“Environmental refugees”: aspects of the law of State responsibility

Astrid Epiney

I. Introduction

It seems indisputable today that environmental degradation, in general, and global warming, in particular, are a major cause of migration worldwide, which will increase in scope considerably in the next few years. Global warming may even lead to the disappearance of some island States, as sea levels rise. However, estimates regarding the number of people affected vary significantly, which in no way diminishes the seriousness of the situation quantitatively (in a few years, the number of environmental refugees could be much higher than the number of people falling within the scope of the Geneva Convention) or qualitatively – if it is taken into account that environmental degradation may affect vulnerable population groups (women, children, the sick and minorities) in particular.

This observation raises the question of the extent to which current international law admits (has admitted) obligations relating to the prevention of situations giving rise to “environmental refugees” and/or the reaction thereto. The problem involves a whole range of issues. This paper will therefore focus on aspects relating to the law of international responsibility and, more precisely, on the extent to which and conditions under which the recognized rules of State responsibility for wrongful acts are applicable in “environmental refugee” situations. However, as these “secondary” norms are closely linked to “primary” norms – which contain obligations with which States must

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4 See Biermann/Boas, VN 2008 (note 1), 10.

comply – it will be equally necessary to refer to primary norms to a certain extent. Therefore, we shall address the problem – following a short clarification of the concept of “environmental refugee” as understood in this paper (II) and a short reminder of the principles of international responsibility (III) – in relation to the potentially violated primary norms (IV.1) before considering two specific aspects of State responsibility in this context (IV.2). We shall conclude with a few remarks outlining the prospects for the development of international law on the subject (V).

The analysis will focus, however, on issues regarding international responsibility for wrongful acts (therefore, conduct violating international law) and not on issues regarding the scope of the various State obligations; in other words, we shall concentrate in on the principles of international responsibility and not on the detailed interpretation of individual obligations. Furthermore, we shall not address international responsibility for lawful acts (State behaviour in accordance with international obligations), the role of international organizations, in particular the United Nations, and the potential implications of the application of the “responsibility to protect” concept. Therefore, we shall not discuss the institutional aspects (the institutions likely to contribute to solving expected problems and currently active in refugee, environmental and funding matters), without denying their crucial importance.

II. The concept of “environmental refugee” – definitions

There is no official definition of “environmental refugee” in international law. On the contrary, quite different concepts exist, some of them even focusing on “climate refugees”, specifically excluding in certain cases, people who migrate because of environmental degradation for reasons other than global warming.

This is neither the place nor the time to review the entire discussion on this subject, particularly because the definition also depends on the objective and the context in which it is used. Therefore, it will merely be specified here that, drawing on UNEP’s 1985 definition, we understand “environmental refugees” to mean people forced to leave their residence temporarily or permanently on account of severe environmental degradation that seriously affects their living conditions or makes living in that region (almost) impossible or, at least, unbearable. That being the case, this definition includes only migration caused directly and primarily by environmental deterioration (due directly or indirectly to human behaviour or natural disaster). For example, in our opinion, the term “environmental refugees” applies in the following situations to:

- persons fleeing because of a rise in sea level;
- persons fleeing an extreme natural disaster (e.g. a hurricane);
- persons fleeing following a major accident (e.g. of industrial origin) that makes living in the particular region almost impossible or unbearable;

According to this concept, in cases of serious and apparent violations of human rights within a State, the international community, the United Nations Security Council and/or third States should (be able to) intervene to protect people affected, by resorting to the use of force if the situation so requires. For the importance of the “responsibility to protect” concept and the role of the United Nations within the context of “environmental refugees”, see: Astrid Epiney, Le droit à la vie (note 5).

For this last point, see Biermann/Boas, Preparing for A Warmer World (note 3), 16 ff.

See the summary and other references in Biermann/Boas, Preparing for A Warmer World (note 3), 2 ff.; Lassailly-Jacob, REDE 2006 (note 1), 374 (376 f.).


See Essam El-Hinnawi, Environmental Refugees, UNEP, 1985, 4: “Environmental refugees are defined as those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of life.” For elements for a definition, see further Zerger, ZAR 2009 (note 1), 84 (88), who, for the most part, agrees with the definition proposed in this paper.
persons fleeing because environmental degradation – for example, owing to water scarcity or inability to cultivate fields – leads to living conditions that make survival difficult or impossible in the region of origin.

However, it should be noted that migration is generally the result of many factors. The matter cannot be examined in detail in this paper; our reflection will be limited to individual cases in which a decisive link can be established between environmental degradation and migration, the establishment of this link being problematic and not the subject of discussion below.

Although "environmental refugees" are obviously not refugees within the meaning of the Geneva Convention, we believe that it is justifiable to use the term "refugee" in the environmental context. Indeed, the threats faced by affected persons – based on the elements of the definition provided – are in fact comparable to those faced by persons considered "refugees" under the Geneva Convention. That said, use of the term "environmental refugees", "environmental migrants", "environmentally displaced persons" or any other is in no way prejudicial to these person's legal status. Ultimately, it is simply a matter of definitions.

III. International responsibility of States for wrongful acts – principles

The rules governing the responsibility of States for internationally wrongful acts have developed over the years and today, the principles set out in the articles formulated in 2001 by the International Law Commission (ILC) – and noted by the United Nations General Assembly took note – seem for the most part to be recognized by States as falling under customary international law, although questions on some aspects of these articles are still controversial. The difficulty regarding international responsibility lies, in this context, not in the question of whether or not a particular principle of international responsibility has been recognized as being part of customary international law, but rather in being able to apply the principles of international responsibility within the framework of the (legal) problems raised by the issue of environmental refugees.

