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# The case of Saúl Luciano Lliuya v. RWE: Closing Statement in the Oral Hearing on 19 March 2025 at the Higher Regional Court of Hamm

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## A. Introduction

Human activity changes everything – even the colour of mountains at over 6,000 metres above sea level. And this isn't about soot particles – those emitted by the defendant's many coal-fired power plants would never make it to the Peruvian Andes. This case is about something far more far-reaching: tiny, invisible molecules – greenhouse gases – that disrupt the Earth's energy balance and, in doing so, threaten the very world the plaintiff calls home. That is why we are here.

According to the Intergovernmental Panel on Climate Change (IPCC), the Cordillera Blanca has lost around 35% of its glacier area between 1970 and 2000 – driven in part by global emissions of $CO_2$ and other greenhouse gases. In the northern and central Peruvian Andes, average temperatures rose by 0.2 to 0.45°C per decade between 1961 and 2009. That was the scientific consensus at the time the claim was brought. It was – and still is – a fact that every tonne of $CO_2$ emitted since then contributes to further ice loss, including in the Andes.

The IPCC's Sixth Assessment Report leaves no room for doubt about the role of human activity. It no longer couches its findings in probabilities: humans are changing the climate – and many of the consequences are now irreversible. That includes the retreat of tropical glaciers in the Cordillera Blanca.

The mountains are visibly turning brown. The plaintiff and everyone else living in the Andes, sees this happening every day. For the plaintiff, the core scientific facts of this case are clear: (i) rising temperatures are changing the mountains; and (ii) the city of Huaraz – and his own home – face a real and growing threat of a glacial lake outburst flood from Lake Palcacocha.

The last few days in court have therefore felt almost surreal. The plaintiff has been waiting since late 2017 for a resolution – for a step forward. Today, he is left asking: how high does the risk of a devastating glacial flood need to be before it creates a legal duty for those who are largely responsible?

Since this lawsuit was announced in March 2015 – almost exactly ten years ago – RWE AG has emitted around 900 million tonnes of $CO_2$ from its power plants.

That's nearly twice as much as the entire country of Peru, home to around 35 million people. These emissions continue – plainly harmful to the climate – with no compensation for the damage caused or the costs of adaptation. This is despite the ongoing legal proceedings and the company's well-known efforts to shift towards more climate-compatible business models.
But does that mean no one is responsible for the consequences of those emissions? Is this simply a matter of "life's risks" that the plaintiff must deal with, like catching a cold at random? According to the defendant, yes.
But in late 2017, this court expressed a different view in open session. And that hearing also made clear how the defendant thinks. One exchange bears repeating:

> *Presiding Judge Dr Meyer (Higher Regional Court): This is a fundamental issue of public responsibility. A case like this wouldn't exist in the industrialised world. The problem would be resolved with a dam or other suitable measures. But in parts of the world where money is lacking: can we leave people to face the consequences alone, even though we caused the problem? Would that be just?*
>
> *Dr Posser, counsel for the defendant RWE: Yes, that would be just.*

And this, apparently, applies to all of RWE's emissions since the company's founding in 1898. To this day, RWE emits more $CO_2$ than some entire countries (such as the Netherlands) and was, for decades, Europe's largest single emitter of $CO_2$ (now second since 2023). On the international Carbon Majors List, RWE is currently ranked 44th – and was 41st when this case was filed.[1]
The defendant continues to argue, even now:

"The $CO_2$ emitted from RWE power plants is imperceptible to the senses and, in itself, completely harmless."[2]

> "Climate and global climate change are too complex for the influence of a single emitter to be perceptible or measurable… In such cases, damages fall under the general **risk of life**."[3]

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1 Claim brought by Saúl Luciano Lliuya on 23.11.2015.
2 Written Submission of the Respondent 14.12.2017, S. 9.
3 Response to the Appeal 10.07.17, p. 18; p. 24.

But this ignores the fact that there is causation here – and that the consequences of climate change in this instance are specific, foreseeable, and directly impact thousands of people, including the plaintiff. This is not a freak lightning strike. It is the result of known, measurable forces.

Still, the defendant maintains that the very real risk of a glacial lake flood – the core of this case – is something the plaintiff must simply accept. Yet no one on the RWE board, nor the experts or legal counsel present today, would call the situation in Huaraz or the plaintiff's home "safe enough" to live in themselves. RWE didn't even send a representative to Huaraz. It was, evidently, too risky.

