proceeds to draw some normative conclusions about the enduring appropriateness of these techniques. It argues that changed sociological and scientific understandings of disasters have rendered these techniques, and (most of) their doctrinal manifestations, inappropriate for regulating modern disasters. Section 4 offers some concluding observations on the implications of this essay for future research.

For present purposes, ‘disaster’ is understood, in line with the ILC’s definition,\(^9\) to mean “a calamitous event or series of events resulting in widespread loss of life, great human suffering and distress, mass displacement, or large-scale material or environmental damage, thereby seriously disrupting the functioning of society”. Accordingly, it includes both sudden- and slow-onset events; health-related events (including the

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\(^8\) This term was adopted by the ILC in its Study on Fragmentation (n 4) [492] to refer to sets of interlinked treaties with some degree of independent conceptual and operational existence (e.g. WTO law and human rights law), but without assigning the legal status of ‘self-contained regime’. See ibid [123]–[137].

ongoing COVID-19 pandemic); and both ‘natural’ and ‘human-induced’ events, given the “porous border” between the two recognised in modern sociology (as discussed in Section 3).

2. Techniques for disaster regulation across international law

The dominant sociological understanding of a disaster has, until quite recently, been as a rare and episodic deviation from the status quo, and as an ‘act of God’ beyond human control.11 This understanding hinges on two premises: rarity and lack of human responsibility, respectively.12 In turn, these premises have influenced certain techniques by which disasters are reconciled with existing obligations under international law. These techniques are disapplication of a primary norm during a disaster (2.1), and exculpation of a State from the consequences of acting incompatibly with a norm during a disaster (2.2).

These techniques have two characteristics in common, derived from the dual premises of rarity and non-responsibility. First, they treat disasters, because of their rarity, as exogenous occurrences which affect a State’s existing obligations under international law, rather than as an object of regulation in their own right. Secondly, they are reactive: given the previous belief that disasters and their impacts were beyond human foresight or control, these techniques are applicable during or after disasters, rather than as preventive measures.

The following section explains and critically appraises the techniques of disapplication and exculpation, respectively, as they have been operationalised through different mechanisms across the corpus of international law.

2.1. Disapplication mechanisms

States are ordinarily bound to perform their obligations under international law in good faith (pacta sunt servanda).13 However, this principle – this “staccato statement”14 – is not absolute and indefeasible; certain mechanisms exist by which a State can, owing to extraordinary circumstances, ‘disapply’ a primary norm, with the effect that it is not bound by the norm for a particular period. This technique, being a temporary means of relief from compliance, is conceptually consonant with the understanding of a disaster as a rare and episodic occurrence.

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10 Jacqueline Peel and David Fisher, ‘International Law at the Intersection of Environmental Protection and Disaster Risk Reduction’ in Jacqueline Peel and David Fisher (eds.), The Role of International Environmental Law in Disaster Risk Reduction (Brill Nijhoff, 2016) 1, 15.
12 Grow Sun (n 11) 29.
‘Disapplication’ is given effect through mechanisms invocable under general international law (2.1.1) and in special treaty-regimes (2.1.2); or otherwise in the course of an international court or tribunal’s process of interpreting a primary norm (2.1.3).

2.1.1. Under general international law

Unlike customary international law, which by its nature is based on a consistent pattern of conduct, treaties are “in permanent tension to the passing of time and changing circumstances”, and are thus susceptible to becoming “dead letter” if and when circumstances radically change, e.g. in times of disaster. In order to avoid such obsolescence, the Vienna Convention on the Law of Treaties (‘VCLT’) codifies default rules allowing for suspension and termination of treaties.

In the first instance, a State can suspend, or denounce or withdraw from, a treaty at any time, if permitted by the treaty or done with consent of all parties. Furthermore, a State has the unilateral right, recognised in custom, to suspend or terminate a treaty in extraordinary circumstances – potentially including disasters – which give rise to ‘supervening impossibility of performance’ or a ‘fundamental change of circumstances.’ Upon suspension, the State is released from its obligations under the treaty for the relevant period.

These provisions are rarely invoked to disapply treaty norms, either generally or during disasters. This may be a consequence of their restrictive wording and strict substantive criteria for enlivenment, borne from a cautiousness not to allow these residual disapplication mechanisms to become “talisman(s) for revising treaties”. Instead, parties are encouraged to provide expressly in advance for denunciation or withdrawal, through ‘exit clauses’ and other flexibilities.