This paper therefore merely outlines the main thrusts of the principles governing international responsibility – that is, the rules that determine the conditions, content and consequences of State responsibility for wrongful acts ("secondary norms") which must be distinguished from "primary norms" which contain State obligations under international law. In this regard, the following principles, based on the ILC Articles, should be mentioned.

- The principle of responsibility: all States are responsible for the breach of an international law obligation. In other words, every internationally wrongful act of a State entails the international responsibility of that State (Article 1 of the ILC Draft Articles).

- The international responsibility of a State is subject to two conditions (Article 2 of the ILC Draft Articles):

11 The Convention of 28 July 1951 relating to the Status of Refugees, RS 0.142.30, and the Protocol of 31 January 1967 relating to the Status of Refugees, RS 0.142.301. Under article 1A, the term “refugee” may apply only to persons who fear being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion. As such the “classic” legal regime in international law on refugees cannot be applied to environmental refugees. For details, see Cournil, Revue du droit public 2006 (note 1), 1035 (1041 ff.). A similar view is given, for example, in Lassailly-Jacob, REDE 2006 (note 1), 374 (378); Christel Cournil/Pierre Mazzega, Catastrophes écologiques et flux migratoires: comment protéger les “réfugiés écologiques”?, REDE 2006, 418 (419).


14 For this distinction, see Astrid Epiney, Die völkerrechtliche Verantwortlichkeit von Staaten für rechtswidriges Verhalten im Zusammenhang mit Aktionen Privater, 1992, 25 ff.

15 See references in notes 12 and 13.

16 See Permanent International Court of Justice (PCJI), the Chorzow Factory case (1927), PCJI, Series A; No 8, 21.
first, if the act or omission must be attributable to the State, that is, it must be considered State conduct. Articles 4 ff. of the ILC articles specify the conditions of attribution of conduct to a State. In principle, only the conduct of State organs (Article 4) or of persons or entities empowered by the State to exercise elements of governmental authority (Articles 5 and 6) may be attributed to that particular State. Article 8 ff. addresses specific questions, in particular State responsibility for “de facto organs” (Article 8);

second, if the act or omission thus attributable to the State constitutes a breach of an international obligation of that State; This means that there must be a “wrongful act”. All international law obligations incumbent upon States at the time of the act must be taken into account, regardless of their source – customary law, an international treaty or any other source of international law (see Article 12 ff. of the ILC Articles for details).

- “Injury” beyond that caused “automatically” by each breach of international law is not required for finding that a case of international responsibility exists.

- Similarly, there is no requirement to show any “fault” whatsoever in order to establish international responsibility.

- Articles 20 ff. of the ILC Articles identify circumstances in which State responsibility is precluded even though the conditions under Article 2 are met.

- Articles 28 ff. of the ILC Articles codify the content of States’ international responsibility. In the context of this paper, it is particularly important to highlight that reparation (see for example the wording of Articles 31 and 34 ff. of the ILC Articles) will be made only for the injury caused by a wrongful act, in other words, the consequences of the wrongful act, which means that a casual link is required.

These general principles of State responsibility are applicable in the context considered here. Indeed, Article 55 of the ILC Articles provides that specific obligations under special rules shall be applicable only to the extent that they govern the questions of responsibility under discussion. However, it can also be inferred from this article that the existence of special rules do not exclude, in principle, the use of the general principles unless the specific rules are genuinely considered a “self-contained regime”, which is, all things considered, an exception. Be that as it may, the provisions regarding the consequences of non-compliance with State obligations contained in the texts of international environmental law and international human rights law cannot be considered exhaustive since the mechanisms provided are generally too weak for it to be considered that they preclude the application of the general principles of State responsibility.  

IV. State responsibility for “environmental refugees”

Currently, there is no specific legal instrument regulating the legal situation of environmental refugees or involving States’ obligations in their regard or concerning prevention obligations. For this reason, we have directed our reflection to the scope which can be given to a number of non-specific international obligations (with regard to State responsibility for causing situations promoting the emergence of environmental refugees). We shall first demonstrate (1) that

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17 An omission is always particularly important if international law admits obligations to act under certain conditions. Some aspects of this issue will be discussed in Part IV.


19 Only Courtil, Revue du droit public 2006 (note 1), 1035 (1040).
international obligations do exist, which may be particularly important in the context of this paper, because they require States to adopt conduct that is (also) supposed to prevent the emergence of environmental refugees. These are the primary norms that are potentially relevant in this context. We shall then focus on (2) questions common to a certain number of these primary norms which arise in the context of (potential) State responsibility for causing migratory flows. Therefore, as mentioned above, we shall highlight aspects of international responsibility, the interpretation of primary rules not being the subject of our reflection, apart from some specific aspects relating to the environmental refugee problem.

1. Relevant international obligations (primary norms)

In our view, a breach of the following international obligations may have a “causal” link to environmental refugees: (a) human rights obligations, (b) international treaty obligations, (c) customary law obligations and lastly, (d) State responsibility for environmental refugee flows.

However, in our opinion, a general obligation (independently of a violation of international law) on States to assist other States that cannot cope with major difficulties, that is, in this context, States that cannot take preventive, precautionary or adaptive measures to deal with the environmental refugee problem, is not admissible. Currently in international law, there is no general obligation to assist other States.