But let's take this one step at a time.

## B. Procedural History

On 23 November 2015, Saúl Luciano Lliuya filed this lawsuit[4] - relying in part on the scientific findings set out in the IPCC's Fifth Assessment Report (2014).
The Regional Court of Essen dismissed the case at first instance in 2015, stating among other things:

> *"From a scientific standpoint, every emission may be considered causal — but that does not help when it comes to the legal attribution of responsibility to individual emitters. What is required is a 'linear chain of causation' from a specific source of emissions to a specific event or damage."*
> *"The defendant is not considered a direct interferer, as it did not adequately cause the impairment. The theory of adequacy limits the conditio sine qua non, to prevent liability arising from entirely improbable causal chains. The event in question must have generally increased the likelihood of the type of harm that occurred in a non-negligible way (see, for example, BGH NJW 72, 195). ... The contribution of individual greenhouse gas emitters to global climate change is so small that no single emitter — not even a major one like the defendant — can be said to have significantly increased the likelihood of climate change impacts. "*[5]

In 2017, the appellate court issued an interim decision – the stage of proceedings we remain in to this day. To the surprise of nearly everyone, the court rejected all of the defendant's opposing legal arguments and applied § 1004 (1) of the German

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[4] Claim brought by Saúl Luciano Lliuya on 23.11.2015.
[5] Decision of the District Court of Essen 15.12.2016, p.8.

Civil Code (BGB) to the case, as requested by the plaintiff.[6] The Senate of the Higher Regional Court of Hamm established the following key points in the process:

- German law is applicable in this case.
- Civil law applies, even where state obligations under public law also exist.
- The principle of „management of another's affairs without mandate" [7] (*Geschäftsführung ohne Auftrag*) may be applicable in relation to public costs.
- There are no legal objections to establishing causality between the defendant's actions (i.e. emissions from its power plants) and the interference (i.e. the risk of an infringement on the plaintiff's property rights).
- The fact that there are multiple contributors does not rule out civil liability.
- RWE's emissions are of such magnitude that the required threshold of significance is met.
- Contrary to RWE's public claims, recognising liability in this case would not mean every car driver is liable – only major emitters such as the defendant.
- The plaintiff's claim is sufficiently specific.
- The claim is not excluded on the grounds that RWE holds (or has held) permits under the German Federal Immission Control Act (*Bundes-Immissionsschutzgesetz*).
- The defendant's actions need not be unlawful in order to give rise to liability
- This is not a case of liability for natural events, so previous rulings by the Federal Court of Justice (BGH) on mildew, scale insects, or cold air pools do not apply.
- Attribution and foreseeability of harm are recognised from the year 1958 onwards[8] (noting that the plaintiff has only ever based his claim on emissions from 1965 onwards, due to the lack of reliable data before that point).

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6 Higher Regional Court of Hamm: Indicative Court Order and Order for the Hearing of Evidence 30.11.2017.

7 Legal term used to describe a legal obligation that applies when someone undertakes a transaction for someone else. In the present case, RWE could be obliged to carry out protective measures on the glacial lake. If someone takes over in its place, then management without mandate applies, so that RWE only has to bear the costs.

8 Higher Regional Court of Hamm: Order and reference order 1.07.2021, p.6.

- The claim is not time-barred, because the defendant's conduct is ongoing. RWE has taken no action to assist the plaintiff or implement protective measures since the claim was filed. This state of affairs has continued since November 2017, when the defendant rejected a settlement proposed by the court.
- There remains a legitimate interest in legal protection – despite the defendant's repeated attempts to persuade the court otherwise – even though this lawsuit cannot eliminate the problem entirely, as the plaintiff is only seeking a small portion of the total costs of protective measures.

## C. Evidence Presented on the Flood Risk Since 30 November 2017

In 2017, the focus was still on the general risk to Saúl Luciano Lliuya's property; no specific trigger event was identified at that stage.
The initial risk assessment was based on a number of scientific studies submitted by the plaintiff, along with an official hazard map and the glacier inventory produced by the local water authority.
At that time, the court expressly ordered that the evidentiary questions concerning both the flood risk and RWE's contribution should be investigated in parallel, likely because the lawsuit from the outset had framed the condition of the lagoon and surrounding glaciers in the context of – or explicitly in connection with – climate change.[9] However, in a decision dated 23 August 2018, the court split the two evidentiary tracks. This separation has since led to evidentiary complications.