However, these mechanisms are also poorly suited to the broad reality of disasters. For instance, supervening impossibility of performance under Article 61 requires the “permanent disappearance or destruction of an object indispensable for the execution of

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17 VCLT (n 13) arts. 57, 58.
18 Ibid arts. 54–56.
19 Ibid art. 42(2).
21 VCLT (n 13) art. 61.
22 Ibid art. 62.
23 Ibid arts. 70(1)(a), 72(1)(a).
25 Binder (n 15) 913.
26 Hersch Lauterpacht, The Development of International Law by the International Court (Grotius, 1982) 86.
27 Tzanakopoulos and Lekkas (n 16) 332.
the treaty”. The ‘object’ requirement, which is viewed to encompass physical and (perhaps) juridical objects, does not extend to intangible institutional (e.g. financial, diplomatic, labour) resources that are typically affected in a disaster, especially one of a non-environmental character (e.g. a pandemic). Further, the requirement of ‘permanency’ may exclude the destruction of institutions or infrastructure which could be restored, albeit over time and at great cost, as occurs in many disasters. Similarly, a ‘fundamental’ change under Article 62 is understood to require a “radical transformation” of what must be performed under the treaty into “something essentially different”. This would likely not capture an instance where a disaster adversely affects a State’s financial and technical capacity to perform an obligation, but not the basic nature of the obligation itself.

In sum, disapplication mechanisms under the VCLT are blunt instruments calibrated in order to prioritise treaty stability, rather than flexibility in times of disaster. This renders them largely inutile for responding to most disasters.

2.1.2. In special treaty-regimes

Apart from the law of treaties, there is also a disapplication mechanism, constructed differently but identical in effect, in international human rights law. Certain international and regional human rights treaties allow a State to ‘derogate’ from (i.e. suspend) specified obligations under the treaty. The availability of derogation is said to represent a corollary of sovereignty, through which States are afforded a “safety valve” to tailor certain human rights standards in an extreme situation of emergency. Derogation clauses in international and regional treaties are formulated similarly. The ICCPR clause, for instance, may be invoked “in times of public emergency which threaten the life of the nation”, a threshold within which severe natural disasters have

28 Binder (n 15) 912.
30 Fisheries Jurisdiction Case (Federal Republic of Germany v Iceland) [1973] ICJ Rep 49, 63 [36].
31 Ibid 65 [43].
32 Binder (n 15) 913–4.
33 Another specialised disapplication mechanism exists in the form of ‘non-precluded measures’ clauses in international investment agreements, which operate to limit the scope of investor protections to allow for regulation in pursuit of key public objectives (including, potentially, public health and safety in time of disaster). Regrettably, however, present constraints as to scope preclude consideration of this issue. For a primer, see Caroline Henckels, ‘Scope Limitation or Affirmative Defence? The Purpose and Role of Investment Treaty Exception Clauses’ in Federica Paddeu and Lorand Bartels (eds.), Exceptions in International Law (OUP, forthcoming), <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2801950> (accessed 14 May 2020).
36 See ICCPR art. 4(1); ECHR art. 15(1); ACHR art. 27(1).
37 ICCPR art. 4(1).
been regarded to fall. The power to derogate is subject to certain limitations, including a carve-out of certain non-derogable rights, a proportionality requirement that derogation must go no further than “strictly required by the exigencies of the situation”, and requirements of an initial official proclamation and ongoing reporting.

There is scant practice of States opting for derogation in the course of disaster response. Sommario identified just five States up to 2018 that invoked ICCPR Article 4 in disaster response. More recently in 2020, ten States have derogated from certain ECHR rights, and fifteen from ICCPR rights (with some overlap), in response to the COVID-19 pandemic.

There are three possible explanations for this scarcity of State practice. First, there is a suggestion that the exigencies of a disaster mean that a State’s failure to comply with formalities under human rights law are overlooked or received without suspicion. Secondly, States may rely during disasters on in-built limitations within particular human rights, which do not require official proclamation, rather than their right to derogation. For instance, though most States worldwide have imposed travel bans, quarantines and restrictions on public gatherings in response to the COVID-19 pandemic, only seventeen have provided notice of derogation to the relevant authorities under the ECHR and/or ICCPR. Instead, most States seem to be relying on the ‘public health’ exception built into the freedoms of movement, assembly and association. Indeed, Sommario argues that because of the flexibility provided by these limitations, formal derogation is rarely necessary in disaster response. Finally, there is a possibility, though resting on shaky doctrinal foundations, that a State may not need to notify internationally in order to rely on the substantive benefits of derogation.

