<u>Unauthorised translation, provided by Germanwatch e.V.</u>

GROUNDS OF APPEAL

in the matter of

Mr. Saúl Ananías Luciano Lliuya, Avenida Interoceánica, Sub Lote 1-A,
Nueva Florida, Distrito de Independencia, Departamento de Ancash, Provincia

de Huaraz, Peru

-Plaintiff/Appellant-

Counsel:

Rechtsanwälte Günther, Mittelweg 150,

20148 Hamburg

v.

RWE AG, represented by the Chief Executive Officer, Mr. Peter Terium, Opernplatz 1,

45128 Essen,

-Defendant/Respondent-

Counsel:

Rechtsanwälte Freshfields pp.,

Feldmühleplatz 1, 40545 Düsseldorf

regarding: claim under section 1004 of the BGB due to effects of global climate change in the Peruvian Andes

I hereby constitute, on behalf of the plaintiff and the appellant, the appeal filed with the submission of 24 January 2017 against the judgment of the District Court of Essen, Az. 2 O 285/15, of 15 December 2016, with the following claims:

The Court

is requested,

by amendment of the judgment of the District Court of Essen delivered on 15 December 2016 regarding

1.

to require the respondent to pay costs, in an amount proportional to its responsibility for damage, i.e., 0.47% (its contribution to global greenhouse gas emissions), for measures to protect the appellant’s property (Avenida Interoceánica, Sub Lote 1-A, Nueva Florida) against glacial flooding from Lake Palcacocha (coordinates: 9°23'36.72"S; 77°22'39.10"W);

2.

in the alternative

to require the respondent to pay costs, in an amount proportional to its responsibility for damage (as determined by the Court in accordance with section 287 of the Zivilprozessordnung [Code of Civil Procedure (ZPO)], for measures to protect the appellant’s property (Avenida Interoceánica, Sub Lote 1-A, Nueva Florida) against glacial flooding from Lake Palcacocha (coordinates: 9°23'36.72"S; 77°22'39.10"W);

3.

in the further alternative

to order the respondent to take appropriate measures to reduce the volume of water in Lake Palcacocha (coordinates: 9°23'36.72"S; 77°22'39.10"W) permanently by 0.47%, i.e., by 81,780 cubic meters, from the current volume of 17.4 million cubic meters;

4.

in the further alternative

to order the respondent to take appropriate measures to reduce the volume of water in Lake Palcacocha (coordinates: 9°23'36.72"S; 77°22'39.10"W) permanently, from the current level of 17.4 million cubic meters, by an amount proportional to the respondent’s contribution to the cause of damage, as assessed by the Court in accordance with section 287 of the ZPO.

5.

in the further alternative

to order the respondent to pay EUR 17,000, based on its contribution to the cause of damage, to the association of municipalities Mancomunidad Municipal WARAQ, Avenida Mariscal Toribio Luzuriaga 734, Huaraz, Ancash, Peru, to compensate for measures taken to protect the appellant’s property (Avenida Interoceánica, Sub Lote 1-A, Nueva Florida) against glacial flooding from Lake Palcacocha (coordinates: 9°23'36.72"S; 77°22'39.10"W);

6.

in the further alternative

to order the respondent to pay the appellant EUR 6,384.

The Court is also requested to remand the case for further consideration; and, in the event that the appeal is dismissed, to grant permission to appeal.

<u>Grounds of appeal:</u>

With this action, the appellant seeks to establish that the respondent, as Europe's single largest emitter of the greenhouse gas CO2, must be required to pay compensation, in an amount proportional to its contribution to global climate change, for necessary protective measures in the Peruvian Andes. The appellant's residence is acutely threatened by glacial flooding. The risk posed by the glacial lake, "Lake Palcacocha" is the result of anthropogenic climate change in combination with natural fluctuations, including natural fluctuations in water level.

The appellant has submitted, and has provided or offered evidence to demonstrate, that the disturbance, within the meaning of section 1004 of the Bürgerliches Gesetzbuch [German Civil Code (BGB)], is a concrete consequence of climate change, to which the respondent has made, and continues to make, a not irrelevant contribution. He has also submitted that the heightened risk is partially attributable to the respondent's contribution and that the respondent's share of responsibility is quantifiable, having been measured to equal 0.47%.

Although the submitted assertions of fact were strongly disputed, the District Court of Essen dismissed the complaint as partly inadmissible and otherwise unfounded.

The grounds of appeal are structured as follows:

A. Nature of the Appeal

B. Infringement and its relevance, section 520(3)(2) of the ZPO

- I. Main and Alternative Claims Are Admissible
  - 1. On the Main Claim and the First Alternative Claim
    - a) Application of Section 287 of the ZPO Is Admissible
    - b) Specificity of the Claim with Regard to Section 1004 of the BGB
    - c) Legitimate Interest
  - 2. Request for Payment, Second Alternative Claim
  - 3. Infringement of Section 139 of the ZPO
  - 4. Relevance, Section 520 of the ZPO
- II. No Lack of Causality/Imputability
  - 1. Appellant's Submissions on the Causal Relationship and the Factual Assumptions of the District Court of Essen

2. The Applicability of the *Waldschaden* Judgment Was Misconstrued

a) Concurrent Causation/Partial Causation Is Sufficient

b) *Waldschaden* Judgment: No Concurrent Causation As Defined Under Section286 of the ZPO

c) Applicability of the *Waldschaden* Judgment to the Dispute

3. The Specific Application of Equivalence and Adequacy Principles Was Misconstrued

a) Statement by the District Court of Essen

b) Definition of Cumulative Causation

c) Cited Case Law Does Not Apply

d) Modification of the *Sine Qua Non* Formula

e) Foreign Examples

4. Relevance of the Partial Cause

C. Reasons for Requesting Remand

D. Reference to Submission in the First Instance

A. Nature of the appeal

The District Court of Essen erred in dismissing the principal claim and all alternative claims. With this appeal, the appellant is continuing to pursue these claims, along with additional or alternative claims for review in the event that the Court of Appeals adheres to the legal opinion on the applicability of section 287 of the ZPO.

These claims are based on the same factual situation and are therefore admissible; they do not constitute an amendment of the appeal (section 533 of the ZPO).

The decision is submitted to the Court of Appeals for a full review. The following issues are contested:

B. Infringement and its relevance, section 520(3)(2) of the ZPO

The District Court of Essen erred in finding all claims inadmissible with the exception of the claim, submitted in the further alternative, for compensation for measures already taken to protect the appellant's house. The claims are sufficiently defined and section 287 ZPO also applies (see I).

The District Court also erred in finding the alternative claim (as well as the claims already ruled inadmissible) to be unfounded because the necessary causal link between action and disturbance, as defined by section 1004(1) of the BGB, had not been established. In fact, the respondent's contribution is the *sine qua non* of the scale of the concrete disturbance, because it increases the risk. In addition, the application of the *sine qua non* formula must be modified for partial causation. The respondent's contribution is also not irrelevant and is therefore both equivalently and adequately causal.

I. Main and alternative claims are admissible

Note:
Haupt-/Hilfsantrag:
The complaint consists of a main claim (Hauptantrag) and an alternative claim (Hilfsantrag). The alternative claim is only taken into account by the court (alternatively) if the main claim is not admitted or granted.