Even following the court's order of 10 March 20**25, climate change remains a si**nificant factor — both in the risk assessment methodology applied by the court-appointed experts (Katzenbach/Hübl), and in the plaintiff's expert-driven inclusion of rockfalls as a critical component of risk.

The current assessment of the flood risk to the plaintiff's home is now (wrongly) based solely on historical data — a past that no longer reflects today's climate reality.

## I. The role of climate change

A scientific study submitted by the plaintiff, authored by Stuart-Smith, concludes that approximately 95% of the regional warming observed in Huaraz is attributable

[9] Higher Regional Court of Hamm: Indicative Court Order and Order for the Hearing of Evidence 30.11.2017, p. 3.

to climate change.[10] The authors further state that the significant retreat of the Palcaraju Glacier cannot, with near certainty (>99% probability), be explained by natural variability alone.[11] Rather, it is primarily the result of anthropogenic climate change and the associated regional temperature increase. In other words, without human-induced climate change, the observed extent of glacier retreat would not have occurred. According to the study, even the glacier retreat that took place between 1880 and 1940 – culminating in the first major flood event from Lake Palcacocha in 1941 – was an early consequence of anthropogenic warming.
The defendant has disputed the validity of this science, including in its submission dated 15 December 2021. Climate scientist Stefan Rahmstorf has responded to this position, stating:

> *„Given the current body of research, it is absurd to suggest that we could assess the risk of a Lake Palcacocha outburst during such a period of rapid climate warming based only on historical data, without explicitly accounting for fossil-fuel-driven global heating. Anyone claiming that climate change is not at work in Huaraz – no human fingerprint, and therefore no link to RWE's share of $CO_2$ emissions – may have their reasons for doing so, but the scientific evidence clearly shows otherwise. "*[12]

## II. Other risks

There are additional risks that were not taken into account during the proceedings — including the presence of other nearby glacial lakes. In its evidentiary order dated 16 April 2024, the court declined to consider the cumulative risk posed by these neighbouring lakes. As a result, the scope of the case has been narrowly defined — even though any comprehensive risk assessment for the plaintiff's home must naturally include these additional threats. The court-appointed expert, acting under the instruction of the lead expert, wilfully ignored this aspect, thereby understating the true level of risk. He should have raised this issue independently, as it clearly emerges from the existing scientific studies and the expert opinions submitted on behalf of the plaintiff. He refused to do so.

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[10] Stuart-Smith, R.F., Roe, G.H., Li, S. *et al.* Increased outburst flood hazard from Lake Palcacocha due to human-induced glacier retreat. *Nat. Geosci.* **14**, 85–90 (2021), S. 86 f.

[11] Ibidem, p. 88.

[12] Rahmstorf, Stefan: Andengletscher geschrumpft wie nie zuvor im Holozän, Spektrum.de SciLogs, 16.3.2045.

## III. Location and Time-Specific Risk Assessment

The statements made by the court-appointed expert during the oral hearing at times gave the impression that there is no flood risk in Huaraz or to the plaintiff. This directly contradicts all expert assessments going back to 2009, as well as the risk perception of the local authorities. Why else would there be evacuation signs and early warning systems installed throughout the city?
The data coverage in this region is among the most comprehensive in the world.

The only way to explain the expert's conclusions is by reference to the standards he applied — standards that are entirely disconnected from the reality on the ground and from the risk assessment methods typically used in high mountain environments.
The Senate has made clear that, for the purposes of gathering evidence under § 1004 of the German Civil Code, a narrow, specific, location- and time-bound assessment is required. We had assumed that an objective risk assessment would be sufficient.