2.1.3. Flexible interpretation of primary norms

Finally, a primary norm might be regarded not to apply to a State in time of disaster through a process of flexible interpretation of that norm by an international court or tribunal. This approach may not be possible where the material, temporal, personal and


39 See ICCPR art. 4, ECHR art. 15, ACHR art. 27.

40 Sommario (n 38) 111–112.


43 Joseph, Schultz and Castan (n 38) 923.

44 ICCPR arts. 12(3), 21, 22(2).

45 Sommario (n 38) 112.


The geographical scope of a norm is manifest. Conversely, where the obligation is one of due diligence, then the standard of due diligence owed in a disaster may be lowered. In between these extremes, where there is some generality in the norm, then a court may employ various techniques in order to qualify or dilute the scope of the norm, with a view to honouring a State’s right to regulate in situations of disaster. As Vinuales notes:

...[H]uman rights, investment standards and trade disciplines are often interpreted in a manner that introduces reasonable restrictions of the scope of a provision to allow for legitimate governmental action. 48

One technique relevant generally in international adjudication is a (peculiar) application of the doctrine of *lex specialis*. When used as an “articulation device” 49 – i.e. use of a specific norm to tailor the application of a more general norm to a unique situation of disaster – rather than a rule for resolving conflict of norms, the doctrine is capable of qualifying, diminishing, or perhaps even nullifying the application of more general norms in time of disaster. 50 However, the lack of specific treaty norms governing disasters makes the employment of such a technique a remote prospect presently.

2.2. Exculpation mechanisms

The above section has explained that the technique of disapplication has been a prevalent means of regulating disasters under international law in theory (though not in practice), which reflects the notion of disasters as rare and episodic occurrences. Furthermore, reflecting the idea of disasters being beyond human control or foresight, there are also various mechanisms by which a State can exculpate themselves from the consequences of acting incompatibly with a primary norm during a disaster. These may arise in the form of customary defences (2.2.1) and treaty exceptions (2.2.2), both of which presuppose some inconsistency with a primary norm.

2.2.1. Under general international law

Under general international law, there are six ‘circumstances precluding wrongfulness’ codified in the ILC Articles on State Responsibility, of which two – *force majeure* (2.2.1.1) and necessity (2.2.1.2) – are especially relevant in time of disaster. Despite some academic disagreement as to whether these mechanisms operate by rendering impugned conduct lawful (as ‘justification’) or by excusing unlawful conduct (as ‘excuse’), 51 most State practice in that regard is to invoke these circumstances as affirmative defences in adjudication, after breach of a primary norm has been established. 52 The term ‘exculpation’, then, has been deliberately chosen as a descriptor without prejudice to these competing characterisations of ‘justification’ and ‘excuse’.

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49 Ibid 4.


51 See, eg, Federica Paddeu, *Justification and Excuse in International Law* (CUP, 2016).

52 Vinuales, ‘Seven ways’ (n 48) 11; CMS Gas Transmission Company v. Argentine Republic, ICSID Case No. ARB/01/08, Decision on Annulment (25 September 2007) [132].
2.2.1.1 Force majeure

The defence of force majeure, embodied in article 23 of the ILC Articles on State Responsibility,\(^53\) and reflecting both custom and a general principle of law,\(^54\) is available to States that have failed to comply with an international obligation in the event of an “irresistible force or unforeseen event” beyond their control, which renders performance of the obligation “materially impossible in the circumstances”.\(^55\) It is suggested to have “deep roots” in human thinking about morality and responsibility,\(^56\) and represents a quintessential expression of the belief that disasters are events beyond human control. In this way, Argentine jurist Carlos Calvo’s definition of force majeure was as “an accident that the vigilance and work of man cannot prevent or impede”.\(^57\)

Though largely invoked in the past by foreign investors in times of political insecurity or war,\(^58\) the ‘unforeseen event’ can, in theory, either be natural or anthropogenic.\(^59\) A rare invocation in response to disasters occurred in 1887, when it was successfully pleaded by the Venezuelan government before a French-Venezuelan Mixed Claims Commission to excuse its responsibility for property damage, and a resulting suspension of operations, suffered by a French construction contractor because of floods, fires and earthquakes, among other things.\(^60\)