1. On the main claim and the first alternative claim

First, the Court found the main claim (as submitted in the first instance)

> "to require the defendant to pay costs, in an amount proportional to its responsibility for damage (as determined by the Court in accordance with section 287 of the Zivilprozessordnung [Code of Civil Procedure (ZPO)], for measures to protect the plaintiff's property (Avenida Interoceánica, Sub Lote 1-A, Nueva Florida) against glacial flooding from Lake Palcacocha."

imprecise and therefore inadmissible. The Court stated three reasons for this decision (pp. 4 et seq.

UA):

-The claim did not comply with section 253(2)(2) of the ZPO, because it must "state the disturbance which is to be eliminated or ceased in such precise terms that the specificity necessary for execution is ensured"

-The claim did not sufficiently define the legal relationship to be assessed

-The reference to section 287 of ZPO was inadmissible. This provision was not "relevant in determining the grounds for liability." It was also not "apparent why [the plaintiff] did not specify in his application the proportion of the defendant's contribution to the disturbance"

The District Court of Essen ruled that the alternative claim, then formulated as a claim for benefits,

> "to order the defendant to take appropriate measures to reduce the volume of water in Lake Palcacocha by an amount proportional to the respondent's contribution to the cause of damage, as assessed by the Court in accordance with section 287 of the ZPO."

lacked a detailed justification. This was inadmissible for "the same" reasons.

The above criticisms are made fully obsolete by the new main and alternative claims and could have been remedied at first instance with due notice.

However, the Court's reasoning is also wrong and deviates from case law established at the highest judicial level as follows:

a) Application of section 287 of the ZPO is admissible

The District Court of Essen assumed that section 287 should apply to the question of "whether" concurrent causation occurred. This is not the case, because the respondent's CO2 emissions are not in dispute; not even the respondent disputes them.

Section 287 of the ZPO is intended to prevent compensation claims by those with material rights to such claims from failing to meet the high standards established in section 286(1) of the ZPO, which require the claimant to provide full proof, as failure on these grounds undermines the effectiveness of the material right.

> *Laumen*, Prütting/Gehrlein, section 287, marginal ref. 1 of the ZPO
>
> Stein/Jonas/*Leipold*, section 287, marginal ref. 1 of the ZPO

In general, the greater the practical difficulties in furnishing evidence, the lower the standards of proof. Such is the case, for example, when calculating a loss of profit or damages for an infringement of intellectual property rights.

> *Ahrens*, Wieczorek/Schütze, section 287, marginal ref. 6 of the ZPO

However, according to settled case law, the proportion attributed to each causal contributor is determined in accordance with section 287 of the ZPO.

> *Laumen*, Prütting/Gehrlein, section 287, marginal ref. 8 of the ZPO
>
> *Geipel*, Handbuch der Beweiswürdigung, 3rd ed., section 29, marginal ref. 480

Under section 287(1) of the ZPO, it is also necessary to determine the portion of damage caused by multiple emitters.

> BGH, judgment of February 13, 1976 - V ZR 55/74-, BGHZ 66, 70-78.
>
> *Leipold*, Stein/Jonas, section 287, marginal ref. 20 of the ZPO.
>
> see also *Gottwald*, Schadenszurechnung und Schadensschätzung, 1979, p. 161

<u>In detail:</u>

The Court of First Instance completely disregarded the fact that section 287 of the ZPO is applicable, in particular, to a determination of the percentage of responsibility. For example, it was applied in the case of

> BGH, judgment of 14 January 1993 - VII ZR 185/91 - juris
>
> (BGHZ 121, 210-215)

The case concerns a contract for the construction of a multi-storey office building. Regarding compensation for damages due to delayed completion, the Court of First Instance held that section 287 of the ZPO was applicable in determining the respective share of contributory cause (within the meaning of section 254 of the BGB) attributed to the principal and the contractor.

Contributory cause was established for both parties.

As stated in marginal ref. 35 and 36 of the judgment:

> “...The Court of Appeals has overlooked the fact that, based on its findings, specific grounds for the applicant’s liability exist, in accordance with section 6, no. 6 of the Construction Contract Procedures Part B (VOB/B), and damages must be apportioned between the parties as required under section 254 of the BGB. Any difficulties in presenting evidence must be taken into consideration under section 287 of the ZPO.
>
> “…Whether and to what extent the actions of the contractor or the principal have caused the damage in such cases is to be assessed in accordance with section 287 of the ZPO (see BGH, judgment of 12 July 1988 - VI ZR 283/87 = NJW-RR 1988, 1373). ..."

This assessment also applies to instances of partial causation (see below), because, when multiple parties contribute to damage, it makes no difference whether section 287 of the ZPO is applied within the context of section 254 of the BGB or within the scope of section 1004 of the BGB, on liability for a disturbance.

Contrary to the assumptions of the District Court of Essen, the application of section 287 of the ZPO is even more direct on the basis of a 1976 decision of the Bundesgerichtshof [Federal Supreme Court (BGH)].

> BGH, judgment of 13 February 1976 - V ZR 55/74 - juris

The decision concerned cracks created in the walls of residential buildings as a result of blasting in quarries. The Court ruled that section 287 ZPO was applicable in <u>determining the portion of the damage caused by one quarry and the portion caused by the other quarry</u>. The Court clearly considered the provision applicable where damage was caused by multiple actors:

> "The extent to which the damage was caused by emissions from one neighbor or the other (‘linear increase in damage’), or by emissions from both together, was decided by the Court, after considering all circumstances and at its sole discretion, in accordance with section 287 of the ZPO (on the damage incurred from pollution by two sources, see BGHZ 60, 177, 183 et seq.). By applying this procedural rule, even in cases that involve a combination of emissions of the same type, and thus present challenges for determining

> the proportion of overall damage caused by the individual sources, the affected property owner's difficulty in providing evidence may be taken into account. ..." (marginal ref. 18)

It should also be noted that the Court thought it entirely possible that further difficulties in presenting evidence would arise, even after section 287 of the ZPO had been applied: the combination of the emissions made it impossible to prove the sequence of events that had generated them. This could not be attributed to the plaintiff as a problem arising from section 286 of the ZPO, however; fault lay with the sources of the emissions:

> "The evidentiary findings obtained thus far from evidence presented in pre-trial proceedings... gives us cause to consider the possibility that, perhaps also where section 287 of the ZPO is applied, the cause of a certain portion of the damage may not be ascertainable in one way or another. In such circumstances, which are exceptional under the terms of section 287 of the ZPO, the two emitters, through the combination of their emissions, have rendered it impossible to determine the course of events producing the damage, and are thus the source of difficulty in the presentation of evidence by the plaintiff, who is to receive appropriate monetary compensation, though beyond that which would be reasonable for other affected property owners. As a result, when considering the relationship between the property owners causing the emissions and the property owners damaged by them, <u>it is justified to impose on the former, and not on the latter, the consequences for the inability to determine the process by which a certain portion of the damage arose</u>." (Marginal ref. 19) [Emphasis added.]

To the extent that contributory cause had been established and only the scope of legal liability was in dispute, that case is directly comparable to the present case.

The only potential problem in such cases would be establishing whether the evidence were sufficient to make an assessment in accordance with section 287 of the ZPO. However, an assessment of minimum damage may be avoided only "it is entirely up in the air due to a lack of concrete evidence."