## IV. Two contributing risk factors

The court-appointed expert has failed to consider permafrost and rockfalls, and does not apply a worst-case scenario analysis for other relevant parameters either. His assessment is limited solely to glacier or ice blocks identified directly above the lagoon.
The problem is that both of these additional hazards — hanging glacier collapse and rockfalls due to thawing permafrost — are real, time-bound risks expected to become relevant within the next 30 years. The plaintiff's experts have used methods as specific and rigorous as possible in forecasting such dangers. Their research has provided strong indications that a significant rockfall occurred in 1947.
The renowned glaciologist Prof. Dr. Wilfried Häberli conducted the following analysis on behalf of the plaintiff:

- Step 1: Establish that in alpine high mountain regions above 2,000 metres, where there is both permafrost and glaciers on steep slopes (Fischer), the frequency of rockfalls increases fivefold — meaning the recurrence interval drops from 20 years to around 4–5 years.
- Step 2: Confirm that similar events have occurred in Peru.
- Step 3: Apply these findings from the Alps to the Peruvian Andes, based on terrain defined by elevation and slope steepness.

- In the Alps, the standard assumption is one rockfall per 10,000 years per square metre of steep slope. In Peru, because of the warmer climate, a conversion factor of 2,500 is applied. This makes the Peruvian mountains more susceptible than those in the Alps.
- Transferring this to the Lake Palcacocha area yields a recurrence interval of one major rockfall every 250 years, assuming no additional climate change.
- When adjusting for climate change, a "climate factor" of 2–4 is applied, reducing the recurrence interval to between 125 and 65 years.
- For permafrost-specific events, the baseline recurrence is around 1,000 years — adjusted for the lagoon site, this would drop to around 100 years, and with the climate factor applied, between 35 and 50 years.

According to Häberli, this results in an annual probability that is significantly higher than what is deemed acceptable for avalanche risks in Switzerland.
The plaintiff has also submitted studies by BGC Engineering Inc., led by Prof. Dr. Lukas Arenson, which focus specifically on rockfall data at the local level. This was necessary because the court-appointed expert simply claimed there was "no evidence" of rockfalls at Lake Palcacocha. But that claim is incorrect.
One challenge in detecting rockfalls locally is that they often fall directly into the lake and leave debris on the lakebed — meaning they aren't always visible. This was the case with the Hualcán rockfall in 2010. As a result, past rockfalls are systematically underestimated.
In reality, there is evidence of past rockfalls. The plaintiff's team has presented photographic evidence and detailed geological analysis of the steep and unstable local terrain. Their experts have also demonstrated that global warming is causing permafrost to thaw — making the collapse of rock masses that were previously stabilised by frozen ground increasingly likely in the future.
The court-appointed expert failed to properly consider this key risk factor for a potential flood wave — namely, rockfalls. His analysis ends with the argument that local authorities have not documented evidence of such events. But that claim is incorrect, and in any case, it does not justify ignoring an entire category of hazard. As a court-appointed expert, it was his responsibility to apply independent scientific judgment and go beyond what may or may not have been documented by authorities.

Despite this, he claimed in the oral hearing that his findings were "on the safe side." Yet the court's evidentiary order had explicitly required him to provide a probability figure for the likelihood of a flood affecting the plaintiff's home. The expert instead relied on a method based on a 45-year event recurrence, and throughout the hearing gave the impression of near-total certainty.
He claimed to be erring on the side of caution, even though he only considered average lake levels. In open court, he even extended his statistical time frame to 83 years — without scientific justification — by simply assuming that no avalanches occurred before 2003. This allowed him to state a supposedly even lower probability of just 0.25%. That is scientifically unsound.
In summary, the expert produced conclusions that remain difficult for the plaintiff to comprehend — and in any case, represent a significantly lower estimate of danger than the peer-reviewed studies submitted by the plaintiff at the start of proceedings.

## V. Additional Considerations

In particular, the following points must be made regarding the ability of local authorities to control the water level of Lake Palcacocha, as well as the court-appointed expert's statements concerning the height of a potential flood wave:

- During the oral hearing on 17 March 2025, the court remarked that it may not be appropriate to attribute responsibility to the defendant, RWE, for the fact that local authorities manage the lake's water level using an overflow-like system. However, it must be clearly stated that the siphons currently installed at the lake are a temporary solution that do not provide reliable drainage or water-level control. It is essential to avoid creating the false impression that local authorities can eliminate the flood risk without structural intervention. That simply does not reflect the reality on the ground.
- In the hearing, the expert stated that a flood wave reaching a height of 20 cm at the plaintiff's house would be "insignificant" and would not pose a structural risk. The plaintiff, however, referred to official assessments which conclude that such a water height — especially given the expected flow velocity — could pose serious risks to health and life. Moreover, the expert made this claim without proper basis: he neither investigated nor addressed the possibility that such an impact could undermine the building's foundations.