The COVID-19 pandemic is a useful illustration of the extent of force majeure’s relevance to modern disasters. As Paddeu and Jephcott have observed,\(^61\) while quarantine and social distancing measures may well adversely affect foreign investments, it may be difficult for States to rely on force majeure to avoid the consequences of failing to perform international obligations owed in respect of such investments. For instance, States affected by the virus after it was declared a pandemic could hardly rely on the proposition that the triggering event was ‘unforeseen’. Moreover, it may not qualify as an ‘irresistible force’, in the sense of an “element of constraint which the States was unable to avoid or oppose by its own means”,\(^62\) if a tribunal took the view that the virus could have been prevented by more timely border closures or prudent social distancing measures. Furthermore, the requirement of ‘material impossibility’ of performance, if

\(^{54}\) Paddeu (n 51) 285.
\(^{55}\) Paddeu, ‘A Genealogy of Force Majeure in International Law’ (2012) 82(1) British Yearbook of International Law 381, 422.
\(^{56}\) Paddeu (n 51) 285.
\(^{58}\) See Paddeu (n 51) 289–294.
\(^{59}\) ARS (n 53) art. 23 Commentary [3]; Paddeu, ‘A Genealogy’ (n 56) 394.
\(^{60}\) *French Company of Venezuelan Railroads* (1904) 10 RIAA 285, 316.
\(^{62}\) ARS (n 53) art. 23 Commentary [2].
understood to require absolute impossibility, \(^{63}\) may not be easily satisfied if one takes the position that States could, albeit with considerable cost to human life, continue to operate unrestricted, and that these measures are technically voluntary. In light of these considerations, force majeure appears a blunt and unwieldy instrument for disaster regulation.

2.2.1.2 Necessity

Necessity is also available as a customary defence where an act not in conformity with an international obligation is the “only way for [a] State to safeguard an essential interest against a grave and imminent peril”. \(^{64}\) It is subject to the conditions that it must not ‘seriously impair an essential interest’ of the State(s) to which the obligation is owed or the international community as a whole, \(^{65}\) and that is cannot be invoked if the obligation itself excludes its availability, or if the State has contributed to the situation of necessity. \(^{66}\)

Disasters, depending on their gravity, are potentially captured by the defence, though the stringency of its conditions and variability in jurisprudence renders this contestable in any disaster scenario. For instance, the Argentine economic crisis was at once found to constitute, \(^{67}\) and not constitute, \(^{68}\) a ‘grave and imminent peril’; and to threaten, \(^{69}\) and not threaten, \(^{70}\) an ‘essential interest of the State’.

Similarly, it is unclear whether the COVID-19 pandemic would enliven the defence. For instance, while Paddeu and Jephcott suggest that the pandemic, given its infection and mortality rate, amounts to a ‘grave and imminent peril’, \(^{72}\) and it appears to threaten the ‘essential interest’ of human life and well-being, there may be difficulty in establishing that measures undertaken by a State were the ‘only way’ to protect human life, even with the requisite deference given to the State in this assessment. Indeed, the sheer variance between States’ quarantine policies militates against the view that there is only one way to protect human life from COVID-19. Further, what constitutes the ‘only way’ may depend on the status of the pandemic in any given State: e.g. border measures are not necessary once the virus has already spread within the local community. Indeed, ‘only


\(^{64}\) ARS (n 53) art. 25(1)(a).

\(^{65}\) Ibid art. 25(1)(b).

\(^{66}\) Ibid art. 25(2)(a), (b).

\(^{67}\) LG&E Energy Corp. v. Argentine Republic, ICSID Case No. ARB/02/1, Decision on Liability (3 October 2006) [257].

\(^{68}\) Enron Corporation Ponderosa Assets L.P. v. Argentine Republic, ICSID Case No. ARB/01/3, Award (22 May 2007) [306]–[307]; Sempra Energy International v. Argentine Republic, ICSID Case No. ARB/02/16, Award (28 September 2007) [349]; CMS Gas Transmission Company v. Argentine Republic, ICSID Case No. ARB/01/08, Award (12 May 2005) [322].

\(^{69}\) LG&E (n 67) [257]; Continental Casualty v. Argentine Republic, ICSID Case No. ARB/03/09, Award (5 September 2008) [180]; Total SA v Argentine Republic, ICSID Case No ARB/04/1, Decision on Liability (27 December 2010) [223].