> BGH, judgment of 29 May 2013 - VIII ZR 174/12 - juris

The appellant has submitted that it is sufficient and conclusive to base the responsibility for damage on the proportion of global greenhouse gases contributed by the respondent. This was confirmed by an expert, Prof. Latif (Appendix K 31).

When the respondent objected, the appellant further substantiated his claim in another submission, dated 29 September 2016 (p. 24 et seq.), and specified the respondent's contribution to the cause of damage as a proportion of the global temperature and provided or offered additional supporting evidence.

It is therefore baseless to claim that, at the time when the Court of First Instance rendered its judgment, the proportion of responsibility for damage caused was "entirely up in the air due to a lack of concrete evidence."

b) Specificity of the claim with regard to section 1004 of the BGB

Note:
Bestimmtheit
According to German law complaints may only be admitted if they are clearly and precisely worded. The court must be able to identify what the exact content of the claim is to determine the scope of the ruling.

The Court failed to recognize that, when section 1004 of the BGB is cited in actions seeking to remedy an infringement on property rights, it is not incumbent on the plaintiff to specify precisely how a disturbance caused by the defendant should be eliminated. Instead, the party that caused the disturbance, within the meaning of section 1004 of the BGB, is responsible for determining the measures with which it intends to eliminate the disturbance.

> Palandt/*Herrler*, 76th ed. (2017), section 1004, marginal ref. 51

In an earlier decision, the BGH expressed this as follows:

> "The defendant shall be permitted to take the view that the claim to elimination or abatement shall apply only to the elimination or abatement of the disturbance in the future, and that it is the responsibility of the disruptive party to determine how to achieve this objective."
>
> (BGH, judgment of 22 March 1966 - V ZR 126/63-, marginal ref. 14, juris)

With regard to the claim arising from section 906, which is similar in this respect, the BGH has ruled that that even claims for relief stated in very general terms with the aim of eliminating disturbances of certain kinds, such as sounds and smells, are admissible.

It must even be

> "accepted that the decision on the materiality of emissions may need to be reconsidered in the enforcement proceedings as well."
>
> (BGH, judgment of 5 February 1993 - V ZR 62/91 - juris)

The BGH nevertheless issued an expressly positive assessment of the enforceability:

> "The grounds for the injunction will indicate to the enforcement judge (section 890 of the ZPO) which measurement the trial court has used as a basis."

The Munich commentary also addressed the dilemma between specificity and the disruptive party's right to choose:

> "The plaintiff may (and must) specify certain corrective actions in its complaint only until such time as other serious possibilities are available."

(Munich commentary on the ZPO, 2016, section 1004, marginal ref. 305)

It cannot be otherwise in the case of the present declaratory motion.

In any case, the first alternative claim, which specifically addressed the implementation of measures, was sufficiently precise.

The ruling of the Oberlandesgericht Brandenburg [Higher Regional Court of Brandenburg (OLG)] cited by the District Court of Essen yields the same conclusion. The OLG had to decide a case in which it was crucial to specify precisely how and where the obligation to remedy the situation was to be executed. In this case,

> "...—contrary to a typical case in which a claim for benefits is asserted for the elimination of a disturbance—the defendant, as the party potentially responsible for eliminating the disturbance, is not granted permission to decide how to carry out the elimination; instead, it will be required to execute the removal in accordance with the exact requirements issued by the State Environmental Agency, because this case concerns materials requiring special methods of disposal."
>
> Brandenburg Oberlandsgericht, judgment of 11 May 2011 - 4 U 140/10-, marginal ref. 40, juris [Emphasis added.]

Here, even the OLG designated the "open" claim as the normal case, which was formulated as a claim for benefits and submitted as the first alternative claim; it and the main claim were therefore admissible.

Note: Claim no. 3 above was supplemented for the appeals procedure. Now, based on the volume of water measured and established in court (17.4 million square meters) and the proportion of damage attributed to the respondent (0.47%), the claim can also specify the volume by which the respondent must reduce the water in Lake Palacocha.

c) Legitimate interest

Although the District Court did not explicitly address the issue of "legitimate interest" in the main request, a legitimate interest does in fact exist.

This was substantiated in detail in the submission of 11 July 2016 (p. 4 et seq. of that document), which is referenced here.

In summary, a declaratory action is admissible when the damage process is not yet complete and the plaintiff is therefore unable to estimate the amount of its claim in whole or in part (BGH, BeckRS 2013, 11005; BGH, NJW 1984, 1552). This also applies in cases in which the damage has already occurred but it has not yet been clarified how and at what cost the damage can be remedied (BGH NJW-RR 2008, 1520).

The appellant submits that he has a legitimate interest because the exact costs of the measure that can protect the plaintiff most effectively -- that is, extensive pumping of water from Lake Palcacocha -- are not yet fully determined. Although authorities estimated costs of $4 million, or €3.5 million (Appendix K 7) in 2010, the respondent has since contested these estimates.

2. Request for payment, second alternative claim

The submission dated 11 July 2016 requested in the further alternative that

> the respondent be ordered to pay EUR 17,000--based on its contribution to the cause of damage--to the association of municipalities, which will use the payment to implement measures appropriate to protect the appellant.

This claim was also deemed “inadmissible” by the District Court of Essen because it was “unenforceable.” The Court ruled that it was not clear from the appellant’s claim who would receive the payment; the Waraq association of municipalities “does not exist” and the “actual name and legal personality” could not be identified (UA p. 5 below).

The Waraq association of municipalities does exist, however; it is a merger, comparable to a joint municipality, and thus a public corporation under Peruvian law. Had we received notice of the need for this information, these facts could have been made clear (more on this point below).

A formal law in Peru, the “Law on the Commonwealths of Municipalities of Peru” (Ley de Mancomunidades Municipales del Perú, Ley N° 29029), designates a “Mancomunidad” as a voluntary merger of municipalities/local territorial authorities (“municipalidades”) whose primary purpose is to carry out certain tasks, including those associated with disaster preparedness. There are also articles of association establishing Mancommunidad de Waraq: “Estatuto de la Mancomunidad de Waraq.”

The articles of association and the registration filed with the tax authorities (SUNAP) can be submitted as **evidence** at any time. Further details on this topic can be provided as requested by the Court. The appellant expressly requests notice to this effect.

Note:

As a precaution, the name of the association of municipalities was specified in the application for the appeal.

3. Infringement of section 139 of the ZPO

Section 139 of the ZPO, and the right to a fair hearing expressed therein, was violated with respect to the original main claim, as well as the first two alternative claims.

Case law primarily recognizes violations of section 139(1) that are due to general indications or indications in blanket terms. Judicial obligations to provide notice serve to prevent surprise decisions and clarify the parties’ right to be heard (BVerfGE 84, 188, 189 et seq.) (BGH, decision of 20 October 2016 - IX ZR 305/14-, marginal ref. 6, juris). According to paragraph 1, sentence 2, the judge is also required to encourage petitions that establish relevant facts. Thus, where claims for relief are unclear or unspecified, the judge has a duty to intervene. For example, the judge must seek a correction if the claim is unspecified but specifiable.

Fritsche expresses this in the Munich commentary on the ZPO, 2016, section 139, marginal ref. 21, as follows:

> "If the judicial notice is to achieve its purpose and remedy ambiguities, omissions, and errors, it must address the specific deficiencies individually, and may need to be repeated or made more specific. Only then is the party reliably informed. The notice must refer to the specific criterion which in the Court's view has not been met." (MüKoZPO/Fritsche ZPO section 139 marginal ref. 17, beck-online)

This in no way occurred with regard to the essential claims.