## VI. Interim Conclusion

The experts agree that there is a flood risk. However, from the plaintiff's perspective, that risk should be quantified significantly higher than the court-appointed expert has done. The reason is clear: rockfalls and the effects of climate change have not been adequately taken into account.

## D. Legal Assessment of the Likelihood of Flood Risk

During the oral hearing, the court made clear that this case is challenging because the damage has not yet occurred. What is at issue here is the assessment of a risk — the first element to be examined under § 1004 (1) of the German Civil Code (BGB). The specific threat to my client must be assessed.
RWE argues that the risk in question falls under the category of general life risk.
Legally, there must be a danger that is sufficiently imminent in time, and the likelihood of harm to a protected legal interest must reach a certain threshold. As for the time element, the Senate has already determined a period of 30 years. From our perspective, the other legal criteria are also met.

## I. Differentiating Risk from Concrete Threat

In this case, it is important to distinguish between risk and threat. In geography, risk is defined as the product of the probability of an event occurring and the magnitude of the resulting harm. This means that a risk always involves a danger that has a concrete impact on a protected asset. For example, a poisonous mushroom in the forest is a danger — but it only becomes a risk when someone eats it.
The legal concept of risk in this case is governed by § 1004 of the German Civil Code. According to a decision by the Senate of the Higher Regional Court of Hamm dated 16 April 2025, § 1004(1) BGB concerns: "A claim for the prevention of existing or imminent concrete impairments, in other words, current or anticipated interferences by third parties with the legal or factual authority of a property owner."
Therefore, in assessing the risk, it is necessary to consider the specific connection between the threat and the subject or asset at risk — in this case, the plaintiff and his property.

## II. Timeframe

The court has set a 30-year timeframe, based in part on considerations related to the anticipated harm to legal interests. Anything beyond that would make it too uncertain to determine what might happen to the plaintiff's house.
The plaintiff has clearly understood that the Senate justified choosing this longer timeframe — rather than a shorter one — partly by referring to the potential impact on approximately 55,000 people.
From the plaintiff's perspective, however, this consideration is not exhausted by that point alone — more on that shortly.

## III. Threshold for Sufficient Likelihood

- **Case law on the concreteness of danger**

During the oral hearing, the Senate referred to a ruling by the Federal Court of Justice (BGH), commonly known as the "During the oral hearing, the Senate referred to a ruling by the Federal Court of Justice (BGH), commonly known as the "New Year's Rocket Case."".[13] What was it about? A firework initially launched straight up suddenly veered sideways and entered a barn through a small gap. The trajectory was entirely unforeseeable and unpredictable.
The BGH rejected a preventative injunction at the moment the rocket was launched, arguing that the subsequent sequence of events appeared "ultimately dependent on chance" — in other words, the likelihood of the event was vanishingly small, unlike the risks of flooding, wall collapse, or indeed a glacial lake outburst flood. It is simply extremely unlikely that a firework would change direction mid-flight. So, in that case, the concrete risk only arose once the rocket actually veered off course.
We do not see how this case could justify applying a particularly strict standard of proof in the present matter. The relevant question in the rocket case was not about the likelihood of fire at the moment the rocket was lit, but about the random timing of the sideways turn. This is a classic case of a highly improbable sequence of events. As Prof. Gsell correctly states in the expert opinion submitted by the plaintiff, this decision cannot serve as a precedent for determining the threshold in this case.
Instead of the "New Year's Rocket Case," a more relevant comparison is the so-called "**Snake Case**".[14] There, the court recognised a claim for injunctive relief because the plaintiff's neighbour was keeping 25–30 venomous snakes — without

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13 BGH, judgment of 18.09.2009 - V ZR 75/08.
14 OLG Karlsruhe, decision of December 29, 2003 - 14 Wx 51/03.

needing to prove that any had already escaped or that there was a visible crack in the terrarium.
What is particularly problematic here is that the court-appointed expert's analysis is entirely backward-looking — even though he is making an assessment about the next 30 years. He bases the future risk solely on inferences from the past. That approach is no longer fit for purpose in the year 2025.