(a) Human rights

Binding international texts on human rights – only the 1966 Universal Covenants will be considered here – do not provide for any rights relating to a “healthy environment” or any specific rights regarding the protection of human beings in the event of serious damage to the environment. However, a number of rights guaranteed by the Covenants may be of some significance where there is environmental damage. Mention may be made, in particular, of the following rights guaranteed by one of the 1966 Covenants:

- Article 12, paragraph 4, of the International Covenant on Civil and Political Rights (Covenant II) provides that no one shall be arbitrarily deprived of the right to enter his own country. When environmental degradation is such that persons affected must leave their region of origin and go abroad, this right may come into play. Similarly, this may prove important should a State disappear on account of a rise in sea level;

- Article 6, paragraph 1, of Covenant II enshrines a right to life. This right is protected under Article 2 of the European Convention on Human Rights and the European Court of Human Rights has developed in respect of Article 2 and Article 8 of the Convention (protection of private life) case law enabling persons to enforce these rights in connection with environmental degradation on a certain scale. Environmental degradation can effectively threaten people’s lives and may even cause their death;
• Article 12, paragraph 1, of Covenant II provides that all persons are free to choose their residence, and that right could be curtailed on account of environmental degradation;

• Article 11, paragraph 1, of the International Covenant on Economic, Social and Cultural Rights (Covenant I) recognizes everyone’s right to adequate food. As a result of environmental degradation, it may become harder, or even impossible, for some people to feed themselves properly.

These rights – as other human rights – put states under (at least) two “categories of obligations”:24 (a) first, the obligation for the State to refrain from certain courses of conduct; (b) second, the obligation to take protective measures under certain conditions. Lastly, (c) the question arises of whether an obligation not to deny entry can be inferred from these rights.

(aa) Obligation to refrain from certain actions

In the context of this paper, the obligation to refrain from conduct that violates or may violate human rights may be important in cases in which the State itself – through acts attributable to it under the principles of State responsibility25 – causes environmental degradation that triggers migration. For example, certain State conduct leading to environmental degradation thus infringing one or more of the above-mentioned rights may include continuation by a State of a major industrial project that seriously damages a region’s environment and consequently endangers the life or health of a number of people. This obligation therefore serves to prevent environmental degradation that may trigger migratory flows (within a country or towards other countries). Consequently, it is incumbent upon the State to refrain from such conduct, although the exact scope of human rights in regard to State actions detrimental to the quality of the environment has not yet been determined.

All the same, the scope of this obligation is limited in the context of this paper:

• First, it only concerns acts by the State itself. However, environmental degradation is caused most often by private individuals.

• Second, there are often several causes of environmental degradation in a given region. It is therefore often impossible to pinpoint a specific and “isolated” State cut as the sole or primary reason for the environmental degradation, and by extension, for migratory flows of environmental refugees.26

(bb) States’ obligation to take protective measures

Under human rights laws States are under an obligation not only to refrain from actions that violate these rights, but also to take adequate measures to prevent other people (in


24 State obligations only will be considered here, since it is generally recognized that human rights obligations are addressed primarily to States.


26 See details on the chain of causation under IV.2 (b).
particular private individuals) and events (natural) from infringing these rights.27 As a result, this aspect of the scope of human rights requires States to intervene if it is feared with a measure of probability that a human right may be breached.28 However, the obligation here is merely an “obligation of due diligence”. Therefore, the State must be aware of the risk of infringement of a human right. This condition is fulfilled if it is considered that the State could have been made aware by using the precautionary criteria adapted to the situation. Similarly, the measures to be taken are those warranted by the circumstances to prevent a breach of human rights. This entails an obligation of conduct and not of result.29

This obligation may involve States in which environmental deterioration occurs (States of origin) and third States.

(1) States of origin

In all situations in which environmental degradation is such that affected persons risk losing their lives or being deprived of food necessary for their survival, and are consequently forced to leave their homes, the State in which these vulnerable populations live must, in principle (if the above-mentioned conditions are fulfilled) take appropriate measures (for example, warn of natural disasters, minimize environmental degradation or enable affected populations to leave the region in question in order to settle elsewhere within the State), even in cases where the State itself has not caused the environmental degradation.

However, the scope of this principle is somewhat limited regarding migration due to environmental degradation, because of strict conditions regulating States’ obligation to take protective measures.

– First, it should be noted that in many situations, preventive or adaptive measures cannot (adequately) prevent environmental degradation that triggers migration and are simply not at all apt to prevent environmental deterioration. This is especially the case for a whole range of consequences linked to global warming such as the rise in sea levels, extreme natural events and water scarcity in certain regions owing to desertification. Furthermore, even preventive and adaptive measures demanded by the circumstances that usually should prevent environmental degradation often do not suffice. In other words, they simply cannot prevent environmental degradation in all cases. For example, dykes are built to prevent flooding, but they may not hold if the water rises higher than expected (for example because of unusual winds).

– Second, certain events that cause environmental degradation cannot be foreseen.

– Lastly, it must above all be noted that States are only obliged to take measures as required under the due diligence standard. Therefore, States should generally

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28 For the right to life, see the judgment of the European Court of Human Rights in Strasbourg of 30 November 2004 (Grand Chamber), Öneryildic/Turkey, No. 48939/99. In this judgment, the Court recognized that State responsibility may be engaged because adequate protective measures were not taken and it specified the conditions for such a responsibility.

29 For more on due diligence obligations, see IV.2 (a).
have a legislative and administrative system that enables them to take appropriate measures should there be a threat of infringement of human rights. However, obligations which they are unable to fulfil may not be formulated.\textsuperscript{30} If a State lacks the financial and technological resources necessary to take the preventive or adaptive measures required, in principle, it may not objectively be held responsible under international law for not taking such measures.\textsuperscript{31} Furthermore, if it is taken into account that most situations involving environmental refugees arise in countries of the South, in particular Africa and Asia,\textsuperscript{32} the de jure and de facto limitations of States’ obligation to take sufficient protective and adaptive measures become evident.