\(^{70}\) Enron (n 68) [306]–[307]; Sempra (n 68) [348].

\(^{71}\) See Binder (n 15) 916–9.

\(^{72}\) Paddeu and Jephcott (n 61).
way’ has been the decisive hurdle in defeating most international claims grounded on necessity.\(^73\) Again, therefore, it is apparent that the doctrine of necessity is poorly calibrated to the on-the-ground exigencies of disasters.

### 2.2.2. In special treaty-regimes

The technique of exculpation has not been employed only in the form of customary defences. One important specialised exculpation mechanism exists in international trade law, in Article XX of the GATT.\(^74\) Generally classified as affirmative defences,\(^75\) the sub-paragraphs of Article XX justify the breach by a WTO Member State of a primary norm of trade law if its impugned measure was ‘necessary’ for certain regulatory objectives, including the protection of public morals\(^76\) or human, animal or plant life or health,\(^77\) and the conservation of exhaustible natural resources.\(^78\) Further, the chapeau of Article XX independently requires that the measure must not constitute arbitrary or unjustified discrimination between States where the same countries prevail.

Article XX is potentially invocable in various disaster contexts, despite a dearth of jurisprudence in this regard. For instance, there is strong *prima facie* reason to consider that various States’ measures enacted during the COVID-19 crisis, including export restrictions on personal protective equipment and medication, may be in breach of trade rules (e.g. Article XI of the GATT, which disallows quantitative restrictions on exports); but that Article XX(b) is applicable because the restrictions are necessary to protect human life or health.\(^79\) At the same time, this is conditional on the chapeau requirement of non-discrimination, and on considerations of proportionality; the existence of an alternate, more WTO-consistent measure to achieve the same objective increases the likelihood of a measure not being justified under Article XX(b).\(^80\)

### 3. The changed sociology of disasters and its implications

Section 2 established that international law, aside from disaster-specific norms and instruments, tends to shoehorn the phenomenon of disasters into existing mechanisms for disapplication or exculpation. It also suggested that most of these mechanisms, in light of their doctrinal construction, are inadequate to capture the full spectrum of disasters.

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\(^73\) Theodore Christakis, ‘“Nécessité n’a pas de loi”’ in Société Française pour le Droit International (ed), *La nécessité en droit international – Colloque de Grenoble* (Pedone, 2007) 11.

\(^74\) *General Agreement on Tariffs and Trade*, opened for signature 15 April 1994, 1867 UNTS 187 (entered into force 1 January 1995) art. XX (‘GATT’).


\(^76\) *GATT* (n 74) art. XX(a).

\(^77\) Ibid art. XX(b).

\(^78\) Ibid art. XX(g).


\(^80\) *Korea – Various Measures on Beef* (n 75) [163], [166].
Crucially, however, this essay argues that this inadequacy is not simply attributable to doctrinal defects within these mechanisms. Rather, it is being exacerbated by conceptual defects in the rationales underpinning the regulatory techniques that these mechanisms operationalise, i.e. disapplication and exculpation. That is to say, a conceptual evolution in how disasters are regarded and theorised in modern sociology and science has weakened the legitimising premises of disapplication and exculpation as tools for disaster regulation, and therefore the applicability of the mechanisms built upon them to disasters. This is observable in three respects.

First, it is widely understood that anthropogenic climate change continues to increase the statistical likelihood of natural hazards and extreme weather events. Accordingly, one legitimising premise of the framework – rarity – is moribund. Increased regularity of disasters strains the techniques of disapplication and exculpation both normatively and practically. It necessitates such regular recourse to these mechanisms as to significantly undermine the effectiveness and normative character of the primary norms being breached. It also renders it impractical for a State to solely rely on such reactive techniques during or after a disaster, when costs and resource shortages will accumulate and compound over the course of a string of disasters. The growing ubiquity of disaster risk, therefore, begets a proactive framework for DRR.

Secondly, it is well-understood – and has been for some time – that disasters are not ‘acts of God’, but a social construct involving the coalescence of natural hazards with human-induced vulnerabilities to create a ‘disaster’. From the idea that human activities and choices contribute to the impacts of a disaster, disasters have come to be regarded as “amenable to regulation”, both from a legal and moral standpoint. It is recognised that positive action by States is required, and potentially effective, to prevent disaster risks and enhance response and recovery. As Lauta writes:

[T]he scope of disasters has little to do with the hazard itself, and everything to do with the way we organise our societies.