The <u>only</u> notice from the judge, dated 6 May 2016, referred to the failure to cite section 287 of the ZPO in the one main request included in the original submission. The Court indicated this as follows:

> "It should be noted that the Court ... shares the objections raised by the respondent regarding the admissibility of the action (page 36/37 of the answer to the complaint), particularly with regard to the specificity of the claim."

Although the complaints were substantially revised and supplemented after this date, no further notice was issued, either before or during the oral hearing, as is apparent from the transcript of the hearing. The legal discussion addressed only the factual aspects of section 1004 of the BGB, and in particular the issue of causation.

At no point did the Court specifically state the ways in which the claim was unspecified or how the legal relationship might be clarified further.

However, a statement to this effect would have been necessary, particularly with regard to the alternative claim specifying the amount to be paid to the Waraq association of municipalities, especially since the existence of this association is clearly evident from Appendix K. This is a serious violation of section 139 of the ZPO.

4. Relevance, section 520 of the ZPO

The sufficient specificity, and therefore admissibility, of the claims is also relevant within the meaning of section 520(3)(3) of the ZPO if the merit of the claims is also to be assessed in the course of taking evidence. The District Court of Essen stated this only in reference to the third alternative claim (more on this point below).

II. No lack of causality/imputability

The District Court of Essen was of the general opinion that "causation that is adequately causal under the law" could not be established from the facts submitted by the appellant (see p. 7 UA above). On the one hand, the Court treated the case as an instance of "cumulative causation" and applied the *conditio sine qua non* formula as follows:

> "The defendant's past and future greenhouse gas emissions could not be eliminated without averting the alleged flood risk. This is not the case." (UA, p. 7, middle of page)

Misinterpreting the scientific assessment submitted by the appellant in this context, the Court held that causality "from a scientific point of view" was "not helpful in establishing the legal accountability of individual emitters" (UA p. 7, penultimate paragraph). However, the expert opinions on the issue of legal causation, and specifically on the relevance of contributory cause, are certainly very useful.

There was also no acknowledgement of the settled case law in which contributory cause is recognized as a sufficient cause of damage.

The District Court then cited, as a central point, the judgment of the BGH in the 1987 case on forest damage, which concerned "aggregated emissions" (UA, p. 7 last paragraph below). The Court applied this judgment to the present dispute and, in doing so, failed to recognize the factual and legal framework and grounds of the decision. It stated incorrectly:

> "If countless large and small emitters release greenhouse gases that are mixed together indiscriminately, induce changes in one another, and ultimately, through a highly complex natural process, alter the climate, then it is no longer possible to derive even an approximate linear chain of causation linking a single source of emissions to specific damage."
>
> "Given such an excessive number of causal contributions, no single instance of damage or harm can be imputed to a specific agent..." (UA p.7 bottom of page)

In the opinion of the Court, a "linear chain of causation" was lacking.

Finally -- and in addition to the arguments already submitted – the disturbance attributed to the respondent was not shown to have been "adequately causal" (p. 8 UA middle of page):

> "Independent of the fact that equivalent causation for aggregate damage has not been established, the fraction of global climate change for which any single emitter of greenhouse gases is responsible is so small that an individual emitter, even a large-scale emitter like the defendant, does not have a significant impact on the effects of climate change." (p. 8 UA middle of page)

The Court did not address the appellant's submission on relevance -- namely, that the respondent's emissions are higher than those of entire countries, such as the Netherlands.

The Court's reasoning was incorrect; it combined approaches to limit scientific causation and attribution ("legal causation") and presupposed facts which were not submitted or which would have been shown to be false if evidence had been taken; thus, the Court should not have forgone this process.

<u>In detail:</u>

1. Appellant's submission on the causal relationship and the factual assumptions of the District Court of Essen

The District Court of Essen did not take evidence and, without justification, based the proceedings on a statement of facts that had not been submitted by the appellant.

a)

In logical, scientific terms, a condition is “causal” if it leads to an outcome; a condition is therefore a “partial cause” if it contributes to that outcome.

With regard to the causal chain, the appellant has provided expert opinions and offered further evidence to support its assertion, which is as follows:

First stage: The CO2 released from the respondent’s power stations is emitted (to a percentage determined by an expert) into the atmosphere. There, in accordance with physical laws, they increase the density of greenhouse gases throughout the Earth’s atmosphere. The proportion of damage contributed by each source can be measured and calculated.

Second stage: The greater concentration of greenhouse gas molecules reduces global heat emission and raises the Earth’s temperature.

Third stage: Local temperatures also increase (expert statement: these temperature increases cannot be explained without global climate change), accelerating glacial melt. The glacier loses mass and recedes, and the volume of water in Lake Palacocha rises to a dangerous level. In addition, the glacier becomes less stable; as a result, slabs of ice can collapse at any time.

Fourth stage: If flooding occurs as a result of falling ice -- which could happen at any moment -- the appellant’s property, situated below the lagoon, is at greater risk because of the lake’s significant expansion and increase in water volume. The increase in the lake’s volume also substantially increases the risk that the collapse of even relatively small ice chunks could have devastating consequences. It is not a question of “if,” but “when.”

The appellant’s submission thus demonstrates that there is a four-step causal link between the defendant’s emissions and the glacial flood risk that acutely threatens the appellant’s property.

b)

With the Equivalence Theory, case law has attempted to prevent the inclusion of causal pathways in civil proceedings. The *conditio sine qua non* formula serves this purpose.

If the emissions attributable to the respondent were excluded, the concentration of greenhouse gases in the atmosphere would be reduced; the temperature in the affected region would be lower; the existing glaciers would have a greater mass because less would have been lost to glacial melt; and as a result, the volume of water in Lake Palcacocha would not have increased as rapidly. Thus, there would not be the same risk that the disturbance would materialize as damage. The actions of the respondent are therefore *conditio sine qua non* for the actual disturbance, even if a general disturbance might exist (as argued by the District Court of Essen) after the respondent’s contribution are “removed.” Without the respondent’s specific contribution to global warming, the degree and the extent of the flood risk to the appellant’s property would be lower; under present conditions, the property is threatened with flood damage even when relatively small chunks of the glacier break off.

The appellant has put this in concrete terms by specifying it as a °C-proportion of the global temperature increase and has offered supporting evidence. This evidence shows that emissions

by RWE AG are responsible for well over 0.5% of the global temperature increase, which is currently 1°C (submission of 29 September 2016, p. 24).

The appellant therefore submits that the respondent's emissions are a partial cause of the actual and current endangerment of the appellant's property, due to glacier recession and the increase in the lake's water volume which have resulted from the increased glacial melt, which in turn is due to rising temperatures. The appellant also submits that the extent of the respondent's causal contribution is equal to the proportion that represents the respondent's (specifiable) contribution to total greenhouse gas emissions.

c)

The appellant has submitted evidence to support the scientific facts, including the defendant's contribution to the specific situation involving the flood risk from the lake (i.e., the disturbance). However, without providing a justification, the District Court of Essen agreed with the respondent's submission:

> "On the other hand, where climate change is concerned, the causal chain is much more complex, multipolar and therefore diffuse (than in the case of forest damage), and there is also disagreement among scientists on this issue. If countless large and small emitters release greenhouse gases that are mixed together indiscriminately, induce changes in one another, and ultimately, through a highly complex natural process, alter the climate, it is no longer possible to derive even an approximate linear chain of causation linking a single source of emissions to specific damage."