(2) Third States

Nonetheless, the question remains as to the extent to which other States or some of them (that is, third States, not the State on whose territory the environmental degradation and “environmental migration” take place) are obliged under international law to take some protective measures. Thus third States that themselves contribute to environmental degradation in other countries or fail to take appropriate action to prevent such behaviour by private parties might be obliged to desist from such actions or to take appropriate steps to prevent private parties from committing such acts. One such example might be the major part that the industrialized countries play, through greenhouse gas emissions, in climate warming and thereby in environmental degradation in some other countries (especially those of the South). Another might be where State or private activities in one State jeopardize some of the aforesaid human rights.

However, such an obligation only takes effect for a third State if it can be established clearly that acts committed on the third State’s territory is indeed the chief cause of the environmental degradation and, thereby, of a violation of one or more of the aforesaid human rights and the cause of migratory flows: it is the causal relationship which is central in this context.\textsuperscript{33} If the third State in question merely contributes “slightly” to environmental degradation in another State, the current state of international human rights law does not allow such an obligation to be upheld since, in principle, the prime and sole responsibility rests with the State of origin. In this instance, any human rights aspect does not materially add to the general obligation not to cause significant ecological damage on the territory of other States. Nonetheless, where there has been a violation both of this general rule of public international law\textsuperscript{34} and of a human right obligation, that aspect might take on a measure of importance in view of the relatively strong enforcement machinery in the field of human rights.

Be that as it may, we believe that a third State’s responsibility cannot be repudiated on the sole grounds that it has no effective control on the territory of the State of origin. True, as a general rule the State of origin bears the chief responsibility for ensuring respect for human rights on its territory. However, to the extent that human rights are jeopardized following an action or omission by a third State, we find that there is no argument that allows the applicability of human rights to be repudiated, regardless of

\textsuperscript{30} See further under IV.2 (a).
\textsuperscript{31} With regard to details on these principles, see further Epiney, Die völkerrechtliche Verantwortlichkeit von Staaten (note 14), 217 ff.
\textsuperscript{32} See Jean-Jacques Gouguet, Réfugiés écologiques: un débat controversé, REDE 2006, 381 (382 ff.).
\textsuperscript{33} In this regard see IV.2 (b) below.
\textsuperscript{34} In this regard see also the comments under IV.1 (d)
extraterritoriality. States are bound by human rights in respect of all State behaviour whether or not some effects of that behaviour are felt in other States.\(^{35}\)

\[(cc)\] Prohibition of denial of entry

Finally, one last question should be considered in respect of obligations that may derive from human rights: whether a principle of non-denial of entry can be deduced from human rights.

It has been established by the case law of the European Court of Human Rights in Strasbourg that Article 3 of the European Convention on Human Rights (ECHR) forbids States to extradite persons to another State in which they may be subjected to treatment contravening that Article.\(^{36}\) Similarly, the Court recognized that the prohibition of expulsion was also applicable if the right to life (ECHR Article 2) might be violated in the destination country.\(^{37}\) As to the scope of Pact II, it would appear that the Human Rights Committee also recognizes, similarly, such a prohibition of denial of entry, at least in cases where torture is to be feared in the destination State.\(^{38}\)

If these principles are applied to ecological refugees, then two situations may be distinguished.

- If environmental deterioration were to result in a threat to the lives of persons and their flight, and if their return to their State of origin might plausibly endanger them, then the principle of non-denial of entry should arguably also apply. This situation is analogous to the situations in which the lives of the persons concerned are threatened by the State of origin itself, through its agents; in such situations, the principle of non-denial of entry is accepted. For the persons concerned, and more generally in respect of the extent of the right-to-life obligation, the precise origin of the threat to life should have no impact on the scope of the prohibition of denial of entry which governs States’ obligations regarding the protection of life in general.\(^{39}\)

- If, conversely, lives are not in danger but living conditions have “merely” deteriorated to the point where people nonetheless leave their region of origin, international practice has to our knowledge not yet recognized explicitly an obligation to respect a principle of non-denial of entry. In particular, cases of danger to health, food and/or basic livelihood come to mind.\(^{40}\) Now, the same arguments may be advanced in

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\(^{35}\) With regard to this entire problem, see Kälin/Künzli, Universeller Menschenrechtsschutz (Universal Human Rights Protection) (note 27), 142 ff.


\(^{39}\) For instance, the European Court of Human Rights recognizes that the principle of non-denial of entry also applies where private groups threaten the persons concerned, see European Court of Human Rights, H.L.R. v. France, Rep. 1997-III.

\(^{40}\) Except for exceptional cases of prohibition of denial of entry due to inadequate medical provision in the country of origin: in this regard see with other references, particularly to the case of law, Kälin/Künzli, Universeller Menschenrechtsschutz (note 27), 551 ff.
respect of the right to food or a livelihood as for the right to life, with the consequence that return to the State of origin is prohibited where a threat to the achievement of those rights is perforce entailed.

In sum, it may be concluded that an obligation of non-denial of entry arises in all cases where return to the State of origin would jeopardize the achievement of human rights, including cases where the jeopardy stems from environmental degradation.

Nonetheless, the practical scope of such an obligation should not be overestimated, since it applies only in international relations. Firstly, it presupposes above all – as noted – that return to the country of origin (probably) perforce entails a risk to the human right in question (right to life, right to food, etc.). Furthermore, in many cases the persons concerned are able to settle in other regions of their State of origin. Moreover, even where the prohibition of denial of entry applies, the status conferred under international law is very insecure: the only claim, for the time being is that there is a right to remain in the destination country; on the other hand, no other obligations relating to residence may be deduced from current international law (other than respect for human rights).