- **Inappropriately High Standard Introduced Through Evidence Process**

The court-appointed expert repeatedly cited a **50% probability threshold** as the standard. However, the legal determination of what constitutes "sufficient likelihood" is not up to him — it is a matter for the court. The expert introduced this threshold in his July 2023 report **without justification**, and the result was a distortion of the entire evidentiary process.
The case he referenced — a decision by the Higher Regional Court of Cologne — involved **medical liability** and aimed to ease the evidentiary burden in a **miscarriage case**.[15] There is **nothing in the law or case law relating to § 1004 BGB** that suggests a requirement for a **"more likely than not"** (i.e. >50%) probability standard.
From the plaintiff's perspective, the introduction of a **more than 50% likelihood threshold** came as a complete surprise. It led the court-appointed expert to **abandon any risk assessment appropriate to a high mountain environment**. The methodology was flawed from the outset — and the plaintiff could not have anticipated this. It is simply not standard practice.
As our (widely respected) expert Prof. Lukas Arenson explained earlier, even a **1–3% probability** of damage is **not low** in this context. The plaintiff has supplemented the expert's probability analysis appropriately and concludes that the likelihood of harm is **around 30%**.

- **The Exact Percentage Is Not What Matters**

In its evidentiary order of 16 April 2024, the court asked the expert to provide a percentage figure for the probability of the risk materialising. While such a figure may be helpful, it is neither necessary nor sufficient for the legal assessment. Several prominent civil law scholars — including Prof. Beate Gsell and Prof. Eva-Maria Kieninger — have since commented on this point.

The case law of the Federal Court of Justice (BGH) reflects two lines of reasoning:

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15 OLG Köln, judgment of May 28, 2003, 5 U 77/01.

- In some cases, risk is described numerically (a "numerical approach"). In others, the BGH accepts what is known as the "damage-prone nature" (Schadensneigung) of a situation, meaning that a specific probability figure is not required. In fact, this was the plaintiff's assumption when the case was originally filed — and this line of reasoning is well-established in case law. In this case, the following points are relevant:
  - Even by the court-appointed expert's own calculation, the probability of damage over 30 years is under 3%, and most recently put at 1%
  - From the plaintiff's perspective, it is clear that a major hazard — the significant risk of rockfall — was not accounted for.
  - If this missing hazard were included, the individual risk sources would need to be added together. That leads to an estimated probability of around 3%, which rises to approximately 6% when combining BGC Engineering's and Häberli's estimates (excluding climate factors, following the court-appointed expert's method), and to around 10%, or even 30%, according to the plaintiff's conservatively calculated assessment.

- In addition, there is a qualitative factor that must be acknowledged: it is scientifically undisputed that climate change affects virtually all Earth system processes — including the specific glacier in question and the condition of Lake Palcacocha. The court-appointed expert did not account for this. Failing to do so implies that climate change has no impact and does not contribute to an elevated risk — a conclusion that is scientifically untenable. The causal link between climate change and heightened risk in this specific case is **qualitatively clear**.[16] If the court fails to acknowledge this, it would represent a serious error in the assessment of evidence.

[16] Rahmstorf, Stefan: Andengletscher geschrumpft wie nie zuvor im Holozän, Spektrum.de SciLogs, 16.3.2045.

Taken as a whole, the situation — following the evidentiary process — is more appropriately assessed under the category of "**damage-prone conditions** ". Relevant case law includes the **theatre case**[17], the **boundary wall case**[18] and the **apple scab case**[19], in which the Federal Court of Justice held:

> *„A danger does not need to be immediately tangible in order to trigger a duty of prevention. The content, scope, and timing of a warning depend primarily on the legal interest at risk and are above all determined by the severity of the danger. "*

What these cases have in common is that numerical or highly specific probability estimates were not required. From the plaintiff's point of view, the risk of a glacial lake outburst flood clearly exists — just as the apple scab case did not even concern property damage, but only crop losses. To be clear: I see no meaningful distinction between traffic safety obligations and § 1004 BGB. In my view, the Federal Court of Justice would take the same position — as would Prof. Kieninger.

**Still, a word on the Numbers (Which Are by No Means Solely Determinative Here)**

A 3% probability is not low. To put it in simple, layperson's terms: if you lived right next to Hamburg's Fuhlsbüttel airport, 3 out of every 100 planes crashing over the course of 30 years would be the equivalent risk. No one would accept that as a general life risk. A 3% chance is ten times higher than the probability of dying in a car accident in Germany.
The defendant argues that a 50% threshold should be the legal standard — even though that doesn't align with its own safety practices. Under the current guidelines for residual lakes and long-term slope stability in mining — which the defendant helped develop — the acceptable probability of personal injury is set at 1.2% over 30 years.[20]
No one would approve or pay for a high-rise building co-designed by the court-appointed geotechnical expert if it had a 3% chance of collapsing within 30 years. That much is clear.
In this case, the court must adopt a qualitative approach — especially because it is dealing with a precedent-setting case.