Indeed, this evolution in scientific and sociological thought has not only eroded the conceptual rationale of the technique of exculpation, i.e. human non-responsibility; it may also preclude reliance on certain exculpation mechanisms as a matter of law. In particular, the availability of force majeure and necessity is conditional on a State not contributing to the situation. Given modern sociological thinking, any State would be

82 Clement (n 1) 77–78.
84 David Fidler, ‘Disaster Relief and Governance After the Indian Ocean Tsunami: What Role for International Law?’ (2005) 6(2) Melbourne Journal of International Law 458, 467; Ronald W. Perry, ‘What is a Disaster?’ in Havidán Rodríguez; Enrico Quarantelli and Russell Dynes (eds.) Handbook of Disaster Research (Springer, 2007).
85 Fidler (n 84) 467.
86 Grow Sun (n 11) 35–6.
87 Lauta (n 6) 95.
88 See ARS (n 53) art. 23(2)(a); art. 25(2)(b).
hard-pressed to argue that its policies on urbanisation, emergency response and external assistance, among other things, had not contributed to the impacts of a disaster.\textsuperscript{89} Similarly, given it is “extremely likely” that human activity has been the “dominant cause” of accelerated global warming since the mid-20\textsuperscript{th} century,\textsuperscript{90} which in turn has increased the likelihood and intensity of disasters, this may preclude reliance on \textit{force majeure} on the basis that a State, by failing to adopt sufficiently ambitious emissions reduction policies, has assumed the risk of the situation occurring.\textsuperscript{91} At the same time, however, a broader conception of what is ‘necessary’ to prevent disasters may render certain disapplication and exculpation mechanisms, e.g. GATT Article XX, \textit{more} easily invocable.

Thirdly, there is a growing realisation of the collective element of disasters. It is understood, especially in light of the asymmetric impacts of climate change, that a natural hazard may strike any State at any time; and that its effects, including mass displacement and environmental damage, may be long-lasting and transboundary. In this way, the historical notion of disasters as “episodic events that do not systematically affect [a State’s] interactions with other States”,\textsuperscript{92} and which can be addressed through a single, unilateral act of disapplication or exculpation, no longer holds. Proactive and ongoing cooperation and interaction between States is expected, both as a matter of collective moral responsibility and practical necessity.

Accordingly, the regulatory techniques of disapplication and exculpation across the corpus of international law are becoming ever more ill-suited to capture and regulate disasters as perceived today. This unsuitability, though first visible at a doctrinal level, i.e. by disasters no longer falling within the legal criteria for disapplication and exculpation mechanisms, reflects a deeper conceptual fault-line in sociological and scientific understandings of disasters.

4. Conclusion

This essay has made two contributions which might inform future forays into the burgeoning field of IDL. First, it has presented a theoretical framework by which to understand how, in part, international law \textit{indirectly} regulates disasters. This reflects the fact that IDL, properly understood, is not a discrete branch of disaster-specific norms, but a broad and diverse range of norms from across the corpus of international law which are relevant to disasters, even if not expressly so.

Secondly, it has argued that the techniques of disapplication and exculpation which are employed to reconcile disasters with existing obligations under international law are doctrinally \textit{and} conceptually inadequate for the most part, because their legitimising sociological and scientific premises no longer hold. This is crucial to policymakers for two reasons. First, it reinforces that ongoing efforts to codify and progressively develop positive norms for DRR are more consonant with modern sociology and science. In this

\textsuperscript{89} See Myanna Dellinger, ‘Rethinking Force Majeure in Public International Law’ (2017) 37(2) Pace Law Review 455.
\textsuperscript{90} IPCC (n 81) 17, D.3.
\textsuperscript{91} ARS (n 53) art. 23(2)(b); Dellinger (n 89) 478–9.
\textsuperscript{92} Clement (n 1) 71, n 13, citing Fidler (n 84) 458.
sense, it more generally supports the proposition that international law must be developed in line with modern sociology and science in order to be adapted to current human concerns and behaviours. Secondly, it indicates that there is scope, as part of efforts to advance the field of IDL, to continue to engage those disapplication and exculpation mechanisms which do align satisfactorily with modern understandings of disasters (e.g. GATT Article XX), and to recalibrate those that do not. This holistic, generalist approach to disaster regulation would be a welcome reflection of the horizontal structure of international law.