(b) Obligations relating to protection of the environment and climate deriving from international treaties

States must respect obligations under international treaties in force for them (Article 27 of the Vienna Convention on the Law of Treaties). Consequently they must account – where appropriate in compliance with the procedures established under the treaty in question – for any violation of such a contractual obligation and must reinstate the status quo ante or, if that is not possible, repair the damage to the extent possible.

In this paper it is not possible to examine the scope of the host of international conventions for protection of the environment and climate. However, one “cross-cutting” question of particular importance in this context is whether the various obligations enshrined in international conventions (such as the Framework Convention on Climate Change and the Kyoto Protocol thereto, or the Geneva Convention on Long-range Transboundary Air Pollution) comprise, together with protection of the environment per se, the prevention of migratory flows due to environmental degradation. This question matters above all in the context of remedies for a violation of international law. If indeed the answer is affirmative, remedies will consist not only in restoring the previous situation but also in “repairing” the consequences of migratory flows, which could lead to considerable cost.

Although it is not possible to analyse all texts that may bear on this problem, it can be stated that it is not explicitly clear from the international conventions on the environment or on climate change that they also aim to prevent persons from being forced to leave their places of residence because of environmental degradation or climate change. However, the implicit or explicit objective of these conventions is also to protect the environment and so to guarantee that the natural basis for people’s survival and quality of life is sustainably protected. Consequently, it is considered that the international conventions on the environment and particularly on climate change also aim, at least implicitly, to prevent people from being compelled to flee because of environmental degradation or climate change.

Consequently, remedies for non-fulfilment of those obligations may in principle also include costs in respect of the creation of migratory flows. Nonetheless, the question of the extent to which a State’s violation of its obligations may indeed be considered to have caused migratory flows will arise regularly. Since this is a problem common to various primary norms

41 In cases of internal migration, the State concerned must take appropriate measures of protection, see IV.1 (a) (bb) above.

42 See III above, the principles of the responsibility of States.
that may potentially play a part in the context of ecological refugees and, moreover, touch on basic principles of the law of the responsibility of States, it will be discussed below.\textsuperscript{43}

In any event, no international responsibility on the basis of violation of international conventions on the environment or climate change may arise if the State in question has respected its commitments arising under a particular convention, even if migratory flows occur because of environmental degradation or climate change.

(c) Obligations under customary international law: the “Trail Smelter” principle

According to the Trail Smelter case law,\textsuperscript{44} a State must prevent significant ecological damage from arising in other States due to activities on its territory or, should such damage arise, must “repair” the consequences of such damage (no-harm rule). This obligation is regardless of the legality or otherwise of the activity concerned: in other words, States are under an obligation to prevent ecological damage from arising in other States even if it arises from activities that are in essence legal.\textsuperscript{45} This principle is undeniably part of customary international law,\textsuperscript{46} although, admittedly, it does not figure very largely in international practice even in cases where the conditions for its application have undoubtedly been met.\textsuperscript{47}

The conditions in which this obligation arises are as follows:\textsuperscript{48}

- significant environmental damage must have arisen in another State (not necessarily a neighbouring State) Furthermore, States must avoid even the danger of such damage arising, although this principle does not imply the prohibition per se of particularly dangerous activities – \textit{ultra-hazardous activities}. It is therefore an obligation in respect of behaviour and not of result;

- the activity causing such environmental damage may consist equally of an act or an omission of State. In the latter case, which is particularly important in this regard, the State is responsible for the environmental damage if it fails to take appropriate measures, depending on circumstances (due diligence) to prevent the damage being caused by private parties,\textsuperscript{49}

- the State behaviour at issue must be the cause of the environmental harm; a causal link must therefore be shown;\textsuperscript{50}

- only significant or considerable damage must be avoided. This requirement is generally met if the environmental degradation is such that persons leave their place of residence.\textsuperscript{51}

(d) The responsibility of States for causing environmental refugee flows

\textsuperscript{43} See IV.2 (b).
\textsuperscript{44} See RIAA III 1905. With regard to this principle see Astrid Epiney, Das „Verbot erheblicher grenzüberschreitender Umweltbeeinträchtigungen“: Relikt oder konkretisierungsfähige Grundnorm? ArchVR 1995, 309 ff.
\textsuperscript{45} Inter alia see Voigt, NJIL 2008 (note 2), 1 (8 ff); T. Scouvazzim, State responsibility for Environmental Harm, YbIEL 2001, 49 ff.
\textsuperscript{46} The ICJ also refers to this principle, see cases on nuclear armaments and on the Gabčíkovo-Nagymaros Project, ICJ Rep. 1996, 241, para. 29; ICJ Rep. 1997, 7, para. 41.
\textsuperscript{47} For example, the aftermath of the Chernobyl nuclear accident in 1987.
\textsuperscript{48} For a detailed account, see Astrid Epiney, Umweltvölkerrechtliche Rahmenbedingungen für Entwicklungsprojekte, in: Das internationale Recht im Nord-Süd-Verhältnis, BerDGV 41, Heidelberg 2005, 329 (344 ff); Epiney, ArchVR 1995 (note 44), 309 ff.
\textsuperscript{49} See definition of these due diligence obligations at IV.2 (a) below.
\textsuperscript{50} See IV.2 (b) below.
\textsuperscript{51} In the same vein, with regard to the environmental consequences of climate change, see Voigt, NJIL 2008 (note 2), 1 (9).
If environmental degradation is the (predominant) cause of a refugee flow towards other States, the question arises as to the extent to which a State may be held responsible for causing (in some way) that flow of refugees and to the extent to which a State (and which one) should take measures, in particular environmental protection measures, to prevent such a flow of refugees and/or to restore the situation so that the persons concerned may return home.