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17 BGH judgments NJW 2006, 610.
18 OLG Düsseldorf, December 5, 1990, 9 U 101/90.
19 BGH NJW 1981, 1603, beck-online.
20 Arnsberg District Government: Guideline for the investigation of the stability of embankments in opencast lignite mines.

- **Distinguishing from Public Risk Prevention**

The court appears to hold the view that the required probability threshold in this case must be higher than that applied in public risk prevention. The concern seems to be that, otherwise, the defendant would be held to the same standard as public authorities responsible for general disaster preparedness. But that argument does not hold here — because it fails to recognise that the defendant has caused the relevant risk. This is not a case about general public risk prevention; it is a case about liability for increasing a specific risk. Disaster prevention deals with risks that are not caused by the party responsible for mitigation — it concerns precautionary measures taken in anticipation of potential hazards.
In that sense, the requirements for disaster prevention must be stricter than those that apply to a party responsible for creating a risk — which is the situation here.
The court already acknowledged this legal distinction in its 2017 procedural guidance, when it rejected the applicability of the Mehltau (mildew) decision on the grounds that this case does not concern liability for a natural event.[21] The court now appears to contradict itself in its more recent order of 16 April 2024, by reverting to an argument that implicitly treats the risk at issue as if it were a natural hazard.
It must therefore be clearly stated:
In general flood protection, the state is responsible for protecting against abstract dangers. The state provides precautionary measures ahead of actual risks — acting at an earlier stage. This is fundamentally different from the responsibility of private parties, who — as the plaintiff has also argued — are not subject to a general duty of flood protection.
This case does not concern that kind of situation. It involves the active contribution of the defendant to the creation of a specific risk. The issue is not about liability for insufficient precaution, but rather liability for increasing a concrete risk.
Responsibility for causing harm legitimises liability for that risk — regardless of whether the actor is a public authority or a private company.

- **No Justification for a Particularly Strict Interpretation of § 1004(1) BGB**

In its order dated 16 April 2024, the court argues that because § 1004(1) BGB is being applied teleologically to an initial interference, a narrow interpretation of the provision is necessary.

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[21] Higher Regional Court of Hamm: Indicative Court Order and Order for the Hearing of Evidence 30.11.2017, p. 2.

From the plaintiff's perspective, this is untenable. While the commentary cited by the court does make such a claim, it does so without supporting evidence.[22] The case examples referenced there do not support this position either — they simply confirm that, in cases of first-time interference, there is, logically, no presumption of recurrence.[23]

Moreover, the case law cited relates exclusively to defamation cases. The question of whether someone will make a defamatory statement again — versus whether someone will make one for the first time — is entirely different from questions of scientific causality. From this, it does not follow that the legal threshold for risk must be higher in cases of first-time interference than in those involving repetition. On the contrary, the correct legal view — as already set out in writing — is that the standards should be equivalent. Why should the balancing of individual rights under § 1004 BGB differ depending on whether the interference is occurring for the first time or has happened before? The defendant's contribution to the interference is present, and the preventative purpose of the provision remains the same. That is why an expanded interpretation is warranted in this case.

## E. Evidence on attribution

In addition to the evidentiary question regarding the risk of a flood, the court has set out a second question: the extent of RWE's contribution to global warming, and thereby to the current state of Lake Palcacocha.[24]
As established by the Federal Court of Justice, it is sufficient for legal liability if an event or action is a contributing cause.[25]
The plaintiff submitted an attribution study in April 2021.[26] That study concludes that approximately 95% of the regional warming in Huaraz is attributable to climate change.[27] The authors further state that the observed and significant retreat of the Palcaraju Glacier cannot, with near certainty (>99% probability), be explained by natural variability alone. Rather, it is primarily the result of anthropogenic climate change and the associated regional warming.[28] Rather, it is primarily the result

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22 BeckOGK/Spohnheimer, 1.2.2025, BGB § 1004 Rn. 271.