The District Court of Essen held, in effect, that it would not be possible to prove **factual** (contributory) negligence on the basis of the appellant's submission (section 286 of the ZPO). It stated that, "where climate change is concerned, the causal chain is much more complex, multipolar and therefore diffuse (than in the case of forest damage), and there is also disagreement among scientists on this topic."

The appellant, however, had submitted something else specifically addressing the existence of factual contributory cause and had offered evidence supporting this assertion. In the applicant's view, there is no doubt that the respondent's contribution was a factual cause; indeed, this is not a point on which there is "disagreement among scientists."

The only open question is the exact *scope* of the respondent's responsibility. In his expert testimony, Huggel (Appendix K30) even expressly stated the following:

> "It should be borne in mind that the most recent assessment report by the IPCC demonstrates emphatically that there is a roughly linear relationship between the cumulative greenhouse gas emissions and the increase in global temperature."

This statement was not accorded nearly enough consideration by the Court.

The discrepancy between the facts presented by the appellant and the facts presented by the respondent was legally significant. Therefore, the Court should not have assumed that the respondent's statement was accurate without justifying this assumption; in fact, in light of the

discrepancy, it would have been essential to take evidence. As a result, there is serious cause to doubt that the fact-finding process was carried out correctly and completely in accordance with section 520(3)(3) of the ZPO.

2. The applicability of the *Waldschaden* judgment was misconstrued

The Court also incorrectly applied the judgment in the case on forest damage, known as the "*Waldschaden* judgment" (BGHZ 102, 350 et seq.).

The case concerned a liability claim against public authorities. The claim failed because **factual** causation or contributory cause was not established--not because of (subsequent applications of) *sine qua non* formulas or an assessment on various factors (Theory of Adequate Causation). In fact, given the specific circumstances of the case, factual contributory cause was not or could not be proven.

Therefore, the judgment (UA p. 8 above) does not support a rejection of the causal link regardless of the result obtained after taking of evidence.

a) Contributory cause/Partial causation is sufficient

It should be beyond dispute that the contributory cause (as submitted here) is sufficient to establish legal responsibility:

"Given the presence of other relevant factors, under ordinary law on compensation, contributory causation, even where it refers only to actions as a catalyst, is equivalent, to the fullest extent, to causation by a single actor in terms of liability under the law."

(BGH, judgment of 20 May 2014 - VI ZR 187/13 -, marginal ref. 20, juris)

A restriction applies, however: if distinct individual partial causes can be identified, "partial causation" is established, and the warranty obligation for the total damage ceases to apply. In the context of a medical case (prenatal injury caused by multiple actions and persons), this distinction was addressed as follows:

> "Even if, in general, contributory cause is equivalent, to the fullest extent, to causation by a single actor (see above under II 1 b bb), this does not apply in exceptional cases in which it is established that the treatment error led only to a distinct portion of the damage, i.e., that there is 'distinct partial causation' (...) In such cases, the portion of damage caused by one treatment error must be clearly distinguishable from other damage caused – e.g., pre-existing damage to the patient -- such that the doctor's share of responsibility can be determined (...). Otherwise, the warranty obligation for all damage remains applicable, even if other fateful circumstances contributed significantly to the cause of damage (...)." (BGH, judgment of 20 May 2014 - VI ZR 187/13-, marginal ref. 20, juris)

Civil law does not distinguish between important and less important causes. For legal responsibility, it is sufficient if an event was a contributing cause of an outcome; it does not have to have had a "determinative" effect (BGH, judgment of 19 April 2005, VI ZR 175/04 - juris (headnote 2)).

According to BGH decisions regarding the law of torts, an event has "multiple independent causes"

> "if, through separate individual actions, and even without deliberate interaction, multiple tortfeasors created the conditions under which the total damage was caused, and the damage did not result merely from distinct partial causes."

BGH, judgment of 3 February 2015 - X ZR 69/13, juris, marginal ref. 45

b) *Waldschaden* judgment: no contributory neglience within the meaning of section 286 of the ZPO

This judgment--which is fundamental in medical and medical malpractice law, among others--currently limits the "all-or-nothing principle" (perceived as unjust) when there are multiple causes of damage.

The basis for this is not a legal principle, but the context of general tort law. There, too, the concrete damage is the result of many events and might occur even without a single cause -- though not in the same form or to the same extent. In such cases, the portion of the damage attributable to each partial cause can only be determined through expert statements and ultimately by estimation.

The District Court did not take this case law into account, however; instead, its central argument for the dismissal of the appellant's claim is borrowed wholly from the 20-year old *Waldschaden* case, the only high court decision even remotely relevant within the context of so-called cumulative damage.

It is true that there are parallels between the *Waldschaden* case and the attribution of climate damage caused by greenhouse gas emissions. However, there are also crucial differences between the sequence of events on which the liability claim is based in each case, and the Court failed to take these differences into account.

In the *Waldschaden* case, the complaint concerned the effects of (non-specific) SO2 emissions, which, through chemical processes in the air, led to the formation of acid rain that, in turn, caused damage to vegetation in the affected forest. Therefore, the *Waldschaden* case addressed the impact of emissions from distant power plants like those relevant to the anthropogenic greenhouse effect.

The complaint in the *Waldschaden* case was not directed against a specific power plant operator, however; it was directed against the Federal Republic of Germany based on the liability of public authorities. The BGH held that a claim submitted by the forest owner for compensation under public law would have been approved only if the requirement for private compensation claims pursuant to section 14(2) of the Bundes-Immissionsschutzgesetz [Federal Immission Control Act (BImSchG)] had been met (for each individual SO2 emitter). This requirement, in the opinion of the BGH, had not been met -- ultimately due to reasons of fact and not to a lack of attributability (as the District Court supposed):

The Court of Appeals had assumed that the causes held by the applicant to be responsible for the new forest damage (which had occurred at a considerable distance from the sources of emissions) were correct:

> "That the forest damage was an indirect consequence of the absence of such regulations -- this much can be acknowledged in favor of the plaintiff -- is insufficient as an indirect effect from which to presume an interference (as in loc. cit. OLG Munich)."
> (OLG Stuttgart judgment of 22 October 1986 - 1 U 38/86 - juris)

At no point did the decision by the Court of First Instance address the specific share in contributory cause or the proof that emissions from specific plants had in fact contributed to the damage. On the contrary, there was a general assumption that the forest damage was an "indirect consequence" of the absence of regulations on air pollution.