In general, there are solid arguments in favour of making States internationally accountable for causing migratory flows, whatever their cause.\textsuperscript{52} The fact of triggering migratory flows may in particular constitute a violation of the sovereignty of the State to which the refugees emigrate. The latter is at least de facto compelled to receive the refugees and, as a result, triggering an outflow of refugees violates the sovereign right of each State freely to decide whether or not it wishes to admit persons of foreign nationality on its soil. The State must, however, be found to be genuinely responsible for having caused these migratory flows. In other words, an act imputable to the State must be the root cause of the migratory flows. This is notably the case when a State systematically violates human rights, so causing part of its population to seek refuge in another State. Conversely, if the migratory flows stem, for example, from acts of violence by private parties and if the State has taken action as may reasonably be expected to prevent such acts (due diligence), no behaviour in violation of an international legal obligation may be imputed to the State.\textsuperscript{53} Further, a State may be held responsible only if the persons concerned may no longer reasonably be expected to remain in their region of origin; it is nonetheless not necessary for them to be (physically) compelled to flee. Finally, a causal link must be established between the factor triggering the migratory flow and the violation of sovereignty. It can only be recognized if the destination of migration is clear, that is, if, reasonably, only one migration route is available to those affected. If, conversely, the refugees have the choice of several destinations, the causal link cannot be recognized.

These principles – which can only be outlined here – may also be applicable in the particular case of persons leaving their region of origin because of environmental degradation. The conditions under which such State responsibility and obligations obtain should, nonetheless, be noted.

– Firstly, the refugees must be genuinely environmental, which means that they cannot reasonably be expected to remain in their region of origin as a result of environmental degradation.

– Secondly, a State act or omission must be the cause of the aforesaid environmental degradation. With regard to the State on whose territory the environmental degradation took place, this condition is fulfilled only if that State itself is the cause of the environmental degradation or, where the cause of the degradation lies with private parties or where it results from a natural disaster without (direct) human influence, if the State has neglected to take the preventive action appropriate to the circumstances (due diligence).\textsuperscript{54} Thus the two facets of States’ obligations (the obligation to refrain and the obligation to prevent) deriving from human rights and already mentioned above are to be found here.\textsuperscript{55} Other States (third States) may be considered to have caused

\textsuperscript{52} See in particular the detailed studies by Alberto Achermann, Die völkerrechtliche Verantwortlichkeit fluchtvursachender Staaten. Ein Beitrag zum Zusammenwirken von Flüchtlingsrecht, Menschenrechten, kollektiver Friedenssicherung und Staatenverantwortlichkeit 1997, 175 ff; Ziegler, Fluchtverursachung (note 12), 401 ff.

\textsuperscript{53} With regard to the imputing of an act to the State in this context, see the detailed account by Achermann, Völkerrechtliche Verantwortlichkeit fluchtvursachender Staaten (note 52), 147 ff.

\textsuperscript{54} In the same vein see Agnès Michelot-Draft, Enjeux de la reconnaissance du statut de réfugié écologique pour la construction d’une nouvelle responsabilité internationale, REDE 2006, 427 (433, 437); Chemillier-Gendreau, REDE 2006 (note 1), 446 (447). With regard to the standard of due diligence see IV.2.a) below.

\textsuperscript{55} See IV.1 (a).
migratory flows only if a causal link is established between their behaviour and the environmental degradation in the State of origin of the environmental refugees and, thus, of the flow of refugees.\textsuperscript{56}

Thirdly, as mentioned above, there must be a causal link between the migratory flow and the violation of the other State’s sovereignty, which can only be recognized in situations where in essence there is only one “migratory route”.

On the whole, it may be concluded that States are obliged to refrain, under the conditions listed above, from triggering migratory flows towards other States and, therefore, should that obligation be violated, then the State in question may be held internationally accountable. In this context, such instances may include, for example a State systematically destroying a population’s natural environment or failing to take measures against such action on the part of private parties, such that the population is obliged to take refuge in the neighbouring State. Nonetheless, there are many situations in which the aforesaid conditions are not met, for whatever reason (notably the lack of a causal link between the migratory flow and the violation of the other State’s sovereignty or a migratory flow not caused by State behaviour). Furthermore, this obligation only creates a link between the environmental refugees’ State of origin and State of destination and does not require the protection of the persons concerned \textit{per se}.

2. \textbf{Issues under the law of international responsibility}

This outline of the various primary obligations that may in theory be invoked if a State causes environmental refugee movement also highlighted two issues that arise with regard to the primary standards: (a) first, the question of the standard of “due diligence” and, (b) second, the causal link between State behaviour and outflows of environmental refugees.

(a) The standard of “due diligence”

This issue arises in particular with regard to the obligations of States in respect of acts by private parties. States may indeed not be held responsible for the activities of private parties as such (since the acts of private parties may not be imputed) but they are obliged (under primary norms) to take protective or preventive action as required in the circumstances.\textsuperscript{57}

That being so, the question arises as to how the standard of “due diligence” can be defined. Although the principle of applying the standard of “due diligence” appears to be largely recognized in practice, there is less clarity as to the exact criteria to be used in determining whether or not the standard has been respected. However, on the strength of international practice,\textsuperscript{58} a few general principles may be identified:

Firstly, it should be stressed that States can in principle only be expected to take action that they can effectively take. In other words, under their international obligations they are not compelled to apply a standard if they cannot take the necessary measures to do