23 BGH NJW 1986, 2503 (2505); OLG Hamm NJW-RR 1995, 1399 (1400); OLG Köln NJW-RR 1993, 97 (98).

24 Higher Regional Court of Hamm: Indicative Court Order and Order for the Hearing of Evidence 30.11.2017, p.3.

25 BGH 19.4.2005, VI ZR 175/04.

26 Stuart-Smith, R.F., Roe, G.H., Li, S. *et al.* Increased outburst flood hazard from Lake Palcacocha due to human-induced glacier retreat. *Nat. Geosci.* **14**, 85–90 (2021).

27 Ibidem, p. 86, 88.

28 Ibid.., S.88.

of anthropogenic climate change and the associated regional warming. Without human-induced climate change, the observed glacier retreat would not have occurred. As a result of this climate-driven retreat, the risk of a glacial lake outburst flood has increased significantly and now constitutes a "critical threat" to the city of Huaraz.[29]

In its decision of 1 July 2021, the court misinterpreted the content of this study.[30] The study specifically examines how global temperature increases are manifested at the local level, aligning local temperature datasets with global climate trends. It is based on a model of the relevant glacier, which has retreated by several metres. The study uses a mass balance analysis, incorporating both past warming and projected emissions over the next 30 years.[31]

The only unresolved issue is the extent of RWE's contribution to this risk increase — i.e., whether it is "visible and measurable." In its 1 July 2021 decision, however, the court already found that since 1958, the link between $CO_2$ emissions and global warming has been "judicially recognised" and was therefore foreseeable to the defendant.[32]

The Carbon Majors study[33] also underpins the plaintiff's claim. The defendant has challenged it with numerous arguments. However, from the plaintiff's perspective — as previously stated — the burden of proof for RWE's contribution lies with the defendant.[34]

While technically possible, precisely attributing emissions to glacier retreat is not necessary, and under § 287 of the German Code of Civil Procedure, would be disproportionate. In the written submission of 29 September 2017, the plaintiff already substantiated RWE's contribution and even apportioned the related warming.[35] The notion that RWE's contribution is completely unsubstantiated is unfounded.

From the plaintiff's point of view, this second evidentiary question on attribution could be resolved within a matter of months.

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29 Ibd.

30 Higher Regional Court of Hamm: Order and reference order 1.07.2021, p.6.

31 Marzeion B, Cogley JG, Richter K, Parkes D. Glaciers. Attribution of global glacier mass loss to anthropogenic and natural causes. Science. 2014 Aug 22;345(6199):919-21. doi: 10.1126/science.1254702. Epub 2014 Aug 14. PMID: 25123485.

32 Higher Regional Court of Hamm: Order and reference order 1.07.2021, p.6.

33 Heede, Richard, Carbon Majors: Accounting for carbon and methane emissions 1854-2010 – Methods & Results Report

34 Written Submission by the Appellant 5.09.2017, p. 11 f.

35 Written Submission by the Appelant 29.9.2016, p. 17.

## F. Conclusion

What, after all of this, would be just? In our view, justice would mean fully applying the law — and proceeding to the next phase of the trial based on the evidence supplemented by the plaintiff. That next step would involve resolving the remaining evidentiary question on attribution.

This court has already made legal history since 2017,[36] and it is increasingly gaining international recognition. For example, the New Zealand Supreme Court, in the *Fonterra* case, recently ruled that an individual can bring a claim under public nuisance — a legal concept very similar to § 1004 BGB — against multiple emitters.[37] That case is now entering the evidentiary phase — just as we are here. *Fonterra* is one of the largest companies in the global dairy and meat industry. This shows that the legal landscape is tightening for major emitters like the defendant: climate science is becoming increasingly precise, and the rights of those affected are being recognised more and more often by courts

*Note: This closing statement was delivered in slightly abridged form by attorney Dr. Roda Verheyen during the oral hearing on 19 March 2025 in the case of Saúl Luciano Lliuya v. RWE in German, this is a translation into English.*

*It was written with the support of attorney John Peters, Clara Goldmann and Francesca Mascha Klein.*

36 Higher Regional Court of Hamm: Indicative Court Order and Order for the Hearing of Evidence 30.11.2017.

37 Smith v Fonterra Co-Operative Group Limited [2024] NZSC 5, vom 7.02.2024.