On this basis, the BGH concluded:

> "What prevents an analogous application of the replacement provision of section 14(2) of the BImSchG is the relevance of legislation on neighborly interests (see 1 a above) and the fact that the damage cannot be attributed to specific identifiable emitters. The provision governs only compensation claims of neighbors against the plant operator (cf. section 14 of the BImSchG loc. cit.; OLG Cologne loc. cit.; Stitch/Porger loc. cit. section 14 marginal ref. 1; Marburger, Waldschäden als Rechtsproblem, loc. cit., pp. 109, 140, 145)."
> (BGH, judgment of 10 December 1987, III ZR 220/86, marginal ref. 13)

and

> "The replacement provision of section 14(2) of the BImSchG, which refers to the regulation of legal relations between neighbors and presupposes the existence of individual causal relationships with one or more specific emitters, does not provide suitable grounds for compensating forest damage based on distant, aggregate emissions. Extending the scope of the compensation clause to this degree would surpass the limits of a methodologically permissible analogy (...). "
> (BGH, judgment of 10 December 1987, III ZR 220/86, marginal ref. 17)

The Bundesverfassungsgericht upheld this ruling by the BGH (BVerfG, 1 BvR 180/88 - juris) on the basis that there was no "expropriating intervention"--i.e., on legal grounds other than those given by the BGH.

c) Applicability of the *Waldschaden* judgment to the dispute

First, it should be noted that, in its reference to the Waldschaden case, the District Court of Essen entirely ignored the fact that the basis for the appellant's claims for protection was not the provisions of section 14 of the BImSchG concerning vicinity, but the more general provisions of section 1004 of the BGB, to which vicinity (and thus the distance between the source of the disturbance and the disturbance of property) is irrelevant.

For its purposes, the BGB is applicable to long-distance effects; the *Waldschaden* judgment does not call this into question. There should be no distinction between direct and indirect or near and distant effects. The purposes of the BGB were explained in clear statements to this effect:

"Above all, a certain kind of outward impact cannot be constrained within specific limits. We live at the bottom of a sea of air. This circumstance makes it necessary for human activity to extend into the distance."

> "If, however, such emissions must be determined to be lawful or unlawful, it is not only the relationship between one neighbor and another that must be taken into account; rather, the scope of the property owner's right must be established against all other persons."

And in summary:

> "He who causes the emergence or spread of imponderables, must know that these
>
> go their own way. Their transmission over the border is therefore attributable to him as an effect of his action, and thus direct and indirect emissions cannot be separated one from another."
>
> (See Mugdan, Die gesammelten Materialien zum Bürgerlichen Gesetzbuch (Motive), Vol. 3, Sachenrecht, 1899, p. 146)

The spatial distance between the source and the damage may make it difficult to produce evidence for a (factual) causal chain, but that is not, in itself, a material reason for exclusion.

In the case of the acid rain damage, "individualizing" the causal link failed because it was impossible to trace the pathway of the emissions back to individual emitters. SO2 emissions remain at a relatively low altitude in the atmosphere, where they are blown in all directions. Not every SO2 emitter (necessarily) releases emissions that contribute to the acid rain damage in a specific forest area.

Accordingly, the BGH ruled:

> "However, such claims for damages can be successful only with great difficulty, if at all, because the individual owner of the damaged forest will almost never be able to identify the individual plant operator and establish a causal relationship *[i.e., factual contributory cause]* between the emissions released by specific plants and the damage incurred."
> (BGH, judgment of 10 December 1987, III ZR 220/86, marginal ref. 16), *[Author's emphasis and addendum]*

The situation is different for the effects of aggregate greenhouse gas emissions. On this point, Prof. Latif, an expert, wrote in Appendix K 31:

> "From a scientific perspective, every emission is causal."

and:

> "The emissions by RWE almost certainly have begun to impact the climate, and their contribution to the overall temperature increase can be calculated."

The question

> *"Is it true that the impact of greenhouse gases cannot be compared with the spread and impact of SO2 and other airborne pollutants because, in the latter case, not every emission actually has an effect at every location, and its effect depends on how the pollutants are distributed and transported in the layers of the atmosphere and on where on the ground or vegetation they settle?"*

can be answered as follows:

> "Yes. The effects of CO2 and SO2 or aerosols on the climate cannot be compared. It would be like comparing apples and oranges. The physical, chemical, and biological processes involved are completely different."

Evidence: Prof. Mojib Latif, b.b.

The District Court of Essen incorrectly applied the concept of "individualizing" the causal contribution as a requirement for "legal causation."

Where there is "aggregate damage," whether one can "individualize" contributions depends on whether individuals held to have committed "contributory cause" can object that their "individual" contribution may not have become a contributing cause (in the factual sense) at all. This is what happened in the *Waldschaden* case.

However, where greenhouse gases are concerned, due to physical laws, all emitters necessarily contribute to the gradual warming and its consequences. Accordingly, for emissions of greenhouse gases, there is a "closed" circle of causal agents (in sense that individual emitters cannot leave the circle of causal contributors), and each contributor "individually" has a (necessarily) causal impact, which is based (also in legal terms) on the size of its contribution.

Evidence: Prof. Mojib Latif, b.b.

The Court's assumption (assumption of the facts of the case; see above) that *"the causal link associated with climate change is only ostensibly more certain"* because *"where climate change is concerned, the causal chain is much more complex, multipolar and therefore diffuse, and there is also disagreement among scientists on this topic,"* thus leads to a legally incorrect conclusion.

In the present case, the correct approach is to apply the case law on contributory cause and not the *Waldschaden* judgment.

3. The specific application of equivalence and adequacy principles was misconstrued

a) Statement by the District Court of Essen

The District Court of Essen subsumed the present dispute -- obviously in addition to the *Waldschaden* case (i.e., as “aggregate damage”) - under the applications of cumulative causation.

The Court held that

> "if multiple actions are caused by different agents, then, in accordance with the principles of cumulative causation, none of the actions could be removed without eliminating the outcome. Contributory cause exists only if removing even one of the causes would eliminate the outcome.” (UA p. 7 above)
>
> "Past and future greenhouse gas emissions by the defendant could not be eliminated without averting the alleged flood risk. This is not the case." (UA, p. 7, middle of page)

Therefore, in the Court’s view, there was no legally relevant causation.

The appellant does not by any means claim that, without the respondent’s CO2 emissions, the flood risk would be eliminated entirely. He merely submits that a (specifiable and not irrelevant) proportion of the glacier recession and increased water volume in Lake Palcacocha is attributable to the contribution of the respondent’s CO2 emissions to global warming, and that, without this contribution, the flood risk would be reduced because the water volume of the lake would be reduced by a corresponding amount.

It is only in this respect that he seeks the involvement of the respondent (on the basis of partial -- not joint and several -- liability) in eliminating the acute threat to his property.

b) Definition of cumulative causation

First, it must be stated that there is no general definition of "cumulative causation” and that, as a result, this category does not appear to be used uniformly in the case law of the BGH or the higher courts. In the judgments referred to above, this term is neither named nor defined.

However, the BGH used the term "cumulative total causation” in some judgments, such as the judgment of 18 December 2008, IX ZR 179/07 - juris. The BGH summarized it there as follows:

> "If, under liability law, damage is based on multiple causes resulting from different persons, then these persons are jointly and severally liable. Civil law does not determine whether certain causes are more essential than others in such cases. The same principle applies to cases in which damage was not the outcome of one cause alone, but required additional causes in the sense of cumulative total causation.”
> (BGH, judgment of 18 December 2008 - IX ZR 179/07-, marginal ref. 20, juris)

The term “cumulative damage,” on the other hand, has been described as follows:

> "damage [that] [has] resulted from the accumulation of individual effects (cumulative damage)"
> (BGH, judgment of 27 May 1993 - III ZR 59/92-, BGHZ 122, 363-372, marginal ref.
>
> 21)

Please refer to the appellant's submission of 28 November 2016.