\textsuperscript{56} In this regard see IV.2 (b) below.
\textsuperscript{57} See IV.1 above.
\textsuperscript{58} See in detail with other references Epiney, Die völkerrechtliche Verantwortlichkeit (note 14), 211 ff. See also R. Verheyen, Climate Damage and International Law: Prevention Duties and State responsibilities, 2005, 174, which describes the standard of due diligence as the behaviour to be expected of a “good government”. Another author stresses that due diligence must be ascertained in the light of the resources and capabilities available to the State in an international context, see Christian Tomuschat, International Law: Ensuring the Survival of Mankind on the Eve of a New Century, RdC 1999, 280. For its part the International Law Commission (ILC) has defined the standard of “due diligence” in its commentary on articles on the Prevention of Transboundary Harm from Hazardous Activities as follows: “... to take unilateral measures to prevent significant transboundary harm or at any event minimize the risk thereof ... Such measures include, first, formulating policies designed to prevent significant transboundary harm or to minimize the risk thereof and, second implementing those policies. Such policies are expressed in legislation and administrative regulations and implemented through various enforcement mechanisms.” ILC Rep., 53rd session, Commentary, 393.
so. In such circumstances they are unable to guarantee such a standard so that there can be no question of appropriate measures. In other words, obligations that States cannot fulfil may not be established. That being so, if a State does not have the requisite financial and technological resources to take the preventive or adaptive measures that are in principle objectively appropriate in order to avoid outflows of environmental refugees, it cannot be held accountable in international law for failing to do so. However, if the State’s inability to react in specific circumstances is the outcome of its failure to maintain a State organization sufficient to discharge its various preventive obligations, the State’s responsibility must be recognized. Indeed, States are generally required to be organized in such a way as to be able to fulfil their international obligations. In other words, States are obliged to maintain “sound government”.59

If these principles are applied to State responsibility for environmental refugees, then it stands to reason that the States of the North should in general be considered capable of taking the preventive and protective measures that the circumstances objectively require. They do have adequate financial and technological resources and there is nothing to justify any mitigation of their accountability on grounds of inability to act. Conversely, in regard to the behaviour of a State of the South (especially that of an African or Asian State), detailed analysis is required of whether it can reasonably be expected to take specific measures to protect and adapt. There is no doubt that some particularly poor States cannot be compelled to take action that lies outside their capability. Nonetheless, specific analysis is required as to whether that is or is not the case. Furthermore, States are in principle obliged to accept foreign aid where that can contribute to the necessary measures of protection and adaptation being taken. Where such aid is refused without objective reason, States are failing to respect their due-diligence obligations.

The standard of due diligence must be ascertained in the circumstances of each individual case and obligation. All factors that may be of importance in the context of the obligation in question must be taken into account. In the context of obligations to prevent flows of ecological refugees, the following (non-exhaustive) factors seem particularly important:

- It is not necessary for the causal link between a certain behaviour and a significant environmental degradation to be beyond doubt. Under the precautionary principle, it suffices for that link to exist with a measure of scientific evidence for States to be obliged where appropriate to take the preventive measures that the circumstances require. This being so, for example, it suffices for greenhouse gases to be the cause of climate change to a high degree of probability.

- The environmental degradation should be foreseeable. In other words, it should reasonably be possible, using established scientific methods, to foresee 60 that a particular form of environmental degradation will cause persons to leave their place of residence. This condition is met with regard to climate change but also, for example, with regard to slow desertification or, in some cases, the risk of landslides or earthquakes.

- Protective or preventive action should be the more vigorous where there is a high risk of significant environmental degradation and thus of a large number of environmental refugees. In other words, the greater the risk and scale of environmental degradation, the more extensive States’ protective and preventive action is expected to be.

59 With regard to these principles see the detailed account in Epiney, Die völkerrechtliche Verantwortlichkeit (note 14), 217 ff.

60 It is therefore not necessary for the State to be in practice cognizant of the risks in question, but it suffices that it has been cognizant by applying a standard of due diligence. See also in this vein and with regard to climate change Voigt, NJIL 2008 (note 2), 1 (11 ff).
In general, the principle of proportionality should also be taken into account, such that the technical and economic capabilities of States should be viewed in relation to the (potential) damage caused.

State action may take effect either on the State’s own territory or on the territory of the injured State or the State in which questions are raised about individual rights.

(b) Causality issues

As already noted above, a State’s international responsibility for (potential) outflows of environmental refugees presupposes that a causal link may be established between the State behaviour in question and the significant environmental degradation responsible for the outflow of environmental refugees.

A causal link is generally easy to establish where the question is one of specific State behaviour that is clearly the cause of a specific environmental degradation, as may for example be the case of industrial accidents or failure to take precautionary measures against certain specific events that may jeopardize the quality of the environment.

Causality is, conversely, far harder to establish in cases where the environmental degradation at issue stems from a host of factors and it is not possible to establish with a degree of probability that one factor or State behaviour is clearly predominant or decisive in the environmental degradation at issue. In this particular context, that is more the rule than the exception. For instance, climate change stems from the emissions generated by a host of actors in many States. The lack of water in some regions or soil erosion also usually have several causes.

In such situations, it should firstly be emphasized that the fact that many States may (potentially) be responsible does not “automatically” mean that international responsibility on the part of at least some of those States cannot be established. Indeed, in cases where one State’s “contribution” to the environmental degradation of itself suffices to cause significant environmental degradation triggering migratory flows, the causal link must in any case be recognized.

Furthermore, the question arises as to whether a causal link may also be recognized in cases where various States’ contributions to the environmental degradation at issue are themselves (severally) the factor that triggers a significant environmental degradation, such that only the cumulative effects of several States’ behaviour can produce such an effect. As this problem has not yet to our knowledge been raised in international practice, it must be addressed by referring to the basic principles of the primary obligations at issue. Two aspects should then be distinguished.