The scientific articles and excerpts from commentaries on the subject of cumulative/aggregate causation, which the respondent attached as Appendices BR1 - BR9 to the submission of 15 November 2016, show, above all, that contrary to the allegation by the respondent and the District Court, there is no consistent or settled case law disallowing the imputation of liability for aggregate damage of the kind at issue in this case.

c) Cited case law does not apply

To support its legal opinion, the District Court of Essen referred to the following:

-BGH NJW 1990, 2882 (judgment of 10 May 1990, IX ZR 113/89, juris)

-OLG Düsseldorf, NJW 1998, 3720 (judgment of 19 June 1998, 22 U 111/97, juris)

However, neither of these decisions supports the judgment.

The decision of the BGH (NJW 1990, 2882) concerned the liability of a lawyer for incorrect legal advice. The BGH held that the lawyer could not argue that a notary (acting in violation of its duty) was also involved in the formation of the relevant contract. The BGH found the lawyer liable for all damage.

This is actually a case in which either of the two agents that caused the damage also could have caused the damage alone -- circumstances far different from those in the present case of partial causation. The judgment included no further definitions or modifications of the *sine qua non* formula. The decision does not apply to the present dispute.

The decision of the OLG Düsseldorf (NJW 1998, 3720) concerned the liability of a power plant operator for façade damage resulting from ash particles present in the plant's exhaust gas that caused damage when combined with other pollutants in the air.

The Court's decision in the case was as follows:

> "Based on the result obtained after taking evidence, it is clear that emissions by the defendant's power plant contributed to the cause of damage. However, the damage was caused only after the emissions had interacted with other pollutants from the air, and not by the emissions alone."
>
> (OLG Düsseldorf, judgment of 19 June 1998 - 22 U 111/97-, marginal ref. 3, juris)

It is also true that the judgment contains the following passage:

> "Even if the emitted particles themselves were not capable -- due to size or composition or temperature -- of causing the damage, the defendant's plant was a contributing cause in the sense of a *conditio sine qua non*, because only after binding with the substances that spread from the defendant's plant through the air could the pollutants present in the air cause the observed damage. Neither of the two causes could be removed without eliminating the damage." (OLG Düsseldorf, judgment of 19 June 1998 - 22 U 111/97-, marginal ref. 10, juris)

Therefore, although the power plant operator's emissions could not have a damaging effect without the presence of natural additives, the OLG Düsseldorf affirmed partial liability and estimated the proportion for which the defendant was responsible in accordance with the case law on partial causation. This also confirms the assumption on the applicability of section 287 of the ZPO; see above.

The OLG therefore did <u>not</u> exclude liability, precisely because multiple causal agents contributed to a single outcome. It also not specify how to proceed in the case of aggregate damage and what exactly the legally relevant difference between these cases should be.

d) Modification of the *sine qua non* formula

The District Court of Essen ultimately applied the *sine qua non* formula as follows, without explaining it in any further detail:

Even without the respondent's emissions, the risk of glacial flooding would exist; therefore, the emissions cannot be removed without eliminating the outcome. Contributory cause and partial causation were therefore <u>not</u> sufficient.

However, the Court did not ask whether the risk would exist *in the same form and to the same extent*. This is exactly what the appellant's submission showed: without the respondent's emissions, the specific disturbance that exists today would be reduced to a legally relevant (i.e., not insignificant) extent.

If the underlying legal rule applied by the District Court of Essen were correct, it would mean that, if an outcome is the product of damage by multiple parties, none of these parties are legally responsible. There is no legal rule to this effect in the law (here: section 1004 of the BGB) or in the case law of the German courts.

There are also no grounds for this in the unambiguous rulings of the BGH on contributory cause. Liability may be limited on the basis of adequacy -- but not in the case of "factual causation."

There are also judgments from other areas of law that accept the existence of causation, even in "atypical constellations," where the *sine qua non* formula has been modified. These judgments can be applied to the present constellation in the following respects:

1) Only an increase in risk

> These were the circumstances, for instance, in a case of damage from a vaccine (BGH NJW 1955 p. 1876). According to the findings of fact, the vaccine had clearly been administered, but had caused no "linear" damage; it had only increased the probability that damage would occur by < 0.01 % (cf. Palandt, 76th ed., 2017, preliminary note 249, margin ref. 27). Therefore, the illness could have occurred even without the vaccination; the vaccination only increased the likelihood.

The present constellation should be no assessed no differently: the (proven) causal contribution increases the risk of damage, i.e., the probability that flooding will occur.

The specific risk of a glacial flood would be lower if the emissions by RWE AG were eliminated. This is already apparent from Appendix K 31 and from the statements provided by the expert Prof. Mojib Latif.

(2) Contributory cause based on the creation of a higher-risk situation

An actor that causes damage is also liable if a third party intervenes and damage results or increases as a result. ...particularly when the higher-risk situation produced by the harmful event proves to be damaging (BGH, judgment of the 30 June 1987 - VI ZR 257/86 = NJW 1987, 2925).

(3) With respect to "dual causation"

According to the case law of the BGH, in cases of dual causality -- that is, when damage was caused by multiple circumstances occurring simultaneously and in parallel -- "all circumstances are to be treated as causes under the law, although none of them can qualify as a *conditio sine qua non*. In these cases of so-called dual causation, a corresponding modification of the Equivalence Theory is needed, because otherwise the harmful outcome could not be attributed to any of the causes that did in fact occur (settled case law....)."
(BGH, judgment of 20 February 2013 - VIII ZR 339/11 -, marginal ref. 27, juris)

4) In cases of claims for injunctive relief under Press Law:

The BGH ruled:

"...If multiple people contribute to damage, then whether a claim for injunctive relief may be sought is not dependent on the nature and scope of the contribution to damage or the interest of the various participants in causing the disturbance. In general, it is irrelevant whether he otherwise would be considered the perpetrator or accomplice based on the nature of his contribution to damage (BGH judgment of 15 January 1957 - I ZR 56/55 = loc. cit. with further references)."
(BGH, judgment of 3 February 1976 - VI ZR 23/72-, marginal ref. 20, juris)

This is significant because an abettor frequently does not play a causal role in the sense of the *conditio sine qua non*, but only "supports" the actions of another; therefore, the damage would have occurred even without his aid.

5) "Hypothetical causation"

According to settled case law, an actor responsible for damage <u>cannot</u> argue that the damage would have occurred even without his help (cf. BGH, judgment of 7 June 1988 - IX ZR 144/87-, BGHZ 104, 355-363). The BGH distinguishes these cases through an evaluative assessment:

> “That the damage actually caused by the incident serving as grounds for liability would have been caused later, as a consequence of some other factor (the reserve cause), can change nothing about the causality of the actual cause. Whether the reserve cause is significant and leads to an exoneration of the party to which damage was attributed, is a normative question, which has dramatically different answers in different cases ....” (BGH, judgment of 7 June 1988 - IX ZR 144/87- juris, marginal ref. 12).
>
> If the premise of the District Court of Essen is to be understood to be that the flood risk (in its precise form) would exist even without the millions of tons of CO2 emitted by the respondent, then it is factually incorrect. It is logical that the magnitude of the danger would be reduced by a corresponding amount. The premise that liability can be excluded on the basis of hypothetical causation could apply only if the disturbance to the appellant’s property at issue here would be present in the same form even without the respondent’s greenhouse gas emissions. That is not the case.

e) Foreign examples

The fact that, in case of doubt, the *sine qua non* formula must be modified in order to reach fair decisions on a case-by-case basis, has been acknowledged explicitly by other courts at the highest levels, including those in the United Kingdom and Australia, with regard to medical law:

For example, in the case of *Bonnington Castings Ltd v Wardlaw*

> [1956] AC 613, [1956] UKHL 1

the highest civil court in the United Kingdom (House of Lords) ruled that that, in cases of cumulative causation, it is sufficient to prove that the defendant made a "material contribution" to the negative result, and therefore constituted a significant (i.e., more than *de minimis*) condition, but not a necessary one.

In a 1991 judgment,

> *March v E & MH Stramare Pty Ltd* (1991) 171 CLR 506

the High Court of Australia ruled that the "*causa sine qua non* test" had never been, and can never be, the sole and exclusive test for the assessment of causation:

> “In truth, the application of the test proves to be either inadequate or troublesome in various situations in which there are multiple acts or events leading to the plaintiff's injury: see, e.g., Chapman v Hearse, Baker v Willoughby [1970] AC 467; McGhee v National Coal Board; M'Kew (to which I shall shortly refer in some detail). The cases demonstrate the lesson of experience, namely, that the test, applied as an exclusive criterion of causation, yields unacceptable results and that the results which it yields must be tempered by the making of value judgments and the infusion of policy considerations."

4. Relevance of the partial cause

Finally, the District Court of Essen held that the causation attributed to the respondent was not "adequately causal" (p. 8 UA middle of page).

The Court correctly found that settled case law restricts the *sina qua non* formula with the Adequacy Theory so that "completely improbable causal processes are not able to give rise to liability."

> "The event therefore must have increased, to a not insignificant degree, the probability of an outcome of the kind that occurred." (p. 8 UA, middle)

In the view of the District Court of Essen, however,

> "the fraction of global climate change for which any single emitter of greenhouse gases is responsible is so small that an individual emitter, even a large-scale emitter like the defendant, does not have a significant impact on the effects of climate change."
> (p. 8 UA middle of page).

This statement is untenable.

a)

According to the brief summary by the BGH, in civil law,

> "an actor that has caused damage is liable for the adequate consequences of his behavior (...). An adequate relationship of this type exists if a fact, under common circumstances--i.e., not only under particularly unusual, highly improbable circumstances not taken into account in the regular course of events--is likely to bring about an outcome."
> (BGH, judgment of 9 October 1997 - III ZR 4/97, juris, marginal ref. 14).

Similarly, the relevance of the partially causal contribution is a condition that serves at this point to limit liability on the basis of an evaluative assessment. This is also in line with the more recent case law of the BGH cited above (BGH, judgment of 20 May 2014 - VI ZR 187/13 - juris).

In order to assess adequacy, an objective, retrospective projection is required; "all of the circumstances evident to a spectator with an optimal view at the time of the occurrence of the damage must be taken into account" (OLG Hamm, judgment of 7 November 2012 - I-30 U 80/11-, marginal ref. 73, juris)

The question, therefore, is whether the respondent's emissions "advanced, to a not irrelevant degree," the local glacial melt or whether they have increased, to a not irrelevant degree, the probability of glacial flooding.

From a scientific perspective, the answer to this question is an unequivocal "yes," because the cumulative CO_2 emissions released by RWE during the 20th and early 21st century are not irrelevant — in terms of cause or effect.

Evidence: **Prof. Mojib Latif, b.b.**

b)

Before evaluating a concept, it is necessary to specify the criteria.

The Court did not address the appellant's submission on relevance - namely, that the respondent's emissions are higher than those of entire countries, such as the Netherlands, and that such an enormous volume of emissions cannot be irrelevant. As a result, it remains unclear which criteria the Court wishes to use here.

In the appellant's view, the criteria must be oriented toward the legally protected rights in question. If, as in this case, life and health, the flood protection of the general public, and the property of the appellant are affected, then this must be taken into account in a legal assessment of the criteria for relevance; the result based on the criteria cannot be that the appellant is left ultimately without rights. That is exactly what would happen, however, as a result of the judgment of the District Court of Essen.

In the decision on the vaccine damage case, the BGH (BGH NJW 1955 p. 1876) accepted a marginal probability of increased risk as relevant -- because the infringement of legal rights concerned the life of the (already deceased) plaintiff. In addition, the BGH emphasizes in settled case law that even small partial contributions are legally causal - especially when the significance of a partial cause is not required to meet a given standard.

Accordingly, the question is whether the respondent's contribution can make a difference for the disturbance—i.e., whether it is an instance of the famous butterfly effect. As described above this is implausible.

Methodologically, this is similar to the derivation of *de minimis*, the case law for the "Erheblichkeitsbestimmung" [determination of relevance] in the Flora Fauna Habitat Guidelines (FFH) (cf. OVG North Rhine-Westphalia, judgment of 16 June 2016 - 8 D 99/13.AK-, juris). The question there was whether a (subsequent) additional emission of nitrogen into an already overburdened habitat can still be "significant" within the meaning of section 34 of the Bundesnaturschutzgesetz [Federal Nature Conservation Act (BNatSchG)].

Case law determined this on the basis of scientific approaches. In the Court's view, an additional burden is irrelevant if "damage can be ruled out based on an assessment by nature conservation experts" (loc. cit., marginal ref. 549, juris).

With regard to the condition of Lake Palacocha, damage in this sense may be ruled out instantly where an individual vehicle driver is concerned -- but where the actor concerned is Europe's largest single emitter of the greenhouse gas CO2:

We can assume that a driver spends roughly 40 years driving, with annual emissions of approximately 1 to 2 tons of CO2 (depending on the vehicle and performance), i.e., 40 to 80 tons of CO2 in a "driving lifetime." Relative to current and historical greenhouse gas emissions, these emissions are in fact *de minimis* as a cause of global climate change and are also irrelevant with regard to the specific disturbance.

The respondent, however, emits between 152 million tons (2015) and 181 million tons (2012) of CO_2 from its facilities each year, which -- as stated above -- is more than the amount released by the whole of the Netherlands.

This portion can be calculated as a fraction of global climate change and as a percentage of the temperature increase (evidence offered previously; see submission of 29 September 2016) and is not an irrelevant share.

C. Reasons for requesting remand

The request for remand should be granted.

Section 538(2)(1) of the ZPO has been fulfilled. The judgment of the District Court violates section 139 of the ZPO and is therefore seriously flawed (see above).

In addition, it has significant deficiencies because fact-finding did not occur or was one-sided (in violation of the duty of disclosure) (see above).

The judgment also falls under section 538(2)(4) of the ZPO, because the amount of the claim has not been decided, but the claim as a whole was dismissed.

Therefore, both the grounds and the amount of the claim are in dispute.

D. Reference to submission in the first instance

Reference is also made to the entire first-instance argument of the appellant, in particular in the submissions of 23 November 2015, 11 July 2016, 29 September 2016 and 28 November 2016, including the appendices and evidence presented there.

Should the Court of Appeals require additional information on any of these issues, notice by the court is requested pursuant to section 139 of the ZPO.

Certified copies are attached.

Attorney
Dr. Roda Verheyen

The Grounds of Appeal was translated from German into English by Kate Miller from the Institute for Climate Protection, Energy, and Mobility (IKEM).