– Firstly, the current state of international law does not, on the basis of practice, warrant recognition if an international obligation on States to refrain from behaviour that in themselves do not infringe any international obligation but merely have “illegal” consequences when combined with similar behaviour by other States. Indeed the

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61 This differs according to the primary obligations at issue. For these see IV.1 above.
62 Only significant environmental degradation may give rise to environmental refugees as the concept is understood in this paper. See II above.
63 See Epiney, ArchVR 1995 (note 44), 309 (354 f).
64 If such a cause can be defined, it is self-evident that a third State may also be held accountable, although the details are not yet clearly established in international law. Thus the question arises, for example, as to the extent to which States should take measures to impose the standard of due diligence to prevent enterprises headquartered on their territory from developing activities that may be environmentally damaging to other States. The chemical accident at Bhopal is one example in which this question was raised but has not been answered in international practice. In this regard, see Astrid Epiney, Union Carbide Case, in Max Planck Encyclopedia of Public International Law, 2009, www.mpepil.com.
international obligations at issue each individual State to engage in a particular course of conduct and it would be unacceptable for one State to be held internationally accountable simply because other States behave in the same way. Furthermore, in such a case no “direct cause” of the environmental degradation can be ascertained. The damaging effects of climate change may be adduced as an example: although the causes of the increase in mean temperature and the resultant environmental damage and consequently, possible flows of environmental refugees are well established, the general rules of State responsibility do not permit one or several States in particular to be designated as responsible for them because the combination of effects is decisive in the final result achieved, namely climate warming. Consequently, it is not possible to “construct” the responsibility of given States in as much as one State's emissions, comprising large quantities of CO2 could not suffice to cause the effects of climate change. Furthermore, in view of the current state of international environmental law, it cannot be asserted that – beyond the scope of the obligations contained in treaties and notably in the Kyoto Protocol – States are under any obligation whatsoever to restrict, to whatever level, greenhouse gas emissions from their territory. In sum, harmful activities in themselves cannot be viewed as contrary to the international obligations of the States concerned inasmuch as each State's behaviour in isolation cannot be considered to be the origin of significant environmental degradation.

– Secondly, the question arises as to whether States that in conjunction are the cause of significant environmental degradation may be bound under international law to “repair” the effects of their behaviour. On first sight, this question must be answered in the negative since, as stated above the behaviour at issue does not in general violate any primary norm. However this conclusion is considered to be somewhat hasty: in our view, if the combined contributions of various States reach the necessary threshold, an obligation of proportional redress may be construed from the obligation of States not to cause significant environmental damage in other States. Only this approach can ensure that “victim” States are not left unprotected, and it is also consistent with the purpose of that obligation under international law. Thus States are obliged to contribute to the prevention of damage that might result from their behaviour in proportion to those behaviours and to “repair” the consequences of that damage if it nonetheless occurs. This obligation is, in our opinion an exception to the general rule under which States are not answerable for the consequences of behaviour that complies with their international obligations. However, it must be noted that international practice has not yet to our knowledge recognized such an obligation and that its standing in international law is thus unclear. It would be desirable for this matter to be clarified by States through State practice.

V. Conclusion

It can be concluded that the prevailing international law contains a number of binding obligations which (also) relate to environmental refugees and environmental degradation leading to outflows of environmental refugees. It would be desirable for States and international organizations to remember these obligations, since to our knowledge they have never or very rarely been invoked in the case of environmental refugees. That said, it must be observed that the international obligations that are relevant in our context do not specifically refer to environmental refugees. In that they are deficient insofar as only a fraction of the problems to which the plight of environmental refugees gives rise is covered by prevailing international law. In that regard, the following aspects should particularly be emphasized:

– in many cases of environmental degradation, especially those relating to climate change, it is difficult to “designate” a responsible State. The mechanisms of international responsibility cannot therefore be applied application against States that

65 With regard to this limit in the Trail Smelter case law, see Epiney, ArchVR 1995 (note 44), 309 (353 ff).
cause climate change the activities of emission themselves. This aspect restricts in particular the scope of human rights obligations, as well as States’ responsibility for migratory flows. However, it would arguably suffice if the various States that in conjunction cause a significant environmental degradation (such as climate change) were to bear, in proportion to their behaviour, the costs arising from such behaviour on the basis of the no-harm rule. It should nonetheless be noted that there is no international practice that interprets that principle within the meaning discussed here;

- as regard to preventive or adaptive measures, the States in which environmental degradation takes place often do not possess the resources required to take adequate measures (which in principle also prevents them being internationally responsible). As regards the other States, international law contains no obligation to provide financial or technical support, other than the aforementioned obligations that may arise from the no harm-rule. Additionally, in many situations “appropriate” preventive or adaptive measures cannot suffice to prevent the environmental degradation that gives rise to migratory flows. Furthermore, in some situations environmental degradation is not foreseeable.

- the principle of non-denial of entry can be deduced, on certain conditions, from the right to life and the right to food. However, that principle cannot generally resolve the issues arising from the plight of environmental refugees. There is reason to recall in this regard that the status of persons to whom this principle applies remains highly insecure, that its scope of application is relatively narrow (since a threat to human rights must be demonstrated in each individual instance) and that the very concept of environmental refugee is yet to be clarified.

In view of these current shortcomings in international law, we consider that it would be desirable, and is even urgently necessary to give serious and rapid thought to the development of international law, leading to a specific legal instrument resolving a number of issues raised by the plight of environmental refugees. Such a convention should settle issues relating to the “individual protection” of persons obliged to leave their region of origin as a result of environmental degradation and provide more “collective” machinery for planning and funding.66

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66 See the considerations in Epiney, in Le droit à la vie, forthcoming (note 5).